ODISHA JOINT ENTRANCE EXAMINATION-2018

(OJEE-2018)

INFORMATION BROCHURE

ADMISSION TO

FIRST YEAR DEGREE COURSES IN

HOMEOPATHY/AYURVEDA/PHARMACY

INTEGRATED MBA (5 YEARS)

LATERAL ADMISSION TO SECOND YEAR (THIRD SEMESTER) ENGINEERING/ TECHNOLOGY/ PHARMACY/ MCA

FIRST YEAR MASTERS DEGREE COURSES IN

COMPUTER APPLICATION(MCA), BUSINESS ADMINISTRATION(MBA) AND

M TECH./ M PHARM/ M ARCH./ M PLAN/ M ARCH(Exe.)

DATE OF EXAMINATION 13th MAY 2018

ODISHA JOINT ENTRANCE EXAMINATION – 2018
JEE CELL, GANDAMUNADA, KHANDAGIRI
DIST- KHURDA, BHUBANESWAR
ODISHA – 751030

CONTENTS

TIME TABLE FOR EXAMINATION DATE; 13-05-2018: Table-1

	Entrance Test for B.Pharm/ BHMS/ BAMS/ B.Tech (Lateral Entry)/ B.Pharm(Lateral Entry)/ PGAT for M.Tech/ M.Arch/ M PLAN/ M.Pharm/ MCA/ MCA (Lateral Entry) / MBA/ Integrated MBA(5years).			
Date	***1st Sitting***			***2ND Sitting***
	9AM TO 12 NOON	**9AM TO 10 AM**	**9.00 AM to 11.00 AM**	**2. PM to 4. PM**
13.05.2018 (Sunday)	1.Test for 1st year Pharmacy and BAMS/BHMS	1.Test for B Sc. (+3Sc.) Lateral Entry to Engineering (2nd year). 2.Test for LE (PHARMA) 3. Test for M PHARM 4.Test for Integrated MBA (5 years) 5. Test for M PLAN	1.Test for 1st year MCA 2.Test for Lateral Entry (2nd Year) to MCA. 3.Test for PGAT (Post Graduate Admission Test) for M.Tech / M. Tech (Part Time)/ M.Arch-M Arch(Executive)	1.Test for MBA. 2.Test for Lateral Entry(2nd Year) Diploma holder to Engineering and Technology

The salient features of The ODISHA Professional Educational Institutions (Regulation of Admission and Fixation of Fee) Act, 2007 are as follows.

*** <u>Methods of admission in technical and professional educational institutions</u>:** Subject to provisions of this Act, admission of students in all private professional educational institutions, Government institutions and sponsored institutions to all seats including lateral entry seats, shall be made through Entrance Test(s) approved by the Government followed by centralized counselling in order of merit, in accordance with such procedure as recommended by the policy Planning Body and approved by the Government.

*** <u>Prohibition of Capitation fee</u> :** No capitation fee shall be collected by a professional educational institution, sponsored institution or by any person who is in charge of the management of such institution, from any candidate in consideration of his admission to or continuance in any course of study or his promotion to higher class, in such institution under the management.

Where the Policy Planning Body on receipt of any complaint or is otherwise satisfied that the management of such institution or any person who is in charge of the management of such institution has contravened the provisions of the previous section / para, the Body may, after making due enquiry in the manner prescribed, recommend to the Government for imposition of fine not exceeding Rupees Ten Lakhs against the management of such institution for such contravention.

Note: "The general public / guardian / parents and students intended to take admission in to different Professional and Technical Institutions of Odisha are hereby informed through this

Information Brochure that if they have any complain regarding admission process / procedure, they can file complain in shape of affidavit with supporting authenticated documents to the member Secretary PPB, DTET, Cuttack, Odisha, who in turn will place the matter to PPB (Policy Planning Body) for disposal under the provisions of ODISHA Professional Educational Institutions (Regulation of Admission and Fixation of Fee), Act, 2007".

IMPORTANT NOTES FOR THE APPLICANT

"ONE CANDIDATE CAN APPLY ONLY ONE APPLICATION"

Online Student Registration System (www.ojee.nic.in**)**

Please choose the option: Odisha Joint Entrance Examination-2018

INFORMATION REGARDING CHOOSING FORM FOR APPROPRIATE SUBJECT

Choose the correct option and select the correct entrance test to appear among the available options.
Once the candidate clicks 'APPLICATION FORM FOR OJEE-2018', SIX numbers of links will appear as

"**A, B, C, D, E** and **F**"

FORM NAME (Link) AND APPLYING FOR COURSE:TABLE- 2

Sr No.	Application Form NAME	Applying for the Course
1	A	BAMS, BHMS AND PHARMACY.
2	B	1. Lateral Entry to B Tech (for Diploma in Engg. students) 2. Lateral Entry to Pharmacy (for Diploma in Pharmacy students) 3. Lateral Entry to B Tech (B. Sc. Students)
3	C	1. MBA 2. MCA 3. Lateral Entry to MCA
4	D	1. M Tech, M Tech (Part Time course for working personnel), M Plan.(PGAT) 2. M Arch 3. M Pharm
5	E	Application for combination courses 1. MBA AND MCA 2. MBA AND LE-MCA 3. MBA AND PGAT
6	F	Integrated MBA (5 years course)

- **Cost of application for FORM – A, B, C, D, F Rs 1000/-.**
- **Cost of Application for FORM – E Rs 1500/-.**

Charges by Bank will be charged as per norm over and above the prescribed fee.

1. **The candidates are required to apply only online as per the procedure detailed below.**

   i) **Candidates can apply for OJEE - 2018 only through "Online".**
   ii) **Information Brochure, Syllabus and list of colleges can be downloaded from the website www.ojee.nic.in/ www.odishajee.com.**
   iii) **Online submission of Application Form may be made by accessing OJEE-2018 website www.ojee.nic.in/ www.odishajee.com.**
   iv) **Instructions for Online submission of Application Form are available in Information Brochure and on the website www.ojee.nic.in/ www.odishajee.com.**
   v) **Candidates must follow the instructions strictly as given in the Information Brochure available on the website (www.ojee.nic.in/ www.odishajee.com). Candidates not complying with the instructions shall summarily be disqualified.**
   vi) **Candidates must retain the following documents with them as reference for future correspondence.**
      (a) Printouts of the computer generated Confirmation Page of the Application Form.
      (b) Proof of fee payment.
   vii) **The fee can be remitted through any of the following methods :**
      (a) By Debit Card/ credit card (VISA / MASTER / Maestro cards/ internet banking).

      OR

      (b) Remittance through e-Challan by deposit in OJEE-2018 Bank Account with State Bank of India (State Bank Collect).

2. **The candidates should provide all the authentic details while filling up the online form. On submission of details, a *Registration Number* shall be generated.**

3. **Candidate has to fill the particulars online and also upload his/her photograph, full signature and thumb impression of left hand. Due to the above procedure, it is not necessary to send the hard copy of the application i.e. *confirmation page* to the OJEE office.**

4. **However, the candidates are advised to retain a hard copy of the application i.e. confirmation page along with proof of money transfer for future reference or correspondence, if any.**

5. **Applicant must quote the registration number/ Application number generated after submission of all his/her required personal data as a reference in all his/her future correspondence with OJEE-2018.**

6. **Application must be completed in all respect. Incomplete/ unsuccessful submission of application will lead to outright rejection. Completed application means:**
   a. **Completion of Registration. b. Uploading of scanned copy of photograph, signature and left hand thumb and c. payment of the required fee. d. Generation of Confirmation Page**

7. **Options such as Category, Choice of place of examination centre and Reservation & Sub-reservation category once given by the applicant in the application form, cannot be changed afterwards under any circumstances.**

8. **Applicant should give options only with respect to category S (State of Odisha), ZZ (Outside State of Odisha), NRI (Non Resident Indian) and Reservation (SC,ST), sub-reservation type (PC or PwD/GC/WO/ES/TFW) that he/she can substantiate the same with documentary evidences during document verification/ counselling. There is no provision of up loading any proof of these categories during online submission.**

9. Abbreviations used for different category/Sub-category of reservations: TABLE- 3

Sr No	Abbreviation	Description of Category/Sub-category
1	SC	Schedule Caste
2	ST	Schedule Tribe
3	GC	Green Card
4	PC	Physically Challenged
5	ES	Ex-Servicemen
6	TFW	Tuition Fee Waiver
7	WO	Women
8	OL	Outlying Odia

10. Candidates are allowed to submit only one application form. Multiple applications for a particular stream or in multiple streams of a candidate are liable to be rejected. After submission of an application, options cannot be changed at a later stage.

11. Application fee once paid is non-refundable.

12. Candidates may check the status of their application on OJEE -2018 website by giving the registration number/ application number (Chosen User ID) and Password that is created during registration.

13. The cost of application is non-refundable.

14. Any dispute arising out of OJEE-2018 shall only be settled and decided under the jurisdiction of Hon'ble High Court of Odisha.

15. Applicant should not upload any document along with the application form to support his/her claim for reservation/category.

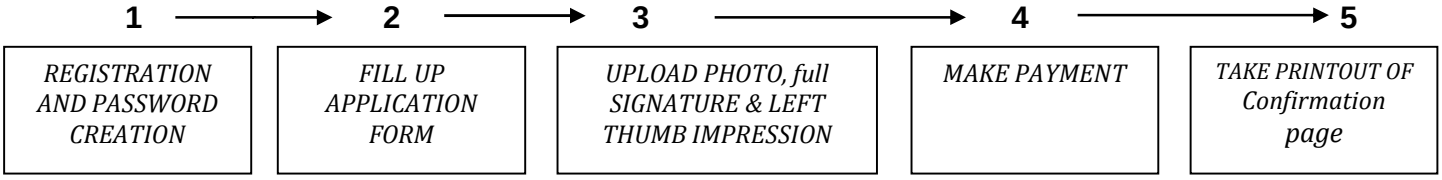
16. Claim for admission will be rejected if the candidate cannot submit the original certificates, mark sheets, other necessary documents at the time of document verification or if one has filled the form wrongly.

17. Admission may be cancelled at any time, if certificates/ mark sheets/ other documents are found to be forged or manipulated. A candidate will not be considered for admission if he/she fails to substantiate the claim with respect to reservation, category, nativity, date of birth, qualification etc.

18. Facility of submission of application form will be ceased at 05.00 PM on the last day of filling up online-application form submission. Hence, candidates are required to complete the process within the prescribed duration. Candidates can only pay application fee on-line till 4 to 5 days after last date of online-application, provided if the candidate completed form filling part.

PLEASE FOLLOW THE INSTRUCTIONS GIVEN BELOW BEFORE SUBMITTING THE ON-LINE APPLICATION FORM: - Please Refer Section-5

(a) Follow all the instructions in filling up the form and you should have gone through the important notes carefully.
(b) You have to retain a printout of the CONFIRMATION PAGE.
(c) Once duly filled in application form is submitted, no further change will be entertained under any circumstances.



MODE OF SUBMISSION OF APPLICATION FORM AND FEE DETAILS: - Please Refer Section - 5

i) A candidate can apply for the Odisha Joint Entrance Examination (OJEE-2018) through on-line process only by visiting the website www.ojee.nic.in/ www.odishajee.com.
ii) The information desired to be filled in the online application may be kept ready.
iii) Before submission of application form, make the following preparations:

- Decide the mode of payment of fee.
- Through Debit Card/ credit card (VISA/ MASTER/ Maestro cards/ internet banking)/ using on-line gateway payment facility. SBI and Bill Desk both gateway available for online transaction.

OR

- Depositing with State Bank of India through e-challan, which can be obtained after filling on line application (State Bank collect).

(a) If decided to pay fee through Debit card/ credit card (VISA/ MASTER/ Maestro cards/ internet banking) check the validity of the Card and keep it ready with you while logging on to website for submitting application form and generation of Confirmation Page. Final print out of confirmation page will be available after 2 working days of fee payment. If you are facing any problem, please contact JEE Cell.

(b) If decided to pay fee in the off-line mode, choose the Bank for depositing the Fee through e-challan after completing on line application form fill up. There will be two copies of the e-challan:- (1) Bank Copy, (2) Candidate copy -all printed in a single page.

(c) After Depositing Fee in the Bank by using e-challan, candidate has to log in again to take print out of the confirmation page. Final confirmation page can be printed after 2 working days of payment. If you are unable to print, please contact OJEE cell for a clarification.

Fee Details for submission of Application Form are as follows:

- **Cost of Application FORM A,B,C,D,F– single examination Rs 1000/-.**
- **Cost of Application for combination papers, E –(MBA & M TECH, MBA & MCA, MBA & LE-MCA) -Rs 1500/-.**
- **Additional Charges by Bank will be charged as per the norm over and above the prescribed fee.**

CHARGES IF BILLDESK GATEWAY IS USED:

As applicable at the time of filling up application form. Details will be available in the payment portal instructions in online application page.

NOTE:

- **The candidates must note that after submission of the application form it cannot be withdrawn. Claims for refund of application fee will not be entertained under any circumstances.**

GENERAL INFORMATIONS regarding which entrance test to appear- TABLE– 4

SL No.	Interested to Study	Entrance Test to Appear
1	BAMS/ BHMS B. Pharm	Physics, Chemistry, Biology or Mathematics of +2 science *(Candidates appeared Physics, Chemistry, Biology will get rank in both BAMS/BHMS and B.Pharm the candidates appeared Physics, Chemistry, Mathematics will get rank in B.Pharm only)*
3	MBA	MBA Test
4	Integrated MBA	Integrated MBATest
5	MCA	MCA Test
6	LE – MCA	MCA – LE Test
7	B.Sc (LE)	B.Sc (LE) Test
8	B. Tech (Second Year Lateral Entry)	Lateral Entry Test
9	B. Pharm (LE)	Based on Course of D. Pharm
10	M. Tech	Branch you have opted in Engineering Mathematics & Reasoning Ref. Table-14 for Branch of Engg. you have graduated, question to choose for test and which branches you are eligible to study M Tech.
11	M. Pharm	Course of B. Pharm
12	M. Arch	B. Arch & Engineering Mathematics & Reasoning
13	M. Plan	Architectural Conceptual Question & Reasoning

MARK CRITERIA FOR ADMISSION TO DIFFERENT COURSES TABLE – 5

SL NO	STREAM	GENERAL	SC, ST	SUBJECT
1	B TECH, B PLAN CANDIDATE SHOULD PASS THROUGH ANY ONE CRITERIA	45%	40%	1.PHYSICS, MATHEMATICS, ANY ONE OF (CHEMISTRY, BIOLOGY, BIOTECH,TECHNICAL VOCATIONAL SUB, ELECTRONICS, C.S, IT, STATISTICS,GEOLOGY)
2	B ARCH	50 %	50%	MATHEMATICS AS A CUMPOLSORY PAPER AT 10 +2 LEVEL AND AVERAGE IS TAKEN ON SUBJECTS A. LANGUAGE B. PHYSICS,C. MATHEMATICS, D. ANY ONE(CHEM, BIOLOGY, BIOTECH, TECHNICAL VOCATIONAL SUBJECT), E. ANY OTHER SUBJECT
3	B PHARM	45%	40%	1.PHYSICS, CHEMISTRY, ANY ONE OF (MATHEMATICS, BIOLOGY, BIOTECH,TECHNICAL VOCATIONAL SUB, ELECTRONICS, C.S, IT, STATISTICS,GEOLOGY)
4	LE TECH	45%	40%	DIPLOMA
4.1	LE Tech (Marine)	55%	55%	DIPLOMA IN MARINE, MECHANICAL, ELECTRICAL, ELECTRICAL & ELECTRONICS
5	LE PHARM	45%	40%	DIPLOMA IN PHARMACY
6	MBA	50%	45%	BACHELORS DEGREE IN ANY STREAM
7	MCA	50%	45%	BACHELOR DEGREE IN ANY STREAM 3 YEARS DURATION MUST HAVE PASSED MATHEMATICS AT 12^{TH} LEVEL OR AT GRADUATION LEVEL **BUSINESS MATHEMATICS IS NOT ALLOWED**
8	LE MCA	50%	45%	BACHELOR DEGREE of 3 YEARS DURATION in BCA, BSc (IT/CS/IST/ITM), MUST HAVE PASSED MATHEMATICS AT 12^{TH} LEVEL OR AT GRADUATION LEVEL **BUSINESS MATHEMATICS IS NOT ALLOWED**
9	Integrated MBA (5 years)	45%	40%	10 +2 LEVEL ALL STREAMS
10	M TECH/ M ARCH/ M PLAN	50%	45%	AS PER **TABLE-14** OF INFORMATION BROCHURE
11	M PHARM	55%	50%	AS PER **TABLE-14** OF INFORMATION BROCHURE
12	B SC LE	45%	40%	PCM OR PCB AT GRADUATION LEVEL

RESERVATION FOR DIFFERENT STRAEMS IN DIFFERENT CATEGORY TABLE - 6

COURSES		All Values in Percentage							
		SC	**ST**	**GC**	**PC/PwD**	**ES**	**TFW**	**WOMEN**	**OL**
1	**B. TECH / B. PLAN**	8	12	5	3	3	5	30	3 (Govt. Institute only)
2	**B. ARCH**	8	12	5	3	3	0	30	3 (Govt. Institute only)
3	**PGAT (All Masters Program)**	8	12	0	0	0	0	0	0
4	**B PHARMA**	8	12	5	3	0	5	0	0
5	**MCA**	8	12	5	3	0	0	30	0
6	**MBA/Integrated MBA**	8	12	5	3	0	0	30	0
7	**LE TECH / LE PHARM/LE BSc.**	0	0	0	0	0	5	0	0
8	**LE MCA**	0	0	0	0	0	0	0	0
9	**INTEGRATED MSC**	8	12	0	0	0	0	0	0
10	**BAMS / BHMS**	Will be declared as per approval during counseling process.							

IMPORTANCE AND REQUIREMENT OF NATIVITY/ RESIDENTIAL CERTIFICATE

Nativity certificate of Odisha is mandatory for taking admission against any of the reserve category seats along with other relevant certificate (SC,ST, GC, PC, Ex-Serviceman, TFW). To avail reservation under women quota, the nativity certificate is required and is mandatory. (non submission of nativity certificate automatically cancels Women Quota seat).

For admission to MBBS, BDS, BHMS and BAMS courses, nativity certificate is compulsory for all candidates irrespective of any category.

1.1 **The Odisha Joint Entrance Examination-2018 will be held on Sunday, 13th MAY, 2018 as per TABLE-1. (REPEAT)**

1.2 **A CANDIDATE CAN APPLY FOR ANY ONE APPLICATION FORM AMONG A, B, C, D, E and F based on qualification and the course in which he/she wants to take admission. (REPEAT)**

1.3 For any future correspondence, the Registration Number/Application number generated after online form fill-up should be mentioned. This is also required to be mentioned while paying the examination fee. This number is your **User ID** to login.

1.4 All the Admit cards will be uploaded at OJEE website from 20th - 25th April 2018. The candidate has to down load two copies of the admit card from the OJEE website which must be endorsed by the Invigilator of the examination centre for allowing the candidate to appear in the exam.

i) If an applicant fails to take print out of Admit Card from the OJEE-2018 website for the examination by April 25, 2018, then he/ she must contact OJEE-2018 office immediately before 30th April, 2018.
ii) If the candidate desires to change any information printed on the Admit card, he/she has to contact OJEE-2018 office immediately after taking the print out of the Admit Card before 30th April, 2018.
iii) Both the downloaded copies of the admit cards should be signed by the invigilator during examination. One copy must be submitted at the examination hall and the other should be retained by the candidate. However, the submitted admit card may be examined at a later stage to validate the authenticity.

The candidate has to keep the Admit card duly signed by invigilator till he/she takes final admission in the University /College/Institution.

1.5 Availability of Courses and Seat: TABLE - 7

OJEE-2018 entrance examination shall publish the merit list of successful candidates for admission into the following courses as per the total available/approved seats mentioned in Table-7.

TABLE-7

Sr No	Course	Institute Name and Seat availability (as per year 2017 data)
1	B Pharma	Refer Table - 15
2	MCA	Refer Table – 16 and 17
3	Le-MCA	Refer Table – 16 and 17 (Number of seats will be displayed during counselling against the name of Institute)
4	Lateral Entry to B. Tech, Le-B.Pharm, Le B.Sc. (Admission to 3rd Sem)	Number of Seats available will be notified during counselling. Institute and Branch name will be as per shown in Table – 15 to 21 . BSc Lateral entry allotment will be made as per vacant seats available after lateral entry to B.Tech admission.
5	MBA	Table-18(A) and 18(B),
6	M.Tech and M.Arch	Table – 19(A) and (B)
7	M.Pharm	Table – 20(A) and (B)
8	Integrated MBA(5 years)	Table – 18-C
9	BAMS AND BHMS	Will be declared as per approval during counselling

Two supernumerary seats will be given to J & K applicants in all the AICTE/UGC approved colleges (as per norm).

Note: List of Colleges/ Institutes/ University and availability of seats therein are for previous year and this should be used for a reference or as an indicator.

1.6 Fee Structure:

1.6.1. Fees payable to colleges/institutes/universities:

Fees payable to colleges/institutes/universities at the time of admission will be decided by the competent authority. The same may also be published in OJEE

website during counselling after approval by Government of Odisha.

1.7. **Age limit:**

The Government of Odisha will not be responsible, wherever there is no age limit for taking admission (as mentioned in the eligibility criteria vide Section 3) for any regulation of service where such requirement for age exists. The candidate should take admission at his / her own risk as regards to age. For all admissions, the criteria of Age limit (as mentioned in the eligibility criteria vide Section 3) fixed by Government of Odisha/Government of India/ MCI will be applicable as per rule. A Candidate not fulfilling the age limit, if any may be debarred from his/her admission and the Government of Odisha will not be responsible for that.

1.8. **Medical Fitness:**

OJEE will not be responsible, if a candidate faces difficulty in employment on medical ground. Candidates claiming reservation under physically challenged(PC) category will have to go through a Medical Board (Clause 2.1.4) verification. The decision of the Medical Board will be final and binding. Medical Board will be conducted at SCB Medical College, Cuttack and the corresponding date for the same will be declared during counselling period for the candidates to appear there. Candidates who will not appear medical board or not declared qualified as per the norm, will not be allotted in PC category.

1.9. **Merit List will be declared in the following streams: TABLE – 8**

Separate merit list for all qualifying candidates shall be drawn on the basis of OJEE- 2018 results in the following manner.

TABLE-8

Sr No	Course	Drawn as per result of examination paper
1	B. Pharm	Physics & Chemistry, Mathematics/Biology of 3 hours duration, consisting of 45 questions each subject, total 135 questions. **(For details refer Table-9)**
2	BAMS/BHMS and PHARMACY	Physics & Chemistry, Biology, Examination of 3 hour duration, consisting of 45 questions on each subject, total of 135 questions. **(For details refer Table-9)**
3	Lateral Entry B Tech.	Engg Mechanics, Engg Mathematics and Basic Electrical Engg. (One paper of 2 hours duration with 40 questions on each subject) total of 120 questions
4	Lateral Entry to B.Pharm	One hour test of D. Pharm level questions
5	Lateral Entry BSc./+3 Sc (BSc/+3Sc candidate must have Mathematics at +2 level)	One hour Examination one paper containing Mathematics, Physics and Chemistry of 20 questions each with a total of 60 questions
6	MCA	MCA test, 2 hours' time, one paper, Mathematics and Computer awareness examination of total 120 questions.
7	Lateral Entry to MCA	2 hours' time, one paper, Mathematics and Computer awareness examination of total 120 questions.

8	MBA	2 hours' time, one paper MBA test total of 120 questions
9	M Tech, M Arch	2 hours' examination, one paper test, Engineering Math-20 question, Logical reasoning-10 and Branch-60 questions.
10	M Plan	1 hour examination, one paper of 60 questions
11	M Pharm	1 hour test for M Pharm of 60 questions
12	Integrated MBA	1 hour test for Integrated MBA of 60 questions

In addition, separate merit lists will also be published for candidates qualifying under each of the reservation categories. Each successful candidate shall be given a rank card, which he/she has to download from OJEE-2018 website.

* There is no lateral entry admission to B Arch. course as per Council of Architecture norms in 2nd year. There will only be admission at 1st year for B Arch course.

*** Admission to Integrated MBA is subject to approval of the course by AICTE/ UGC/ Govt. of Odisha/ Govt. of India/ BPUT/Other University of the state.**

2. **Categories: Category and Reservation mentioned here are rules at present. It may change as per Government order.**

2.1. **Odisha State Category (S- Category)**

For admission to colleges under Odisha State Category **(S- Category)** one has to satisfy at least one of the following three criteria:-

(a) The candidate must have passed/appeared 10+2 examination from any of the recognized institution in the State of Odisha for taking admission into Bachelor's Degree. The candidate must have passed/appeared +3 Sc /B.Sc./BCA/ B.Tech/ B.Pharm/ B.Arch Bachelor degree for for taking admission into Masters Degree.

(b) Parents of the candidate other than (a) must be native of Odisha. To claim benefit under this category, a candidate shall have to furnish at the time of document verification a "resident/ nativity certificate", in prescribed form (Appendix-I) from a Revenue Officer not below the rank of Tahasildar of the area to which his/ her parents belong as native. The candidate has to submit the nativity certificate in the prescribed format i.e., Appendix-I issued.

(c) Sons/ daughters/ spouse of the employees of Government of Odisha/ Govt. of India/ Govt. of Odisha Undertakings/ Govt. of India undertakings, serving in the State of Odisha at the time of application. To claim the benefits under this category, candidate has to submit a certificate from the employer of his/her parents/spouse in the prescribed form (Appendix-II) at the time of document verification. The candidate has to submit Appendix-II issued not earlier than January 2018.

(d) Besides above, the reservation facility is also applicable to the to the Children/ wards of All India Civil Service Officers serving in the State of Odisha at par with the natives of Odisha, except for any reservation being extended to ST, SC and SEBC categories so far as admission to Professional / Technical Institutions in the State is concerned.

Candidates belonging to 'S category' will be eligible for admission on the basis of their rank in the merit list to the Government & Private colleges and for the category of lateral entry (LE). Outside state candidates (ZZ) will be considered only for admission into Private colleges.

Reservation of Seats under State Categories:

The reservation of seats in different colleges under various categories will be as per the policy of the Government of Odisha. **The percentage of seats to be reserved for different categories are subject to change and the decision of the State Government in this regard shall be final and binding on the candidate. All Reservations are applicable to natives of Odisha State only and they must produce resident/ Nativity certificate in Appendix – I from Odisha State during document verification.**
For MBBS/BDS and BAMS/BHMS course, nativity/residence certificate is mandatory for all candidates irrespective of category and sub category.

2.1.1 At present, **8% seats in all colleges are reserved for candidates belonging to Schedule Caste by birth (not by marriage or adoption). 12% seats in all colleges are reserved for candidates belonging to Schedule Tribe by birth (not by marriage or adoption).** Separate merit lists will be published for each category of reservation. If eligible candidates belonging to a particular reserved category are not available, seats can be filled up by the candidates belonging to the general category.

2.1.2. Candidates applying for SC/ST reserved category shall furnish SC/ST certificate from the Tahasildar of the place of birth in Odisha at the time of document verification in the format given in this brochure (Appendix - III). The candidate has to submit the Cast certificate in the prescribed format i.e., Appendix-III issued.

NOTE : Scheduled Caste/Scheduled Tribe persons who have migrated from their state of origin to another state for the purpose of seeking education, employment etc., will be deemed to be scheduled caste/ tribe of the state of their origin and will be entitled to derive benefits from the state of origin and not from the state to which they have migrated. (Vide Govt. India Letter No. BC/160 14.1.82 SC & BCD/ dated 22nd Feb,1985). Thus, SC/ST candidates from Odisha who are staying outside the State have to produce SC/ST certificate from the competent authority of Odisha State during document verification.

2.1.3. At present 5% of seats are reserved for children of Green Card holders for admission into B.Tech / B.Arch. / B.Pharm / MCA/ MBA /Integrated MBA. Candidates applying under Green Card category shall furnish the Green card of their parents issued by Family Welfare Department, **Government of Odisha**, in original at the time of document verification. The name, date of birth of the candidate along with the parents' names should match with those mentioned in 10thclass pass certificate**. If in future it is found that the green card has been obtained by providing wrong information or suppressing/tempering facts, the card holder will be deprived of the facilities already obtained and will be liable for legal punitive action. A candidate producing a Green Card that is forged/ tempered in any form shall be debarred from getting the quota.**

2.1.4. At present 3% of seats are reserved for Physically Challenged(PC) or Person with Disability (PWD) candidates for admission to B.Tech/ B. Arch/ MBA/ MCA/ B. Pharm/ Integrated MBA/ courses. **The candidates with 40% disabilities in consonance with section-39 of the Persons with Disabilities (Equal opportunities, Protection of Rights and Full participation) Act, 1995** are eligible to be considered for getting reservation under PC/PWD category. The medical standard of PC category candidates will be decided by a medical board specifically constituted with Senior Professors of the premier medical college and hospital: SCB Medical College, Cuttack, and Chairman OJEE-2018 or his representative under the Chairmanship of Principal, SCB Medical College or his nominee. **Therefore, it is mandatory for all candidates seeking reservation under PC/PWD to attend the medical board on a given date, which will be notified before the counselling**. The candidates verified by Medical board are eligible to be categorized as Physically Challenged candidates

as per the report of Medical board. It is also valid for courses included for counselling later on.

The decision of this Board will be final and binding. Percentage and type of disability will be declared by Medical Board and based on their data admissions will be made. If a candidate is declared not to be physically challenged or disabled, he/she will automatically be considered as an unreserved candidate and his/her eligibility will follow as per the norm.

Therefore, a candidate SHOULD NOT, submit along with the application form a medical certificate for claiming their Physically Challenged category. But, he/she is advised to keep a copy of their Physical Challenged certificate issued from competent authority in the examination hall.

Provisions for Persons with Disabilities

• The candidates with disability should fill in the type and percentages of disability correctly in the online application form for OJEE 2018 (If a field is given, otherwise no need).

• Only the candidates, who have 40% or more disability, will be provided with a Scribe/ Reader on request of the candidate.

• The candidate will have the discretion of opting his/her own scribe/ reader or may submit a request to the centre superintendent for the same.

• The centre superintendent will identify the scribe/ reader. In case a request is received from the candidate, he/she would be allowed to meet the scribe a day before the examination to verify the suitability of the scribe.

• 20 minutes/ Hour compensatory (extra) time will also be allowed to the candidates with 40% or more disability irrespective of the fact that the candidate(s) is/are availing the facility of scribe/reader.

2.1.5. At present 3% of seats in Engineering Colleges for B.Tech are reserved for children/ wards of ex-servicemen who are native of Odisha. They should apply at Rajaya Sainik Board for availing this quota. Rajya Sainik Board will provide the data of eligible candidates for Ex-Serviceman quota to OJEE.

The final list will be displayed in OJEE website by 15th June. So, candidates are advised to contact Rajya Sainik Borad well in advance to get their documents verified and listed in Ex-Serviceman category list. During seat allotment, these candidates will avail Ex-Serviceman quota.

During the process of registration, a candidate desiring to avail Rx-serviceman quota, must declare himself/ herself as Ex-Serviceman sub category. Ex-Serviceman certificate provided by Rajya Sainik Board will not be verified at Nodal Center. Candidates are requested to produce the certificate to the institute, where they are admitted.

2.1.6. At present 30% of the seats in all the categories **except Outside State (ZZ), Non-resident Indians (NRI), OL and TFW category** are reserved for women candidates for B.Tech, B.Arch, MBA, MCA, / Integrated MBA* courses.

Odisha state candidates who are willing to avail Women Quota, have to produce Nativity certificate, else they will be considered as General Candidate. (Appendix-I)

For MBBS/BDS,BAMS/BHMS COURSES, nativity certificate is mandatory for all candidates, irrespective of category and sub-category.

2.1.7. Seats up to maximum 5 percent of sanctioned intake per course are available for admissions under Tuition Fee Waiver Scheme [TFW] for B.Tech, B. Pharm, Lateral Entry courses. These seats are supernumerary in nature. The allotted supernumerary TFW seats will be as per the AICTE rule.

Eligibility criteria for **Tuition Fee Waiver** Scheme [TFW]:

i. Sons and daughters of parents whose annual income is less than Rs. 6 lakhs (Rupees Six lakh only) from all sources are eligible for seats under this scheme. The candidates who will be interested in taking admission under this scheme have to produce income certificate issued by local Tahasildar (Appendix - VII) during document verification.

ii. The waiver is limited to the tuition fee as approved by the Government of Odisha Fee Committee for self-financing Institutions and by the Government for the Government Institutions. All other fees except the tuition fee will have to be paid by the beneficiary.

iii. The candidate should be a native of Odisha.

iv. TFW scheme is applicable to all AICTE/UGC approved technical institution offering **Bachelor Programs of four years** duration.

v. Candidate has to produce the following documents for claiming TFW scheme at the nodal centre during document verification.

a) The candidate has to submit the **Resident/ Nativity certificate** in the prescribed format. (Appendix –I)

b) The candidate has to submit the **Income certificate** in the prescribed format i.e., Appendix-VII issued not earlier than January 2018.

2.1.8 For admission into 1st year Bachelor of Homoeopathic Medicine and Surgery (BHMS) and Bachelor of Ayurvedic Medicine and Surgery (BAMS) degree courses; reservation applicable will be given before the scheduled dates of counseling after due approval from the Government of Odisha.

2.2. OL Category: [Oriyas (Odias) belonging to outlying Oriya (Odia) speaking tracts] **(Notification NO:13411-SC-6-64/69-Gen Political & Service Department, Govt of Odisha Dt. 8/8/1969)**

2.2.1 Due to settlement of boundaries of states some Odia speaking areas have been merged in other neighbouring states as a result of which the Odias living in these areas who are now residents of other states have been deprived of studying Oriya (Odia) language or Oriya (Odia) culture. 3% of seats in Government Engineering colleges are reserved for Odia speaking people residing outside the State of Odisha. OL reservation is not applicable to private engineering colleges. However, they will be considered for taking admission into private colleges as per their JEE MAIN Ranks under the outside state (ZZ) category. OL reservation is also not applicable to MBA/ MCA/ Pharmacy / LE/ M.Tech / M.Pharm / M.Arch./Integrated MBA streams.

2.2.2 A candidate eligible to avail the reservation under OL Category must have the following:

(i) The candidate has to submit a **nativity certificate from outside the state of Odisha** in the prescribed format i.e., Appendix-V issued not earlier than January 2018. [Appendix – V is the Certificate of Authenticity of Oriyas (Odias) belonging to Outlying Oriya (Odia) Speaking Tract].

AND

The candidate has to pass an Odia examination with minimum 40% marks to be conducted by OJEE 2018 committee at the time of counseling process.

(ii) The candidate must have passed 10+2 Science examination from outside Odisha.

2.3 Non-Resident Indians: (NRI)

NRI means Sons and Daughters of an Indian citizen who ordinarily reside outside India and hold an Indian passport.

For NRI the number of seats will be provided following the provisions of OPEI (RA&FF) Act 2007 and norms of AICTE/UGC in this regard.

In the event of non-availability of students in NRI category, the seats will be given to general candidates as per their merit under general category. However, general fee structure shall be applicable to these candidates thus admitted against vacant NRI seats.

The candidate eligible to avail NRI category must produce the following documents at the time of document verification.

(a) Copies of passport
(b) Work permit
(c) Equivalence certificate of the qualifying examination

Students admitted under this scheme shall not be allowed to change Institution / course under any circumstances.

2.4 Outside State Category: (ZZ)

Outside state candidates are not eligible for admission in Government Colleges to Engineering/ MBA /MCA courses and under any of the Lateral Entry programmes.

Outside state candidates are eligible for admission in Private Engineering (B.Tech 1st year only) / Private Pharmacy (B.Pharm 1st year only) / Private MBA/ Private Integrated MBA / Private MCA/ Private Engg. Colleges (2nd year B Tech (LE))/ Private Pharmacy (2nd year B Pharm(LE)) as per their eligibility criteria following the Govt. of Odisha guidelines in this regard.

2.5 Number of Seats and Reservation

Exact number of seats and branches will be notified through OJEE-2018 web site before counselling.

i. Only natives of Odisha state will be eligible to avail all reservations seats under 2.1. Seats available under General Category in any course are those "available after deducting the number of seats pertaining to all the Reserved Categories from the total number of seats available for that particular course after taking into account the seats available under All India Quota (JEE(MAIN)-2018, CAT, XAT, CMAT, MAT, ATMA, NIMCET, GPATetc.) and NRI quota in that course".
ii. There is no reservation category for Lateral Entry Admission.
iii. Refer Table - 6 for the percentage of reservation available in different streams.

During admission process, all the above-mentioned norms will be verified as per Govt. of Odisha order and will be adopted.

TRANSFER OF VACANT SEATS AMONG DIFFERENT CATEGORIES:

Transfer of vacant seats from one category to another is applicable only when there are vacant seats in that category. For example, if some SC seats are vacant after all allotment, then those seats will be transferred and added to the General category seats. Similarly if ST reserved category are not filled up due to non-availability of candidates belonging to ST category, then vacant seats may be filled up by candidates belonging to the General category.

Seats reserved under all other categories like Physically Challenged (Person with Disability), GC, Ex-Servicemen etc will be filled up by general category candidates in case the same are not filled up from the reserved category candidates. However, this is not applicable for TFW category.

In the case of any changes made in the percentage of reservation of seats/reservation mentioned in Table-6, on the basis of guidelines from PCI/ MHRD/ AICTE/ UGC/ Government of Odisha, it will be intimated through the Counselling-cum-Admission Instructions to all the merit listed candidates.

It will also be published in OJEE-2018 website.

3. Minimum Eligibility Criteria:

3.1 **For admission to 1st Year Degree courses in B.Pharm, BAMS and BHMS.**

3.1.1. **Bachelor in Pharmacy (BPharm):**

Candidates must have passed or appearing in 2018, 10+2 Science examination of CHSE, Odisha or equivalent with Physics and Chemistry as compulsory subjects along with one of the subjects from Mathematics / Biotechnology / Biology / Technical vocational subjects. The candidate should have passed individual subject and must have obtained at least 45% marks (40% in case of candidates belonging to SC/ST category) in the above subjects taken together. **There is no age limit** to appear at OJEE-2018 for admission into B. Pharm courses.

3.1.2**. Bachelor of Homoeopathic Medicine and Surgery (BHMS) and Bachelor of Ayurvedic Medicine and Surgery (BAMS)**

Candidates must have passed or appearing in 2018, 10+2 Science examination of CHSE, Odisha or equivalent, with Physics, Chemistry & Biology (Botany and Zoology) with at least 50% marks in aggregate (Physics, Chemistry & Biology taken together) for general category candidates and 40% marks in aggregate for SC/ ST candidates.

AGE LIMIT: The lower age shall be 17 years as on December 31, 2018. The candidates have to submit H.S.C. or equivalent certificate in support of his/her age during certificate verification at the time of counselling.

3.2 For admission to Lateral Entry

3.2.1. For admission into 2nd year Degree courses in Engineering/Technology under Lateral Entry for Diploma holders:

A. Candidates must have passed or appearing in 2018, in three-year diploma examination (two year in case of Lateral entry Diploma) in Engineering/ Technology from State Council of Technical Education and Training (SCTE&VT), Odisha or from an AICTE approved Institute/ from a recognized University as defined by UGC with at least 45% marks (40% in case of candidates belonging to SC/ST category) in appropriate branch of Engineering/ Technology.

B. All the native of Odisha candidates and the outside state candidates, who have completed their qualifying examination (diploma) from an Institute in Odisha having approval from the competent authority are eligible for admission under Lateral Entry in state category.

Outside state candidates who have passed diploma from approved institutes of other states are allowed to take admission in Private Engineering colleges as per their OJEE rank. However, a separate merit list shall be published for such outside state candidates and they will be allowed for admission in the remaining vacant seats, if any, after the state merit list is fully exhausted through centralized counseling conducted by the OJEE committee. Results of final diploma examination must be available on the date of document verification during the counselling.

C. There is no reservation of seats in any of the categories/sub categories for admission into Lateral Entry of various courses.

D. Candidates with Diploma certificate can take admission in the vacant seats of 1st year B.Arch programme, provided they have a valid NATA score and have secured a minimum average of 50% mark in their diploma course.

E. Further, the candidates who have passed diploma in Engineering and technology from an AICTE approved Institution and having a rank in lateral entry shall also be

eligible for admission to the first year of the Bachelor course, subject to the availability of vacancies in the first year, in case, all the available lateral entry seats in all the institutes are exhausted. However, the admission shall be based strictly on OJEE-2018 ranks only.

F. **Guidelines for admission by Lateral Entry into Second Year of B.Tech (Marine Engineering) Programme:**

Eligibility Criteria: The candidates who fulfill the following criteria are elligible

1. A candidate should be a Rank holder of Lateral entry test conducted by OJEE-2018.
2. The candidate should be less than 22 years of age on the day of commencement of 2nd year Marine Engineering degree course.
3. The candidates joining after completing 1st year of Engineering Course from colleges approved by AICTE should have passed in all the subjects with minimum 60 % of average marks.
4. The candidates joining after passing 3-Year Diploma course in Mechanical/ Marine/ Electrical Engineering/ Electrical & Electronics Engg from the colleges approved by AICTE or State Board of Technical Education, should have passed with minimum 55% of aggregate marks in the last year of Diploma course.
5. In above cases, candidate must have secured 50% mark in English at 10^{th}/ 12^{th}/ Diploma or Degree level.

Choice of Discipline for Lateral Entry to Degree courses in Engineering/Technology :

Candidates having Diploma in Engineering/ Technology in the discipline indicated in Column-II are eligible to be admitted to their corresponding discipline only mentioned in Column–III of **Table-13** based on their merit list. The diploma offered by NTTF Gopalpur is recognized equivalent to diploma course offered by SCTE & VT, Odisha, Bhubaneswar.

There is no age limit to admission to Lateral Entry courses in B.Tech in Engineering, except Lateral Entry into Second Year of B.Tech (Marine Engineering).

3.2.2 **For admission into 2^{nd} year Degree courses in B. Pharm course under Lateral Entry for Diploma holders:**

A. Candidates must have passed or appearing in 2018 the diploma examination in **two years diploma course after XII standard in Pharmacy** with minimum 45% (40% for candidates belonging to SC / ST category) of marks in aggregate from Odisha State Board of Pharmacy (OSBP) or SCTE&VT or from an AICTE approved Institution / from a recognized University as defined by UGC for direct admission to the third semester degree courses.

B. **Some of the other regulations are as per points B, C, D & E as given in previous section 3.2.1.**

There is no age limit for admission to this course.

3.2.3 **For admission to 2^{nd} year Degree courses in Engineering/ Technology under Lateral Entry for B. Sc./ +3 Sc. students:**

A. Candidates must have passed or appearing in 2018, the Bachelor's Degree examination of three years duration in Science from any University of Odisha or from a recognized University as defined by UGC, with at least 45% marks (40% in case of candidates belonging to ST/SC category) and he/she must have passed **XII standard with Mathematics as a subject**.

B. Further even though the student in this stream are admitted to second year course, they have to pass the subjects of **Engineering Graphics / Engineering Drawing and Engineering Mechanics of the first year of engineering program along with**

the second year subjects.

Choice of Discipline: (for Lateral Entry Stream)

Candidates having B. Sc. or +3 Sc. **with mathematics in class XII as a subject** are eligible to be admitted to any discipline of engineering as per availability of seats.
The students belonging to B. Sc / +3 Sc. stream shall be considered only after filling the supernumerary seats in the lateral entry category with students having a Diploma degree.
Students who have passed B.Sc / +3 Sc degree from a recognized University as defined by UGC shall also be eligible for admission to the first year engineering degree courses subject to vacancies in the first year class, in case the vacancies at the lateral entry in all the institutes are exhausted. The admission shall be based strictly on the eligibility criteria mentioned above and after filling the vacant seats of the first year engineering degree courses by the lateral entry engineering applicants belonging to Diploma stream.
There is no age limit for admission to this course.

3.3 For admission to Master degree in Computer Application

3.3.1. **For admission into 1st year Master degree in Computer Application**:
Candidates must have passed or appearing in 2018, the Bachelor's Degree examination of minimum three years duration in any discipline from any University of Odisha or from a recognized University as defined by UGC and must have passed in **Mathematics** at 10+2 level or at Graduate Level. **Business Mathematics at +2 level is not permitted for admission.** The candidate should have obtained at least 50% (45% in case of candidate belonging to SC/ST category) in the qualifying examination.

If the candidate has passed BCA/ BSc(IT/CS/IST/ITM) with mathematics as a subject, he/she may appear in the entrance test without Mathematics at 10+2 level.

There is no age limit for admission to MCA course.

3.3.2 **For admission into Master in Computer Application under Lateral Entry to 2nd year:**
Candidates must have passed or appearing in 2018, the Bachelor's Degree examination of minimum three years duration in BCA, B. Sc. (IT/ Computer Science/IST/ITM) from any University of Odisha or from a recognized University as defined by UGC and must have passed in **Mathematics** as a course at 10+2 level or at Graduate Level. **Business Mathematics at +2 level is not permitted for admission**. The candidate should have obtained at least 50% (45% in case of candidate belonging to SC/ST category) at the qualifying Examination.
Candidates who have passed Graduation in BCA, B. Sc. (IT/ Computer Science/IST/ITM) with mathematics as a subject at 10+2 or graduation level in approved institutes of other states are allowed to take admission in Private colleges as per their OJEE rank.
There is no age limit for admission to 2nd year MCA under Lateral Entry course.

3.4 For admission to MBA

Candidates must have passed or appearing in 2018, the Bachelor's Degree examination of minimum three years duration from any University of Odisha or from a recognized University as defined by UGC/AICTE.

OR

A Candidate must have Passed or appearing in 2018, the Bachelor's Degree in Engineering/ Technology/ Architecture/ Pharmacy examination of minimum four/five years duration in any discipline from any University of Odisha or from a recognized University as defined by UGC/ AICTE. The candidate should have obtained at least 50% marks (45% in case of candidate

belonging to SC/ST category) at the qualifying examination.
There is no age limit for admission to MBA course.

3.5 For admission to M.Tech/ M.Tech (PT) / M. Pharm / M. Arch

3.5.1. **A. M.Tech (Regular)**

A Candidate must have passed or appearing in 2018, Bachelor's Degree of examination (B. Tech)/ MSc (as per Table-14) in the relevant field from any University of Odisha or from an AICTE approved Institute or from a recognized University as defined by UGC. The candidate should have obtained at least 50% marks (45% in case of candidate belonging to SC/ST category) at the qualifying examination.

Choice of Specialization:
Candidates having degree in the discipline indicated in Column-III are eligible to be admitted to their corresponding Master degree discipline only mentioned in Column–IV of **Table-14** based on the merit list.

Please refer Table-14 for a clear understanding of the suitable choice of question paper for appearing the test (See Column-II) based on your B Tech/ M Sc. branch (See Column-III) and in the M Tech course (See Column-IV) you are interested to read. **Table-14 will guide admission process for different branches of M Tech.**
There is no age limit for admission to M.Tech (Regular) course.

B. M.Tech (Part Time) for only two available branches at IGIT Sarang.
A Candidate must have passed the Bachelor's Degree of examination in the relevant recognized discipline/ field/ rogram from any University of Odisha or from an AICTE approved Institute or from University as defined by UGC.

And

The Candidate must have a minimum of **Two years full time work experience** in a registered firm/ Company/ Industry/ Educational and Government, Autonomous Organizations in the relevant field in which admission is sought.

Choice of Specialization:
Candidates having Bachelor in Engineering in the relevant discipline indicated in Column-III are eligible to be admitted to their corresponding discipline only mentioned in Column–IV of **Table-14** based on merit list.
Part Time courses are mentioned as PT.
There is no age limit to for admission to M.Tech (Part-Time) course.

3.5.2 **M.Pharm**

A Candidate must have passed or appearing in 2018, the Bachelor's Degree of examination or equivalent in Pharmacy from any University of Odisha or from an AICTE approved Institute or from a recognized University as defined by UGC.The candidate should have obtained at least 55% marks (50% in case of candidate belonging to SC/ST category) at the qualifying examination.
There is no age limit for admission to M.Pharm course.

3.5.3 **M.Arch**

A Candidate must have passed or appearing in 2018, the Bachelor's Degree of examination in Architecture from any University of Odisha or from an AICTE approved Institute or from a recognized University as defined by UGC. The candidate should have obtained at least 50% marks (45% in case of candidate belonging to SC/ST category) at the qualifying examination.

Choice of Specialization:
Candidates having Bachelor in Architecture in the discipline indicated in Column-III are eligible to be admitted to their corresponding discipline only mentioned in Column–IV of **Table-14** (serial no.9) based on merit list.

There is no age limit for admission to M. Arch course.

3.5.4 **M. PLAN**
A Candidate must have passed or appearing in 2018, the Bachelor's Degree in Architecture, Planning, Civil Engineering or passed Master's Degree in Economics, Geography, Sociology, Anthropology, Environmental Science, Statistics, Social works with specialisation in Community Development and Rural Development. The candidate must have obtained at least 50% (45% in case of candidates belonging to SC/ST category) in the qualifying degree examination.

3.6. For admission to Integrated MBA:
A Candidate must have passed or appearing in 2018, 10+2 examination of CHSE, Odisha or equivalent. The candidate should have passed all the individual subject and must have obtained at least 45% marks (40% in case of candidate belonging to SC/ST category) in all the subjects taken together.

There is no age limit to appear at OJEE-2018 for admission into Integrated MBA courses. The admissions for this course shall be affected on the basis of merit list of students passed in various streams at 10+2 examination. The total number of available seats are divided equally among the Science, Commerce and Arts stream candidates. For example in the case of total 60 seats, each of the three stream (Science, Commerce and Arts) candidates shall be admitted in 20 seats.

Admission to this course will be made from OJEE rank first and if seats are vacant, then admission will be done on the basis of +2 mark of Science, Commerce and Arts stream candidates. For the remaining vacant seats, Diploma Engineering students and students passed in +2 vocational courses will be allowed for admission.

In case of non-availability of students from one stream, remaining seats in that stream may be allotted to students from other two streams on equal basis. In case of non-availability of students from two streams, remaining seats in those streams may be allotted to students from the third stream.

IMPORTANT NOTES:

(i) Candidates should fulfill the requirements of reservations under clauses 2.1 as applicable.
(ii) **Women and Physically challenged candidates are not eligible for admission to Mining Engineering Course.**
(iii) Candidates desirous to be admitted to Engineering colleges/ institutes of outside state under DTE&T quota seats have to fulfill other conditional eligibility requirements of the institute concerned, as per the data to be received by OJEE from D.T.E.&T, Odisha.
(iv) **The Govt. of Odisha will not be responsible for any regulation of service where requirement for age exists. The student should take admission at his/her own risk, as regards to his/her stated age.**

4. Subjects for appearing at OJEE-2018: TABLE – 9

Sr No	Question paper name	Number of questions and time of examination
1	For BHMS/BAMS & B. Pharm courses	45 X 4 = 180 questions, 3 hours duration, 1 booklet. Candidates are advised to appear either **PCB** or **PCM** as per their choice. Total of 135 questions**. The candidate must attempt either PCB or PCM, **If a candidate has not attempted any question from Physics & Chemistry but attempted Biology or Mathematics, then he/she will be disqualified and will not be awarded any rank. Similarly, a candidate who has attempted question from Physics & Chemistry but not attempted either Biology or Mathematics will be disqualified and will not be awarded any rank.**
2	Lateral Entry to B Tech	120 questions, 2 hours duration (Engg Math, Engg Mechanics and Basic Electrical Engg, 40 each)
3	LE Pharma	60 questions from D Pharm course, 1 hour duration
4	LE BSc /+3Sc	60 questions, 1-hour duration, (Mathematics-30, Physics-15 and Chemistry-15 questions)
5	MCA	120 questions (Mathematics-60 and Computer Awareness-60), 2 hour examination duration
6	LE-MCA	120 questions (Mathematics-60 and Computer Awareness-60), 2 hour examination duration
7	MBA	120 questions, 2 hour duration Verbal reasoning-40, Analytical reasoning-40, General Knowledge-10, Comprehension-20, Comp and business fundamentals-10
8	Integrated MBA	60 questions, 1 hour duration Verbal reasoning-15, Analytical reasoning-15, General Knowledge-15, Comprehension-15.
9	M. Tech, M. Arch	90 questions, 2 hour duration: Branch questions-60, Engineering Mathematics-20 and Arithmetic & Logical reasoning-10
10	M Pharm	60 questions, 1 hour duration of B. Pharm course

**** If appearing in PCB – will get rank in BAMS/ BHMS and Pharmacy.**
**** If appearing in PCM – will get rank in Pharmacy.**

If a candidate appears Physics & Chemistry and Biology & Mathematics then best of Biology or Mathematics will be considered along with Physics & Chemistry for generation of rank in the merit list for Pharmacy only. However, it is mandatory to appear Physics & Chemistry and Biology to get a rank in BHMS/BAMS stream. (For both BAMS/BHMS and B. Pharm courses evaluation will be done for 135 questions only)

(a) Candidates seeking admission to B. Pharm. course shall have to appear Physics, Chemistry (45 questions in each subject) and Mathematics (45 questions) **or** Biology (45 questions). The duration of the examination is of 3 hours. Ranking will be done on the basis of marks obtained either in Physics, Chemistry and Mathematics or in Physics, Chemistry and Biology.

If a candidate chooses to appear in the entire subject Physics, Chemistry (45 in each subjects), Mathematics (45 questions) and Biology (45 questions), Ranking will be done

on the basis of marks obtained either in Physics, Chemistry and Mathematics or in Physics, Chemistry and Biology whichever is higher. (detail syllabus given in section 7.1, 7.1.1- Physics, 7.1.2- Chemistry. 7.1.3- Mathematics,7.1.4-Botany, 7.1.5- Zoology).

(b) All Diploma holders seeking admission to 2nd year Degree courses under Lateral Entry scheme shall have to appear entrance test in one paper as follows:

For Diploma in Engineering / Technology shall cover the syllabus of Mathematics, Basic Electrical Engineering, and Engineering Mechanics with 40 questions each (detail syllabus given in section 7.2). The duration of the examination for these subjects are as per Table-1.

For Pharmacy stream (LE Pharm), the paper shall cover the syllabus of part - I and part - II of Diploma in Pharmacy as per the Education Regulation - 1991 of Pharmacy Council of India with a total of 60 questions. The duration of the examination for these subjects are as per Table-1.

(c) All candidates having passed B.Sc. or +3 Sc. with Mathematics in +2 level, seeking admission to 2nd year Degree Engineering courses under Lateral Entry scheme shall have to appear the entrance examination in Physics - 15 questions of +3 Sc. standard, Chemistry – 15 questions of +3 Sc. standard, and Mathematics – 30 questions of +2 Sc. Standard, which will be held in one sitting of one hour duration as per Table – 1 (detail syllabus given in section 7.3).

(d) All candidates seeking admission to MCA course shall have to appear the entrance examination in Mathematics – 60 questions and Computer Awareness – 60 questions in one sitting of two hour duration as mentioned in Table – I (detail syllabus given in section 7.5).

(e) All candidates seeking admission to MCA course under Lateral Entry Scheme shall have to appear the entrance examination in Mathematics – 60 questions and Computer Awareness – 60 questions in one sitting of two hour duration as mentioned in Table - 1 (detail syllabus given in section 7.8).

(f) Candidates seeking admission to MBA course shall have to appear an Entrance test in verbal and analytical reasoning, general knowledge, comprehension and computer and business fundamentals (Total 120 questions as per section 7.6 in one sitting of two hours duration as mentioned in Table - 1).

(g) All candidates seeking admission to 1st year Master Degree courses in Engineering/ Technology (both Regular and Part-Time)/ Architecture shall have to appear the respective courses examination as per detail syllabus mentioned in brochure. There here will be a total of 90 questions consisting of 60 branch questions, 30 common questions (20-Engineering Mathematics and 10-Arithmetic & Logical reasoning) in one sitting of two hours time duration as per Table -1. For M Pharm course, examination will be of one-hour duration with 60 questions of B. Pharm course.

(h) All candidates seeking admission to 1st year Integrated MBA shall have to appear an Entrance test in verbal and analytical reasoning, general knowledge and comprehension (Total 60 questions as per section 7.7 in one sitting of one-hour duration as mentioned in Table - 1).

(i) Candidates seeking admission to Bachelor of Homoeopathic Medicine and Surgery (BHMS) and Bachelor of Ayurvedic Medicine and Surgery (BAMS) degree courses shall

have to appear in Physics, Chemistry (45 questions in each subject) and Biology (45 questions). The duration of the examination is 3 hours. Ranking will be done on the basis of marks obtained in Physics, Chemistry and Biology. (detail syllabus given in section 7.1).

(j) All the admission subject to the Government of India's Gazette Notification No. 44 dated 01.03.1995 issued by Ministry of Human Resource Development (Department of Education).

DISCIPLINES

The intake capacities of different colleges during the process of counselling, shall be considered based on the approval of AICTE/UGC/ Govt. of Odisha.

*** The tuition fees for different courses shall be communicated after due approval from the Government of Odisha, before the process of counselling for admission begins, through OJEE website and counselling brochure.**

All the seats mentioned in different tables are as approved by AICTE/ UGC/ GOVT. OF ODISHA for the academic year 2017-18, which should only be used as an indicator.

Counselling through OJEE-2018 will be done for admission to these courses subject to approval of Government of Odisha / BPUT / Other Universities of Odisha/ Central Council of Homoeopathy and Central Council of Indian Medicine / Other affiliating Councils.

Integrated MBA

Colleges offering Integrated MBA (5 years):

Admission to these courses will be subject to approval of Government of Odisha / BPUT / Other University of Odisha. The list of such colleges after due approval by Government of Odisha / BPUT / Other University of Odisha will be duly notified at the time of counselling.

BHMS / BAMS

Colleges offering Bachelor of Homoeopathic Medicine and Surgery (BHMS) and Bachelor of Ayurvedic Medicine and Surgery (BAMS) degree courses:

The details of the colleges offering these courses will be given during counseling after due approval from Central council of Homoeopathy or central council of Indian Medicine and Government of Odisha.

5. INSTRUCTIONS FOR COMPLETING OJEE-2018 APPLICATION FORM.

Before filling up the application form, the candidate should have scanned images of his/her **coloured photograph, full signature and left thumb impression** (left hand thumb for boys and girls). These scanned images are to be uploaded during the submission of application form.

The photograph should be without cap or goggles. Spectacles are allowed. Polaroid photos are not acceptable. Candidates with unclear photograph are liable to be rejected.

Method of Submission of Application Form:

- The candidate has to visit website www.ojee.nic.in.
- The candidate/parent has to read carefully the information brochure and instructions to fill the online Application Form for OJEE-2018.
- Then he/she has to go to the link 'Online Student Registration System and open "Odisha Joint Entrance Examination-2018".
- Once the candidate clicks "Odisha Joint Entrance Examination-2018" the process of filling up of Application Form for OJEE-2018, starts.
- Choose the correct Application Form among the six available options of A, B, C, D, E and F. You are allowed to register in one application form only. Based on your qualification and what you are interested to study, choose the correct entrance test and for that choose the correct form. Table-2 page-4,

(a) Online application process follows 5 steps as shown in figure below.

(b) Fill in the on-line application form and **note down** the registration number after submission. **REGISTRATION NUMBER IS THE USER ID FOR ANY FUTURE LOGIN TO THE OJEE WEBSITE. Password should be created for future login.**

(c) Once you have created your password and registration/application number is generated, you can login as many times for further process like filling of place of center of examination, educational qualifications, uploading images and fee payment. After filling the required data asked during online form fill-up, the candidate has to click the **Submit** button. At the bottom of the next page, two buttons "**Submit**" and "**reset**" are given.

(d) **Upload the images in the third step**. After that, go to payment button and pay the correct fees required based on the form chosen by you.
FOR FEE PAYMENT ALSO REGISTRATION NUMBER/APPLICATION NUMBER IS REQUIRED.

(e) The application fee can be remitted in the following ways:
Make payment of fee through Debit/Credit Card (VISA / MASTER / Maestro cards/ net banking). The candidate has to follow the instructions and submit the fee through bank gateway. Two options are available. SBI and BILLDESK gateway. Please choose any one.

OR

e-Challan mode for payment is possible only in State Bank of India payment gateway. After on line application form filled up, e-challan form option will be visible(Only available in SBI gateway). Candidate should print the challan. Then move to any branch of State Bank of India branch and pay the fee.

(f) After successful submission of fee, the candidate can take print out of **Confirmation Page**.

- **Please note that the applicant's name, parents name(s), and date of birth should exactly be the same as mentioned in the High School or his/her first Board/ Pre-University examination certificate. Any deviations, whenever discovered, may lead to cancellation of the applicant's candidature.**
- **The candidate's application form must be complete in all aspects before submitting the on-line application form. Incomplete application will summarily be rejected without any notice.**
- **Options filled by the candidate in the application form cannot be changed at a later stage under any circumstances.**

INSTRUCTIONS FOR COMPLETING OJEE-2018 APPLICATION FORM Table - 10	
Name of the Candidate	Candidate should enter his/her name, as given in High School Certificate of Board/University
Father's Name	The candidate should enter his/her father's name.
Mother's Name	The candidate should enter his/her mother's name.
Date of Birth	Select the date, month and year correctly**.**
Gender	Select Male or Female or Transgender
Parent Domicile	Select among the options , 1. Odisha State **(S)** 2. Outside state of Odisha (ZZ) 3. NRI-Non Resident Indian **Refer section – 2 for details.**
Category	Select the correct one you belong to**,** General, SC or ST
Person with Disability or Physically Challenged	Yes/No
Sub category	Select if you are Green card holder(GC) or belong to Ex – Serviceman (ES) or both
Annual family Income	Select if your parents annual income is above six lakhs or below six lakhs
Nationality	Indian
Opting for Woman quota	Yes/No
Datails of Applied Course	

Applying for the Course	Select the correct course for which you are interested to apply and the correct Application Form for that (A,B,C,D,E,F). You can select one choice from the dropdown menu.
Question paper you want to appear in entrance test	This is mainly required for candidates applying for M Tech. Which question they want to appear for doing M Tech based on their B Tech degree. Refer Table-14
Choice of Examination center	Select your preferences 1st, 2nd and 3rd. Refer Table-12
Qualifying examination passed or appeared	The candidate should enter the appropriate qualifying examination, he / she has passed or is appearing in 2018.
Year of passing/ appearing	Mention the year in which you have passed/completed the course. For the candidates who are appearing, it is 2018.
Course or Stream	Qualifying examination
Board/University of Qualifying Examination	(i) +2/Equivalent (ii) Diploma/Equivalent as approved by UGC/AICTE/SCTE&VT (iii) + 3 Science/Bachelor Degree/Equivalent as approved by UGC / AICTE. (iv) B.Tech/B.Arch/B.Pharm/Equivalent as approved by UGC / AICTE.
Percentage of Marks in Qualifying Examination	In this box, the candidate has to fill in the actual percentage of aggregate marks obtained in the qualifying examination, if the results are available in any other format he/she has to fill as in percentage. The candidate should enter only the integer part of the percentage of marks and ignore the decimal point. For example, 76.15, 76.56 or 76.99 should be taken as 76 only.
Roll number in qualifying examination	Write the Roll number in Qualifying examination.
Institute Name and Address	Write the Institute Name and Address
Address(communication detail)	Address for communication, Locality, etc please write in appropriate boxes.
E-mail	The candidate must give his/her active e-mail address where all the correspondence can be done.
Mobile phone Number (Without 0 & +91)	The candidate should mention his/her mobile number in the space provided, on which he/she can be contacted or a message can be sent to him/her. One-time password will be sent as and when required in this given number.
Phone Number including STD/ISD Code	
Photograph	

Photograph (Applications not complying with these instructions or with unclear photographs are liable to be rejected. Candidates may please note that if it is found that photograph uploaded is fabricated i.e. de-shaped or seems to be hand-made or computer made, the form of the candidate will be rejected and the same would be considered as using unfair practices and the candidate would accordingly be dealt with the rules of unfair means.)	It is expected that the candidate will have the same appearance at the time of examination and counselling as in the UPLOADED photograph. The photographs must be taken on or after 01.1.2018 indicating clearly the name of candidate as shown below.  Surya Rout
Full Signature (Black / Blue ballpoint pen only):	Scanned signature has to be up loaded.
Left Hand Thumb Impression	Put your left hand thumb impression on paper and scan it to upload.

To be uploaded during the submission of online application form

File	Format	File Size	Dimension
Photograph of Candidate	**JPEG/JPG format**	**5KB to 99KB**	**3.5cm x 4.5cm**
Signature of Candidate	**JPEG/JPG format**	**5KB to 50KB**	**3.5cm x 1.5cm**
Thumb impression of Candidate	**JPEG/JPG format**	**5KB to 50KB**	**3.5cm x 1.5cm**

Declaration by the Candidate	The candidate must submit a declaration to the effect that the filled-in entries in the online application process of OJEE-2018 are true to his/her knowledge and belief.

Note: Facility of submission of application form, payment of fee and printing of the computer generated **Confirmation Page** would be **ceased at 05.00 p.m.** on the last day of online-application form fill-up. Hence, candidates are required to complete the process within the prescribed duration.

ADMIT CARD

Admit cards will be uploaded at OJEE website (www.ojee.nic.in / www.odishajee.com) from 20th - 25th April, 2018. The candidate has to download two copies of the admit card from the OJEE website which must be endorsed by the Invigilator of the examination centre for allowing the candidate to appear the exam.

If an applicant fails to take print out of Admit Card from the OJEE-2018 website for the examination by April 25, 2018, then he/she must contact OJEE-2018 office immediately before 30th April, 2018.

If the candidate desires to change any information printed on the Admit card, he/she has to contact OJEE-2018 office immediately after taking the print out of the Admit Card before 30th April, 2018.

A photograph identical to the one pasted on the confirmation slip must be kept with the

candidate during the Examination.
One copy of the admit card duly signed by the invigilator must be submitted at the examination hall and other should be retained by the candidate. However the submitted admit card may be examined at a later stage to validate the authenticity.
The candidate has to carefully keep the Admit card duly signed by invigilator with him/her, until he/she takes final admission in the University /College/Institution.
No complaints will be entertained for non-downloading of admit cards after Odisha Joint Entrance Examination - 2018 is over.

6. Rules for Entrance Examination:

i) The joint Entrance Examination will be held as per the Scheduled date and time mentioned in Table-1.
ii) The medium of examination is English.
iii) The examination hall shall be opened to the candidates **half an hour before** the commencement of the examination. No candidates will be allowed to enter in the examination hall without a valid downloaded admit card. The downloaded admit card should be endorsed by the Invigilator of the examination centre.
iv) Candidates are required to take their respective seats at least **15 minutes** before the commencement of the examination, strictly according to the sitting chart notified earlier by the Centre Superintendent.
v) In no case, a candidate is allowed to enter the examination hall after the examination starts.
vi) Attendance will be taken by the invigilators on the attendance sheets in which the candidates shall have to put their full signature against their corresponding roll numbers. Also, the candidates have to give his/her left-hand thumb Impression against their corresponding roll numbers in the space provided. During Examination, the candidates have to enter their Registration Number, answer sheet number, and question series number against their roll number in the roll sheet provided.
vii) No candidate will be allowed to leave the hall without surrendering his/her answer sheet(OMR) until the examination is over. Ordinarily, no candidate is allowed to leave the hall temporarily during the examination.
viii) Candidates suffering from any disease and their subsequent presence in the examination, if becomes undesirable in the interest of other candidates, then he/she will not ordinarily be allowed to enter the examination hall. Also, the candidates are not allowed to have a substitute writer.
ix) **Candidates should bring their own black /blue ball point pen, for writing and blackening the circle in the answer OMR.** Books, printed papers (other than their Admit Cards), Manuscripts or electronic gadgets such as mobile phones, cell phones and electronic diary, calculators etc, must not be taken into the examination hall. In case these prohibited materials are found, the candidate will be debarred from appearing the examination and asked to leave the Hall.
x) The candidates are advised to inspect the question booklet and answer sheet about its completeness before attempting to answer. In case page/ pages are found missing, torn or not in order, the candidates should immediately report to the invigilator and get a fresh question answer book issued after surrendering the defective one.
xi) Candidates are not permitted to talk to each other in the examination hall. No one should receive any help from or assist another in any manner. Malpractice of any form detected during or after the examination would result not only in cancellation of the candidature but also it is liable to more severe punishment as deemed fit by the OJEE committee.

xii) A candidate should write his/her roll number as assigned in his/her admit card and sign in the place provided in the question booklet and answer sheet. He/ she should on no account write anywhere in the answer sheet his/her own name, roll number or anything else that is not strictly connected with the answers to the question given. Writing of any such thing or false roll number is a serious offence. The answer sheet without the candidate's roll number clearly written in space provided will not be examined.

xiii) A candidate willing to say anything should stand up in his/her seat and remain standing until the invigilator attends to him/her. He/she should on no account leave the seat or make any noise to draw the invigilator's attention.

xiv) The Centre Superintendent is empowered to take necessary decisions on any other matter, which may not be provided in these rules.

6.1 Examination Procedure / Valuation methodology:

There will be multiple choice type questions. The number of questions will be sixty (60) per each hour of examination. Each question shall have four answers (including one correct answer) and the examinee shall have to blacken only the appropriate circle/oval (which he/she considers most correct) in black / blue ball point pen. Each correct answer shall fetch four marks. Each unattempted question will fetch zero. One mark will be deducted for wrong answer. If more than one circles are darkened for one question, it will be treated as an incorrect answer. Blank answer OMR sheet without being darkened in at least any one of the answer circles will summarily be rejected. No rank will be awarded to such applicants submitting blank answer OMR sheet.

For BAMS/ BHMS/ BPHARM examination in addition to the above mention condition subject wise attempt will also be considered. (**As mentioned in the sl no.1 of Table-9**)

The Answer Sheet (OMR) is divided into Part-A and Part-B. Part – A of the original sheet contains the details such as Roll No., Question Booklet number, Name and signature of the candidate, Name of the centre, Signature of the Invigilator.

The Part – B of the answer sheet is meant for recording the answers by darkening the appropriate circle(s) by the candidate.

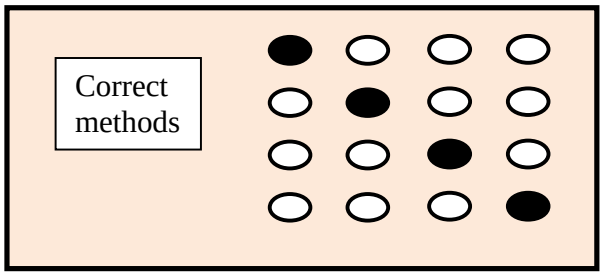
6.2 Issue of Marks

Candidates desirous of knowing subject-wise marks secured by them should make a written request enclosing a demand draft of Rs. 400/- (Rupees four hundred only) in favour of "OJEE-2018" drawn on any Nationalised Bank at Bhubaneswar, so as to reach the OJEE office within 10 days of the publication of result.

6.3 Re-totaling and Review:

The OJEE answer sheets are all machine evaluated with adequate care taken to make them error free. Based on the evaluation a merit list is prepared. There is no award of class. Mark sheets are not issued in general. A candidate, may however request for re-totaling / re-addition with a fee of Rs.500/- (Rupees five hundred only) in the shape of demand draft in favour of OJEE-2018 drawn on any nationalised bank in Bhubaneswar so as to reach the OJEE office within seven calendar days of the publication of OJEE – 2018 result. Re evaluation of answer script is not permissible. A committee will manually verify the results and its decision will be final and binding on the applicant. The candidates are allowed to take question papers after the examination is over.

6.4 Correct ways of Marking:



Each question is followed by answers which have numbers A B C and D. Then by using black / blue ballpoint pen darken the circle bearing the correct answer in the answer sheet against the corresponding number of the question. The correct method of answering is illustrated above.

6.5 Sample Questions

1. If we dip capillary tubes of different radii r in water and water rises to different height h in them, then.
   (A) h/2 = constant
   (B) h/r = constant
   (C) hr = constant
   (D) hr^2 = constant
2. The drug taxol is obtained from the bark of
   (A) Pacific Yew
   (B) Eucalyptus
   (C) Cinnamon
   (D) Cinchona
3. The number of different types of F-S-F bond angles in SF4 are
   (A) two
   (B) one
   (C) three
   (D) four
4. The integral $\int_0^2 (1-x)\,dx$ equals:
   (A) 1
   (B) 0
   (C) 3
   (D) 2

7 SYLLABI

7.1 [PHARMACY/Bachelor of Homoeopathic Medicine and Surgery (BHMS) / Bachelor of Ayurvedic Medicine and Surgery (BAMS) /

The Syllabi given hereunder for OJEE-2018 are only illustrative and not exhaustive. The syllabi are in line with courses of studies in Science stream for the Higher Secondary Examination 2018 of CHSE, ODISHA. Since OJEE is conducted with a view to preparing merit lists for admission the decision of the OJEE Committee as regards the scope of the syllabus is FINAL.

7.1.1 PHYSICS (45 Questions)

Measurements and Motion: Fundamental and derived physical quantities, Concept of Mass, Length and Time, Measurement of different quantities in SI Units. Errors in measurement, Combination of errors, Dimension of physical quantities, Dimension analysis of physical quantities- Conversion of physical quantities from one system of units to another. Concepts of vectors and scalars, Components of vectors, Unit vectors, Addition, Subtraction and Multiplication (vector & scalar) of vectors. Lami's Theorem. Equations of linear motion for uniformly accelerated bodies (by calculus method). Newton's laws of motion, Conservation of energy and momentum, Collision in one dimension, Work, Power, Energy, Sliding and Rolling friction. Circular Motion-radial and tangential acceleration, Centripetal force, Banking of tracks, Kepler's laws of Planetary Motion (Statements only). Newton's law of Gravitation. Earth satellites- Orbital and Escape velocities. Moment of Inertia-definition and expression of Moment of Inertia for rod, ring and circular disc (about an axis passing through the centre and perpendicular to the plane of the body). Angular momentum and Conservation of angular momentum, Projectile motion.

Heat & Thermodynamics: Concept of Temperature, Scales of Temperature (Celsius, Fahrenheit, Kelvin), Definition of mechanical equivalent of heat (J), Thermal energy, Heat Capacity, Specific heat of solids and liquids, Latent heat, Heat transfer-Thermal conductivity of solids, Steady state, Kirchhoff's laws of heat radiation, Stefan's law of heat radiation, Newton's Law of cooling.

Kinetic Theory of gases- Pressure of an ideal gas, Kinetic interpretation of temperature, Degrees of freedom, Law of equipartition of energy.

First Law of Thermodynamics, Specific heats of a gaseous system, Relation between Cp and Cv, Work done during Isothermal and Adiabatic processes, Carnot's conceptual heat engine and its efficiency, Second law of thermodynamics, Absolute Scale of Temperature.

Characteristics of Materials: Elastic and Plastic behaviors of solids, Elastic limit, Young's modulus, Shear and Bulk modulus, Poission's ratio.

Liquids : Surface Tension and Surface Energy, Excess pressure across a spherical liquid surface, Expression for capillary rise. Streamlined and turbulent flow, Bernoulli's equation and its application, Viscosity- coefficient of viscosity, Stokes law.

Electricity & Magnetism : Electric field intensity and Potential at a point in an electric field, Relation between them, Capacitance- dielectric constant and its effect on capacitance. Series and parallel grouping of capacitances, Energy stored in a charged capacitor, Ohm's law, Variation of resistance of metallic conductors with temperature, Kirchhoff's laws and its application to a balanced Wheatstone bridge. Combination of Cells and resistors- series and parallel. Heating effect of electric current and Joule's law, Electric power and electric energy.

Magnetic Permeability and Susceptibility of materials, Properties of dia, para and ferro magnetic materials. Biot–Savart's law- Magnetic Field due to a circular coil at its centre. Moving coil galvanometer (dead beat only). Force on a moving charge in a uniform magnetic field. Faraday's laws of electromagnetic induction, Lenz's law, emf induced in a rotating coil in a magnetic field. Alternating current- Self and Mutual induction, Phase relation between Voltage and Current in pure resistive, capacitive and inductive circuits. Principle of transformer, elementary idea on electromagnetic waves.

Wave motion: Simple harmonic motion, wave propagation, characteristics of wave motion, longitudinal and transverse waves, superposition of waves:- Stationary waves, Beats. Open and

closed organ pipes, velocity of sound in air- effect of pressure, temperature and humidity on it. Doppler Effect, laws of transverse vibration of string (Statement only).

Optics: Reflection and refraction at curved surfaces. Spherical mirror and thin lens formula and refraction through prism. Total internal reflection, Dispersion, Huygens principle (statement only), Young's double slit experiment.

Electronic Devices: Thermionic emission, Statement of Richardson's equation and Child's Law, Vacuum triode- construction and characteristics, relationship between valve constants, Descriptive idea of energy bands:- conductors, insulators and semi conductors, Intrinsic and extrinsic semiconductors, p-type and n-type semiconductors. PN junction, PNP and NPN transistor, PN Junction as a rectifier.

Relativity and Nuclear Physics: Postulates of special theory of relativity, variation of mass with velocity (Statement only), mass energy equivalence relation (Statement only).Atomic nucleus, nuclear forces, nuclear mass, binding energy, mass defect, artificial radio activity, radio isotopes and their uses. Nuclear fission, energy released during nuclear fission, chain reaction, controlled chain reaction, nuclear fusion, energy generation in the Sun, radiation hazards.

7.1.2 CHEMISTRY(45 Questions)

General behaviour of matter:

Solid State : Characteristics, Classification, Solubility, Melting points, Crystal structure of simple ionic compounds. Radius ratio and coordination number: density calculation, lattice points and voids.

Liquid State : Characteristics, Boiling and Freezing points, Viscosity, Surface tension, Osmosis, Raoult's law, Lowering of vapour pressure, Depression of freezing points, Elevation of boiling points, Anomalous molecular masses; Association and dissociation.

Solutions : Types of solutions, concentration and different ways of expressing concentration (percentage, ppm, strength, normality, molarity, molality and formality); Interrelations

Gaseous State : Gas laws, Kinetic model of gases, ideal gas equation, Van der waals' equation, compressibility factor, Average, root mean square and most probable velocities.

Atoms and molecules : Symbols, Valency, Atomic mass, Molecular mass, Avogadro's law, Mole concept, Determination of equivalent mass of zinc and copper, Atomic mass by Dulong Petit's method and Molecular mass by Victor Mayor's method. Stoichiometry and calculations based on stoichiometry.

Structure of atoms and molecules : Fundamentals particles and their properties, Rutherford and Bohr models of atom, Hydrogen spectrum, Energy levels, Shells and Sub-shells, s,p and d orbitals, Quantum numbers, Pauli's exclusion principle, Aufbau-principle, Hund's rule, Electronic configuration of atoms, Extra stability of half filled and filled subshells.

Chemical bonds : Ionic, Covalent, Coordinate and Hydrogen bond, Hybridisation- sp, sp^2, sp^3, dsp^2,dsp^3, d^2sp^3 shapes of molecules, VSEPR theory, Molecular Orbital Theory of simple diatomic molecules.

Periodic classification : Periodic table and periodic laws, s, p, d and f block elements, Periodicity in properties such as atomic and ionic radii, ionization enthalpy, electron gain enthalpy, electronegativity and oxidation states.

Chemical energetics, equilibrium and kinetics:

Energetics: Internal energy, Enthalpy, Heats of reactions, Bond energy, Hess's law, Idea on enthalpy, entropy and free energy, spontaneity and conditions of equilibrium.

Equilibria : Reversible reaction, Law of mass action, Equilibrium constant Kp, Kc, Kx and their relation. Its application to ammonia synthesis and dissociation of HI, Decomposition and thermal dissociation. Theory of acids and bases, Dissociation of weak acids and bases, Ostwald's dilution law, Ionic product of water, Common ion effect, Solubility product and their applications, pH, Hydrolysis of salts, Buffer solutions.

Kinetics : Rate of reaction, Factors affecting the rate, Rate constant, Order and Molecularity of a reaction, Simple zero and First order reaction, Half life period, Arrehnious equation and Activation

Energy, Collision theory (qualitative idea only)

Types of chemical reaction : Neutralisation and oxidation– Reduction reaction, Equivalent mass, Oxidation number, Balancing chemical reactions, by Ion electron method, Reactions involving $KMnO_4$, $K_2Cr_2O_7$, $Na_2S_2O_3$, oxalate etc.

Non-metals : Group study, Preparation, Properties and uses of elements of compounds of hydrogen (ortho and para hydrogen, isotopes of hydrogen, D_2O and H_2O_2). Allotropes of carbon, Nitrogen family (NH_3 and HNO_3). Oxygen and sulphur family (O_2, H_2S, SO_2, H_2SO_4 and its manufacturer by contact process), Halogens, Hydrogen halides and Interhalogen compounds, Zero group elements (properties & uses).

Electrochemistry : Electrolysis, Electrical Conductivity (Specific, Equivalent and molar), Faraday's laws, Kohlvauseh law, Galvanic cell, Cell reaction, Nernst equation, Standard electrode potential, Electro chemical series e.m.f. of simple cells. Fuel cells.

Nuclear chemistry : Radio activity, Rate of disintegration, Group displacement law, Half-life and average life period, Stability of nuclear (N/P ratio) Carbon dating, Nuclear Fission and Fusion. Induced radioactivity by protons, neutrons and alpha particles.

Metals and metallurgy : Occurrence of metal, Minerals and ores, flux, slag calcination, roasting, smelting (by reduction of oxides) and refining. General trends in the characteristics, principles of extraction of Na, Mg, Ca, Al, Cu and Fe and their oxides, hydroxides, chlorides, nitrates and sulfates.

Organic chemistry:

Introductory : Functional Groups and organic radicals, Nomenclature by IUPAC system (substitutive method) , Isomerism (Structural and stereoisomenism – optical and geometrical) EZ & RS nomenclature, Electron mobility – Inductive effect, Resonance, Electromeric effect and Hyperconjugation; their applications. Types of organic reactions – addition, substitution, elimination reactions. Idea of electrophiles and nuclephiles; Reaction intermediates – idea of carbocations, carbanion & free radicals; their stabilities.

Aliphatic compounds: Methods of preparation and properties of alkanes, alkenes, alkynes (acidity of terminal alkynes), haloalkanes, alcohols, aldehydes, ketones, carboxylic acids, acid derivatives (acid chlorides, esters and amides), nitroalkanes and amines.

Aromatic compounds : Aromaticity (Huckel's rule), Aromatic hydrocarbon (Preparation and reactions – Substitution, addition, ozonolysis) Phenols (Preparation and reactions) : Aldehydes (Preparations and reactions); Acids (Preparation and reactions). Amines (Preparation and reactions); Diazonium salts (synthetic application).

Biochemistry : Biological importance of organic compounds such as carbohydrates, amino acids, proteins, lipids and nucleic acids (only by metabolic process).

Chemistry in the service of mankind : General idea on fertilizers, pesticides, polymers (nylon, terylene, neoprene, buna-S, PVC, Teflon &bakelite). Medicine-analgesic, antipyretic, antibiotic and antiseptic (structure and preparation not required).

Environmental chemistry: Source, effect and control measures of air and water pollution.

7.1.3 MATHEMATICS(45 Questions)

Logic : Statement, Negation, Implication, Converse, Contrapositive, Conjuction, Disjunction, Truth Table. Different methods of proof, Principle of Mathematical induction.

Algebra of sets : Set operation, Union, Intersection, Difference, Symmetric difference, Complement, Venn diagram, Cartesian product of sets, Relation and functions, Equivalence relation, Kinds of functions and their domain and range, Composite function, Inverse of a function.

Number system : Real numbers (algebraic and order properties, rational and irrational numbers), Absolute value, Triangle inequality, AM ≥ GM, Inequalities(simple cases), Complex numbers, Algebra of complex numbers, Conjugate and square root of a complex number, Cube roots of unity, De Moivre's theorem with simple application. Permutations and Combinations - simple applications, Binomial theorem for positive integral index, Identities involving binomial co-efficients.

Determinants and matrices : Determinants of third order, Minors and cofactors, Properties of

determinants, Matrices upto third order, Types of matrices, algebra of matrix, adjoint and inverse of matrix, Application of determinants and matrices to the solution of linear equations (in three unknowns).

Trigonometry : Compound angles, Multiple and Submultiple angles, Solution of trigonometric equations, Properties of triangles, Inverse circular function, Sum and product of sine and cosine functions.

Co-ordinate geometry of two dimensions : Straight lines, Pairs of straight lines, Circles, Equations of tangents and normals to a circle, Equations of parabola, Ellipse and hyperbola in simple forms, their tangents and normals. Condition of tangency. Rectangular and Conjugate hyperbolas.

Coordinate geometry of three dimensions : Distance and Division formulae, Direction cosines and direction ratios, Projection, Angle between two planes, Angle between a line and a plane. Distance of a point from a line and a plane. Equation of a sphere – general equation, Equation of sphere when end points of diameter are given.

Quadratic polynomials : Roots of quadratic polynomial, Factorisation of quadratic polynomials, Maximum and minimum values of quadratic polynomials for all real values of the variable, sign of the quadratic polynomial for all real values of the variable, Solution of quadratic inequations.

Sequence and Series : Definition, Infinite geometric series, Arithmetico-geometric series, Exponential and Logarithmic series.

Vectors : Fundamentals, Dot and cross product of two vectors, Scalar triple product and vector triple product, Simple application of different products.

Differential calculus: Concept of limit, Continuity of functions, Derivative of standard Algebraic and Transcendental functions, Derivative of composite functions, functions in parametric form, Implicit differentiation, Successive differentiation (simple cases), Leibnitz theorem, Partial differentiation, Application of Euler's theorem, Derivative as a rate measure, Increasing and decreasing functions, Maxima and Minima, Indeterminate forms, Geometrical application of derivatives such as finding tangents and normals to plane curves.

Integral calculus: Standard methods of integration (substitution, by parts, by partial fraction, etc), Integration of rational, irrational functions and trigonometric functions. Definite integrals and properties of definite integrals, Areas under plane curves.

Differential equations : Definition, order, degree of a differential equation, General and particular solution of a differential equation, Formation of a differential equation, Solution of a differential equations by method of separation of variables, Homogeneous differential equations of first order

and first degree, Linear differential equations of the form $dy/dx + p(x)y = q(x)$, Solutions of differential equations of the form $d^2y/dx^2 = f(x)$

Probability and statistics: Average (mean, median and mode). Dispersion (standard deviation and variance), Definition of probability, Mutually exclusive events, Independent events, Compound events, Conditional probability, Addition theorem.

Number system : Decimal, binary, octal, hexadecimal numbers and their conversion.

7.1.4 BIOLOGY (45 Questions)

BOTANY

Diversity of plant life: Five kingdom system of classification with their merits and demerits. Structure, reproduction and economic importance of Bacteria and Viruses. Life history of representative members of different plant groups: *Spirogyra, Saccharomyces, Funaria, Dryopteris, Cycas*.

Morphology of angiosperms : Normal and Modified roots, stems and leaves, Inflorescence, Flower and its parts, Pollination, Fertilization, Fruits.

Taxonomy of flowering plants : Principles and units of classification (species, genus, family) Binomial nomenclature,Studies of important families: Malvaceae, Fabaceae, Asteraceae, Brassicaceae, Liliaceae.

Cell: Structure and function Cell Theory, Totipotency, Prokaryotic and Eukaryotic cell, Structure of typical plant cell: Cell Wall, Cell Membrane, Cell Organelles (Plastids, mitochondria,

endoplasmic reticulum, ribosomes, Golgibodies, Lysosomes, Peroxisomes). Important compounds of cell: Structure and functions of water, aminoacids, proteins, carbohydrates and fats.Properties and chemical nature of enzymes. Mode of enzyme action.

Continuity of life: Cell division: Mitosis, Meiosis and their significance, Mendel's laws of inheritance: Monohybrid and Dihybrid cross, Incomplete dominance, Multipleallelism.

Genetic material: Structure of nucleic acids. Evidences to establish 'DNA as genetic material' (Griffith and Avery's experiment). Concept of gene, Transcription and translation in Prokaryotes. Regulation of gene expression – induction and repression.

Recombinant DNA and Tissue culture technique: Recombinant DNA techniques and its significance. Gene bank, Production of Transgenic plants with examples, Tissue culture technique.

Complexities of plant life: Meristematic and tissues, Internal structures of dicot and monocot stems, roots and Isobilateral and Dorsiventral leaves, Normal secondary growth in dicot stem.

Processes in plants : Diffusion, Osmosis, Plasmolysis, Imbibition, Absorption and transport of water and minerals, Transpiration and its significance, Life energy and ATP, Respiration and fermentation, Photosynthesis, Biological nitrogen fixation. Growth and development: Growth regulators – Physiological effects of Auxins, Gibberellin, Cytokinin, Ethylene and Abscissic acid. Elementary idea of photoperiodism and vernalisation. Plant movements (with special reference to geotropism and phototropism).

Ecology : Man and environment, Ecological adaptations (Hydrophytes and Xerophytes), plant succession (Hydrosere, Xeresere), Structure and function of Ecosystem.

Economic Botany : Economic importance of plants like Rice, Gram (green gram) Jute, Groundnut, Mango, Tulsi.

Common plant diseases : Symptoms and control measure of following plant diseases: Powdery mildew of peas, Bacterial blight of rice, Mosaic disease of Papaya.

ZOOLOGY

Animal world : Definition, Scope and branches of Zoology. Characteristics of living organisms (elementary idea of metabolism, transfer of energy at molecular level, open and closed system, homeostasis, growth & reproduction, adaptation, survival and death).

Classification (Artificial, Natural, Phylogenetic) Two-Kingdoms & Five-Kingdoms – their merits and demerits. Species concept, binomial nomenclature, scientific names of some common animals: Fishes – Rohi, Bhakura, Mirikali, Kau. Amphibians – Frog, Toad. Reptiles – House Lizard, Garden Lizard, Crocodile, Turtle, Cobra, Krait. Birds – Fowl, Peacock, Pigeon, Crow. Mammals – Tiger, Elephant, Cat, Dog, Rabbit and Man.

Diversity of Animal life :

Introductory Concept:

(1) Concept of body plan, symmetry, coelom, germ layers, homeothermic and poikilothermic animals.

(2) Salient features of Non-chordate phyla with examples, General characters of chordates upto class levels with examples.

Animal Morphology: Morphology of Paramecium, Sycon, Hydra Planaria, Ascaris, Earthworm, Cockroach, Pila, Starfish, Amphioxus, Bony fish, Cartilaginous fish, Frog, Calotes, Pigeon & Rabbit.

Animal Histology: Types – Epithelial, Connective (details about blood and lymph), Muscular & Nervous – Organs and Organ Systems.

Animal Locomotion: Joints and Muscles in movement of man, mechanism of muscle contraction, Disorders – Arthritis and Osteoporosis.

Animal Physiology: Animal Nutrition – Intracellular and Intercellular digestion, Digestive system of cockroach, Digestive system and process in human (ingestion, digestion, absorption, assimilation and egestion) role of hormones in digestion, malnutrition and under-nutrition.

Animal Respiration: Types of respiration (cutaneous, tvacheal, branchial and pulmonary), Structure and function of respiratory system in man: Respiratory organs, mechanism of pulmonary respiration, pulmonary exchange of gas, transport of gases. Common respiratory

disorders – prevention and cure.

Animal Circulation: Open circulation, closed circulatory system in man, Structure of Heart, Cardiac Cycle, Arteries, Veins, Capillaries, Portal System, Coronary Circulation, Blood Pressure, Respiratory pigments, Blood groups (A B O & Rh), Blood Coagulation, Blood related disorder – Hypertension, Atherosclerosis & Arteriosclerosis, Pace maker.

Animal Excretion: Types of Excretion (Ammonotelism, ureotelism and uricotelism), Excretion in cockroach, Excretion in human – Structure and function of kidney, Role of liver in excretion: Ornithine Cycle. Disorders related to excretion – kidney failure, dialysis, kidney transplantation, Role of ADH.

Control and Co-ordination: Nervous system of cockroach, Nervous system of human – central, peripheral & autonomic, transmission of nerve impulse, reflex action, sense organs (Eye and Ear).

Human Endocrine System: Endocrine glands (Name, Location, Hormones and their functions), hormones as messengers and regulators, feed back controls, hormonal disorders.

Genetics: Mendelism, linkage and crossing over, recombination, sex chromosomes, sex determination, sex linked inheritance, chromosomal aberrations (structural).

Animal Reproduction and Human Development: Types of reproduction – Asexual reproduction (Binary fission, multiple fission, budding), Sexual reproduction in human – male and female reproductive system, menstrual cycle.

Human development: Gametogenesis (spermatogenesis, oogenesis), fertilization, development upto 3 germ layers, fate of germ layers, extraembryonic membranes, structure and function of placenta.

Cellular growth: Hormonal control of growth, Types of regeneration and mechanism (in Planaria), ageing (Senescene).

Biology in Human welfare (Elementary idea): Common problems of adolescence (drugs, alcohols and tobacco), social and moral implications, mental and addictive disorders, risk of indiscriminate use of drugs and antibiotics.

Biotechnology: Animal tissue culture, bio-war, biopiracy, cloning and transgenic animals. Elementary idea - organ transplantations, immunity and immune disorders, vaccines and vaccination (recent advances).

Modern techniques in diseases diagnosis: Basic methods of estimation of haemoglobin, sugar and urea in blood, ELISA and WIDAL tests.

Basic principles of ECG, EEG, CT SCAN, MRI, Ultra Sound and Endoscopy, DNA Finger Printing.

Human Diseases: Types, Causes, diagnosis, prevention and treatments – AIDS, STD, Cancer and Diabetes.

7.2. SYLLABI FOR LATERAL ENTRY STREAM (DIPLOMA)

The syllabi given here for JEE-2018 (Lateral entry diploma holders in Engineering / Technology) is only illustrative and not exhaustive. Since JEE-2018is conducted with a view to prepare a relative merit list only for admission, the decision of the JEE-2018 committee as regards to the scope of syllabi is final. This paper is common to all the discipline except Pharmacy.

(A) BASIC ELECTRICAL ENGINEERING (40 Questions)

Fundamentals: Concept of Source and Load, Ohm's Law, Concept of resistance, Series and Parallel DC circuits, Kirchhoff's Laws, Faraday's Laws of Electromagnetic Induction, Fleming's Left Hand Rule and Right Hand Rule.

AC Theory: Generation of alternating emf, Difference between DC and AC, Amplitude, Cycle, Time period, Frequency, Phase, Phase Angle, Phase Difference, Instantaneous value, RMS value, Average value, Amplitude factor and Form factor, Phasor diagram representation of AC values, AC through pure resistance, inductance and capacitance, AC through RL, RC and RLC circuits, Impedance Triangle and Power Triangle.

Generation of Electrical Power: Principle of operation of different electrical power generating plants such as Thermal, Hydro-Electric and Nuclear power plants with their block diagrams,

Concept of single phase Transformer and its application.

Conversion of Electrical Energy:DC machine and its main parts. DC generators: Principle of operation and emf equation. DC motors: Principle of operation, classification, torque equation and applied voltage V-back emf E_b relation. Starters used for DC motors. Use of different types of DC generators and motors. Principle of operation of three-phase and single-phase induction motors. Types and use of three-phase and single-phase induction motors.

Wiring and Power billing: Types of wiring and their comparison, Layout of household wiring (single line diagram), Basic protective devices in household wiring, Calculation of Power used in small electrical appliances and installation, Calculation of Energy consumption in small electrical installations, Earthing installation, types (Pipe and Plate earthing) and uses.

Measuring Instruments: Introduction to measuring instruments, Expression for Torque in measuring instruments, Use of PMMC and MI type of instruments(Ammeters and Voltmeters). Connection diagram of AC/DC ammeter, voltmeter, energy meter and wattmeter for single phase electrical system only.

Storage Devices: Introduction to storage devices and their types. Charging, Discharging and Maintenance of Lead Acid battery.

(B) MATHEMATICS(40 Questions)

Algebra: Definition of complex number, Conjugate of complex number, Modulus and amplitude of a complex number. Algebra of complex numbers. Cube root of unity and their properties, De'Moivre's theorem and its application, Permutation, Combination, Binomial Theorem for any rational index, Relationship between Binomial coefficients.

Determinant and Matrices: Properties of determinants. Crammer's Rule, Types of matrices, Transpose, Adjoint and inverse of a matrix upto third order. Solution of simultaneous equation by matrix method.

Trigonometry: Trigonometrical ratios, multiple and submultiple angles, solution of trigonometrical equations, Properties of triangles, Inverse circular function and its properties.

Analytical Geometry: Distance formula, Division formula, Area of trapezium, Area of Triangle, Equation of straight lines in different form, Distance of a point from a line, Equation of circle in different forms.

Vector Algebra: Definition, Algebra of vectors, Position Vector, Resolution of vector into components, Scalar and Vector product of two vectors and their application, scalar triple product and its application.

Calculus: Limit and continuity of function, Derivative of standard functions, Derivative of composite functions. Differentiation of implicit functions, Differentiation of function in parametric form, Differentiation using logarithm, Differentiation of a function with respect to another function, Successive differentiation in simple cases, Maxima, minima and point of inflection, Partial derivative, Euler's theorem for homogeneous functions.

Standard methods of integration (by parts, by substitution, by partial fraction etc.). Definite integrals and their properties. Area bounded by curves.

Ordinary Differential Equation: Order and degree of differential equation, formation of differential equation. Solution of first order and first degree differential equation.

Coordinate Geometry of three Dimension: Distance and Division formulae, Direction cosine and direction ratio of a line, condition of perpendicularity and parallelism, Equation of plane under different conditions, angle between two planes, Distance of a point from a plane, General equation of a sphere, Equation of a sphere with given diameter.

Probability and Statistics: Measures of central tendency (Mean, Median, Mode), Measures of dispersion (Mean Deviation, Standard Deviation and Variance), Definition of probability, equally likely, Mutually exclusive and independent events. Addition theorem of probability.

(C) ENGINEERING MECHANICS (40 Questions)

Force and Moments

Force and its effects, Classification of forces, Principle of Transmissibility, Principle of

Superposition, Action and Reaction, Tension and Compression, Free Body Diagram.
Co-planer concurrent forces: Resultant of forces, Equilibrium of forces and equilibrant, Parallelogram law of forces and determination of the resultant of two concurrent forces, Components and resolve parts of a force, Principle of resolution of a force and any number of forces, Analytical determination of resultant of number of concurrent forces, Lami's Theorem, Triangle law of forces and polygon law of forces. Coplanar non-concurrent forces: Moment of a force, Statement and prove of Varignon's theorem, Conditions of equilibrium, Determination of resultant of two like and unlike parallel forces, Couple and its moment, Various types of supports with their reactions, Simple problems on coplanar non concurrent forces with the help of free body diagram.

Center of Gravity and Moment of Inertia

Centroid and Center of Gravity(C.G.), Expression for C.G. of straight line (uniform rod),triangle, rectangle, circular,semicircular lamina. Expression for C.G. of solids like hemisphere and cone (Expression only). Different types of engineering sections (symmetrical and non-symmetrical built up sections). Location of the C.G. of the above sections. Definition Moment of Inertia(M.I.) of plain figure as second moment of area. Perpendicular axes theorem, parallel axis theorem. M.I. of plane lamina like rectangle, triangle, circle, and semicircle (from 1^{st} principle) M.I.of different engineering sections.

Friction

Frictional force, angle of friction, limiting friction, co-efficient of friction, Laws of Static Friction. Simple problems on ladder, Body on Inclined planes with applied force parallel to the plane and horizontal, Screw Jack.

Gear Drive

Various types of gears, Gear terminology, Velocity ratio and expression for the velocity ratio for simple gears. Types of gear trains (simple and compound gear trains)

Simple Lifting Machine

Definition of a machine. Simple and compound lifting machines. Mechanical Advantage (MA), Velocity Ratio (VR) and efficiency of lifting machine. Relationship between MA, VR and efficiency. Laws of machine, Friction in machines, Friction in terms of load and friction in terms of effort. Reversible machine and self-locking machine. Condition of reversibility of a machine. Velocity Ratio and efficiency of 1^{st} , 2^{nd} & 3^{rd} system of pulleys; Simple and differential wheel & axle, Screw jack.

Simple Stress and Strain

Stress, strain, Tensile, compressive and shear types of stress and strain, Hooke's Law of elasticity, Poisson's ratio, Elastic limit, Elastics Constants (E, G & K) relationship between E,G &K, Stress-strain curve and salient points on stress-strain curve for ductile material. Simple problems on stress and strain in case of material with uniform cross section.

Dynamics

Kinematics and kinetics of a particle, Principle of Dynamics:-Newton's laws of motion, D'Alembert's Principle and its application. Motion of particle acted upon by a constant force. Engineering Application of Work, Power and Energy: Work done, force-displacement diagram, Work done in stretching a spring, Power, Indicated Power, Brake Power and efficiency. Kinetic and potential energy & its application, Simple Harmonic Motion (SHM) with examples. Free Vibration, amplitude,
frequency and time period in SHM, Velocity and acceleration of particle executing SHM, application of SHM to engineering problems. Force, Momentum and Impulse, Conservation of energy and linear momentum, Collision of elastic bodies, Co-efficient of restitution (e), Velocity after impact. Impact of body with a fixed plane.

7.3 SYLLABI FOR LATERAL ENTRY STREAM (+3 Sc./ BSc)

7.3.1 MATHEMATICS (30 Questions)

Logic: Statement, Negation, Implication, Converse, Contrapositive, Conjuction, Disjunction, Truth

Table. Different methods of proof, Principle of Mathematical induction.

Algebra of sets: Set operation, Union, Intersection, Difference, Symmetric difference, Complement, Venn diagram, Cartesian product of sets, Relation and functions, Equivalence relation, Kinds of functions and their domain and range, Composite function, Inverse of a function.

Number system: Real numbers (algebraic and order properties, rational and irrational numbers), Absolute value, Triangle inequality, AM ≥ GM, Inequalities(simple cases), Complex numbers, Algebra of complex numbers, Conjugate and square root of a complex number, Cube roots of unity, De Moivre's theorem with simple application. Permutations and Combinations -simple applications, Binomial theorem for positive integral index, Identities involving binomial co-efficients.

Determinants and matrices: Determinants of third order, Minors and cofactors, Properties of determinants, Matrices upto third order, Types of matrices, algebra of matrix, adjoint and inverse of matrix, Application of determinants and matrices to the solution of linear equations (in three unknowns).

Trigonometry: Compound angles, Multiple and Submultiple angles, Solution of trigonometric equations, Properties of triangles, Inverse circular function, Sum and product of sine and cosine functions.

Co-ordinate geometry of two dimensions: Straight lines, Pairs of straight lines, Circles, Equations of tangents and normals to a circle, Equations of parabola, Ellipse and hyperbola in simple forms, their tangents and normals. Condition of tangency. Rectangular and Conjugate hyperbolas.

Coordinate geometry of three dimensions: Distance and Division formulae, Direction cosines and direction ratios, Projection, Angle between two planes, Angle between a line and a plane. Distance of a point from a line and a plane. Equation of a sphere – general equation, Equation of sphere when end points of diameter are given.

Quadratic polynomials: Roots of quadratic polynomial, Factorisation of quadratic polynomials, Maximum and minimum values of quadratic polynomials for all real values of the variable, sign of the quadratic polynomial for all real values of the variable, Solution of quadratic inequations.

Sequence and Series: Definition, Infinite geometric series, Arithmetico-geometric series, Exponential and Logarithmic series.

Vectors: Fundamentals, Dot and cross product of two vectors, Scalar triple product and vector triple product, Simple application of different products.

Differential calculus: Concept of limit, Continuity of functions, Derivative of standard Algebraic and Transcendental functions, Derivative of composite functions, functions in parametric form, Implicit differentiation, Successive differentiation (simple cases), Leibnitz theorem, Partial differentiation, Application of Euler's theorem, Derivative as a rate measure, Increasing and decreasing functions, Maxima and Minima, Indeterminate forms, Geometrical application of derivatives such as finding tangents and normals to plane curves.

Integral calculus: Standard methods of integration (substitution, by parts, by partial fraction, etc), Integration of rational, irrational functions and trigonometric functions. Definite integrals and properties of definite integrals, Areas under plane curves.

Differential equations: Definition, order, degree of a differential equation, General and particular solution of a differential equation, Formation of a differential equation, Solution of a differential equations by method of separation of variables, Homogeneous differential equations of first order and first degree, Linear differential equations of the form $dy/dx + p(x)y = q(x)$, Solutions of differential equations of the form $d^2y/dx^2 = f(x)$

Probability and statistics: Average (mean, median and mode). Dispersion (standard deviation and variance), Definition of probability, Mutually exclusive events, Independent events, Compound events, Conditional probability, Addition theorem.

Number system : Decimal, binary, octal, hexadecimal numbers and their conversion.

7.3.2. +3 Sc. / B.Sc. PHYSICS (15 Questions)

Mechanics: laws of motion, motion in a uniform field, components of velocity and acceleration in different coordinate systems. Motion under a central force, Kepler's law, Gravitational law and field. Potential due to a spherical body, Gauss and Poisson equations for gravitational self-energy. System of particles, center of mass, equation of motion, conservation of linear and angular momenta, conservation of energy, elastic and inelastic collisions. Rigid body motion, rotational motion, moment of inertia and their products.

Oscillations: Harmonic oscillations, kinetic and potential energy, examples of simple harmonic oscillations, spring and mass system, simple and compound pendulum, torsional pendulum. Superposition of two simple harmonic motions of the same frequency along the same line, interference, superposition of two mutually perpendicular simple harmonic vibrations of the same frequency, Lissajous figures, case of different frequencies.

Motion of charged particles in electric and magnetic fields: E as an accelerating field, electron gun, case of discharge tube, linear accelerator, E as deflecting field-CRO, sensitivity. Properties of Matter: Elasticity, small deformations, Hooke's law, elastic constants for an isotropic solid, beams supported at both the ends, cantilever, torsion of a cylinder, bending moments and shearing forces. Bernoulli's theorem, viscous fluids, streamline and turbulent flow. Poiseulle's law. Capillarity, tube of flow, Reynold's number, Stokes law. Surface tension and surface energy, molecular interpretation of surface tension, pressure across a curved liquid surface, angle of contact and wetting.

Electrostatics: Coulomb's law (in vacuum) expressed in vector forms, calculation of E for simple distributions of charge at rest, dipole and quadrupole fields Work done on a charge in an electrostatic field expressed as a line integral, conservative nature of the electrostatic field. Electric potential , E = -dV/dx, Torque on a dipole in a uniform electric field and its energy, flux of the electric field, Gauss' law and its application for finding E for symmetric charge distributions, Gaussian pillbox, fields at the surface of a conductor. Screening of electric field by a conductor. Capacitors, electrostatic energy, force per unit area of the surface of a conductor in an electric field.

Electric Currents: Steady current, Current density vector J, non-steady currents and continuity equation, Kirchoff's law and analysis of multi-loop circuits, rise and decay of current in LR and CR circuits, decay constants, transients in LCR circuits, AC circuits, Complex numbers and their applications in solving AC circuit problems, complex impedance and reactance, series and parallel resonance, Q factor, power consumed by an AC circuit, power factor.

Magnetostatics: Force on a moving charge, Lorentz force equation and definition of B, force on a straight conductor carrying current in a uniform magnetic field, torque on a current loop, magnetic dipole moment, Biot and Savart's law, calculation of B in simple geometric situations, Ampere's law $\nabla\nabla.B=0,\ \nabla\times B, = \mu_0 J$, field due to a magnetic dipole.

Time Varying Fields: Electromagnetic induction, Faraday's law, electromotive force e=σ.E.dr, Integral and differential forms of Faraday's law, mutual and self inductance, transformers, energy in a static magnetic field, Maxwell's displacement current, Maxwell's equations, electromagnetic field, energy density.

Electromagnetic Waves: The wave equation satisfied by E and B, plane electromagnetic waves in vacuum, Poynting's vector.

Kinetic theory of Matter: Real gas: Van der Waals gas, equation of state, nature of Van der Waals forces, comparison with experimental P-V curves. The critical constants, distinction between gaseous and vapour state, Joule expansion of ideal gas, and of a Vander Waals gas, Joule coefficient, estimates of J-T cooling.

Thermodynamics: Blackbody radiation: energy distribution in blackbody spectrum. Planck's quantum postulates, Planck's law. Interpretation of behaviour of specific heats of gases at low temperature.

Kinetic Theory of Gases: Maxwellian distribution of speeds in an ideal gas: distribution of speeds and of velocities, distinction between mean, rms and most probable speed values.

Physical Optics: The principle of superpositions, Interference of a light, double-slit interference, coherence requirement for the sources, optical path retardation, lateral shift of fringes, Localized fringes: thin films, Michelson interferometer, Fresnel diffraction: Fresnel half-period zones, plates, straight edge, rectilinear propagation. Fraunhofer diffraction : Diffraction of a single slit, the intensity distribution, diffraction at a circular aperture and a circular disc.
Diffraction gratings: Diffraction at N parallel slits, intensity distribution, plane diffraction grating, polarization of transverse waves, plane, circular and elliptically polarized light. Polarization by reflection and refraction. Double reflection and optical rotation: Refraction, in uniaxial crystals, its electromagnetic theory. Phase retardation plates, double image prism, rotation of plane of polarized light, origin of optical rotation in liquids and in crystals.

Quantum Mechanics: Origin of the quantum theory: failure of classical physics to explain the phenomena such as blackbody spectrum, photoelectric effect, Ritz combination principle in spectra, stability of an atom, Planck's radiation law, Einstein's explanation of photoelectric effect, Bohr's quantization of angular momentum and its applications to hydrogen atom, limitations of Bohr's theory. Wave particle duality and uncertainty principle: de Broglie's hypothesis for matter waves, the concept of wave and group velocities, evidence for diffraction and interference of particles, experimental demonstration of matter waves. Consequence of de Broglie's concepts; quantization in hydrogen atom; quantized energy levels of a particle in a box, wave packets, Heisenberg's uncertainty relation for p and x, its extension to energy and time. Consequence of the uncertainty relation: gamma ray microscope, diffraction at a slit, particle in a box, position of electron in a Bohr orbit. Quantum Mechanics: Schrodinger's equation. Postulatory basis of quantum mechanics, operators, expectation values, transition probabilities, applications to particle in a one dimensional box, harmonic oscillator, reflection at a step potential, transmission across a potential barrier.
Week spectra: continuous X-ray spectrum and its dependence on voltage, Characteristics X-rays. Moseley's law, Raman effect, Stokes and anti-Stocks lines, fission and fusion (concepts), energy production in stars by p-p and carbon cycles (concepts). Cyclotron.
Solid State Physics: X-ray diffraction, Bragg's law,
Magnetism: Atomic magnetic moment, magnetic susceptibility, Dia-Para-, and Ferromagnetism, Ferromagnetic domains, Hysteresis.
Band Structure: Energy bands, energy gap, metals, insulators, semiconductors.
Solid State Devices: Semiconductors - Instrinsic semiconductors, electrons and holes, Fermi level. Temperature dependence of electron and hole concentrations. Doping: impurity states, n and p type semiconductors.
Semiconductor devices: p-n junction, majority and minority charge carriers, junction diode, Zener diode.
Electronics: Power supply: diode as a circuit element, load line concept, rectification, ripple factor, Zener diode, voltage stabilization, IC voltage regulation, characteristics of a transistor in CB, CE and CC mode.
Field effect transistors: JFET volt-ampere curves, biasing JFET, RC coupled amplifier, gain, frequency response, input and output impedance.

7.3.3 +3 Sc. / B.Sc CHEMISTRY (15 Questions)

Thermodynamics: Definition of thermodynamic terms, systems, surroundings etc. Types of systems, intensive and extensive properties, state and path functions and their differentials, thermodynamic processes, concept of heat and work. First law of thermodynamics, statement, definition of internal energy, enthalpy, heat capacity, heat capacity at constant volume, constant pressure and their relation, Joule's law, Joule-Thomson coefficient and inversion temperature, calculation of w, q, U, H, for the expansion of ideal gases under isothermal and adiabatic conditions for reversible processes, Work done in irreversible process.
Thermochemistry: standard state, standard enthalpy of formation, Hess's law of heat of summation and its application, heat of reaction at constant pressure and constant volume,

enthalpy of neutralization, bond dissociation energy and its calculation from thermochemical data, temperature dependence of enthalpy. Kirchoff's equation.

Chemical equilibrium: Equilibrium constant and free energy. Derivation of law of mass action (Study of homogeneous and heterogeneous equilibria). Le chaterlier's principle.

Phase equilibrium: Statement and meaning of the terms - phase, component and degree of freedom, derivation of Gibbs phase rule, phase equilibrium of one component system - water and sulphur system.

Electrochemistry-I: Electrical transport-conduction in metals and in electrolyte solution, specific conductance and equivalent conductance, measurement of equivalent conductance, variation of equivalent and specific conductance with dilution, migration of ions and Kohlrausch law, Arrhenius theory of electrolytic dissociation and its limitations, weak and strong electrolytes, Ostawald's dilution law, its uses and limitations. Application of conductivity measurements, determination of degree of dissociation, determination of Ka of acids, Determination of solubility product of a sparingly soluble salt, conductometric titration.

Electrochemistry-II: Types of reversible electrodes- gas metal ion, meta-metal ion, metal-insoluble salt-anion and redox electrodes. Electrode reactions, Nernst equation, derivation of cell EMF and single electrode potential, standard hydrogen electrodes-reference electrodes, standard electrode potentials, sign conventions, electrochemical series and its significant, EMF of a cell and its measurements. Computation of cell EMF, concentration of cell with and without transport, liquid junction potential, definition of pH, and Ka, determination of pH using hydrogen electrode, buffers-mechanism of buffer action, Henderson equation. Hydrolysis of salts (quantitative treatment), determination of pH, Ka, Kw and Kh by emf methods.

Atomic Structure: Idea of de Broglie matter waves, Heisenberg uncertainty principle, atomic orbitals, Schrodinger wave equation (Mathematical derivations excluded) significance of quantum numbers, shapes of s,p,d orbitals. Aufbau and Pauli exclusion principles, Hund's multiplicity rule. Electronic configurations of the elements.

Periodic Properties: Atomic and ionic radii, ionization enthalpy and electron – gain enthalpy, electronegativity-definition, methods of determination or evaluation, trends in periodic table and applications in predicting and explaining the chemical behaviour.

Chemical Bonding: Covalent Bond - valence bond theory and its limitations, directional characteristics of covalent bond, various types of hybridization and shapes of simple inorganic molecules and ions. Valence shell electron pair repulsion, (VSEPR) theory of NH_3 , H_3O+, SF_4, ClF_3, ICl_2 and H_2O. MO theory, homonuclear and heteronuclear (CO and NO) diatomic molecules.

s-Block Elements: Comparative study, diagonal relationships, salient features of hydrides, solvation and complexation tendencies including their function in biosystems,

p-Block Elements: Comparative study (including diagonal relationship) of groups 13-17 elements, compounds like hydrides, oxides, oxyacids and halides of groups 13-16, hydrides of boron-diborane, borazine, borohydrides, fullerenes, carbides, fluorocarbons, silicates (structural principle), basic properties of halogens, interhalogen compounds.

Chemistry of Noble Gases: Chemical properties of the noble gases, chemistry of xenon, structure and bonding in xenon compounds (fluorides and oxides), Chemistry of elements of first transition series. Characteristic properties of d-block elements.

Properties of the elements of the first transition series, their binary compounds and complexes illustrating relative stability of their oxidation states, coordination number and geometry.

Coordination Compounds: Werner's coordination theory and its experimental verification, effective atomic number concept, chelates, nomenclature of coordination compounds, isomerism in coordination compounds (4 and 6 only) valence bond theory of transition metal complexes.

Acids and Bases: Arrhenius, Bronsted-Lowry, Lewis concepts of acids and bases.

Structure, bonding and mechanism of Organic reactions:

Inductive effect, resonance, steric effect, influence of these effects on acidity, basicity and dipole moments, reactive intermediate- carbocations, carbanions, free-radicals and carbenes - formation, stability and structure, types and mechanism of organic reactions- SN1 , SN2, SE1, SE2 , E1, E2, AdE, AdN,

Stereochemistry of Organic compounds: Concept of isomerism, types of isomerism, optical isomerism, elements of symmetry, molecular chirality, enantiomers, stereogenic center, optical activity, properties of enantiomers, chiral and achiral molecules with two stereo genic centers, diastereomers, meso compounds, relative and absolute configuration, sequence rules, D-L, R-S, systems of nomenclature, geometric isomerism, determination of configuration of geometric isomers, E-Z system of nomenclature, conformational isomerism, conformational analysis of ethane and n-butane, conformations of cyclohexanes, axial and equatorial bonds, difference between conformation and configurations.

7.4 SYLLABI FOR LATERAL ENTRY (PHARMACY)

7.4.1 PAPER for Pharmacy (60 Questions)

The course content is same as the syllabus of part-I and part-II of Diploma in Pharmacy as per the Education Regulation – 1991 of Pharmacy Council of India.

7.5. SYLLABUS FOR MCA STREAM

7.5.1 MATHEMATICS (60 Questions)

Logic: Statement, Negation, Implication, Converse, Contrapositive, Conjuction, Disjunction, Truth Table. Different methods of proof, Principle of Mathematical induction.

Algebra of sets: Set operation, Union, Intersection, Difference, Symmetric difference, Complement, Venn diagram, Cartesian product of sets, Relation and functions, Equivalence relation, Kinds of functions and their domain and range, Composite function, Inverse of a function.

Number system: Real numbers (algebraic and order properties, rational and irrational numbers),Absolute value, Triangle inequality, AM $\geq$ GM, Inequalities(simple cases), Complex numbers, Algebra of complex numbers, Conjugate and square root of a complex number, Cube roots of unity, De Moivre's theorem with simple application. Permutations and Combinations - simple applications, Binomial theorem for positive integral index, Identities involving binomial co-efficients.

Determinants and matrices: Determinants of third order, Minors and cofactors, Properties of determinants, Matrices upto third order, Types of matrices, algebra of matrix, adjoint and inverse of matrix, Application of determinants and matrices to the solution of linear equations (in three unknowns).

Trigonometry: Compound angles, Multiple and Submultiple angles, Solution of trigonometric equations, Properties of triangles, Inverse circular function, Sum and product of sine and cosine functions.

Co-ordinate geometry of two dimensions: Straight lines, Pairs of straight lines, Circles, Equations of tangents and normals to a circle, Equations of parabola, Ellipse and hyperbola in simple forms, their tangents and normals. Condition of tangency. Rectangular and Conjugate hyperbolas.

Coordinate geometry of three dimensions: Distance and Division formulae, Direction cosines and direction ratios, Projection, Angle between two planes, Angle between a line and a plane. Distance of a point from a line and a plane. Equation of a sphere – general equation, Equation of sphere when end points of diameter are given.

Vectors: Fundamentals, Dot and cross product of two vectors, Scalar triple product and vector triple product, Simple application of different products.

Differential calculus: Concept of limit, Continuity of functions, Derivative of standard Algebraic and Transcendental functions, Derivative of composite functions, functions in parametric form, Implicit differentiation, Successive differentiation (simple cases), Leibnitz theorem, Partial differentiation, Application of Euler's theorem, Derivative as a rate measure, Increasing and decreasing functions, Maxima and Minima, Indeterminate forms, Geometrical application of derivatives such as finding tangents and normals to plane curves.

Integral calculus: Standard methods of integration (substitution, by parts, by partial fraction, etc), Integration of rational, irrational functions and trigonometric functions. Definite integrals and properties of definite integrals, Areas under plane curves.

Differential equations: Definition, order, degree of a differential equation, Formation of a differential equation, Solution of a differential equations of the following types.

(i) $dy/dx = f(x)$
(ii) $dy/dx = f(x)\ g(y)$
(iii) $d^2y/dx^2 = f(x)$

Probability and statistics: Average (mean, median and mode). Dispersion (standard deviation and variance), Definition of probability, Mutually exclusive events, Independent events, Compound events, Conditional probability, Addition theorem.

Number system: Decimal, binary, octal, hexadecimal numbers and their conversion.

7.5.2 COMPUTER AWARENESS (60 Questions)

COMPUTER AWARENESS:

Introduction to Computer: Brief history of Computers, Components of a Computer, Computer related general knowledge, Application of Computers, Classification of Computers, Windows.

Computer Arithmetic: Number System with general base, Number base conversion, Elementary arithmetic operation.

C Language: Keywords, Constants, Variables, Identifiers, operators, statements. Writing simple C program.

Arithmetic and logical expression, simple if, nested if, if-else-ladder, conditional operators, switch case, for, while and do while loops.

Concept of functions in C.

7.6 SYLLABUS FOR MBA (120 questions)

Questions will be meant to measure a person's general Entrance test in the following aspects:

	No. of Questions
Verbal reasoning	40
Analytical reasoning	40
General Knowledge	10
Comprehension	20
Computer and Business fundamentals	10

7.6.1 Sample Questions:

A sample of questions is being provided for making the candidates aware of the style and difficulty level of the questions. The topics covered here in sample are not true indication of the syllabus and the test may contain questions from all related areas under different sections. The samples are given primarily to help the candidates understand the pattern of the test.

Section A: Verbal Reasoning

1. Identify the odd word
   A. Sweep
   B. wipe
   C. Scrub
   D. Stain
2. The place where bricks are baked
   A. Foundry
   B. Mint
   C. Cemetery
   D. Kiln

3. My watch is 6 minutes fast and the train which should havearrived at my station at 11.30 am was 5 minutes late. Whattime was it by my watch when the train arrived?
   A. 11.41 am
   B. 11.40 am
   C. 11.38 am
   D. Don't Know

Section B: Analytical Reasoning

1. Which of the following ratio is greatest?
   A . 7:15 B. 15:23
   C. 17:25 D. 21:29
2. If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 15 men and 20 boys in doing the same type of work will be:
   A . 4 days B. 5 days C. 6 days D. 7 days
3. When the integer n is divided by 6, the remainder is 3.Which of the following is not a multiple of 6?
   A .n-3 B. n+3 C. 2n D. 3n

Section C: General Knowledge

1. The term 'steeplechase' is associated with
   A. Horse racing B. Boxing
   C. Polo D. Rowing
2. The first indigenously built missile boat is named as:
   A. INS Mani B. INS Shilpi
   C. INS Bibhuti D. INS Vikrant
3. Central Salt and Marine Chemicals Research Institute islocated at
   A. Ahmedabad B. Bhavanagar
   C. Gandhi Nagar D. Panaji

Section D: Comprehension

Speech is a great blessing but it can also be great curse, for which it helps us to make our intentions and desires known to our fellows, it can also, if we use it carelessly, make your attitude completely misunderstood. A slip of the tongue, the use of an unusual word, or of an ambiguous word and so on, may create an enemy where we had hope to win a friend. Again different classes of people use different vocabularies, and the ordinary speech of an educated man may strike an uneducated listener as pompous. Unwittingly we may use a word which bears a different meaning to our listener from what it does to men of our own class. Thus speech is not a gift to use lightly without thought, but one which demands careful handling. Only a food will express himself a like to all kinds and conditions of men.

1. Speech can be a curse, because it can
   A. reveal our intensions
   B. lead to carelessness
   C. hurt others
   D. create misunderstanding

2. A 'slip of tongue' means something said
   A. unintentionally
   B. wrongly by chance
   C. without giving proper thought
   D. to hurt another person
3. The best way to win a friend is to avoid in speech

A. ambiguity
B. verbosity
C. promposity
D. irony

Section E: Computer & Business Fundamentals

1. The widely used code in data communication is
   A. 8 bit ASCII
   B. 7 bit ASCII
   C. EBCDIC
   D. None of these
2. Point of Sales terminal refers to
   A. Terminal associated with MICR
   B. Smart Terminal
   C. Terminal associated with OCR
   D. None of the above
3. How many Stock Exchanges are there in India?
   A. 21
   B. 22
   C. 26
   D. None of the above

7.7 SYLLABUS FOR Integrated MBA(5 years) (60 questions)

Questions will be meant to measure a person's general Entrance test in the following aspects:

Section	No. of Questions
Verbal reasoning	15
Analytical reasoning	15
General Knowledge	15
Comprehension	15

7.8 Syllabus for MCA (Lateral Entry)

7.8.1 MATHEMATICS (60 Questions)

Logic: Statement, Negation, Implication, Converse, Contrapositive, Conjuction, Disjunction, Truth Table. Different methods of proof, Principle of Mathematical induction.

Algebra of sets: Set operation, Union, Intersection, Difference, Symmetric difference, Complement, Venn diagram, Cartesian product of sets, Relation and functions, Equivalence relation, Kinds of functions and their domain and range, Composite function, Inverse of a function.

Number system: Real numbers (algebraic and order properties, rational and irrational numbers), Absolute value, Triangle inequality, AM ≥ GM, Inequalities(simple cases), Complex numbers, Algebra of complex numbers, Conjugate and square root of a complex number, Cube roots of unity, De Moivre's theorem with simple application. Permutations and Combinations -simple applications, Binomial theorem for positive integral index, Identities involving binomial co-efficients.

Determinants and matrices: Determinants of third order, Minors and cofactors, Properties of determinants, Matrices upto third order, Types of matrices, algebra of matrix, adjoint and inverse of matrix, Application of determinants and matrices to the solution of linear equations (in three unknowns).

Trigonometry: Compound angles, Multiple and Submultiple angles, Solution of trigonometric equations, Properties of triangles, Inverse circular function, Sum and product of sine and cosine functions.

Co-ordinate geometry of two dimensions: Straight lines, Pairs of straight lines, Circles, Equations of tangents and normals to a circle, Equations of parabola, Ellipse and hyperbola in simple forms, their tangents and normals. Condition of tangency. Rectangular and Conjugate hyperbolas.

Coordinate geometry of three dimensions: Distance and Division formulae, Direction cosines and direction ratios, Projection, Angle between two planes, Angle between a line and a plane. Distance of a point from a line and a plane. Equation of a sphere – general equation, Equation of sphere when end points of diameter are given.

Quadratic polynomials: Roots of quadratic polynomial, Factorisation of quadratic polynomials, Maximum and minimum values of quadratic polynomials for all real values of the variable, sign of the quadratic polynomial for all real values of the variable, Solution of quadratic inequations.

Sequence and Series: Definition, Infinite geometric series, Arithmetico-geometric series, Exponential and Logarithmic series.

Vectors: Fundamentals, Dot and cross product of two vectors, Scalar triple product and vector triple product, Simple application of different products.

Differential calculus: Concept of limit, Continuity of functions, Derivative of standard Algebraic and Transcendental functions, Derivative of composite functions, functions in parametric form, Implicit differentiation, Successive differentiation (simple cases), Leibnitz theorem, Partial differentiation, Application of Euler's theorem, Derivative as a rate measure, Increasing and decreasing functions, Maxima and Minima, Indeterminate forms, Geometrical application of derivatives such as finding tangents and normals to plane curves.

Integral calculus: Standard methods of integration (substitution, by parts, by partial fraction, etc), Integration of rational, irrational functions and trigonometric functions. Definite integrals and properties of definite integrals, Areas under plane curves.

Differential equations: Definition, order, degree of a differential equation, General and particular solution of a differential equation, Formation of a differential equation, Solution of a differential equations by method of separation of variables, Homogeneous differential equations of first order and first degree, Linear differential equations of the form $dy/dx + p(x)y = q(x)$, Solutions of differential equations of the form $d^2y/dx^2 = f(x)$

Probability and statistics: Average (mean, median and mode). Dispersion (standard deviation and variance), Definition of probability, Mutually exclusive events, Independent events, Compound events, Conditional probability, Addition theorem.

Number system: Decimal, binary, octal, hexadecimal numbers and their conversion.

7.8.2. COMPUTER AWARENESS: 60 questions

Introduction to Computer: Brief history of Computers, Components of a Computer, Computer related general knowledge, Application of Computers, Classification of Computers, Windows.

Computer Arithmetic: Number System with general base, Number base conversion, Elementary arithmetic operation.

C Language: Keywords, Constants, Variables, Identifiers, operators, statements. Writing simple C program.Arithmetic and logical expression, simple if, nested if, if-else-ladder, conditional operators, switch case, for, while and do while loops. Concept of functions in C.

C++ and data structure: Object oriented concepts and relationships, control structures, file concepts, Algorithm Analysis, linked list, stack, queue, binary tree, sorting and searching techniques.

Fundamentals of computer Organization and Networking: Sequential combinational circuits, Flip flops, Memory, K-map, Addressing modes, Fetch and execution cycle. OSI model, topologies and protocols, Internet protocols, Ipv4/Ipv6, Introductory concept on Network Security.

Introduction to Operating systems: Resource Management, types of operating systems, DOS and Unix commands,

Logical reasoning and verbal abilities: Data Interpretations, Series brain teasing problem

7.9 Syllabus for PGAT-2018:

PGAT TEST for M. Tech / M. Arch will be of 2 hours duration **containing 90 questions. Out of this 90 questions,**
30questions will be common to all branches of PGAT candidates.
- **(a) 20 Engineering Mathematics**
- **(b)10Analytical and Logical Reasoning.**

60 questions will of Branch specialization.

For M Pharm it will be 1 hour examination and of 60 questions from the branch alone.

M PLAN:

Entrance Test: Candidate has to appear PGAT entrance test of 1 hour duration, 60 Multiple Choice Questions.

10 questions will be of Logical Reasoning type, 10 questions will be Arithmetic reasoning and 40 questions will be of basic Architectural concept related.

7.9.1. All candidates seeking admission to 1st year Master Degree courses in Engineering/ Technology/ Architecture will have to appear the respective courses of examination suitably choosing the question they want to appear as it will decide the M Tech branch they will be eligible for. (Refer Table-14: Admission to First Year M.Tech / M.Pharm / M.Arch/ M Plan)

7.9.2. Candidates seeking admission to M.Pharm course have to appear 60 questions. The syllabus is as per BPUT B. Pharm.

7.9.3. Detailed Syllabi for the PGAT Testis mentioned below, branch wise.

7.9.4. ENGINEERING MATHEMATICS (Common Question of 20 nos. for all branches excepting M. Pharm)

Ordinary Differential Equations: First order differential equations, separable equations, exact differential equations.
Linear differential equations of second and higher order, homogeneous equation with constant co-efficient. Eular Cauchy equations, solution by undeterminated co-efficients, solution by variation of parameters.
Linear algebra: matrices, vectors, determinants and linear system of equations, matrices and linear system of equations, matrix eigen value problems, symmetric, skew symmetrics and orthogonal matrices.
Fourier series: Fourier series, Expansions functions of any period, even and odd functions, half range expansion.
Laplace transformation and its use in solving differential equations. Convolution integral equations.

7.10. Syllabus for Architecture (AR)

City planning: Evolution of cities; principles of city planning; types of cities & new towns; planning regulations and building bye laws; eco-city concept; sustainable development.
Housing: Concept of housing; neighborhood concept; site planning principles; housing typology;

Housing standards; housing infrastructure; housing policies, finance and management; housing programs in India; self-help housing.

Landscape Design: Principles of landscape design and site planning; history of landscape styles; landscape elements and materials; plant characteristics & planting design; environmental considerations in land scape planning.

Computer Aided Design: Application of computers in architecture and planning; understanding elements of hard ware and software; computer graphics; programming languages–Cand Visual Basic and usage of packages such as AutoCAD,3D-Studio,3D Max.

Environmental Studies in Building Science: Components of Ecosystem; ecological principles concerning environment; climate responsive design; energy efficient building design; thermal comfort; solar architecture; principles of lighting and styles for illumination; basic principles of architectural acoustics; environment pollution, their control & abatement.

Visual and Urban Design: Principles of visual composition; proportion, scale, rhythm, symmetry, harmony, datum, balance, form, colour, texture; sense of place and space, division of space; barrier free design; focal point, vista, imageability, visual survey, figure-background relationship.

History of Architecture: *Indian*– Indus valley, Vedic, Buddhist, Indo-Aryan, Dravidian and Mughal

periods; *European*– Egyptian, Greek, Roman, medieval and renaissance periods-construction and architectural styles; vernacular and traditional architecture.

Development of Contemporary Architecture: Architectural developments and impacts on society sinceindustrial revolution; influence of modern art on architecture; works of national and international architects; art novuea, eclecticism, international styles, post modernism, deconstruction in architecture.

Building Services: Water supply, sewerage and drainage systems; sanitary fittings and fixtures; plumbing systems, principles of internal & external drainage systems, principles of electrification of buildings, intelligent buildings; elevators&escalators,theirstandardsanduses;air-conditioningsystems; fire fighting systems, building safety and security systems.

Building Construction and Management: Building construction techniques, methods and details; building systems and prefabrication of building elements; principles of modular coordination; estimation, specification, valuation, professional practice; project management techniques e.g., PERT, CPM etc.

Materials and Structural Systems: Behavioral characteristics of all types of building materials e. g.mud, timber, bamboo, brick, concrete, steel, glass, FRP, different polymers, composites; principles of strength of materials; design of structural elements in wood, steel and RCC; elastic and limit state design; complex structural systems; principles of pre-stressing; tall buildings; principles of disaster resistant structures.

Planning Theory: Regional planning; settlement system planning; history of human settlements; growth of cities & metropolises; principles of Ekistics; rural-urban migration; urban conservation; urban renewal; Five-year plan; structural and sectoral plan.

Techniques of Planning: Planning survey techniques; preparation of urban and regional structure plans, development plans, action plans; site planning principles and design; statistical methods of data.

Traffic and Transportation Planning: Principles of traffic engineering and transportation planning; traffic survey methods; design of roads, intersections, grade separators and parking areas; hierarchy of roads and levels of services; traffic and transport management in urban areas, intelligent transportation system; mass transportation planning; para-transits and other modes of transportation, pedestrian & slow-moving traffic planning.

Infrastructure, Services and Amenities: Principles of water supply and sanitation systems; water treatment; solid waste disposal systems; waste treatment, recycle & reuse; urban rain water harvesting; power supply and communication systems—network, design & guidelines; demography related standards at various level soft hesettlements for health, education, recreation, religious &public-semipublic facilities.

Development Administration and Management: Planning laws; development control and zoning regulations; laws relating to land acquisition; development enforcements, urban land ceiling; land management techniques; $_{th}$ planning and municipal administration; disaster mitigation management; 73rd & 74th Constitutional amendments; valuation & taxation; revenue resources and fiscal management; public participation and role of NGO & CBO; Institutional networking & capacity building.

2.Syllabus for Chemical Engineering(CHE)

Process Calculations and Thermodynamics: Laws of conservation of mass and energy; use of tie components; recycle, bypass and purge calculations; degree of freedom analysis. First and Second laws of thermodynamics. First law application to close and open systems. Second law and Entropy. Thermodynamic properties of pure substances: equation of state and departure function, properties of mixtures: partial molar properties, fugacity, excess properties and activity coefficients; phase equilibria: predicting VLE of systems; chemical reaction equilibria.

Fluid Mechanics and Mechanical Operations: Fluid statics, Newtonian and non-Newtonian fluids, Bernoulli equation, Macroscopic friction factors, energy balance, dimension analysis, shell balances, flow through pipeline systems, flow meters, pumps and compressors, packed and fluidized beds, elementary boundary layer theory, size reduction and size separation; free and hindered settling; centrifuge and cyclones; thickening and classification, filtration, mixing and agitation; conveying of solids.

Heat Transfer: Conduction, convection and radiation, heat transfer coefficients, steady and unsteady Heat conduction, boiling, condensation and evaporation; types of heat exchangers and evaporators and their design.

Mass Transfer: Fick's laws, molecular diffusion in fluids, mass transfer coefficients, film, penetration and surface renewal theories; momentum, heat and mass transfer analogies; stage wise and continuous contacting and stage efficiencies; HTU & NTU concepts design and operation of equipment for distillation, absorption, leaching, liquid-liquid extraction, drying, humidification, dehumidification and adsorption.

Chemical Reaction Engineering: Theories of reaction rates; kinetics of homogeneous reactions, interpretation of kinetic data, single and multiple reactions in ideal reactors, non-ideal reactors; residence time distribution, single parameter model; non-isothermal reactors; kinetics of heterogeneous catalytic reactions; diffusion effects in catalysis.

Instrumentation and Process Control: Measurement of process variables; sensors, transducers and their dynamics, transfer functions and dynamic responses of simple systems, process reaction curve, controller modes (P, PI, and PID); control valves; analysis of closed loop systems including stability, frequency response and controller tuning, cascade, feed forward control.

Plant Design and Economics: Process design and sizing of chemical engineering equipment such as compressors, heat exchangers, multistage contactors; principles of process economics and cost estimationincludingtotalannualizedcost,costindexes,rateofreturn,paybackperiod,discounted cash

flow, optimization in design.
ChemicalTechnology: Inorganic chemical lindustries; sulfuric acid, NaOH, fertilizers(Ammonia, Urea, SSP and TSP); natural products industries (Pulp and Paper, Sugar, Oil and Fats);petroleum refining and petrochemicals;polymerizationindustries;polyethylene,polypropylene, PVC and polyester synthetic fibers. analysis; application of G.I.S and remote sensing techniques in urban and regional planning; decision making models.

3.Syllabus for Civil Engineering (CE)

STRUCTURALENGINEERING

Mechanics: Bending moment and shear force in statically determinate beams. Simple stress and strain relationship: Stress and strain in two dimensions, principals tresses, stress transformation, Mohr's circle. Simple bending theory, flexural and shear stresses, unsymmetrical bending, shear centre. Thin walled pressure vessels, uniform torsion, bucking of column, combined and direct bending stresses.
Structural Analysis: Analysis of statically determinate trusses, arches, beams, cables and frames, displacements in statically determinate structures and analysis of statically indeterminate structures by force/energy methods, analysis by displacement methods (slope deflection and moment distribution methods), influence lines for determinate and indeterminate structures. Basic concepts of matrix methods of structural analysis.
Concrete Structures: Concrete Technology- properties of concrete, basics of mix design. Concrete
design-basic working stress and limit state design concepts, analysis of ultimate load capacity and design of members subjected to flexure, shear, compression and torsion by limit state methods. Basic elements of prestressed concrete, analysis of beam sections at transfer and service loads.
Steel Structures: Analysis and design of tension and compression members, beams and beam-columns,
column bases. Connections- simple and eccentric, beam–column connections, plate girders and trusses. Plastic analysis of beams and frames.

GEOTECHNICAL ENGINEERING

Soil Mechanics: Origin of soils, soil classification, three-phase system, fundamental definitions, relationship and interrelationships, permeability & seepage, effective stress principle, consolidation, compaction, shear strength.
Foundation Engineering: Sub-surface investigations-scope, drilling bore holes, sampling, penetration
tests, plate load test. Earth pressure theories, effect of water table, layered soils. Stability of slopes-
infinite slopes, finite slopes. Foundation types-foundation design requirements. Shallow foundations- bearing capacity, effect of shape, water table and other factors, stress distribution, settlement analysis in sands & clays. Deep foundations–pile types, dynamic & static formulae, load capacity of piles in sands & clays, negative skin friction.

WATERRESOURCESENGINEERING

Fluid Mechanics and Hydraulics: Properties of fluids, principle of conservation of mass, momentum, energy and corresponding equations, potential flow, applications of momentum and Bernoulli's equation, laminar and turbulent flow, flow in pipes, pipe networks. Concept of boundary layer and its growth. Uniform flow, critical flow and gradually varied flow in channels, specific energy concept, hydraulic jump. Forces on immersed bodies, flow measurements in channels,

tanks and pipes. Dimensional analysis and hydraulic modeling. Kinematics of flow, velocity triangles and specific speed of pumps and turbines.

Hydrology: Hydrologic cycle, rainfall, evaporation, infiltration, stage discharge relationships, unit hydrographs, flood estimation, reservoir capacity, reservoir and channel routing. Well hydraulics.

Irrigation: Duty, delta, estimation of evapo-transpiration. Crop water requirements. Design of lined and unlined canals, waterways, headworks, gravity dams and spillways. Design of weirs on permeable foundation. Types of irrigation system, irrigation methods. Water logging and drainage, sodic soils.

ENVIRONMENTAL ENGINEERING

Water requirements: Quality standards, basic unit processes and operations for water treatment. Drinking water standards, water requirements, basic unit operations and unit processes for surface water treatment, distribution of water. Sewage and sewerage treatment, quantity and characteristics of wastewater. Primary, secondary and tertiary treatment of wastewater, sludge disposal, effluent discharge standards. Domestic waste water treatment, quantity of characteristics of domestic waste water, primary and secondary treatment Unit operations and unit processes of domestic waste water, sludge disposal.

Air Pollution: Types of pollutants, their sources and impacts, air pollution meteorology, air pollution ontrol, air quality standards and limits.

Municipal Solid Wastes: Characteristics, generation, collection and transportation of solid wastes, engineered systems for solid waste management (reuse/recycle, energy recovery, treatment and disposal).

Noise Pollution: Impacts of noise, permissible limits of noise pollution, measurement of noise and control of noise pollution.

TRANSPORTATION ENGINEERING

Highway Planning: Geometric design of highways, testing and specifications of paving materials, design of flexible and rigid pavements.

Traffic Engineering: Traffic characteristics, theory of traffic flow, intersection design, traffic signs and signal design, highway capacity.

4. Syllabus for Computer Science/Information Technology (CSE/IT)

Digital Logic: Logic functions, Minimization, Design and synthesis of combinational and sequential circuits; Number representation and computer arithmetic (fixed and floating point).

Computer Organization and Architecture: Machine instructions and addressing modes, ALU and data-path, CPU control design, Memory interface, I/O interface (Interrupt and DMA mode), Instruction pipelining, Cache and main memory, Secondary storage.

Programming and Data Structures: Programming in C; Functions, Recursion, Parameter passing, Scope, Binding; Abstract data types, Arrays, Stacks, Queues, Linked Lists, Trees, Binary search trees, Binary heaps.

Algorithms: Analysis, Asymptotic notation, Notions of space and time complexity, Worst and average case analysis; Design: Greedy approach, Dynamic programming, Divide-and-conquer; Tree and graph traversals, Connected components, Spanning trees, Shortest paths; Hashing, Sorting, Searching. Asymptotic analysis (best, worst, average cases) of time and space, upper and lower bounds, Basic concepts of complexity classes–P, NP, NP-hard, NP-complete.

Theory of

Computation: Regular languages and finite automata, Context free languages and Push-down automata, Recursively enumerable sets and Turing machines, Undecidability.
Compiler Design: Lexical analysis, Parsing, Syntax directed translation, Runtime environments, Intermediate and target code generation, Basics of code optimization.
Operating System: Processes, Threads, Inter-process communication, Concurrency, Synchronization, Deadlock, CPU scheduling, Memory management and virtual memory, File systems, I/O systems, Protection and security.

5. Syllabus for Electrical Engineering(EE)

Electric Circuits and Fields: Network graph, KCL, KVL, node and mesh analysis, transient response of dc and ac networks; sinusoidal steady-state analysis, resonance, basic filter concepts; ideal current and voltage sources, Thevenin's, Norton's and Superposition and Maximum Power Transfer theorems, two- port networks, three phase circuits; Gauss Theorem, electric field and potential due to point, line, plane and spherical charge distributions; Ampere's and Biot-Savart's laws; inductance; dielectrics; capacitance.
Signals and Systems: Representation of continuous and discrete-time signals; shifting and scaling operations; linear, time-invariant and Causal systems; Fourier series representation of continuous periodic signals; sampling theorem; Fourier, Laplace and Z transforms.
Electrical Machines: Single phase transformer–equivalent circuit, phasor diagram, tests, regulation and efficiency; three phase transformers–connections, parallel operation; auto-transformer; energy conversion principles; DC machines–types, windings, generator characteristics, armature reaction and commutation, starting and speed control of motors; three phase induction motors–principles, types, performance characteristics, starting and speed control; single phase induction motors; synchronous machines–performance, regulation and parallel operation of generators, motor starting, characteristics and applications; servo and stepper motors.
Power Systems: Basic power generation concepts; transmission line models and performance; cable performance, insulation; corona and radio interference; distribution systems; per-unit quantities; bus impedance and admittance matrices; load flow; voltage control; power factor correction; economic operation; symmetrical components; fault analysis; principles of over-current, differential and distance protection; solid state relays and digital protection; circuit breakers; system stability concepts, swing curves and equal area criterion; HVDC transmission and FACTS concepts.
Control Systems: Principles of feedback; transfer function; block diagrams; steady-state errors; Routh and Nyquist techniques; Bode plots; root loci; lag, lead and lead-lag compensation; state space model; state transition matrix, controllability and observability.
Electrical and Electronic Measurements: Bridges and potentiometers; PMMC, moving iron, dynamometer and induction type instruments; measurement of voltage, current, power, energy and power factor; instrument transformers; digital voltmeters and multimeters; phase, time and frequency measurement; Q-meters; oscilloscopes; potentiometric recorders; error analysis.
Analog and Digital Electronics: Characteristics of diodes, BJT, FET; amplifiers–biasing, equivalent circuit and frequency response; oscillators and feedback amplifiers; operational amplifiers–characteristics and applications; simple active filters; VCOs and timers; combinational and sequential logic circuits; multiplexer; Schmitttrigger; multi-vibrators; sample and hold circuits; A/D and D/A converters; 8-bit microprocessor basics, architecture, programming and interfacing.
Power Electronics and Drives: Semiconductor power diodes, transistors, thyristors, triacs, GTOs, MOSFETs and IGBTs – static characteristics and principles of operation; triggering circuits; phase control rectifiers; bridge converters –fully controlled and half controlled; principles of choppers and inverters; basic concepts of adjustable speed dc and ac drives.

6. Syllabus for Mechanical Engineering (ME)

APPLIED MECHANICS AND DESIGN

Engineering Mechanics: Freebody diagrams and equilibrium; trusses and frames; kinematics and dynamics of particles and of rigid bodies in plane motion, including impulse and momentum (linear and angular) and energy formulations; impact.

Strength of Materials: Stress and strain, stress-strain relationship and elastic constants, Mohr's circle for

Plane stress and plane strain, thin cylinders; shear force and bending moment diagrams; bending and shear stresses; deflection of beams; torsion of circular shafts; Euler's theory of columns; strain energy methods; thermal stresses.

Theory of Machines: Displacement, velocity and acceleration analysis of plane mechanisms; dynamic analysis of slider-crank mechanism; gear trains; flywheels.

Vibrations: Free and forced vibration of single degree of freedom systems; effect of damping; vibration isolation; resonance, critical speeds of shafts.

Design: Design for static and dynamic loading; failure theories; fatigue strength and the S-N diagram; *principles* of the design of machine elements such as bolted, riveted and welded joints, shafts, spur gears, rolling and sliding contact bearings, brakes and clutches.

FLUIDMECHANICSANDTHERMALSCIENCES

Fluid Mechanics: Fluid properties; fluid statics, manometry, buoyancy; control- volume analysis of mass, momentum and energy; fluid acceleration; differential equations of continuity and momentum; Bernoulli's equation; viscous flow of incompressible fluids; boundary layer; elementary turbulent flow; flow through pipes, head losses in pipes, bend setc.

Heat-Transfer: Modes of heat transfer; one dimensional heat conduction, resistance concept, electrical analogy, unsteady heat conduction, fins; dimensionless parameters in free and forced convective heat transfer, various correlations for heat transfer in flow over flat plates and through pipes; thermal

boundary layer; effect of turbulence; radiative heat transfer, black and grey surfaces, shape factors, network analysis; heat exchanger performance, LMTD and NTU methods.

Thermodynamics: Zeroth, First and Second law soft thermodynamics; thermodynamic system and processes; Carnot cycle. Irreversibility and availability; behavior of ideal and real gases, properties of pure substances, calculation of work and heat in ideal processes; analysis of thermodynamic cycles related to energy conversion.

Applications: *Power Engineering*: Steam Tables, Rankine, Brayton cycles with regeneration and reheat .*I.C. Engines*: air-standard Otto, Diesel cycles. *Refrigeration and air-conditioning*: Vapour refrigeration cycle, heat pumps, gas refrigeration, Reverse Brayton cycle; moist air: psychrometric chart, basic psychrometric processes. *Turbomachinery:* Pelton-wheel, Francis and Kaplan turbines—impulse and reaction principles, velocity diagrams.

MANUFACTURING AND INDUSTRIAL ENGINEERING

Engineering Materials: Structure and properties of engineering materials, heat treatment, stress-strain diagrams for engineering materials.

Metal Casting: Design of patterns, moulds and cores; solidification and cooling; riser and gating design, design considerations.

Forming: Plastic deformation and yield criteria; fundamentals of hot and cold working processes; load estimation for bulk (forging, rolling, extrusion, drawing) and sheet (shearing, deep drawing, bending) metal

forming processes; principles of powder metallurgy.

Joining: Physics of welding, brazing and soldering; adhesive bonding; design considerations in welding.

Machining and Machine Tool Operations: Mechanics of machining, single and multi-point cutting tools, tool geometry and materials, tool life and wear; economics of machining; principles of non-traditional machining processes; principles of work holding, principles of design of jigs and fixtures

Metrology and Inspection: Limits, fits and tolerances; linear and angular measurements; comparators; gauge design; interferometry; form and finish measurement; alignment and testing methods; tolerance analysis in manufacturing and assembly.

Computer Integrated Manufacturing: Basic concepts of CAD/CAM and their integration tools.

Production Planning and Control: Forecasting models, aggregate production planning, scheduling, materials requirement planning.

Inventory Control: Deterministic and probabilistic models; safety stock inventory control systems.

Operations Research: Linear programming, simplex and duplex method, transportation, assignment, network flow models, simple queuing models, PERT and CPM.

7. Syllabus for Metallurgical Engineering (MTE)

Thermodynamics and Rate Processes: Laws of thermodynamics, activity, equilibrium constant, applications to metallurgical systems, solutions, phase equilibria, Ellingham and phase stability diagrams, thermodynamicsofsurfaces,interfacesanddefects,adsorptionandsegregation;basic kinetic laws, order of reactions,rateconstantsandratelimitingsteps;principlesofelectrochemistry-single electrode potential, electro-chemical cells and polarizations, aqueous corrosion and protection of metals, oxidation and high temperature corrosion –characterization and control; heat transfer – conduction, convection and heat transfer coefficient relations, radiation, mass transfer–diffusion and Fick's laws, mass transfer coefficients; momentum transfer–concepts of viscosity, shell balances, Bernoulli's equation, friction factors.

Extractive Metallurgy: Minerals of economic importance, comminution techniques, size classification, Flotation, gravity and other methods of mineral processing; agglomeration, pyro-hydro-and electro- metallurgical processes; material and energy balances; principles and processes for the extraction of non-ferrous metals– aluminium, copper, zinc, lead, magnesium, nickel, titanium and other rare metals; iron and steelmaking–principles, role structure and properties of slags, metallurgical coke, blast furnace, direct reduction processes, primary and secondary steel making, ladle metallurgy operations including deoxidation, desulphurization, sulphide shape control, inert gas rinsing and vacuum reactors; secondary refining processes including AOD, VAD, VOD, VAR and ESR; ingot and continuous casting; stainless steelmaking, furnaces and refractories.

Physical Metallurgy: Crystal structure and bonding characteristics of metals, alloys, ceramics and

polymers, structure of surfaces and interfaces, nano-crystalline and amorphous structures; solid solutions; solidification; phase transformation and binary phase diagrams; principles of heat treatment of steels, cast iron and aluminium alloys; surface treatments; recovery, recrystallization and grain growth; industrially important ferrous and non-ferrous alloys; elements of X-ray and electron diffraction; principles of scanning and transmission electron microscopy; industrial ceramics, polymers

and composites; electronic basis of thermal, optical, electrical and magnetic properties of

materials;
electronic and opto-electronic materials.

Mechanical Metallurgy: Elasticity, yield criteria and plasticity; defects in crystals; elements of dislocation theory –types of dislocations, slip and twinning, source and multiplication of dislocations, stress fields around dislocations, partial dislocations, dislocation interactions and reactions; strengthening mechanisms; tensile, fatigue and creep behaviour; super-plasticity; fracture– Griffith theory, basic concepts of linear elastic and elasto-plastic fracture mechanics, ductile to brittle transition, fracture toughness; failure analysis; mechanical testing –tension, compression, torsion, hardness, impact, creep, fatigue, fracture toughness and formability.

Manufacturing Processes: Metal casting–patterns and moulds including mould design involving feeding, gating and risering, melting, casting practice sins and casting, permanent mould casting, investment casting and shell moulding, casting defects and repair; hot, warm and cold working of metals, Metal forming–fundamentals of metal forming processes of rolling, forging, extrusion, wired rawing and sheet metal forming, defects informing; Metaljoining–soldering, brazing and welding, common welding processes of shielded metal arcwelding, gas metal arc welding, gas tungsten arc welding and submerged arc welding; welding metallurgy, problems associated with welding of steels and aluminium alloys, defect sin welded joints; powder metallurgy; NDT using dye-penetrant, ultrasonic, radiography, eddy current, acoustic emission and magnetic particle methods.

8. Syllabus for Textile Engineering (TE)

Textile Fibres: Classification of textile fibres; Essential requirements of fibre forming polymers; Gross and fine structure of natural fibres like cotton, wool and silk. Introduction to important bast fibres; properties and uses of natural and man-made fibres; physical and chemical methods of fibre and blend identification and blend analysis. Molecular architecture, amorphous and crystalline phases, glass transition, plasticization, crystallization, melting, factors affecting T_g and T_m; Process of viscose and acetate preparation. Polymerization of nylon-6, nylon-66, poly (ethyl eneterephthalate), polyacrylonitrile and polypropylene; Melt Spinning processes, characteristic features of PET, polyamide and polypropylene spinning; wet and dry spinning of viscose and acrylic fibres; post spinning operations such as drawing, heat setting, tow- to-top conversion and different texturing methods. Methods of investigating fibre structure. e.g., Density, X-ray diffraction, birefringence, optical and electron microscopy, I.R. absorption, thermal methods (DSC, DMA/TMA, TGA); structure and morphology of man-made fibres, mechanical properties of fibres, moistures or ption in fibres; fibre structure and property correlation.

Yarn manufacture and yarn structure & properties: Principles of opening, cleaning and mixing/blending of fibrous materials, working principle of modern opening and cleaning equipments; the technology of carding, carding of cotton and synthetic fibres; Drafting operation, roller and apron drafting principle, causesofmassirregularityintroducedbydrafting;rollerarrangementsindraftingsystems;principles ofcottoncombing,combingcycle,mechanismandfunction,combingefficiency,lappreparation; recent developments in comber; Roving production, mechanism of bobbin building, roving twist; Principle of ringspinning,forcesactingonyarnandtraveler;ring&travelerdesigns;mechanismofcop formation, causes of end breakages; working principle of ring doubler and two for one twister, single and folded yarn twist, properties of double yarns ,production of core spun yarn, compact spinning, principle of non conventional methods of yarn production such as rotor spinning, airjet spinning, wrap spinning, twist less spinning and friction spinning. Yarn contraction, yarn diameter, specific volume & packing coefficient; twist strength relationship in spun yarns; fibre configuration and

orientation in yarn; cause of fibre migration and its estimation, irregularity index, properties of ring, rotor and air-jet yarns.

Fabric manufacture and Fabric Structure: Principles of cheese and cone winding processes and machines; random and precision winding; package faults and their remedies; yarn clearers and tensioners; different systems of yarn splicing; features of modern cone winding machines; different types of warping creels; features of modern beam and sectional warping machines; different sizing systems, sizing of spun and filament yarns, modern sizing machines; principles of pirn winding processes and machines; primary and secondary motions of loom, effect of their settings and timings on fabric formation, fabric appearance and weaving performance; dobby and jacquard shedding; mechanics of weft insertion with shuttle; warp and weft stop motions, warp protection, weft replenishment; functional principles of weft insertion systems of shuttle- less weaving machines, principles of multiphase and circular looms. Principles of weft and warp knitting; basic weft and warp knitted structures. Classification, production and areas of application of nonwoven fabrics. Basic woven fabric constructions and their derivatives; crepe, cord, terry, gauze, leno and double cloth constructions. Peirce's equations for fabric geometry; elastical model of plain woven fabrics; thickness, cover and maximum sett of woven fabrics.

Textile Testing: Sampling techniques, sample size and sampling errors. Measurement of fibre length, fineness, crimp, strength and reflectance; measurement of cotton fibre maturity and trash content;HVI and AFIS for fibre testing. Measurement of yarn count, twist and hairiness; tensile testing of fibres, yarn sand fabrics; evenness testing of slivers, rovins and yarns; testing equipment for measurement test methods of fabric properties like thickness, compressibility, air permeability, drape, crease recovery,tearstrength,burstingstrengthandabrasionresistance.FASTandKawabatainstrumentsand systems for objective fabric evaluation. Statistical data analysis of experimental results. Correlation analysis, significance tests and analysis of variance; frequency distributions and control charts.

Preparatory Processes: Chemistry and practice of preparatory processes for cotton, wool and silk. Mercerization of cotton. Preparatory processes for nylon, polyester and acrylic and polyester/cotton blends.

Dyeing: Classification of dyes. Dyeing of cotton, wool, silk, polyester, nylon and acrylic with appropriate dye classes. Dyeing polyester/cotton and polyester/wool blends. Batch wise and continuous dyeing machines. Dyeing of cotton knitted fabrics and machines used. Dye fibre interaction. Introduction to thermodynamics and kinetics of dyeing. Methods for determination of wash, light and rubbing fastness. Evaluation of fastness properties with the help of grey scale.

Printing: Styles of printing. Printing thickeners including synthetic thickeners. Printing auxiliaries. Printing of cotton with reactive dyes. Printing of wool, silk, nylon with acid and metal complex dyes. Printing of polyester with disperse dyes. Methods of dye fixation after printing. Resistand discharge printing of cotton, silk and polyester. Printing of polyester/ cotton blends with disperse/reactive combination. Transfer printing of polyester. Developments in inkjet printing.

9. Syllabus for Electronics Engineering (ELE)

Network: Mesh and nodal Analysis, Network theorems: superposition, Thevenin and Norton's maximum power transfer, Wye-Delta transformation. Steady state sinusoidal analysis using phasors. Linear constant coefficient differential equations; time domain analysis of simple RLC circuits, Solution of network equations using Laplace transform: frequency domain analysis of RLC circuits. 2-port network parameters: driving point and transfer functions. State equations for networks. Series and parallel resonance

Analog Electronics: Energy bands in silicon, intrinsic and extrinsic silicon. Carrier transport in silicon: diffusion current, drift current, mobility, and resistivity. Generation and recombination of carriers. p-n junction diode, Zener diode, tunnel diode Characteristics of diode, BJT, JFET and MOSFET. Diode circuits. Transistors at low and high frequencies, Amplifiers, single and multi-stage. Feedback amplifiers. Operational amplifiers, characteristics and circuit configurations. Precision rectifier. V-to-I and I-to- V converter. Opamp based active filters. Oscillators and signal generators.

Digital Electronics: Boolean algebra, minimization of Boolean functions; logic gates; digital IC families (DTL, TTL, ECL, MOS, CMOS). Combinatorial circuits: arithmetic circuits, code converters, multiplexers, decoders, Sequential circuits: latches and flip-flops, counters and shift-registers. Sample and hold circuits, ADCs, DACs. Semiconductor memories. Microprocessor (8085): architecture, programming, memory and I/O interfacing.

Signals, Systems and Communications: Periodic and aperiodic signals. continuous-time and discrete-time Fourier series, continuous-time and discrete-time Fourier Transform, DFT and FFT, z-transform.,transfer function, Impulse and frequency response of first- and second order systems. Convolution, correlation and characteristics of linear time invariant systems. Pulse transfer function. IIR and FIR filters. Amplitude and frequency modulation and demodulation. Sampling theorem, pulse code modulation. Frequency and time division multiplexing. Amplitude shift keying, frequency shift keying and pulse shift keying for digital modulation.

Control Systems:

Open loop and closed loop (feedback) systems and stability analysis of these systems. Signal flow graphs and their use in determining transfer functions of systems; transient and steady state analysis of LTI control systems and frequency response. Tools and techniques for LTI control system analysis: root loci, Routh-Hurwitz criterion, Bode and Nyquist plots. Control system compensators: elements of lead and lag compensation, elements of Proportional-Integral-Derivative (PID) control. State variable representation and solution of state equation of LTI control systems.

Electromagnetics:

Elements of vector calculus: divergence and curl; Gauss' and Stokes' theorems, Maxwell's equations: differential and integral forms. Wave equation, Poynting vector. Planewaves: propagation through various media; reflection and refraction; phase and group velocity; skin depth.

10. Syllabus for Biotechnology (BT)

Microbiology: Prokaryotic and eukaryotic cell structure; Microbial nutrition, growth; Microbial metabolism (aerobic and anaerobic respiration, photosynthesis);Nitrogen fixation; Chemical basis of mutations and mutagens; Microbial genetics (plasmids, transformation, transduction, conjugation); Viruses, Bacteria **Biochemistry:** Bio molecules and their conformation; Weak inter-molecular interactions in bio macro molecules; Chemical and functional nature of enzymes; Kinetics of single substrate and bi- substrate enzyme catalyzed reactions; Bioenergetics; Metabolism (Glycolysis, TCA and Oxidative phosphorylation); Membrane transport and pumps; Cell cycle and cell growth control;

Molecular Biology and Genetics: Molecular structure of genes and chromosomes; DNA replication and control; Transcription and its control; Translational processes, Mendelian inheritance; Linkage, recombination and chromosome mapping; Chromosomal variation; Molecular basis of genetic diseases and applications.

Process Biotechnology: Bioprocess technology for the production of cell biomass and

primary/secondary metabolites, such as baker's yeast, ethanol, citric acid, amino acids, antibiotics; Chromatographic and membrane based bio separation methods; Immobilization of enzymes and cells and their application for bioconversion processes. Aerobic and anaerobic biological processes for stabilization of solid / liquid wastes ;Bioremediation.

Bioprocess Engineering: Kinetics of microbial growth, substrate utilization and product formation; Simple structured models; Sterilization; Batch, fed-batch and continuous processes; Mass transfer in bio reactors; Scale-up concepts; Various types of microbial and enzyme reactors; Instrumentation in bioreactors.

Plant and Animal Biotechnology: Special features and organization of plant cells; Totipotency;
Regenerationofplants;Autotrophicandheterotrophicgrowth;Plantgrowthregulatorsandelicitors;Production ofsecondarymetabolitesby plant suspension cultures, Techniques in raising transgencies.

Characteristics of animal cells: Metabolism, regulation and nutritional requirements form as scultivation of animalcellcultures;Kineticsofcellgrowthandproductformation,Hybridomatechnology; Live stock improvement; Cloning in animals; Genetic engineering in animal cell culture;

Immunology: The origin of immunology; Inherent immunity; Humoral and cell mediated immunity; Antigen; B and T cells and Macrophages; Major histo compatibility complex (MHC); Antigen processing and presentation; Molecular basis of antibody diversity; Polyclonal and monoclonal antibody; Complement; Antigen-antibody reaction; Immune tolerance; Hyper sensitivity; Autoimmunity;

Recombinant DNA Technology: Restriction and modification enzymes; Vectors: plasmid, bacteriophage and other viral vectors, cosmids, Tiplasmid, yeast artificial chromosome; cDNA and genomic DNA library; Geneisolation; Genecloning; Expression of clonedgene; Transposons and gene targeting; DNA labeling; DNA sequencing; Polymerase chain reactions; DNA finger printing; Southern and northern blotting; In-situhybridization; RAPD; RFLP; Site-directed mutagenesis; Gene transfer technologies; Gene therapy.

Bioinformatics: Major bio in formatics resources, Sequence and structure databases; Sequence analysis (biomolecular sequence file formats, scoring matrices, sequence alignment, phylogeny); DNA microarrays, Molecular modeling and simulations.

11. ENVIRONMENTAL ENGINEERING (EVE)

Atmospheric chemistry: Pollutants, contaminants, receptors, sink, pathways of pollutants. Major regions of atmosphere, particles, ions and radicals in atmosphere, Thermochemical and photochemical reaction in atmosphere, smog, NOx, SO, hydrocarbons, suspended particulate matter, chemistry of action of pollutant and effects. Water quality parameters, pH, conductance, dissolved oxygen, B.O.D and C.O.D of waste water. Sanitary significance of sulphate, phosphate, nitrate fluoride and cyanide and their effects. Soil chemistry-Inorganic and organic components of soil, nitrogen pathway in soil, Fertilizers. Toxic chemicals in the environment: pesticides, arsenic, cadmium, lead, mercury, carbon monoxide, PAN, MIC, Radioactive wastes.

Microbial metabolism of heavy metals, pesticides etc. Ecology, Definition, Branches and Scope of ecology. Ecological adaptation & concept of limiting factor. Different types of ecosystem in India. Structural and functional attributes of an ecosystem. Biotic and Abiotic components, Food chain, Food web and energy flow. Ecological succession. Biogeochemical cycle. Concept of population & population attributes. Concept of carrying capacity and environmental resistance. Development and evolution of ecosystem. Population interaction. Qualitative and quantitative. Raw water collection and Treated water distribution System

Introduction and overview of urban and rural water supply system:- Sources selection, Population estimation, Design period, Domestic institution, commercial and industrial needs. Preliminary Hydraulic design of pressure conduits system (Dead end method and loop network method. Waste water collection systems, Waste water disposal, Septic tank, Types of surface and underground drainage system, their merits and demerits. Types of sewerage- lateral, sub main , Main intercepting and outfall sewers.

Hydraulic design of gravity sewerage system – Sources, rate of domestic sullage and waste water flow, infiltration, ex-filtration, pick factor, pressure sewers.

Appurtenances – Manhole, Street inlet, Inverted siphon, House drainage connection, Sewer junction and transition. Waste water pumping - types of pumps.

Water sanitation:- Sanitary consideration for location and construction of walls. Water impurities and biological contamination of water, Water pollution and health, water purification, Drinking water Standards & their significance..Surface Water Treatment System . Waste water treatment system. Characterization of sludge, Air pollution and measurement of Air Pollution. Atmospheric dispersion of stack effluents, Noise pollution.
Composition and Properties of Municipal Solid Waste. Generation, Collection rates, waste handling and separation, storage and processing at the source.

Biomedical waste management: Sources, Hazardous associated with bio-medical wastes, Biosafety, Storage of biomedical wastes, disposal and processing.
EIA under NEPA (National Environmental Policy Act), Methodologies screening and scooping criteria, Rapid
and comprehensive EIA, Environmental health impact assessment. Environmental risk analysis.

12. Syllabus for Industrial Engineering (IE)

Engineering Materials: Structure and properties of engineering materials and their applications; effect of strain, strain rate and temperature on mechanical properties of metals and alloys; heat treatment of metals and alloys, its influence on mechanical properties.
Applied Mechanics: Engineering mechanics–equivalent force systems, free body concepts, equations of
equilibrium; strength of materials–stress, strain and their relationship, Mohr's circle, deflection of beams, bending and shear stress, Euler's theory of columns.
Theory of Machines and Design: Analysis of planar mechanisms, cams and followers; governers and flywheels; designofelements–failure theories; design of bolted, riveted and welded joints; design of shafts, keys, spur gears, belt drives, brakes and clutches.
Thermal Engineering: Fluid mechanics–fluid statics, Bernoulli's equation, flow through pipes, equations of continuity and momentum; thermodynamics–zeroth, first and second law of thermodynamics, thermodynamic system and processes, calculation of work and heat for systems and control volumes; air standard cycles; basics of internal combustion engines and steam turbines; heat transfer– fundamentals of conduction, convection and radiation, heat exchangers.
Machining and Machine Tool Operations: Basic machine tools; machining processes-turning, drilling, boring, milling, shaping, planing, gear cutting, thread production, broaching, grinding, lapping, honing, super finishing; mechanics of machining–geometry of cutting tools, chip formation, cutting forces and power requirements, Merchant's analysis; selection of machining parameters; tool materials, tool wear and tool life, economics of machining, thermal aspects of machining, cutting fluids, machinability; principles and applications of nontraditional machining processes– USM, AJM, WJM, EDM and Wirecut EDM, LBM, EBM, PAM, CHM, ECM.

Tool Engineering: Jigs and fixtures–principles, applications, and design; press tools–configuration, design of die and punch; principles of forging die design.

Metrology and Inspection: Limits, fits, and tolerances, interchangeability, selective assembly; linear and angular measurements by mechanical and optical methods, comparators; design of limit gauges; interferometry; measurement of straightness, flatness, roundness, squareness and symmetry; surface finish measurement; inspection of screw threads and gears; alignment testing of machine tools.

Polymers and Composites: Introduction to polymers and composites; plastic processing – injection, compression and blow molding, extrusion, calendaring and thermo forming; molding of composites. **Manufacturing Analysis:** Sources of error sin manufacturing; process capability; tolerance analysis in manufacturing and assembly; process planning; parameter selection and comparison of production alternatives; time and cost analysis; manufacturing technologies–strategies and selection.

Product Design and Development: Principles of good product design, tolerance design; quality and cost considerations; product life cycle; standardization, simplification, diversification, value engineering and analysis, concurrent engineering.

Engineering Economy and Costing: Elementary cost accounting and methods of depreciation; break-even analysis, techniques for evaluation of capital investments, financial statements.

Work System Design: Taylor's scientific management, Gilbreths's contributions; productivity–concepts and measurements; method study, micro-motion study, principles of motion economy; work measurement – stop watch time study, work sampling, standard data, PMTS; ergonomics; job evaluation, merit rating, incentive schemes, and wage administration; business process reengineering.

Facility Design: Facility location factors and evaluation of alternate locations; types of plant layout and their evaluation; computer aided layout design techniques; assembly line balancing; materials handling systems.

Production Planning and Inventory Control: Forecasting techniques – causal and time series models, moving average, exponential smoothing, trend and seasonality; aggregate production planning; master production scheduling; MRP and MRP-II; order control and flow control; routing, scheduling and priority dispatching; push and pull production systems, concept of JIT manufacturing system; logistics, distribution, and supply chain management; Inventory–functions, costs, classifications, deterministic and probabilistic inventory models, quantity discount; perpetual and periodic inventory control systems.

Operation Research: Linear programming–problem formulation, simplex method, duality and sensitivity analysis; transportation and assignment models; network flow models, constrained optimization and Lagrange multipliers; simple queuing models; dynamic programming; simulation–manufacturing applications; PERT and CPM, time-cost trade-off, resource leveling.

Quality Management: Quality–concept and costs, quality circles, quality assurance; statistical quality control, acceptance sampling, zero defects, six sigma; total quality management; ISO 9000; design of experiments–Taguchi method.

Reliability and Maintenance: Reliability, availability and maintainability; distribution of failure and repair

times; determination of MTBF and MTTR, reliability models; system reliability determination; preventive maintenance and replacement, total productive maintenance–concept and applications.

Management Information System: Value of information; information storage and retrieval system –database and data structures; knowledge based systems.

Intellectual Property System: Definition of intellectual property, importance of IPR; TRIPS and its

implications, patent, copyright, industrial design and trademark.

Finishing: Mechanical finishing of cotton**.** Stiff. Soft, wrinkle resistant, water repellent, flame retardant and enzyme (bio-polishing) finishing of cotton. Milling, decatizing and shrink resistant finishing of wool. Antistat finishing of synthetic fibre fabrics. Heat setting of polyester.

Energy Conservation: Minimum application techniques.

Pollution: Environment pollution during chemical processing of textiles. Treatment of textile effluents.

13. Syllabus for Plastic Engineering (PE)

As per B. Tech Plastic Engineering syllabus of BPUT, Odisha.

TABLES TO REFER FOR CHOICE FILLINGS DURING ONLINE APPLICATION SUBMISSION

TABLE-11

Qualifying Exam.	Course	Course Code	APPLICATION FORM
10 +2 SCIENCE	BAMS and BHMS	1	**FORM - A**
	PHARMACY ONLY	2	
	PHARMACY and BAMS & BHMS	3	
	QUALIFICATION IN BRANCH		
DIPLOMA IN	Mechanical Engineering	51	**FORM - B**
	Applied Electronics & Instrumentation / Electronics & Telecommunication Engineering	52	
	Rural Technology/ Architectural Assistantship	53	
	Biotechnology	54	
	Metallurgical Engineering	55	
	Chemical Engineering	56	
	Computer Science & Engineering / Computer Application Programming / Information Technology	57	
	Drilling Technology / Drilling Engineering	58	
	Electrical and Electronics Engineering / Electrical Engineering	59	
	Electrical and Mechanical Engineering	60	
	Food Technology / Food Processing.	61	
	Garment Design & Fashion Technology / Beauty Culture	62	
	Mechatronics	63	
	Medical Lab Technician	64	
	Mining Engineering	65	
	Plastic Mould Engineering/ Plastic Engineering	66	
	Print Technology	67	
	Sound& TV Engineering	68	
	Textile Chemistry	69	
	Textile Technology / Textile Engineering	70	
	Three D Animation and Graphics	71	
	Marine Engineering	72	
	Civil Engineering	73	
	Ceramic Engineering /Ceramic	74	

	Other Diploma courses in Engineering which is not mentioned above	75	
	D Pharmacy	76	
	Petrochem and Petroleum Refinery Engineering	77	
	Tool & Die Making / Mechanical Maintenance / Mechanical (Production)/ Aeronautical Engineering / Automobile Engineering/ Manufacturing	78	
BACHELOR DEGREE	+3 Sc / B.Sc. with mathematics as subject at XII standard	50	**FORM -B**
BACHELOR DEGREE	MBA	4	**FORM - C**
	MCA	5	
	" Lateral Entry MCA"- LE-MCA	6	
	QUESTION NAME FOR PGAT(M TECH) EXAM		
BACHELOR DEGREE IN ENGINEERING	B Arch	16	**FORM - D**
	B Pharma	17	
	Biotechnology	18	
	Chemical Engineering	19	
	Civil Engineering	20	
	Computer Science Engineering / Information Technology	21	
	Electrical Engineering	22	
	Electronics Engineering	23	
	Environmental Engineering	24	
	Mechanical Engineering	26	
	Metallurgical Engineering	27	
	Plastic Engineering	28	
	Textile Engineering	29	
GRADUATION AND POST GRADUATION	M PLAN	81	**FORM - D**
BACHELOR DEGREE IN SCIENC AND ENGINEERING	MBA AND MCA	10	**FORM -E**
	MBA AND LE-MCA	11	
	MBA + B Arch	32	
	MBA + B Pharma	33	
	MBA + Biotechnology	34	
	MBA + Chemical Engineering	35	
	MBA +Civil Engineering	36	
	MBA + Comp.Science Engineering / I T	37	

	MBA + Electrical Engineering	38	
	MBA + Electronics Engineering	39	
	MBA + Environmental Engineering	40	
	MBA + Mechanical Engineering	42	
	MBA + Metallurgical Engineering	43	
	MBA + Plastic Engineering	44	
	MBA + Textile Engineering	45	
10+2 IN SCIENCE,ARTS,COMMERCE	Integrated MBA(5 years)	31	**FORM - F**

TABLE- 12

List of OJEE-2018 Centres with Centre Code

Place of Centre	Code	Place of Centre	Code
Angul	10	Jeypore	21
Balasore	11	Jharsuguda	22
Baripada	12	Kendrapara	23
Bhawanipatna	13	Keonjhar	24
Berhampur	14	Phulbani	25
Bhadrak	15	Puri	26
Bhubaneswar	16	Rayagada	27
Bolangir	17	Rourkela	28
Cuttack	18	Sambalpur	29
Dhenkanal	19	Sarang	30
Jagatsinghpur	20		

TABLE-13
Mapping course-wise for Lateral Entry admission

Diploma Course mapping for Lateral Entry admission		
I	II	III
	If the candidate has a Diploma in the discipline:	**Eligible for admission to the Degree course in:**
1	Mechanical Engineering	Aeronautical Engineering / Environmental Engineering / Mechanical Engineering / Production Engineering / Manufacturing Sc. and Engineering / Automobile engineering / Manufacturing Engineering and Technology/Textile Engineering/ Marine Engineering/ Petrochem and Petroleum Refinery Engineering
2	Applied Electronics & Instrumentation / Electronics & Telecommunication Engineering / Electrical and Electronics Engineering	Applied Electronics and Instrumentation / Instrumentation and Electronics Engineering / Electronics and Communication Engineering / Electronics & Instrumentation Engineering / Electronics & Tele Communication Engineering / Bio-Medical Engineering / Electrical & Electronics Engineering

3	Rural Technology / Architectural Assistantship & Town Planning	Civil Engineering / Environmental Engineering
4	Biotechnology	Biotechnology / Bio-Medical Engineering / Chemical Engineering / Plastic Engineering / Textile Engineering / Environmental Engineering
5	Metallurgical Engineering	Metallurgical Engineering / Metallurgical and Materials Engineering / Environmental Engineering/Mineral engineering
6	Chemical Engineering	Chemical Engineering / Biotechnology / Plastic Engineering / Mineral Engineering / Textile Engineering / Environmental Engineering/ Petrochem and Petroleum Refinery Engineering
7	Computer Science & Engineering / Computer Application Programming / Information Technology	Computer Science & Engineering / Information Technology / Information Technology & Engineering / Bio-Medical Engineering
8	Drilling Technology / Drilling Engineering	Mining Engineering / Mechanical Engineering / Manufacturing Sc. and Engineering / Production Engineering / Manufacturing Engineering and Technology
9	Electrical and Electronics Engineering / Electrical Engineering	Electrical Engineering / Electrical & Electronics Engineering / Bio-Medical Engineering / Applied Electronics and Instrumentation/ Instrumentation and Electronics Engineering / Electronics & Instrumentation Engineering/ Marine Engineering
10	Electrical and Mechanical Engineering	Electrical Engineering / Mechanical Engineering
11	Food Technology / Food Processing.	Chemical Engineering / Biotechnology / Bio Medical Engineering / Environmental Engineering
12	Garment Design & Fashion Technology / Beauty Culture	Fashion and Apparel Technology / Textile Engineering
13	Mechatronics	Mechanical Engineering / Bio-medical Engineering / Applied Electronics and Instrumentation/ Instrumentation and Electronics Engineering / Electronics and Communication Engineering / Electronics and Telecommunication Engineering/ Electronics & Instrumentation Engineering / Automobile Engineering / Manufacturing Sc. and Engineering / Production Engineering / Manufacturing Engineering and Technology
14	Medical Lab Technician	Bio-medical Engineering / Bio Technology
15	Mining Engineering	Mining Engineering / Environmental Engineering
16	Plastic Mould Engineering	Plastics Engineering / Mechanical Engineering / Production Engineering / Chemical Engineering / Manufacturing Sc. and Engineering / Manufacturing Engineering and Technology / Petrochem and Petroleum Refinery Engineering
17	Print Technology	Fashion and Apparel Technology / Textile Engineering / Chemical Engineering / Manufacturing Sc. and Engineering / Production Engineering / Manufacturing

		Engineering and Technology
18	Sound Engineering	Applied Electronics and Instrumentation/ Instrumentation and Electronics Engineering / Electronics and Communication Engineering / Electronics and Telecommunication Engineering/ Electronics & Instrumentation Engineering
19	Textile Chemistry	Textile Engineering / Chemical Engineering / Biotechnology
20	Textile Technology / Textile Engineering	Textile Engineering / Fashion and Apparel Technology / Production Engineering / Manufacturing Sc. and Engineering / Manufacturing Engineering and Technology
21	Three D Animation and Graphics	Mechanical Engineering / Production Engineering / Manufacturing Sc. and Engineering / Manufacturing Engineering and Technology / Computer Science & Engineering / Information Technology / Information Technology & Engineering
22	Civil Engineering	Civil Engineering / Environmental Engineering
23	Ceramic Engineering /Ceramic	Metallurgical Engineering /Metallurgical and Material Engineering/ Petrochem and Petroleum Refinery Engineering
24	D. Pharm	B. Pharm
25	Marine Engineering	Mechanical Engineering/ Mechanical Engineering / Manufacturing Sc. and Engineering / Production Engineering / Manufacturing Engineering and Technology/ Marine Engineering
26	Petrochem and Petroleum Refinery Engineering	Petrochemical Engineering/ Petrochemical Refinery/ Petrochemical Technology/ Petroleum Engineering/ Petroleum Technology/ Petrochem and Petroleum Refinery Engineering
27	Tool & Die Making / Mechanical Maintenance / Mechanical (Production)/ Aeronautical Engineering / Automobile Engineering	Aeronautical Engineering / Environmental Engineering / Mechanical Engineering / Production Engineering / Manufacturing Sc. and Engineering / Automobile engineering / Manufacturing Engineering and Technology/Textile Engineering

TABLE-14

Mapping course-wise for PGAT (M.Tech/ M. ARCH/ M. PHARM)admission:
Please make correct choice based on your Graduation subject and M Tech you are interested in.
Column 3 about candidate basic degree. Column 4 M Tech available for admission.
Column 2 the question one should attempt based on basic degree and preferred M Tech course.

Mapping course-wise for PGAT (M. Tech / M. ARCH/ M. PHARM) admission			
I	**II**	**III**	**IV**
SL NO	**BRANCH QUESTION PAPER TO APPEARIN ENTRANCE TEST**	**IF YOU HAVE DEGREE IN THE DISCIPLINE**	**YOU ARE ELIGIBLE FOR 1ST YEAR MASTER DEGREE COURSES**
1	COMPUTER SCIENCE AND ENGINEERING / INFORMATION TECHNOLOGY (CSE/IT)	1.COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE / COMPUTER SCIENCE AND ENGINEERING /INFORMATION TECHNOLOGY/ COMPUTER SCIENCE AND TECHNOLOGY/ COMPUTER ENGINEERNG / ELECTRONICS INFORMATION SYSTEMS / VLSI & EMBEDDED SYSTEMS/VLSI DESIGN AND EMBEDED SYSTEM/ VLSI AND MBEDED SYSTEM DESIGN / AUTOMATION AND ROBOTICS / CAD CAM /NANO TECHNOLOGY / WIRELESS COMMUNICATION TECHNOLOGY / WIRELESS COMMUNICATION SYSTEMS/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING/ ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
		2.INFORMATION TECHNOLOGY	
		3.INFORMATION TECHNOLOGY AND ENGINEERING	
		4.APPLIED ELECTRONICS AND INSTRUMENTATION	
		5.ELECTRONICS & COMMUNICATION ENGINEERING	
		6.ELECTRONICS AND TELECOMMUNICATION ENGINEERING	
		7.ELECTRONICS AND INSTRUMENTATION ENGINEERING	
		8.INSTRUMENTATION AND ELECTRONICS ENGINEERING	
		9. ELECTRICAL AND ELECTRONICS ENGINEERING	
		10.ELECTRONICS ENGINEERING	
		11.INSTRUMENTATION ENGINEERING	
		12.ELECTRICAL ENGINEERING / TECHNOLOGY	
		1.MASTER IN COMPUTER APPLICATION (MCA)	COMPUTER SCIENCE / COMPUTER SCIENCE AND ENGINEERING /INFORMATION TECHNOLOGY/ COMPUTER SCIENCE AND TECHNOLOGY/ COMPUTER ENGINEERNG
		2.COMPUTER SCIENCE	
		3. MSc. In (Comp. Sc / IT)	
2	CIVIL ENGINEERING (CE)	1.CIVIL ENGINEERING	CIVIL ENGINEERING / WATER RESOURSES ENGINEERING AND MANAGEMENT / GEOTECHNICAL ENGINEERING / WATER RESOURSES ENGINEERING /ENVIRONMENTAL SCIENCE AND
		2. STRUCTURAL ENGINEERING	

		3. AEROSPACE ENGINEERING	ENGINEERING /ENVIRONMENTAL SCIENCE AND ENGINEERING**(PT)** /ENVIRONMENTAL ENGINEERING / SOIL MECHANICS AND FOUNDATION ENGINEERING / ARCHITECTURE AND TOWN PLANNING / CONSTRUCTION TECHNOLOGY AND MANAGEMENT / STRUCTURAL AND FOUNDATION ENGINEERING / STRUCTURAL ENGINEERING / CAD CAM / THERMAL AND FLUID ENGINEERING / NANO TECHNOLOGY / INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
3	MECHANICAL ENGINEERING (ME)	1. AUTOMOBILE ENGINEERING 2. AERONAUTICAL ENGINEERING 3. AEROSPACE ENGINEERING 4.MECHANICAL ENGINEERING 5.MANUFACTURING ENGINEERING AND TECHNOLOGY 6.PRODUCTION ENGINEERING 7.MANUFACTURING SCIENCE AND ENGINEERING 8.MECHATRONICS	MECHANICAL ENGINEERING / PRODUCTION ENGINEERING / HEAT POWER AND THERMAL ENGINEERING / MACHINE DESIGN /PRODUCTION ENGINEERING AND OPERATIONAL MANAGEMENT / THERMAL ENGINEERING / DESIGN AND DYNAMICS / MECHANICAL SYSTEM DESIGN / MECHANICAL SYSTEM DESIGN AND DYNAMICS / MACHINE DESIGN NDROBOTICS / HEAT POWER ENGINEERING / THERMAL POWER ENGINEERING / MECHATRONICS / AUTOMATION AND ROBOTICS/ CAD CAM / THERMAL AND FLUID ENGINEERING / INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING / NANO TECHNOLOGY / ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
4	ELECTRICAL ENGINEERING (EE)	1.ELECTRICAL ENGINEERING / TECHNOLOGY 2.ELECTRICAL AND ELECTRONICS ENGINEERING 3. APPLIED ELECTRONICS AND INSTRUMENTATION 4. ELECTRONICS AND	ELECTRICAL ENGINEERING / POWER ELECTRONICS AND DRIVES / POWER SYSTEM ENGINEERING / INDUSTRIAL POWER CONTROL AND DRIVES / ELECTRICAL POWER SYSTEM /POWER SYSTEMS / POWER ELECTRONICS AND ELECTRICAL DRIVES / POWER ELECTRONICS AND ELECTRICAL DRIVESIN EE/ POWER ELECTRONICS AND POWER SYSTEMS / POWER ELECTRONICS / AUTOMATION AND

		INSTRUMENTATION ENGINEERING	ROBOTICS / CAD CAM / POWER ENGINEERING AND ENERGY SYSTEM / POWER AND ENERGY / ENERGY SYSTEM ENGINEERING / ELECTRICAL AND ELECTRONICS ENGINEERING /NANO TECHNOLOGY /MECHATRONICS / INDUSTRIALPOWER CONTROL AND DRIVES**(PT)**/POWER AND ENERGY / VLSI & EMBEDDED SYSTEMS/ VLSI DESIGN AND EMBEDED SYSTEM/VLSI AND EMBEDED SYSTEM DESIGN/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING/ ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
		5. INSTRUMENTATION AND ELECTRONICS ENGINEERING	
		6. INSTRUMENTATION AND CONTROL	
		7. INSTRUMENTATION ENGINEERING	
5	BIO TECHNOLOGY (BT)	1.BIO TECHNOLOGY	BIO TECHNOLOGY / PLASTIC ENGINEERING / POLYMER AND NANO TECHNOLOGY / TEXTILE CHEMICAL PROCESSING / FOOD TECHNOLOGY / ENERGY SYSTEM ENGINEERING / NANO TECHNOLOGY/ CHEMICAL ENGINEERING/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING/ ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
		2. BIO MEDICAL ENGINEERING	
		3.INDUSTRIAL BIOTECHNOLOGY	
		4. BIO ENGINEERING	
		5.BIO CHEMICAL ENGINEERING	
		6. AGRICULTURAL BIOTECHNOLOGY	
		7. AGRICULTURAL ENGINEERING	
		8. BIO INFORMATICS	
		9. LEATHER TECHNOLOGY	
		10. MINING ENGINEERING	
		11. MINERAL ENGINEERING	
		12. B. PHARM	
		13. ENVIRONMENTAL ENGINEERING	
		14. MSc. In (Life Sc. / Botany / Zoology / Biochemistry / Molecular Biology / Genetics / Nature and conservation Biology / Micro-Biology / Bio-Technology / Food Technology / Food Processing / Nano Technology / Marine Biology / Bio-Physics / Biology / Agriculture / Veterinary Sc. / Environmental Sc.)	
6	ELECTRONICS ENGINEERING (ELE)	1.APPLIED ELECTRONICS AND INSTRUMENTATION	COMMUNICATION SYSTEMS / COMMUNICATION ENGINEERING / SIGNAL PROCESSING AND COMMUNICATION / SIGNAL PROSESSING ENGINEERING / WIRELESS
		2.ELECTRONICS & COMMUNICATION ENGINEERING	
		3.ELECTRONICS AND TELECOMMUNICATION ENGINEERING	

		4.ELECTRONICS AND INSTRUMENTATION ENGINEERING 5.INSTRUMENTATION AND ELECTRONICS ENGINEERING 6. ELECTRICAL AND ELECTRONICS ENGINEERING 7.ELECTRONICS ENGINEERING 8.INSTRUMENTATION ENGINEERING 9. BIOMEDICAL ENGINEERING 10. ELECTRICAL ENGG./TECHNOLOGY 11.MECHATRONICS	COMMUNICATION TECHNOLOGY / WIRELESS COMMUNICATION SYSTEMS / ELECTRONICS INFORMATION SYSTEMS / VLSI & EMBEDDED SYSTEMS/ VLSI DESIGN AND EMBEDED SYSTEM/ VLSI AND EMBEDED SYSTEM DESIGN / AUTOMATION AND ROBOTICS / ELECTRONICS AND INSTRUMENTATION ENGINEERING /ELECTRONICS AND COMMUNICATION ENGINEERING / ELECTRONICS AND TELECOMMUNICATION ENGINEERING / APPLIED ELECTRONICS AND INSTRUMENTATION ENGINEERING / MECHATRONICS / CAD CAM / ELECTRICAL AND ELECTRONICS ENGINEERING /NANO TECHNOLOGY /INDUSTRIALPOWER CONTROL AND DRIVES**(PT)**/ ENERGY SYSTEM ENGINEERING/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING/ ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
7	PLASTIC ENGINEERING (PE)	1. PLASTIC ENGG. / TECH. 2. MECHANICAL ENGINEERING 3.MANUFACTURING ENGINEERING AND TECHNOLOGY 4.PRODUCTION ENGINEERING 5.MANUFACTURING SCIENCE AND ENGINEERING 6.POLYMER ENGG./TECH. 7. MATERIAL SCIENCE / ENGG 8. POLYMER SC. AND TECHNOLOGY 9. RUBBER AND PLASTIC TECHNOLOGY 10. MSc. In (Polymer Sc. / Polymer Chemistry/ Polymer Physics / Chemistry / Applied Chemistry)	PLASTIC ENGINEERING / POLYMER NANO TECHNOLOGY / BIO TECHNOLOGY / CHEMICAL ENGINEERING / NANO TECHNOLOGY / METALLURGICAL AND MATERIALS ENGINEERING / PRODUCTION ENGINEERING / CAD CAM/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING/ ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
8	TEXTILE ENGINEERING(TE)	1. TEXTILE ENGG. / TECH. 2.MANUFACTURING SCIENCE AND ENGINEERING	TEXTILE CHEMICAL PROCESSING / BIO TECHNOLOGY / POLYMER NANO

		3.PRODUCTION ENGINEERING	TECHNOLOGY / CHEMICAL ENGINEERING / NANO TECHNOLOGY/PRODUCTION ENGINEERING / CAD CAM/ PLASTIC ENGINEERING/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING/ ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
		4.MANUFACTURING ENGINEERING AND TECHNOLOGY	
		5.FASHION AND APPAREL TECHNOLOGY	
		6.POLYMER ENGG./ TECH.	
		7. MATERIAL SCIENCE / ENGG	
		8. TEXTILE CHEMISTRY	
		9. APPAREL TECHNOLOGY	
		10. FASHION TECHNOLOGY	
		11. TEXTILE CHEMICAL PROCESSING	
		12. MAN MADE FIBER TECHNOLOGY	
		13. FIBER TECHNOLOGY	
		14. MSc. In (Clothing Sc. / Chemistry / Applied Chemistry / Polymer Sc / Nano Technology / Polymer Chemistry/ Polymer Physics)	
9	B. ARCH	B. ARCH	ARCHITECTURE AND TOWN PLANNING / CONSTRUCTION TECHNOLOGY AND MANAGEMENT /EXECUTIVE M. ARCH / CAD CAM
10	METALLURGICALENGINEERING (MTE)	1. METALLURGICAL ENGINEERING	METALLURGICAL & MATERIAL ENGINEERING / POLYMER NANO TECHNOLOGY / NANO TECHNOLOGY / PLASTIC ENGINEERING /MANUFACTURING ENGINEERING/MANUFACTURING ENGINEERING AND TECHNOLOGY/ PRODUCTION ENGINEERING / INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING/ ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
		2. METALLURGICAL AND MATERIALS ENGINEERING	
		3. MATERIAL SCIENCE / ENGG.	
		4. WELDING SCIENCE / ENGG.	
		5. MINERAL ENGINEERING	
		6. CERAMIC ENGINEERING AND TECHNOLOGY	
		7. CHEMICAL ENGINEERING	
		8. MECHANICAL ENGINEERING	
		9.PRODUCTION ENGINEERING	
		10. MANUFACTURING ENGINEERING/MANUFACTURING ENGG. & TECHNOLOGY	
		11. PLASTIC ENGINEERING	
11	CHEMICAL ENGINEERING (CHE)	1. MINERAL ENGINEERING	BIO TECHNOLOGY / PLASTIC ENGINEERING / TEXTILE CHEMICAL PROCESSING / METALLURGICAL & MATERIAL ENGINEERING /CHEMICAL ENGINEERING / FOOD TECHNOLOGY / NANO TECHNOLOGY
		2. CHEMICAL ENGINEERING	
		3.POLYMER ENGG./TECH.	
		4. MATERIAL SCIENCE / ENGG	
		5. CHEMICALS AND	

		ELECTROCHEMICALS	/ POLYMER NANO TECHNOLOGY/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING/ ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING
		6. RUBBER AND PLASTIC TECHNOLOGY	
		7. RUBBER TECHNOLOGY	
		8. MSc. In (Botany / Zoology / Biology / Biochemistry / Molecular Biology / Genetics / Food Technology / Food Processing / Nano Technology / Agriculture / Chemistry / Applied Chemistry / Micro Biology)	
12	ENVIRONMENTAL ENGINEERING (EVE)	1. All Branches of Engineering / Technology	ENVIRONMENTAL SCIENCE AND ENGINEERING /ENVIRONMENTAL ENGINEERING / ENVIRONMENTAL SCIENCE AND ENGINEERING**(PT)/ INDUSTRIAL ENGINEERING AND MANAGEMENT / INDUSTRIAL ENGINEERING**
		2. MSc. In (Environmental Sc. / Chemistry / Bio Chemistry / Earth Sc. / Life Sc. / Microbiology / Physics / Bio Physics / Geology / Nature and conservation Biology / Food Technology / Food Processing / Marine Biology / Bio-Physics / Applied Chemistry / Agriculture)	
13	B. PHARM	B. PHARM	ALL BRANCHES OF M. PHARM

LIST OF TABLES SHOWING DIFFERENT COLLEGES FOR DIFFERENT COURSE(Previous year data)

TABLE-15- Government Colleges offering B.Pharm Programme

Sl.NO	COLLEGE/UNIVERSITY(GOVT.)	GOVT/PVT	Intake
1	UNIVERSITY DEPARTMENT OF PHARMACEUTICAL SCIENCES, UTKAL UNIVERSITY	GOV	45

TABLE-15-A-Private Colleges offering B.Pharm Programme

Sl.NO	COLLEGE/UNIVERSITY(GOVT.)	GOVT/PVT	Intake
1	COLLEGE OF PHARMACEUTICAL SCIENCE, PURI	PVT	60
2	COLLEGE OF PHARMACEUTICAL SCIENCES,BERHAMPUR,MOHUDA	PVT	120
3	DADHICHI COLLEGE OF PHARMACY, CUTTACK	PVT	60
4	GAYATRI COLLEGE OF PHARMACY, SAMBALPUR	PVT	100
5	GAYATRI INSTITUTE OF SCIENCE AND TECHNOLOGY(GIST), GUNUPUR	PVT	60
6	HI-TECH COLLEGE OF PHARMACY, BHUBANESWAR	PVT	60

7	IMT PHARMACY COLLEGE, PURI	PVT	60
8	INDIRA GANDHI INSTITUTE OF PHARMACEUTICAL SCIENCE, BBSR	PVT	100
9	INSTITUTE OF PHARMACY & TECHNOLOGY, SALIPUR	PVT	100
10	JEYPORE COLLEGE OF PHARMACY, JEYPORE	PVT	100
11	KANAK MANJARI INSTITUTE OF PHARMACEUTICAL SCIENCES, ROURKELA	PVT	60
12	ROLAND INSTITUTE OF PHARMACEUTICAL SCIENCES, BERHAMPUR	PVT	100
13	ROYAL COLLEGE OF PHARMACY & HEALTH SCIENCE, BERHAMPUR	PVT	100
14	SEEMANTA INSTITUTE OF PHARMACEUTICAL SCIENCES, JHARPOKHARIA	PVT	60
15	SRI JAYADEV COLLEGE OF PHARMACEUTICAL SCIENCES, BHUBANESWAR	PVT	60
16	THE PHARMACEUTICAL COLLEGE,BARPALI	PVT	60
		Total	**1260**

TABLE – 16 Government Colleges offering MCA Programme

For fee structure and statusof course please contact concerned institute.

SL.NO	COLLEGE/ UNIVERSITY (GOVT. and SSC OF GOVT.)	Total
1	BERHAMPUR UNIVERSITY, BHANJA VIHAR, BERHAMPUR	30
2	COLLEGE OF ENGINEERING & TECHNOLOGY, GHATIKIA, BHUBANESWAR-751003	30
3	INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG, AT/PO:IGIT SARANG	60
4	INSTITUTE OF MANAGEMENT & INFORMATION TECHNOLOGY, CUTTACK	90
5	FAKIRMOHAN UNIVERSITY BALASORE	30
6	KHALIKOTE COLLEGE (AUTONOMOUS), BERHAMPUR	30
7	NORTH ORISSA UNIVERSITY BARIPADA	30
Self Sustaining Course in Government Institute		
7	COLLEGE OF IT & MANAGEMENT EDUCATION (SSC), BHUBANESWAR	60

8	GANGADHAR MEHER COLLEGE (AUTONOMOUS) (SSC), SAMBALPUR	30
9	RAVENSHAW UNIVERSITY (SSC), CUTTACK	30
10	VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY (SSC), BURLA	30
11	MAHARAJA PURNA CHANDRA (AUTONOMOUS) COLLEGE, -BARIPADA	60
	TOTAL	510

SSC* = self-sustaining course (Candidate please note that course fee of SSC courses are more than normal Government seats.)

TABLE – 17 Private Colleges offering MCA Programme

1	Academy of Business Administration, HARIDA, KURUDA, BALASORE -756056	60
2	Ajay Binay Institute of Technology, SECTOR-I,CDA , CUTTACK-753014	60
3	Balasore College of Engineering and Technology, SERGARH BALASORE ODISHA PIN-756060	60
4	BRM Institute of Management and Information Technology, PUBA SASAN, KOUSHLYA GANGA, BHUBANESWAR	60
5	College of Engineering Bhubaneswar	60
6	Dr.Ambedkar Memorial Institute of Information Technology & Management Science, JAGDA, ROURKELA-769042 DIST-SUNDARGARH ODISHA	120
7	Gandhi Institute for Technological Advancement (GITA) Bhubaneswar, AT: BADARAGHUNATHPUR, PO: MADANPUR VIA: JAANLA	60
8	Gandhi Institute for Technology, Bhubaneswar, AT-GRAMADIHA PO-GANGAPADA VIA-JANLA DT-KHURDA STATE:ODISHA	60
9	Gayatri Institute of Computer and Management Studies (GICMS), GYAN VIHAR AT : REGEDA PO: GUNUPUR DIST: RAYAGADA (ODISHA) PIN - 765022	45
10	Institute of Professional studies and Research	60
11	Kushagra Institute of Information and Management Science, PIRA BAZAR, GOPALPUR, IN FRONT OF SADAR POLICE STATION	120
12	Mahavir Institute of Engineering and Technology	45
13	National Institute of Science and Technology, National Institute of Science & Technology, PALUR HILLS BERHAMPUR, ODISHA - 761008	60
14	NIIS Institute of Business Administration, SARADA VIHAR MADANPUR BHUBANESWAR DIST: KHURDA PIN: 752054	60
15	PJ College of Management & Technology, SWATIK NAGAR, KESORA, BHUBANESWAR, ODISHA	60
16	Purushottam Institute of Engineering & Technology, PURUSHOTTAM VIHAR, 10TH KM., HIGHWAY 10, MANDIAKUDAR, KANSBAHAL	60
17	Raajdhani Engineering College, NEAR MANCHESWAR RLY.STATION MANCHESWAR BHUBANESWAR, KHORDHA 751017 ODISHA	60

18	Roland Institute of Technology, SURYA VIHAR, KOTHARI SINGHI, GOLANTHARA, BERHAMPUR-761008. GANJAM, ODISHA, INDIA.	60
19	Rourkela Institute of Management Studies, INSTITUTIONAL AREA GOPABANDHU NAGAR CHHEND ROURKELA-769015	60
20	Rourkela Institute of Technology, Kolunga	30
21	Seemanta Engineering College, MAYURBHANJ AT- MAYURVIHAR, VILLAGE- JAUNTI, PO.- JHARPOKHARIA, MAYURBHANJ, PIN-757086.	60
22	Silicon Institute of Technology, SILICON HILLS, PATIA, BHUBANESWAR, KHORDHA, ODISHA PIN-751024	60
23	The Techno School, 361-A, PATRAPADA, BHUBANESWAR, PIN CODE- 751019, KHURDA, ODISHA	60
24	Trident Academy of Creative Technology, F2/B, CHANDAKA INDUSTRIAL ESTATE, INFRONT OF INFOCITY, CHANDRASEKHARPUR, BHUBANESWAR, PIN-751024	120
25	Trident Academy of Technology, F2A, INFRONT OF INFOCITY, CHANDAKA INDUSTRIAL ESTATE, CHANDRASEKHARPUR, BHUBANESWAR-751 024	60
26	United School of Business Management, PLOT NO. 37/A CHANDAKA I.E PATIA BHUBANESWAR	60
27	Indian Institute of Science and Information Technology, BBSR	90
TOTAL		1740

TABLE – 18(A)Government Colleges offering MBA Programme
For fee structure and status, of course please contact concerned institute.

Sl.NO	COLLEGE/UNIVERSITY(GOVT.)	Intake
1	BERHAMPUR UNIVERSITY, BHANJA VIHAR, BERHAMPUR	40
2	INSTITUTE OF MANAGEMENT & INFORMATION TECHNOLOGY, PO. SCB MEDICAL CAMPUS ,CUTTACK ORISSA INDIA PIN 753007	120
3	FAKIRMOHAN UNIVERSITY BALASORE	40
Self-Sustaining Course in Government College		
4	COLLEGE OF IT AND MANAGEMENT EDUCATION (SSC), MANCHESWAR INDUSTRIAL ESTATE, BHUBANESWAR	120
5	DHENKANAL AUTONOMOUS COLLEGE (PPP), AT/PO-DHENKANAL DHENKANAL ODISHA	60
6	GANGADHAR MEHER COLLEGE (AUTONOMOUS) (PPP) SAMBALPUR, ORISSA PIN-768004	60
7	MADHUSUDAN INSTITUTE OF CO-OPERATIVE MANAGEMENT, BHUBANESWAR, UNIT - 8, BHUBANESWAR - 751012	60
8	MAHARAJA PURNA CHANDRA (AUTONOMOUS) COLLEGE, (PPP) AT-TAKHATPUR,P.O.-BARIPADA	60
9	NORTH ORISSA UNIVERSITY BARIPADA	30
10	SCS COLLEGE (AUTONOMOUS) PURI, (PPP) GOVT AT/PO-PURI PURI DIST-PURI ODISHA	60
	TOTAL	650

TABLE – 18 (B) Private Colleges offering MBA Programme

Sl.NO	COLLEGE/UNIVERSITY(GOVT.)	GOVT/PVT	Intake
1	ACADEMY OF BUSINESS ADMINISTRATION, HARIDA, KURUDA, BALASORE -756056	PVT	120
2	ACADEMY OF MANAGEMENT & INFORMATION TECHNOLOGY, 67, IID CENTER,	PVT	60
3	AJAY BINAY INSTITUTE OF TECHNOLOGY, SECTOR-I,CDA , CUTTACK-753014	PVT	60
4	ASTHA SCHOOL OF MANAGEMENT, 261,ATALA,BALIANTA BHUBANESWAR, DIST-KHURDA ORISSA PIN-752101	PVT	120
5	BALASORE COLLEGE OF ENGINEERING AND TECHNOLOGY, SERGARH BALASORE ORISSA PIN-756060	PVT	60
6	BHADRAK INSTITUTE OF ENGINEERING & TECHNOLOGY, AT/PO- BARAPADA, BHADRAK DIST- BHADRAK PIN - 756113 ORISSA,INDIA	PVT	60
7	BHUBANESWAR ENGINEERING COLLEGE, BHUBANESWAR	PVT	60
8	BHUBANESWAR INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY, BHUBANESWAR	PVT	120
9	BIJU PATNAIK INSTITUTE OF INFORMATION TECHNOLOGY AND MANAGEMENT STUDIES, PLOT NO. -F/4, CHANDAKA IND. ESTATE, OPP. OF INFOCITY, PATIA, BHUBANESWAR-751024	PVT	180
10	BRM INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY, PUBA SASAN, KOUSHLYA GANGA, BHUBANESWAR	PVT	120
11	CAPITAL INSTITUTE OF MANAGEMENT AND SCIENCE, 1309, PADHANSAHI SQUARE	PVT	60
12	CENTRE FOR MANAGEMENT STUDIES, ORISSA ENGINEERING COLLEGE, NABAJYOTI VIHAR, NIJIGARH KURKI, P.O. - HARIRAJPUR, JATNI	PVT	60
13	COLLEGE OF ENGINEERING BHUBANESWAR	PVT	60
14	C.V. RAMAN COLLEGE OF ENGINEERING, BIDYANAGAR MAHURA JANLA BHUBANESWAR - 752054	PVT	60
15	DRIEMS MBA, AT- KAIRAPARI, PO- KOTSAHI (TANGI), DIST- CUTTACK	PVT	120

16	DR. AMBEDKAR MEMORIAL INSTITUTE OF INFORMATION TECHNOLOGY & MANAGEMENT SCIENCE, JAGDA, ROURKELA-769042 DIST-SUNDARGARH ORISSA	PVT	60
17	GANDHI INSTITUTE FOR TECHNOLOGICAL ADVANCEMENT (GITA) BHUBANESWAR, AT: BADARAGHUNATHPUR, PO: MADANPUR VIA: JAANLA	PVT	60
18	GANDHI INSTITUTE FOR TECHNOLOGY, BHUBANESWAR, AT-GRAMADIHA PO-GANGAPADA VIA-JANLA DT-KHURDA STATE:ORISSA	PVT	120
19	GANDHI INSTITUTE OF ADVANCED COMPUTER AND RESEARCH, PRAJUKTI VIHAR AUROBINDO MARG	PVT	60
20	GANDHI INSTITUTE OF MANAGEMENT STUDIES, VILLAGE - GOBIRIGUDA, PO - KHARLING, DISTRICT - RAYAGADA	PVT	120
21	GAYATRI INSTITUTE OF COMPUTER AND MANAGEMENT STUDIES (GICMS), GYAN VIHAR AT : REGEDA PO: GUNUPUR DIST: RAYAGADA (ODISHA) PIN - 765022	PVT	60
22	GLOBAL INSTITUTE OF MANAGEMENT, AT:-HANSPAL PO:-NAHARKANTA BHUBANESWAR PIN-752101 ORISSA	PVT	120
23	HI-TECH INSTITUTE OF TECHNOLOGY, INDUSTRIAL ESTATE,KHURDA, BHUBANESWAR	PVT	60
24	INDUS COLLEGE OF ENGINEERING, BARAKUDA HEIGHT BHUBANESWAR PIN-752050	PVT	54
25	INSTITUTE OF PROFESSIONAL STUDIES & RESEARCH, CDA, CUTTACK	PVT	120
26	IIPM SCHOOL OF MANAGEMENT, AT/PO: KANSBAHAL NEAR ROURKELA DIST. SUNDARGARH ORISSA, PIN-770034	PVT	60
27	KALAM INSTITUTE OF TECHNOLOGY, GOVINDA VIHAR, GOVINDA PUR,PO: LAXMIPUR, BERHAMPUR, DIST:GANJAM	PVT	120
28	KONARK INSTITUTE OF SCIENCE AND TECHNOLOGY, PO. BOX NO. 21, TECHNOPARK, JATNI, BHUBANESWAR.	PVT	60
29	KOUSTUV BUSINESS SCHOOL	PVT	30
30	KRUPAJAL MANAGEMENT STUDIES, PUBA SASANA, KAUSALYA GANGA, BHUBANESWAR	PVT	240
31	KUSHAGRA INSTITUTE OF INFORMATION & MANAGEMENT SCIENCE, PIRA BAZAR, GOPALPUR, IN FRONT OF SADAR POLICE STATION	PVT	60

32	MAHAVIR INSTITUTE OF ENGINEERING AND TECHNOLOGY, BHUBANESWAR	PVT	45
33	MODERN ENGINEERING & MANAGEMENT STUDIES, BANAPARIA, KURUDA, BALASORE ORISSA. PIN CODE : 756056	PVT	60
34	MODERN INSTITUTE OF TECHNOLOGY AND MANAGEMENT, AT-BHAGABATIPUR BHUBANESWAR, PO- KANTABADA,VIA - JANLA, DIST-KHURDA, ORISSA 752054	PVT	60
35	NATIONAL INSTITUTE OF SCIENCE & TECHNOLOGY, PALUR HILLS BERHAMPUR, ORISSA - 761008	PVT	60
36	NIIS INSTITUTE OF BUSINESS ADMINISTRATION, SARADA VIHAR MADANPUR BHUBANESWAR DIST: KHURDA PIN: 752054	PVT	120
37	NM INSTITUTE OF ENGINEERING & TECHNOLOGY, SIJUA, PATRAPADA, BHUBANESWAR ORISSA - 751019	PVT	60
38	PJ COLLEGE OF MANAGEMENT & TECHNOLOGY, SWATIK NAGAR, KESORA, BHUBANESWAR, ORISSA	PVT	60
39	PURUSHOTTAM INSTITUTE OF ENGINEERING & TECHNOLOGY, PURUSHOTTAM VIHAR, 10TH KM., HIGHWAY 10, MANDIAKUDAR, KANSBAHAL	PVT	60
40	RAAJDHANI ENGINEERING COLLEGE, NEAR MANCHESWAR RLY.STATION MANCHESWAR BHUBANESWAR, KHORDHA 751017 ORISSA	PVT	60
41	RAJDHANI COLLEGE OF ENGINEERING AND MANAGEMENT, PLOT NO. -18, SECTOR-A, ZONE-B, MANCHESWAR INDUSTRIAL ESTATE	PVT	180
42	REGIONAL COLLEGE OF MANAGEMENT, CHALADOLA VIHAR, CHANDRASEKHARPUR, BHUBANESWAR	PVT	120
43	RJ SCHOOL OF MANAGEMENT STUDIES, RJ VIDYA VIHAR,TIGIRIA, TENTULIPURA, PO : PUNJIBAG, VIA : SUNHAT, DIST : BALASORE, PIN : 756002	PVT	60
44	ROURKELA INSTITUTE OF MANAGEMENT STUDIES, INSTITUTIONAL AREA GOPABANDHU NAGAR CHHEND ROURKELA-769015	PVT	180
45	ROURKELA INSTITUTE OF TECHNOLOGY, KALUNGA, ROURAKELA	PVT	30
46	S.M.INSTITUTE OF TECHNOLOGY, POST GRADUATE CENTRE FOR MANAGEMENT STUDIES	PVT	60
47	SARASWAT INSTITUTE OF MANAGEMENT, KERANDA, BAJPUR, BHUBANESWAR - 752060	PVT	60

48	SRUSTI ACADEMY OF MANAGEMENT, PLOT NO: 38/1 CHANDAKA INDUSTRIAL ESTATE, NEAR INFOCITY PO: PATIA, BHUBANESWAR DIST: KHURDA	PVT	120
49	SUDDHANANDA SCHOOL OF MANAGEMENT AND COMPUTER SCIENCE, NACHHIPUR, BHATAPATNA, BHUBANESWAR, KHURDA, ORISSA	PVT	60
50	THE TECHNO SCHOOL, 361-A, PATRAPADA, BHUBANESWAR, PIN CODE- 751019, KHURDA, ORISSA	PVT	60
51	TRIDENT ACADEMY OF CREATIVE TECHNOLOGY, F2/B, CHANDAKA INDUSTRIAL ESTATE, INFRONT OF INFOCITY, CHANDRASEKHARPUR, BHUBANESWAR, PIN-751024	PVT	60
52	TRIDENT ACADEMY OF TECHNOLOGY, F2A, INFRONT OF INFOCITY, CHANDAKA INDUSTRIAL ESTATE, CHANDRASEKHARPUR, BHUBANESWAR-751 024	PVT	60
53	UNITED SCHOOL OF BUSINESS MANAGEMENT, PLOT NO. 37/A CHANDAKA I.E PATIA BHUBANESWAR	PVT	120
54	VIGNAN INSTITUTE OF TECHNOLOGY & MANAGEMENT, BHAIRAVI VIHAR, HARADANGA VILLAGE, PO: MANTRIDI, VIA: GOLANTHARA, BERHAMPUR, GANJAM DISTRICT, ORISSA PIN: 761008	PVT	60
55	INSTITUTE OF BUSINESS MANAGEMENT, PHULNAKHARA, CUTTACK		45
56	GURUKUL INSTITUTE OF TECHNOLOGY, KHURDA		60
	TOTAL		**4644**

Table – 18-C INTEGRATED MBA

Sl No	**COLLEGE/UNIVERSITY(PVT.)-for Integrated MBA course**	**Total**
1	BIJU PATNAIK INSTITUTE OF INFORMATION TECHNOLOGY AND MANAGEMENT STUDIES	60
2	CAPITAL INSTITUTE OF MANAGEMENT AND SCIENCE	60
3	HITECH INSTITUTE OF TECHNOLOGY	60
4	KONARKA INSTITUTE OF SCIENCE AND TECHNOLOGY	60
5	SRUSTI ACADEMY OF MANAGEMENT	60
6	RAJDHANI COLLEGE OF ENGINEERING AND MANAGMENT	60
7	KOUSTUV BUSINESS SCHOOL	60
8	BRM INSTITUTE OF MANAGEMENT & IT	60
	TOTAL	480

TABLE- 19 A. Government Colleges offering M.Tech / M. Arch Programme

Regarding GATE scholarship and fee structure please contact concerned institute.

Sl. No.	CODE	COLLEGE/UNIVERSITY (GOV.)	Specialisation	TOTAL
1	BPUT	**BPUT, Rourkela**	Machine Design	18
			VLSI & Embedded Systems	18
			Power System Engineering	18
			Bio-Technology	18
			Computer Science and Engineering	18
			Power Electronics & Drives	18
			Signal Processing & Communication	18
			Heat Power & Thermal Engineering	18
			Production Engg. & Operational Management	18
			Structural Engineering	18
			Water Resource Engg. & Management	18
2	CPT	CENTRAL INSTITUTE OF PLASTIC ENGINEERING AND TECHNOLOGY, BHUBANESWAR	Plastic Engineering	18
			Polymer Nanotechnology	18
3	CET	COLLEGE OF ENGINEERING AND TECHNOLOGY, BHUBANESWAR	Computer Science and Engineering (SSC)	18
			Industrial Engineering & Management (SSC)	18
			Information Technology (SSC)	18
			Structural Engineering (SSC)	18
			Power System Engineering	18
			Electronics & Instrumentation Engineering	18
			Bio-Technology	18
			Water Resource Engineering	18
			Geotechnical Engineering	18
			Power Electronics & Drives	18

			Energy System Engineering	18
			Electronics & Communication Engineering	18
			Signal Processing Engineering	18
			Thermal Engineering	18
			Design and Dynamics	18
			Textile Chemical processing	18
			M.ARCH	20
			M.PLAN	18
4	GCE	GOVERNMENT COLLEGE OF ENGINEERING, KALAHANDI	Thermal Engineering	18
			Power System Engineering	18
5	IMIT	INSTITUTE OF MANAGEMENT & INFORMATION TECHNOLOGY, CUTTACK	Information Technology	18
			Computer Science & Engineering.	18
6	IGIT	INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG	Structural Engineering	18
			Mechanical System Design	18
			Production Engineering	18
			Power System Engineering	18
			Geotechnical Engineering	18
			Power Electronics & Drives	18
			Computer Science & Engineering.	18
			Metallurgical Engg. & Materials Engg	18
			Electronics & Telecomm. Engg.	18
			Transporation Engineering	0
			Thermal Engineering	18
			Chemical Engineering	18
			Industrial Metallurgy	18
			Computer Science Information Security	18
			Wireless Communication Technology	18
			Energy Conservation & Management	0
6A	IGIT	INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG (PT)	Industrial Power Control & Drives(PT)	18
			Environmental Science and Engineering(PT)	18

7	PMEC	PARALA MAHARAJ ENGG. COLLEGE, BERHAMPUR, (PMEC)	Mechanical System Design	18
			Thermal Engineering	18
			Structural Engineering	18
			Power System Engineering	18
			Production Engineering	18
8	CIME	COLLEGE OF IT & MANAGEMENT EDUCATION (CIME), BBSR	Computer Science & Engineering	18
9	BU	BERHAMPUR UNIVERSITY	Computer Science	20
			Electronic Information Systems	16
10	FMU	FM UNIVERSITY	Computer Science	15
	Total			**1097**

B. Private Colleges offering M.Tech Programme

Sl. No.	CODE	COLLEGE (PVT.)	Specialization	TOTAL
1	ACE	ADARSHA COLLEGE OF ENGINEERING	Production Engineering	24
			Power Systems Engineering	24
			Computer Science &Engg.	24
			Environmental Sc. &Engg.	24
2	ABT	AJAY BINAY INSTITUTE OF TECHNOLOGY, CUTTACK, PVT	Computer Science and Engineering	18
3	AIE	ARYAN INSTITUTE OF ENGINEERING & TECHNOLOGY	Structural Engineering	30
4	BRM	BARRISTER RANJIT MOHANTY INTERNATIONAL INSTITUTE OF TECHNOLOGY, BHUBANESWAR	Power Electronics and Drives	24
			Electronics and Telecommunications Engineering	24
			Mechnaical Engineering	24
5	BCET	BALASORE COLLEGE OF ENGINEERING & TECHNOLOGY, BALASORE	Communication Engineering	18
			Heat Power and Thermal Engineering	18

6	BIET	BHADRAK INSTITUTE OF ENGINEERING & TECHNOLOGY, BHADRAK	Mechanical Engineering	24
			Electronics and Telecommunications Engineering	24
			Civil Engineering	24
			Computer Science and Engineering	24
7	BEC	BHUBANESWAR ENGINEERING COLLEGE	Computer Science & Engineering	18
			Thermal Power Engineering	24
			Electrical Power Systems	24
8	CVR	C. V. RAMAN COLLEGE OF ENGINEERING, BHUBANESWAR	Electronics and Telecommunications Engineering	18
			Chemical Engineering	18
			Information Technology	18
			Mechatronics	18
			Heat Power Engineering	18
			Electrical Engineering	18
			Computer Science and Engineering	18
			Food Technology	18
9	CEB	COLLEGE OF ENGINEERING BHUBANESWAR	Computer Science	18
			Communication Systems	18
			Heat Power Engineering	18
			Power Systems Engineering	18
		2ND SHIFT	Soil Mechanics and Foundation Engineering	18
			Heat Power Engineering	18
			Structural & Foundation Engineering	18
10	DRM	DRIEMS, CUTTACK	Electronics and Telecommunications Engineering	18
			Electrical Power System	18
			Computer Science and Engineering	18
			VLSI Design and Embedded Systems	18
			Structural Engineering	18

			Mechanical System Design	24
			Power Electronics and Drives	18
11	EAS	EASTERN ACADEMY OF SCIENCE AND TECHNOLOGY, PHULNAKHARA	Enviornmental Engineering	18
			Electronics & Communication Engineering	18
			Computer Science and Engineering	18
			Machine Design	18
12	EAT	EINSTEIN ACADEMY OF TECHNOLOGY & MANAGEMENT	Mechanical System Design	18
			Structural Engineering	18
13	GATE	GANDHI ACADEMY OF TECHNOLOGY AND ENGINEERING, BERHAMPUR	Industrial Engg.& management	18
			Structural Engineering	18
14	GEC	GANDHI ENGINEERING COLLEGE, BHUBANESWAR	Structural Engg.	18
			Thermal Engg.	18
			Electronics & Communication Engineering	18
			Computer Science and Engineering	18
		2ND SHIFT	Power Electronics and Drives	18
15	GIET	GANDHI INSTITUTE FOR EDUCATION AND TECHNOLOGY, AT : BANIATANGI PO : BAJPUR DIST : KHURDA ORISSA PIN : 752060	Mechanical System Design	18
			Structral Engineering	18
			Power Electronics & Drives	18
			Communication Systems	18
16	GIB	GANDHI INSTITUTE FOR TECHNOLOGICAL ADVANCEMENT, (GITA) BHUBANESWAR	Production Engg.	18
			Power Systems Engineering	18
			Thermal Engineering	18
			Computer Science and Engineering	18
17	GIF	GANDHI INSTITUTE FOR TECHNOLOGY, BHUBANESWAR	Power Elctronics and Power Systems	24
			Construction Technology & Management	24

			Computer Science and Engineering	24
			Electronics & Communication Engineering	24
		2ND SHIFT	Automation & Robotics	24
18	GIT	GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, GUNUPUR	Structural Engineering	18
			Electronics & Communication Engineering	18
			Computer Science and Engineering	18
			Power Electronics	18
			Heat Power and Thermal Engineering	18
			Machine Design	18
19	HIT	HI-TECH INSTITUTE OF TECHNOLOGY, BHUBANESWAR	Power Electronics and Drives	18
			VLSI and Embedded Systems Design	18
			Computer Science & Engineering	18
			Structural Engineering	18
20	KIT	KALAM INSTITUTE OF TECHNOLOGY	Machine Design & Robotics	24
			Power Electronics & Electrical Drives	24
21	KIS	KONARK INSTITUTE OF SCIENCE AND TECHNOLOGY, BHUBANESWAR	Computer Science and Engineering	18
			Electronics and Telecommunications Engineering	18
			Thermal &Fluid Engineering	18
			Power Engineering and Energy Systems	18
			Nano Technology	18
22	KEC	KRUPAJALA ENGINEERING COLLEGE, BHUBANESWAR	Heat Power Engineering	18
			Power Electronics and Drives	18
			Electronics & Communication Engineering	18

			Computer Science and Engineering	18
			Computer Science and Technology	18
23	MIET	MAHAVIR INSTITUTE OF ENGINEEERING AND TECHNOLOGY	Electronics and Telecommunication Engineering	13
			Computer Science and Engineering	13
			Power Systems Engineering	13
			Computer Engineering	13
24	NIT	NALANDA INSTITUTE OF TECHNOLOGY, BHUBANESWAR	Electronics & Communication Engineering	18
			Power Electronics & Drives	18
			Computer Science and Engineering	18
			Thermal Engineering	18
25	NST	NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY, BERHAMPUR	Electronics & Communications Engineering	18
			Computer Science and Engineering	18
			Electrical Engineering	18
			Wireless Communication Technology	18
			VLSI and Embedded Systems Design	18
			Electronics and Instrumentation Engineering	18
26	NIE	NIGAM INSTITUTE OF ENGINEERING & TECHNOLOGY	Thermal Engineering	18
			Power Electronics and Drives	18
27	NMI	NM INSTITUTE OF ENGINEERING AND TECHNOLOGY, BHUBANESWAR	Mechanical Engineering	18
			Electronics & Communications Engineering	18
			Electrical and Electronics Engineering	18

			Computer Science and Engineering	18
28	OEC	ORISSA ENGINEERING COLLEGE, BHUBANESWAR	Computer Science and Engineering	18
			Mechanical Engineering	18
29	REC	RAAJDHANI ENGINEERING COLLEGE, BHUBANESWAR	Communication Systems	18
			Power System Engineering	18
			Production Engineering	18
			Structural Engineering	18
			Computer Science & Engineering	18
30	SAT	SATYASAI ENGINEERING COLLEGE, BALASORE	Electronics & Communication Engg	18
			Mechanical Engineering	18
			Computer Science &Engg.	18
31	SEC	SEEMANTA ENGINEERING COLLEGE, JHARPOKHARIA	Electrical Engineering	18
			Mechanical Engineering	18
32	SIT	SHIBANI INSTITUTE OF TECHNOLOGY	Power Electronics and Drives in Electrical Engg.	18
			Thermal Engineering	18
33	SIT	SILICON INSTITUTE OF TECHNOLOGY, BHUBANESWAR	Electronics and Communication Engineering	18
			Computer Science and Engineering	18
			Electrical and Electronics Engineering	18
34	STA	SPINTRONIC TECHNOLOGY & ADVANCED RESEARCH	Computer Science & Engineering	9
			Electronics & Communication Engineering	9
35	SER	SUDDHANANDA ENGINEERING & RESEARCH CENTRE	Power & Energy Engineering	18
			Structural Engineering	18
36	SYN	SYNERGY INSTITUTE OF ENGINEERING AND	Power Electronics and Drives	18

		TECHNOLOGY, DHENKANAL	Electronics & Communication Engineering	18
			Production Engineering	18
			Computer Science and Engineering	18
37	TCT	TEMPLECITY INSTITUTE OF TECHNOLOGY AND ENGINEERING (TITE), KHURDA	Computer Science and Engineering	18
38	TAT	TRIDENT ACADEMY OF TECHNOLOGY, BHUBANESWAR	Computer Science and Engineering	18
			Electronics and Telecommunications Engineering	18
39	TTS	THE TECHNO SCHOOL, BHUBANESWAR	Electronics & Communication Engineering	18
			Computer Science and Engineering	18
			Electrical and Electronics Engineering	18
40	VIT	VIGNAN INSTITUTE OF TECHNOLOGY & MANAGEMENT	Machine Design	18
			Electronics & Telecommunication Engineering	18
			Total	2746
41	KISD	KOUSTUV INSTITUTE OF SELF DOMAIN (WOMEN)	Computer Science & Engineering	18
			Communication Systems	18
			Information Technology	18
			Power Systems	18
		2ND SHIFT	Electrical and Electronics Engineering	18
			Total	90
	TOTAL			2668

TABLE- 20 A. Government Colleges offering M.Pharm Programme

COLLEGE/ UNIVERSITY (GOVT.)	Specialisation	TOTAL seat
Berhampur University (Self Sustaining Course)	PHARMACEUTICS	18
	PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	18
UNIVERSITY DEPARTMENT OF PHARMACEUTICAL SCIENCES, UTKAL UNIVERSITY	PHARMACEUTICAL CHEMISTRY	10
	PHARMACEUTICS	10
	PHARMACOGNOSY	10
	HOSPITAL & CLINICAL PHARMA.	18
	PHARMACOLOGY	10
	PHARMACEUTICAL BIOTECHNOLOGY	18
	TOTAL	112

B. Private Colleges offering M.Pharm Programme

1	College of Pharmaceutical Science, Puri	PHARMACEUTICS	18
2	College of Pharmaceutical Science,Mohuda	PHARMACEUTICS	18
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	18
		PHARMACEUTICAL CHEMISTRY	10
3	Dadhichi College of Pharmacy, Cuttack	PHARMACOLOGY	18
		PHARMACEUTICS	18
4	Gayatri College of Pharmacy, Sambalpur	PHARMACEUTICS	18
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	18
		PHARMACOGNOSY	18
		PHARMACOLOGY	18
5	Gayatri Institute of Science and Technology, Gunupur	PHARMACEUTICS	18
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	18
6	IMT Pharmacy College, Puri	PHARMACEUTICS	18

7	Indira Gandhi Institute of Pharmaceutical Science, Bhubaneswar	PHARMACEUTICS	24
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	18
		PHARMACOGNOSY	18
		PHARMACEUTICAL CHEMISTRY	18
		PHARMACEUTICS (DRUG REGULATORY AFFAIRS)	18
		PHARMACOLOGY	24
8	Institute of Pharmacy & Technology, Salipur	PHARMACEUTICAL CHEMISTRY	12
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	15
		PHARMACEUTICS	15
9	Jeypore College of Pharmacy, Jeypore	PHARMA TECHNOLOGY	18
		PHARMACOGNOSY	10
		PHARMACOLOGY	18
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	18
10	Kanak Manjari Institute of Pharmaceutical Sciences, Rourkela	PHARMACEUTICS	18
		PHARMACOLOGY	18
		PHARMACEUTICAL BIOTECHNOLOGY	18
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	10
		PHARMACEUTICAL CHEMISTRY	18
11	Roland Institute of Pharmaceutical Sciences, Berhampur	PHARMACEUTICS	15
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	15
		PHARMACOLOGY	15
	2nd shift *Subject to the result of the Writ Petition No WP(C) 2 in the Hon'ble High Court of Odisha	PHARMACEUTICS*	15
12	Royal College of Pharmacy & Health Science, Berhampur	PHARMACEUTICAL TECHNOLOGY	6
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	15
		PHARMACOLOGY	6
		PHARMACEUTICS	15
13	Seemanta Institute of Pharmaceutical	PHARMACEUTICS	18

	Sciences, Jharpokharia	PHARMACEUTICAL CHEMISTRY	18
14	Sri Jayadev College of Pharmaceutical Sciences, Bhubaneswar	PHARMACEUTICS	18
		PHARMACEUTICAL CHEMISTRY	10
		PHARMACOLOGY	18
		PHARMACEUTICAL ANALYSIS AND QUALITY ASSURANCE	18
15	The Pharmaceutical College,Barpali	PHARMACEUTICS	18
		PHARMACOLOGY	18
		PHARMACOGNOSY	10
	TOTAL		782

*** The tuition fee will be communicated before the counselling for admission through OJEE website and in the counselling brochure after due approval from Government.**

***All the seats mentioned above are as approved by AICTE/UGC/ GOVT. OF ODISHA for the previousacademic year, which should only be used as an indicator.**

***Counselling through OJEE-2018will be done for admission to these courses subject to approval of AICTE/UGC / Government of Odisha / Government of India / BPUT / Other Universities of Odisha/ Central Council of Homoeopathy and Central Council of Indian Medicine / Other affiliating Councils.**

TABLE-21-A

SEAT OF B. TECH GOVERNMENT COLLEGES OF ODISHA (2018)

Sl.NO	CODE	COLLEGE/UNIVERSITY(GOVT.)	GOV/PVT	Branch	Intake
1	CPT	CENTRAL INSTITUTE OF PLASTIC ENGINEERING AND TECHNOLOGY, PATIA, BHUBANESWAR	GOV	PLASTIC	60
				MET	60
2	CET	COLLEGE OF ENGINEERING AND TECHNOLOGY, GHATIKIA, BHUBANESWAR-751003	GOV	CE	120
				EE	120
				IEE	120
				ME	120
				TE	60
				B.PLAN	60
0	CET(SSC)	COLLEGE OF ENGINEERING AND TECHNOLOGY, GHATIKIA, BHUBANESWAR-751003(SSC)	GOV	CSE(SSC)	60
				IT(SSC)	60
				FAT(SSC)	30

				BT(SSC)	30
3	GEK	GOVERNMENT COLLEGE OF ENGINEERING , KALAHANDI, BHAWANIPATNA	GOV	CE	60
				CSE	60
				EE	60
				ME	120
4	GCE	GOVERNMENT COLLEGE OF ENGINEERING, KEONJHAR	GOV	EE	60
				ME	60
				MME	60
				MRE	60
				MNE	60
				CE	60
				CSE	60
5	IGT	INDIRA GANDHI INSTITUTE OF TECHNOLOGY, AT/PO:IGIT SARANG	GOV	CHE	60
				CE	120
				EE	120
				ME	120
				MME	60
				PROD	60
5A	IGT(SSC)	INDIRA GANDHI INSTITUTE OF TECHNOLOGY, AT/PO:IGIT SARANG(SSC)	GOV	CSE(SSC)	60
				ETC(SSC)	60
6	PEC	PARALA MAHARAJA ENGINEERING COLLEGE, BERHAMPUR	GOV	CE	120
				CSE	60
				EE	120
				ME	120
				ETC	60
				AUTO	60
				CHE	60
				MME	60
				PROD	60
7	VUT	VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA,PO. BURLA ENGG. COLLEGE, DIST. SAMBALPUR, BURLA	GOV	CE	90
				CSE	30
				ETC	120
				EE	120
				ME	120
				PROD	30
				EEE	30
				MME	60

				CHE	60
				DU-CE/STR	18
				DU-EE/PSE	18
7A	VUT	VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA,PO. BURLA ENGG. COLLEGE, DIST. SAMBALPUR(SELF SUSTAINING)	GOV	CE(SSC)	30
				CSE(SSC)	30
				IT(SSC)	60
				PROD(SSC)	30
				EEE(SSC)	30
8	SUT	SUIIT, SAMBALPUR	GOV	CSE(SSC)	90
				ECE(SSC)	60
				EEE(SSC)	60
		TOTAL			4086

PRIVATE COLLEGES (2018)

TABLE-21-B

	CODE	COLLEGE/UNIVERSITY(GOVT.)	GOV/PVT	Branch	Intake
1	ACE	Adarsha College of Engineering,AT-SARADHAPUR, PO-KUMURISINGHA,VIA/DIST-ANGUL, PIN-759122, ORISSA	PVT	EE	120
				ECE	60
				EEE	60
				ME	180
				CSE	60
				CE	120
				MNE	180
2	ABT	Ajay Binay Institute of Technology ,SECTOR-I, CDA , CUTTACK-753014	PVT	ME	60
				EE	60
				ETC	60
				EEE	60
				CSE	60
				CE	60
3	APT	Apex Institute of Technology & Management,JOHAL PO: PAHAL,BHUBANESWAR	PVT	CSE	60
				ECE	60
				EEE	60
				ME	60
4	AIT	Aryan Institute of Engineering & Technology, AT: BARAKUDA PO: PANCHAGAON DIST: KHURDA BHUBANESWAR, PIN-752050 ORISSA	PVT	CE	120
				CSE	60
				ECE	60
				ME	120
				EEE	60
				EE	60

5	BCE	Balasore College of Engineering & Technology,SERGARH BALASORE ORISSA PIN-756060	PVT	CSE	60
				EE	60
				IT	60
				ME	120
				ETC	120
				EIE	60
				CE	60
				EEE	60
6	BII	Barrister Ranjit Mohanty International Institute of Technology, AT- PANDRA , PO- RASULGARH, BHUBANESWAR	PVT	ITE	60
				ME	60
				ETC	90
				CSE	60
				EEE	60
				EE	60
				CE	60
7	BIET	Bhadrak Institute of Engineering & Technology, AT/PO- BARAPADA, BHADRAK DIST- BHADRAK PIN - 756113 ORISSA, INDIA	PVT	EE	60
				CSE	90
				CE	120
				ETC	90
				ME	120
				IT	60
8	BCEK	Bhubaneswar College of Engineering ,AT- KHAJURIA POST: DAMANABHUIN PS: JANKIA	PVT	ME	60
				CE	60
				ECE	60
				CSE	60
				EE	60
9	BEC	Bhubaneswar Engineering College(BEC), N K NAGAR, AT: AMADIHA,PITTAPALLY,Bhubaneswar	PVT	CSE	60
				EEE	60
				ME	120
				ETC	60
				CE	60
				AERO	60
				EE	60
10	BIIT	Bhubaneswar Institute of Industrial Technology, PANDIAPADA, RETANGA, BHUBANESWAR DIST- KHURDA, ORISSA	PVT	MTE	60
				PPR	60
				MNE	60
				ME	60
				CE	60

11	BIT	Bhubaneswar Institute of Technology,INFOVALLEY, HARAPUR BHUBANESWAR PIN-752054 ODISHA	PVT	ECE	60
				ME	60
				EEE	90
				CE	60
				CSE	60
12	BDC	Black Diamond College of Engineering and Technology, AT: BALIJORI, L&T BYPASS ROAD, POST BOX NO. 21, DISTRICT: JHARSUGUDA ORISSA	PVT	EE	60
				ETC	60
				CSE	60
				ME	120
				CE	60
				EEE	60
13	CVR	C. V. Raman College of Engineering,BIDYANAGAR MAHURA JANLA BHUBANESWAR - 752054	PVT	CSE	180
				EE	180
				ME	180
				ETC	180
				AEI	60
				CE	120
				CHE	60
				MAE	60
				IT	60
		2nd Shift*		EE	60
				ME	60
14	CEC	Capital Engineering College,PLOT NO-1293 AT/PO-MAHATAPALA DIST-KHORDHA	PVT	ME	120
				EE	60
				ECE	60
				CSE	60
				EEE	60
				CE	60
15	CEB	College of Engineering Bhubaneswar, PLOT NO-1(A),CNI COPLEX ,PATIA, CHANDRASEKHARPUR, Bhubaneswar,ORISSA-751024	PVT	CSE	180
				EEE	90
				ME	120
				ETC	120
				AUTO	60
				CE	120
				EE	120
		2nd Shift*		CE	60

16	DRM	DRIEMS, AT- KAIRAPARI, PO- KOTSAHI (TANGI), DIST- CUTTACK, PIN - 754022	PVT	EE	90
				CSE	120
				ETC	90
				CE	120
				ME	180
				EEE	60
17	EAS	Eastern Academy of Science and Technology(EAST), AT:- PRACHI VIHAR, ANANTAPUR, PO:- PHULNAKHARA, BHUBANESWAR DIST:- KHURDHA(ORISSA) PIN:- 754001	PVT	ENV	30
				ME	120
				CSE	60
				EE	60
				ETC	60
				EEE	60
				CE	60
18	EAT	Einstein Academy of Technology and Management, AT-BANIATANGI, BHUBANESWAR, P.O-BAJAPUR, DIST:KHURDA, ORISSA, PIN - 752060	PVT	EEE	60
				CSE	60
				ECE	60
				EE	120
				CE	120
				ME	120
19	GAB	Gandhi Academy of Technology and Engineering, GOLANTHARA KONISI BERHAMPUR GANJAM ODISHA	PVT	CE	60
				ECE	60
				ME	120
				EE	120
20	GEC	Gandhi Engineering College,AT: BADARAGHUNATHPUR, PO: MADANPUR OFF NH 5 ON GAHIRA SQUARE	PVT	ECE	120
				EEE	120
				CSE	120
				ME	120
				CE	120
				EE	60
		2nd Shift		ME*	60
21	GIE	Gandhi Institute for Education and Technology, AT : BANIATANGI PO :	PVT	CE	180
				EEE	120

		BAJPUR DIST : KHURDA ORISSA PIN : 752060		ME	180
				CSE	60
				ECE	60
				AUTO	60
				EE	120
22	GIACR	Gandhi Institute of Advanced Computer and Research (GIACR), PRAJUKTI VIHAR AUROBINDO MARG	PVT	CE	60
				CSE	90
				EEE	60
				ECE	60
				ME	90
23	GIB	Gandhi Institute for Technological Advancement (GITA),Bhubaneswar BADARAGHUNATHPUR, PO: MADANPUR VIA: JAANLA	PVT	ECE	120
				CSE	180
				EEE	60
				EE	120
				ME	180
				CE	120
24	GIF	Gandhi Institute for Technology, (GIFT) Bhubaneswar AT-GRAMADIHA PO-GANGAPADA VIA-JANLA DT-KHURDA STATE:ORISSA	PVT	ECE	120
				EEE	120
				ME	120
				CSE	120
				EE	60
				CE	120
		2nd Shift		ME	60.00
25	GIT	Gandhi Institute of Engineering and Technology, VILLAGE : GOBIRIGUDA, PO : KHARLING, TALUK : GUNUPUR, DISTRICT :RAYAGADA	PVT	CSE	180
				EEE	120
				IT	60
				AEI	60
				CHE	60
				ECE	120
				BT	30
				ME	180
				EE	120
				CE	120
26	GIET	Gandhi Institute of Excellent Technocrats,PRINCES AVENUE, GHANGAPATNA, BHUBANESWAR, PO:KANTABADA,	PVT	EEE	60
				ME	120
				EE	120
				CSE	60

		VIA:JANLA, DIST:KHURDA		CE	120
				ECE	60
27	GIR	Gandhi Institute of Science and Technology, AT. KHOLIGUDA PO. KOTHAPETA DIST. RAYAGADA ORISSA PIN.765017	PVT	EE	90
				ECE	90
				ME	60
				EEE	60
				CSE	60
				IT	60
				CE	60
28	GIK	Gandhi Institute of Technology and Management(GITAM),SARASWATI VIHAR, AT- GRAMADIHA, P.O- GANGAPADA, VIA- JANALA, BHUBANESWAR, DIST- KHORDA, STATE- ORISSA, PIN- 752054	PVT	ECE	60
				EE	60
				CSE	60
				ME	120
				EEE	60
				CE	60
29	GHT	Ghanashyama Hemalata Institute of Technology and Management, RASANANDA JENA VIHAR,BHUAN PO: CHHAITANA DIST:PURI PIN:752002 ORISSA	PVT	EE	90
				ETC	90
				ME	60
				CSE	60
30	GKT	Gopal Krushna College of Engineering and Technology, GOURAHARI VIHAR, PO:RANIPUT JEYPORE-764005, DIST:KORAPUT	PVT	CE	60
				ETC	43
				EE	30
				ME	60
31	GYT	Gayatri Institute Of Engineering And Technology, Tatadapalli Village, Golanthra Junction, Konisi Tahsil, Berhampur, Ganjam Dt, Orissa-761 008	PVT	ME	60
				CSE	60
				EEE	60
				ECE	60
				CE	60
				IT	60
32	GCE	Gurukula Institute Of Technology, jamujhari Chhatabar, Khordha	PVT	ME	45
				CSE	45

		Odisha		EEE	90
				ECE	45
				CE	45
33	HCE	HI-Tech College of Engineering, PANDARA, G.G.P COLONY, RASULGARH, BHUBANESWAR - 751025 ORISSA	PVT	ECE	60
				CE	60
				CSE	60
				EEE	120
				ME	120
34	HIT	Hi-Tech Institute of Technology, INDUSTRIAL ESTATE,KHURDA, BHUBANESWAR	PVT	CE	60
				CSE	60
				ME	120
				ECE	60
				EEE	60
				IT	30
				EE	60
35	IID	Indic Institute of Design and Research, PLOT NO-370/1861/2379(NEAR REEBOK SHOWROOM),AT-PATIA,PO-KIIT, BHUBANESWAR-751024, ORISSA. CAMPUS – INDIC HEIGHTS, MUKTAPUR, KHURDA, BHUBANESWAR – 752055 ORISSA	PVT	EE	60
				EEE	60
				CE	60
				ECE	60
				ME	120
				CSE	60
36	IDT	Indotech College of Engineering, MALIPADA, KHURDA	PVT	CE	45
				CSE	45
				EEE	45
				EE	45
				ETC	45
				ME	45
37	IDU	Indus College of Engineering,BARAKUDA HEIGHT BHUBANESWAR PIN-752050	PVT	CE	54
				ECE	81
				EE	54
				CSE	54
				EEE	54
				ME	54

38	JIC	Jagannath Institute of Engineering and Technology,PHASE-II, NEW INDUSTRIAL ESTATE, JAGATPUR, CUTTACK. ORISSA-754021.	PVT	CSE	60
				ME	60
				ETC	120
39	KIB	Kalam Institute of Technology,GOVINDA VIHAR, GOVINDA PUR,PO: LAXMIPUR, BERHAMPUR, DIST:GANJAM	PVT	CE	120
				EEE	60
				ECE	60
				ME	120
				CSE	60
40	KCE	KMBB College of Engineering and Technology, NH-5, DALEIPUT, KHURDA, PIN-752056 ORISSA	PVT	EE	60
				CSE	60
				CE	60
				ME	120
				EEE	60
				ECE	60
41	KIS	Konark Institute of Science and Technology, PO. BOX NO. 21, TECHNOPARK, JATNI, BHUBANESWAR	PVT		
				CSE	90
				ETC	120
				EE	120
				ME	120
				CE	60
42	KEC	Krupajala Engineering College,PUBASASAN, KAUSALYAGANGA	PVT	ME	180
				EE	90
				ETC	120
				EEE	60
				CE	120
				CSE	120
		2nd Shift		ME*	60
		2nd Shift		CE	60
43	KITE	Kruttika Institute of Technical Education, GHANGAPATNA	PVT	AEI	60
				ME	60
				EE	60
				ECE	60
				CSE	60
44	MIK	Maharaja Institute of Technology,AT/PO.: TARABOI BACK	PVT	ECE	60
				CSE	60

		SIDE OF BARUNEI HILLS, NEAR IIT, BHUBANESWAR DIST: KHURDA PIN CODE - 752050		CE	60
				ME	180
				EE	120
				EEE	60
45	MIB	Mahavir Institute of Engineering and Technology, MAHAVIR NAGAR, BHUBANESWAR, PANIORA, PO-PALASHPUR, DIST-KHURDA PIN-752054, ORISSA	PVT	BM	22
				EEE	45
				ETC	90
				CSE	67
				ME	45
				CE	45
				IT	45
				AEI	45
		2nd Shift		EEE	45
				ETC	45
46	MIT	Majhighariani Institute of Technology and Science,SRIRAM VIHAR BHUJABALA KOLNARA RAYAGADA-765017 ORISSA	PVT	CSE	60
				ECE	60
				ME	120
				BT	40
		2nd Shift		EE	60
				CE	60
47	MEM	Modern Engineering and Management Studies, BANAPARIA, KURUDA, BALASORE ORISSA. PIN CODE : 756056	PVT	CSE	60
				CE	60
				EE	60
				EIE	60
				ECE	60
				ME	60
48	MIM	Modern Institute of Technology and Management,AT-BHAGABATIPUR BHUBANESWAR, PO-KANTABADA,VIA - JANLA, DIST-KHURDA,ORISSA 752054	PVT	CE	60
				ECE	60
				EEE	60
				ME	120
				CSE	60
				EE	60
49	NIT	Nalanda Institute of Technology, BHUDHIST VILLA, NEBAD BHUASANI TEMPLE SQUARE, SIMILIPATNA, CHANDAKA, BHUBANESAWR, ORISSA	PVT	CSE	60
				EE	60
				CE	120
				ECE	60
				EEE	60

				ME	180
50	NST	National Institute of Science and Technology, PALUR HILLS, BERHAMPUR, ORISSA - 761008	PVT	CSE	120
				EEE	120
				ECE	120
				EIE	60
				IT	90
				ME	120
				EE	120
				CE	60
		2ND SHIFT		EEE	60
		2ND SHIFT		CSE	60
51	NIE	Nigam Institute of Engineering and Technology,BARANGA ,CUTTACK	PVT	ETC	60
				EEE	60
				CSE	60
				CE	60
				EE	60
				ME	60
				MTE	60
				AUTO	60
52	NMI	NM Institute of Engineering and Technology, SIJUA, PATRAPADA, BHUBANESWAR ORISSA - 751019	PVT	CE	60
				CSE	120
				ECE	120
				EEE	60
				ME	120
				EE	60
53	OEC	Orissa Engineering College,NABAJYOTI VIHAR, NIJIGARH KURKI, JATNI, POHARIRAJPUR, KHURDA-752050	PVT	ETC	120
				CE	120
				CSE	120
				IT	90
				EE	120
				ME	120
54	OCM	Oxford College of Engineering and Management, AT-RAMACHANDRAPUR, PO-BHATAPATNA, PS- BALIANTA, BHUBANESWAR, DIST-KHURDA, PH NO-0674-2593909	PVT	CSE	60
				ME	120
				EE	120
				EEE	60
				CE	120
				ETC	60

55	PCE	Padmanava College of Engineering, ROURKELA-769002 SECTOR -4	PVT	CE	60
				CSE	90
				EEE	60
				ETC	90
				ME	60
56	PKA	Padmashree Krutartha Acharya College of Engineering, AT/POST.CHAKARKEND DIST. BARGARH ORISSA -768028	PVT	ME	60
				EE	60
				CE	60
57	PIE	Purushottam Institute of Engineering and Technology, PURUSHOTTAM VIHAR, 10TH KM., HIGHWAY 10, MANDIAKUDAR, KANSBAHAL	PVT	EEE	90
				AEI	60
				ME	60
				CSE	60
				ETC	120
				IT	30
58	REC	Raajdhani Engineering College, NEAR MANCHESWAR RLY.STATION MANCHESWAR BHUBANESWAR KHORDHA 751017 ORISSA	PVT	EEE	60
				CSE	90
				ME	180
				ECE	90
				CE	120
				EE	60
59	RKIET	Radha Krishna Institute of Engineering and Technology, PLOT NO. -1, KHURDA INDUSTRIAL ESTATE, DISTRICT: KHURDA, UNDER BHUBANESWAR DEVELOPMENT AUTHORITY, BHUANESWAR	PVT	ECE	60
				EE	60
				ME	120
				CSE	60
				CE	60
60	RIT	Roland Institute of Technology, PO: KHODASINGI,Berhampur	PVT	CE	60
				ECE	60
				CSE	90
				EEE	60
				ME	60
61	SCS	Samanta Chandra Sekhar Institute of Technology and Management, AT-JANIGUDA PO- SEMILIGUDA CITY-SEMILIGUDA TEHSIL-POTTANGI	PVT	AEI	30
				CE	60
				EE	60
				ECE	90

		DISTRICT-KORAPUT PIN-764036 STATE-ORISSA		CSE	60
				ME	60
		2ND SHIFT		ME	60
		2ND SHIFT		CE	60
62	SMT	Sanjaya Memorial Institute of Technology,DEGREE ENGINEERING COLLEGE,CHANDIPUR,VIA: BHATAKUMARADA BERHAMPUR DIST:GANJAM,ORISSA,PIN:761003	PVT	CE	30
				CSE	60
				EEE	60
				ETC	90
				EE	60
				ME	60
63	SAT	Satyasai Engineering College, AT: SRIKONA (CHANDIPUR SEA BEACH ROAD) PO: PANJIBAG, VIASUNHAT, DIST : BALASORE ODISHA	PVT	CSE	60
				ETC	60
				AEI	60
				ME	120
				EE	120
				CE	60
64	SEC	Seemanta Engineering College,AT-MAYURVIHAR, VILLAGE- JAUNTI, PO.-JHARPOKHARIA, MAYURBHANJ, PIN-757086.	PVT	CE	60
				EEE	60
				EE	60
				ETC	120
				ME	120
				CSE	90
65	SITE	Shibani Institute of Technical Education,AT-CHHATABAR P.O.-CHHATABAR VIA-JANLA(BHUBANESWAR) DIST-KHURDA	PVT	CE	60
				CSE	60
				EEE	60
				ME	120
				ETC	60
				EE	60
66	SIT	Silicon Institute of Technology, SILICON HILLS, PATIA, BHUBANESWAR, KHORDHA, ORISSA PIN-751024	PVT	ECE	180
				CSE	180
				EEE	120
				AEI	60
67	SIS	Silicon Institute of Technology, SILICON WEST, SASON SAMBALPUR	PVT	EE	120
				CE	60

		ORISSA 768200		ME	60
				ECE	60
				CSE	60
68	SEK	Sophitorium Engineering College,IN FRONT ROAD OF COLLECTOR'S OFFICE, KHURDA, BANIATANGI, KHURDA, BHUBANESWAR, ORISSA,PIN-752060	PVT	ME	120
				CSE	60
				EE	60
				ECE	120
				CE	60
69	STR	Spintronic Technology and Advance Research,AT/PO: TARABOI, BHUBANESWAR VIA: JATANI DIST: KHURDA	PVT	CSE	60
				EEE	60
				ECE	60
				ME	120
				CE	60
70	SCE	Srinix College of Engineering,AT-RANIPATNA P.O./DIST-BALASORE	PVT	CSE	60
				EEE	60
				ETC	30
				ME	120
				CE	60
				EE	60
71	SER	Suddhananda Engineering and Research Centre, NACHHIPUR, BHATAPATNA, BHUBANESWAR, KHURDA, ORISSA	PVT	CE	60
				ETC	30
				EE	60
				ME	60
				AUTO	30
72	SUN	Sundargarh Engineering College,AT/PO- KIREI DIST-SUNDARGARH (ORISSA) PIN-770 073	PVT	CSE	60
				ECE	60
				EE	60
				ME	60
73	SYN	Synergy Institute of Engineering and Technology,BANAMALIPRASAD, BY THE SIDE OF NH-42, DISTRICT - DHENKANAL, PIN-759001, ORISSA.	PVT	CSE	120
				ETC	30
				EE	60
				ME	120

				CE	60
74	SYT	Synergy Institute of Technology, AT: BHIMPUR, VIA: PHULNAKHARA, PO: PAHALA, BHUBANESWAR, DIST: KHURDA, ORISSA, INDIA	PVT	CSE	60
				EEE	30
				CE	60
				ME	60
				EE	60
75	TCT	TempleCity Institute of Technology and Engineering, PLOT NO. F/12, IID CENTRE KNOWLEDGE CAMPUS, BARUNEI, KHURDA, ORISSA	PVT	CSE	60
				EEE	60
				ECE	60
				ME	120
				CE	60
				EE	60
76	TTS	The Techno School,361-A, PATRAPADA, BHUBANESWAR, PIN CODE- 751019, KHURDA, ORISSA	PVT	CSE	60
				EEE	60
				ECE	90
				ME	120
				CE	60
				EE	60
77	TAT	Trident Academy of Technology,F2A, INFRONT OF INFOCITY, CHANDAKA INDUSTRIAL ESTATE, CHANDRASEKHARPUR, BHUBANESWAR-751 024	PVT	CSE	180
				EEE	60
				ETC	120
				IT	60
				ME	120
				EE	60
				CE	60
78	VIT	Vedang Institute of Technology,DURGAPRASAD P.O. RAMACHANDI DIST. KHURDA ORISSA	PVT	CSE	60
				EEE	60
				ETC	60
				ME	60
				CE	60
				MTE	60
79	VIM	Vignan Institute of Technology and Management, BHAIRAVI VIHAR, HARADANGA VILLAGE, PO: MANTRIDI, VIA: GOLANTHARA, BERHAMPUR,	PVT	CSE	60
				ETC	120
				ME	120
				EEE	120

		GANJAM DISTRICT, ORISSA PIN: 761008		AEI	60
				CE	60
80	VCE	Vikash Institute of Technology, BARAHGUDA, CANAL CHOWK, BARGARH	PVT	CE	60
				CSE	60
				EEE	60
				ECE	60
				ME	60
				AEI	60
81	VTK	VITS Engineering College,DAMANABHUIN, KHORDHA	PVT	CSE	60
				ETC	60
				EE	60
				ME	60
82	VIE	Vijyanjali Institute of Technology,	PVT	ME	120
				CE	60
				ETC	60
				EEE	60
					38338
83	KID	Koustuva Institute of Self Domain(for Women), PLOT NO. 1(B),SECTOR B, PATIA ,Chandraskekharpur	PVT	CSE	120
				ETC	120
				EEE	120
					360
				Total	**38698**

The seats mentioned are purely indicative as per the OJEE admission of 2017- 2018.

For any change, it will be reflected in Counseling Brochure OJEE 2018

AEI	**Applied Electronics & Instrumentation**
AERO	**Aeronautical Engineering**
AUTO	**AUTOMOBILE ENGINEERING**
BT	**Bio Technology**
BM	**BIOMEDICAL ENGINEERING**
CSE	**Computer Science & Engineering**
CE	**Civil Engineering**
CHE	**Chemical Engineering**
EE	**Electrical Engineering**
EEE	**Electrical and Electronics Engineering**
ETC	**Electronics & Telecommunication Engineering**
ECE	**Electronics & Communication Engineering**
ENV	**ENVIRONMENTAL ENGINEERING**
EIE	**ELECTRONICS & INSTRUMENTATION ENGINEERING**
FAT	**Fashion & Apparel Technology**
IEE	**Instrumentation and Electronics Engineering**
IT	**Information Technology**
ITE	**Information Technology & Engineering**
ME	**Mechanical Engineering**
MTE	**Metallurgical Engineering**
MME	**Metallurgical and Materials Engineering**
MET	**Manufacturing Engineering and Technology**
MNE	**Mining Engineering**
MRE	**Mineral Engineering**
PLASTIC	**Plastics Engineering**
TE	**Textile Engineering**
PROD	**Production Engineering**
MSE	**Manufacturing Science & Engineering**
CS	**Computer Science**
PPR	**Petrochem and Petroleum Refinery Engineering**
MAE	**Marine Engineering**
DU-CE/STR	**B. Tech in Civil Engineering & M.Tech in Structural Engineering (5 year Integrated UG & PG)**
DU-EE/PSE	**B. Tech in Electrical Engineering & M.Tech in Power System Engineering (5 year Integrated UG & PG)**

APPENDIX – I(See Rule-3)

Office of the……Miscellaneous Certificate Case No. …..of 2018
'RESIDENT/NATIVITY CERTIFICATEOF ODISHA'

This is to certify that Shri/ Smt/ Miss…….. son/ daughter/wife of Shri ……..is a native of the District of ……..in the State of Odisha and he/his family ordinarily reside in Village/Town ……..P.S…… , Tahasil…….. in the District of……...

The certificate is being granted only for the purpose of OJEE, 2018 Odisha.

Signature of Revenue Officer
Date :

Round Seal of the Office

Designation with Seal of Office

Note: 1. Revenue Officer means the Chief Officer in charge of Revenue Administrative in the District, Sub-Division of Tahasil and includes an Additional District Magistrate and Additional Tahasildar.
2. No part of the form should be mutilated in any manner. In case of mutilation the certificate is liable to be rejected.

APPENDIX – II
CERTIFICATE OF EMPLOYMENT OF CANDIDATE'S PARENT / SPOUSE

Employer - Government of Odisha / Government of India / Government of India Undertakings and Government of Odisha Undertakings located in Odisha at the time of application (Strike off whichever is not applicable). This shall not be considered as a proof of resident certificate for candidates opting for admission under any reserved category.

1. Name and Address of Organisation / Office in which employed
2. Name and Designation of the certifying authority (Employer / Head of Office / Organisation)
3. a) Name in full and designation of employee to whom certificate is being issued.
   b) Whether in permanent employment
   c) Present Place and State of posting
   d) Permanent address as per service records
4. Name of the candidate in full
5. Relationship of the employee with the candidate: Father / Mother / Husband / Wife (Strike out whichever is not applicable)
6. Details of the Institution from which the candidate has passed / appeared at 10+2 /+3, any other Examination
7. Particulars of employment of the employee

Place ..... Date of Joining ..... Period of Service .....

Full Signature of Employee
Date…….

Signature of the Employer /
Head of Office / Organization
Date:

Round Seal of the Office

Designation with Seal of Office

Note : In case the employee is on deputation either from Government of Odisha or India, the above certificate should be signed by the original employer.

APPENDIX – III
'SC/ST CERTIFICATE BY BIRTH' (See Rule-8(I))

This is to certify that Sri / Smt / Kumari .....

Son / daughter of ..... of

Village / Town ..... P.S .....Tahasil .....

in the district of .....of the State of Odisha belongs to the .....

Caste / Tribe which is recognized as Scheduled Caste / Tribe under Constitution (Scheduled Castes) Order 1950 / the Constitution (Scheduled Tribes) Order, 1950 as amended by the Scheduled Castes and Scheduled Tribes (Amendment) Orders Act 1976.

Sri / Smt / Kumari..…….. and his/her family ordinarily reside(s) in

Village/Town…… of …… District of the State of Odisha.

Full Signature of the Applicant

Signature of Revenue Officer

Round Seal of Office

Designation with seal of the office
Date

Note : This certificate should be issued by Tahasildar of the place of residence of parent in Odisha. No part of the form should be mutilated in any manner. In case of mutilation, the certificate is liable to be rejected.

APPENDIX – IV(Clause 2.1.5 of Information Brochure of JEE - 2018, Odisha)
Certificate of Ex-Servicemen

1. Name of the Candidate

2. Full name of employee / person

3. Permanent address as per service records

4. Rank in Defence Service

5. Full name of the Candidate

6. Relationship of the employee / person with the Candidate

7. Last place of posting including details of unit

8. Awards received if any

Full Signature of
SecretaryRajyaSainik Board

Round Seal of Office

Designation with Seal of Office

Full Signature of
Candidate's Parent .....
Date: .....

ODISHA JOINT ENTRANCE EXAMINATION (OJEE-2018)
APPENDIX – V
CERTIFICATE OF AUTHENTICITY OF ORIYAS (ODIAS) BELONGING TO OUTLYING ORIYA (ODIA) SPEAKING TRACT [OL CATEGORY]

This is to certify that Mr./Ms. .....

Son / Daughter / Spouse of Mr./Mrs ..... of

Village / Town ..... P.S ..... Tahasil .....

in the district of .....of the State of ..... whose full signature is given below is an Oriya(Odia) and belongs to an outlying Oriya(Odia) speaking tract as defined in resolution No-13411-Gen. Dated 8th August ,1969, of Government of Odisha erstwhile political & services Department (Now: G.A Department) as specified below.

Full Signature of the Applicant

Signature of the officer not below the Rank of Tahasildar (Outside Odisha)
Date

Round Seal of Office

Designation with Seal of Office

APPENDIX – VII
INCOME CERTIFICATE(See Rule- 3)

Office of the ……..……..
Miscellaneous Certificate Case No. .....of 2018.

This is to certify that, Sri / Smt / Miss ……..……..... Son / Wife/Daughter of……Village…….. P.O……P.S.……Tahasil …….. In the District of ……..In the state of Odisha has an annual income Rs. ……
(Rupees……) only from the sources specified below.

SOURCE ANNUAL INCOME

Agriculture Land---------- Rs.

Salaries ---------- Rs.

Business----------Rs.

Any other sources

to be specified----------Rs.

Total Rs.

This Certificate is being granted only for purpose of ……..... .....

Full Signature of the Applicant

Signature of Revenue Officer
Date :

Round Seal of the Office

Designation with Seal of Office

Note: 1. Revenue Officer means the Chief Officer in charge of Revenue Administrative in the District, Sub-Division of Tahasil and includes an Additional District Magistrate and Additional Tahasildar.
2. No part of the form should be mutilated in any manner. In case of mutilation, the certificate is liable to be rejected.

ODISHA JOINT ENTRANCE EXAMINATION (OJEE – 2018)
APPENDIX – VIII
(To be deposited at the Institution/University level)

DECLARATION

Name of the candidate .....OJEE-2018 Roll No…… Rank No. ..... Category .....Stream .....

1. This is to undertake that I have taken admission in the College/Institute …… .....in .....out of my own accord.
   This allotment is based on the choice exercised by me during counselling process.
2. I have surrendered my OJEE-2018, Odisha Rank Card. I also understand that the Rank card is no more valid and against the same, I cannot take admission in other discipline in the same college or in another college in any discipline.
3. I understand that no change of branch or choice of college is permitted in the first year. Subject to regulation of the University and performance in first year branch change may be permitted in second year only.
4. I understand that out of Rs……..paid by me after deducting Rs. 4,500/- (for under graduate / post graduate) towards University and Insurance Fees, the balance amount will be adjusted towards the fees, payable at college level while joining the college.
5. We understand that, we will not claim any refund of Rs…….(in full or Part) deposited at the time of counselling process, even in the case of not joining/withdrawal from the allotted college/course.
6. I also understand that the fee that I am paying during admission is provisional. I have to pay the balance if the actual fee is more or will be refunded if the fee is less.
7. I understand that I shall report to the college within the dates mentioned in the allotment letter of OJEE-2018.
8. We declared that, we have read and understood the above provisions completely and will also abide by them.

Further, this is to certify that, I have downloaded the correct allotment letter for admission.

Date: Signature of the Guardian Signature of the Candidate

ODISHA JOINT ENTRANCE EXAMINATION (OJEE – 2018)
APPENDIX – IX
FACILITATION CENTRE

JEE Cell, Gandamunda, Khandagiri-751030	Bhubaneswar

ODISHA JOINT ENTRANCE EXAMINATION (OJEE – 2018)

SPECIAL INSTRUCTIONS

Guidelines to Candidates:

1. Please check the Admit Card carefully for your Name, Paper, Date of Birth, Gender, Test Center Name, and Category. In case of any discrepancy, communicate to OJEE -17 office immediately for necessary action.
2. The Admit Card is issued provisionally to the candidate subject to his/her satisfying the eligibility conditions.
3. The examination rooms/hall will be opened 30 minutes before the commencement of the test. Candidates should take their seats immediately after opening of the examination hall. If the candidates do not report in time, they are likely to miss some of the general instructions to be announced in the Examination Hall.
4. The candidate must show, on demand, the Admit Card for admission in the examination room/hall. A candidate who does not possess the Admit Card issued by the OJEE-2018 shall not be permitted for the examination under any circumstances by the Centre Superintendent.
5. Candidates are advised to bring with them a cardboard or a clip board on which nothing should be written, so that they have no difficulty in filling responses in the Answer Sheet even if the tables provided in the examination room/hall do have smooth surface or uneven surface. They should also bring with them their own Ball Point Pens (Black/Blue) of good quality.
6. No candidate, under any circumstances, will be allowed to enter the Examination Center after the commencement of the examination.
7. A seat indicating roll number will be allocated to each candidate. Candidate should find out and occupy their allotted seat only. Any candidate found to have changed room or the seat on his/her own other than the allotted, then his/her candidature shall be cancelled and no plea would be accepted for it.
8. Ten minutes before the commencement of the paper, each candidate will be given sealed Test Booklet with an Answer Sheet placed inside it.
9. Immediately on receipt of the Test Booklet the candidate will fill in the required particulars on the cover page of the Test Booklet with Ball Point Pen only. He/ She will not open the Test Booklet until asked to do so by the Invigilator. Do not open/break the seal before the announcement. Student is advised to read the instructions written on the booklet regarding the examination.
10. No candidate, without the special permission of the Centre Superintendent or the Invigilator concerned, will leave his/her seat or Examination Room until the full duration of the paper. Candidates must follow the instructions strictly as instructed by the Centre Superintendent/Invigilators.
11. No Candidate will be allowed to carry any baggage inside the Examination Center.
    OJEE officials/ Center Superintendent will not be responsible for any belongings stolen or lost at the premises.
12. Candidates are not allowed to carry any textual material, Calculators, Docu Pen, Slide Rules, Log Tables, Electronic Watches with facilities of calculator, printed or written material, bits of papers, mobile phone, pager or any other device
13. Smoking and eating is strictly prohibited in the examination room.
14. Tea, coffee, cold drinks or snacks are not allowed to be taken into the examination rooms during examination hours.
15. No candidate, without the special permission of the Centre Superintendent or the Invigilator concerned, will leave his/her seat or Examination Room until the full duration of the paper. Candidates should not leave the room/hall without handing over their Answer Sheets to the Invigilators on duty.

Instructions for Examination

1. Five minutes before the commencement of the paper the candidate will be asked to break/open the seal of the Test Booklet. He/She will take out the Answer Sheet carefully. The candidate should check carefully that the Test Booklet Code printed on left top of the Answer Sheet is the same as printed on the Question Booklet. In case of discrepancy, the candidate should immediately report the matter to the Invigilator for replacement of both the Test Booklet or Answer Sheet or both
2. Candidate will then write his/her particulars with Blue/Black ball point pen only on the Answer Sheet(OMR). Use of pencil is strictly prohibited. If one uses the pencil, his/her answer sheet will be rejected and no correspondence will be entertained in this regard. After completing this step, the candidates will wait for the instruction by the invigilator.
3. The test will start exactly at the time mentioned in the Admit Card and an announcement to this effect will be made by the invigilator.
4. The test will be of 3 hours or 2 hours or 1 hour duration for different courses. It is clearly notified in the information brochure/booklet and will be mentioned in the admit card issued by OJEE.
5. The test paper will consist of questions of equal weightage.
6. Each question is allotted 4 (four) marks for the correct response. No deduction or addition is made from the total score if no response is indicated for a question. Blank OMR submitted without any response will be treated cancelled and no rank will be awarded to the candidate.
7. There is only one correct response for each question out of four responses given.
8. During the examination time, the invigilator will check Admit Card of the candidate to satisfy himself/herself about the identity of each candidate. The invigilator will also put his/her signatures in the place provided in the Answer Sheet / attendance sheet.
10. Candidate shall bring his/her own Ball Point Pens of good quality. These will not be supplied by the OJEE.
11. A signal will be given at the beginning of the examination and at end of the examination. No warning bell or any other bell will be there before commencement or before end of the examination.
12. The candidate will check that the Test-booklet contains as many numbers of pages as are written on the bottom of the first page of the Test Booklet. The candidates should also verify the series of the Test Booklet with the series of OMR sheet. In case of any variation, the Test Booklet/ OMR sheet should be immediately returned to the invigilator for the replacement with another set of same series available in the examination hall/centre.
13. The candidates must sign on the Attendance Sheet at the appropriate place. The candidates are also required to put their left hand thumb impression in the space provided in the Attendance Sheet.
14. The candidates are governed by all Rules and Regulations of the Board with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per rules.

CODE OF CONDUCT FOR CANDIDATES DURING OJEE –2018

Candidates shall maintain perfect silence and attend to their Question Paper only. Any conversation, gesture, or disturbance in the Examination Room/Hall shall be deemed as misbehavior. If a candidate is found using unfair means or impersonating, then his/her candidature shall be cancelled and he/she will be liable to be debarred for taking examination either permanently or for a specified period according to the nature of offence. Candidates are not allowed to carry any textual material, Calculators, Docu Pen, Slide Rules, Log Tables, Electronic Watches with facilities of calculator, printed or written material, bits of papers, mobile phone, pager or any other device. In case of possession of any of the above items, his/her candidature will be treated as “unfair means” and his/her current examination will be cancelled. The candidate shall not remove any page(s) from the Test-Booklet and if he/she is found to have removed any page(s) from his/her Test Booklet, he/she will be presumed to have used unfair means and shall be liable for criminal action.

IMPORTANT NOTES FOR THE APPLICANT REGARDING ADMISSION

1. **Nativity certificate is mandatory for taking admission against any reserve category** like:
   i. Schedule Caste (SC), Schedule Tribe (ST),
   ii. children/wards of Ex-Servicemen (ES),
   iii. Physically Challenged (PC),
   iv. Women (WO),
   v. Green Card (GC),
   vi. Tuition Fee Waiver (TFW) in all courses.

   Nativity certificate is compulsory for all candidates in case of MBS,BDS,BHMS and BAMS admission.

   Nativity certificate is to be produced at the time of document verification during counselling. All such applicants are required to keep the up-to-date nativity certificate ready well in advance before counselling. The candidate has to submit the nativity certificate in the prescribed format i.e., Appendix-I issued not earlier than January 2018.The nativity certificate is mandatory for admission under Lateral Entry for the candidates who are natives of Odisha. The aforesaid condition on nativity certificate is not applicable for outside state candidates.

2. **Mark sheet and Certificate/Provisional Certificate of the qualifying examination must be produced on the day of document verification at the nodal center without which the applicant will not be allowed to participate in the counselling process.**

3. Original certificates, mark sheets and other documents will be verified at the time of document verification at nodal center with regards to eligibility, category and reservation that are claimed and shall be returned to the applicant immediately after the verification. However, original certificates made from appendices and photocopies of the certificates, marksheets, and other relevant documents will be kept during document verification at the nodal center. The candidate has to submit the required certificate in the prescribed format i.e., in given in the Appendix – I to VIII issued not earlier than January 2018.

4. **Claim for admission will be rejected if the candidate cannot submit the original certificates, mark sheets, other necessary documents at the time of document verification or if one has filled the form wrongly.**

5. **Admission may be cancelled at any time, if certificates/ mark sheets/ other documents are found to be forged or manipulated. A candidate will not be considered for admission if he/she fails to substantiate the claim with regards to reservation, category, nativity, date of birth, qualification etc.**

Salient Dates for OJEE-2018

1.	Last date for fill-up of online Application forms.	: 20th March, 2018
2.	Date of downloadof Admit Card begins from	: 20th April, 2018
3.	Date of Examination	: 13th May, 2018 (Sunday)
4.	Probable Date of Declaration of Result	: 1st week of June 2018

ADDRESS FOR COMMUNICATION

Chairman,
Odisha Joint Entrance Examination-2018
JEE Cell, Gandamunda, Khandagiri,
DIST- Khordha. Bhubaneswar -751030
Website : www.ojee.nic.in
E-Mail :odishaojee@gmail.com
Phone:0674- 6552455, 6552456,6552457,6552458
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