MBA / MCA / M.E. / M. Tech. / M.Arch

Common Entrance Test - 2016

Information Brochure....

Consortium of Self - Financing Professional,
Arts and Science Colleges in Tamilnadu.

New No.29, Ganapathy Street, Royapettah, Chennai - 600 014.
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MBA / MCA / M.E / M.Tech / M.Arch.,
COMMON ENTRANCE TEST - 2016
INFORMATION AND INSTRUCTIONS TO CANDIDATES

1.0. GENERAL

1.1 In persuance to the orders of the Honourable Supreme Court in the Islamic Academy of Education *Vs* State of Karnataka (1993) 6SCC 697, a Common Entrance Test is to be conducted by an association of colleges of a particular type in that State. Seven Associations in the State of Tamilnadu have formed a Consortium in the name of "Consortium of Self Financing Professional, Arts and Science Colleges in Tamilnadu", where various Engineering Colleges, Arts, Science and Management colleges are also members. The Consortium has been granted permission to conduct Common Entrance Test - 2016 for MBA/ MCA/ M.E/ M.Tech/ M.Arch courses to admit students in various Private Engineering, Arts, Science and Management colleges under the Management Quota in the state of Tamilnadu by the "Committee to Regulate / Monitor the Admissions of Students to Professional, Arts and Science Colleges", Chennai *vide* its Proceeding No. COA / Engineering / 032 / 2016, Dated: 25.04.2016

1.2 Acceptance of a person as a Candidate for writing the MBA/MCA/M.E/M.Tech/M.Arch Common Entrance Test 2016 does not confer on the person the right of Equivalent eligibility for admission to any of the above Courses. The decision on the eligibility of the candidates for admission to a course entirely rests with the respective admitting authorities offering the courses.

2.0 ELIGIBILITY

(1) M.B.A. Degree Programme:

A pass in a recognised Bachelor's degree of minimum 3 years duration and obtained at least 50% (45% in case of candidates belonging to reserved category) at the qualifying degree examination

(a) 10 + 2 + 3 years pattern

(or)

(b) 10 + 3 years Diploma + 3 years pattern

(or)

(c) B.E. / B.Tech. / B.Arch. / B.Pharm

(or)

(d) AMIE with 2 years regular full time Teaching experience / Industrial experience in the relevant field after successful completion of the course including project work. An experience certificate is to be produced by the candidates.

(a) 10 + 2 + AMIE

(or)

(b) 10 + 3 Years diploma (awarded by the State Board of Technical Education) + AMIE

(2) M.C.A. Degree Programme:

A pass in a recognised Bachelor's degree of minimum 3 years duration with mathematics at 10 + 2 level or at Graduate level and obtain atleast 50% (45% in case of candidates belonging to reserved catagory) in the qualifying degree examination.

(a) 10 + 2 + 3/4 years pattern

(or)

(b) 10+3 years Diploma +3 years pattern

(c) (i) 10 + 2 +AMIE

(or)

(ii) 10 + 3 years diploma (awarded by the State Board of Technical Education) + AMIE

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M.C.A Lateral Entry

A pass in a recognised Bachelor's degree of minimum 3 years duration in BCA, B.Sc. (Information Technology / Computer Science) with mathematics as a course at 10+2 level or at Graduate level and obtained atleast 50% (45% in case of candidates belonging to reserved category) in the qualifying degree examinations.

(a) 10 + 2 + 3 years pattern

(3) M.E. / M.Tech. / M.Arch. Degree Programme

    a. A pass in a recognised Bachelor's degree or equivalent in the relevant field and obtain atleast 50% (45% in case of candidates belonging to reserved category) in the qualifying degree examination.

        (i) B.E. / B.Tech. / B.Arch. degree programme

                (or)

        (ii) B.Pharm/B.Sc.(Agri. / Forestry / Horticulture / Fishery) degree programme

                (or)

        (iii) Master's Degree in the relevant branch of Science / Arts, which are prescribed.

                (or)

        (iv) M.Sc. (5 years) Integrated Degree Programme

                (or)

        (v) B.Sc. 3 years (Computer Science / Information Technology) and M.Sc. 2 years (Computer Science / Information Technology)

        (vi) MCA (3 Years) after 10+2+3 Years bachelor's degree

        (vii) MCA# Lateral Entry (2 Years) after 10+2+3 Years degree in BCA or B.Sc. (Information Technology / Computer Science)

        # Subject to the approval of State Government.

    b. Candidates with section 'A' & 'B' certificates and other similar certificates of professional bodies or societies (e.g. A.M.I.E.) recognised by the Ministry of Human Resource Development, Govt. of India are considered to be equivalent to B.E./B.Tech. Degree holders only with 2 years regular full time experience in the relevant field after successful completion of the course including project work. An experience certificate is to be produced by the candidates.

        (a) 10 + 2 + AMIE
           (or)
        (b) 10 + 3 Years diploma (awarded by the State Board of Technical Education) + AMIE.

NOTE:

    i. Candidates admitted through lateral entry in degree courses are not eligible except, B.E. / B.Tech. and M.C.A. degree courses.

    ii. Candidates with B.E. / B.Tech. / M.C.A. / M.Sc. degrees obtained through Distance mode / week end courses are not eligible.

    iii. Candidates with degree obtained without studying 10th, 12th Std. or 3 years degree programme are not eligible.

        # Subject to the approval of State Government

*Minimum eligibility marks will be indicated by the admitting authorities concerned in their notification for admission.

Candidates who pass the qualifying degree course / who will be appearing for the final semester / year examination of the said qualifying degree course during April / May 2016 may also apply for Common Entrance Test - 2016, expect AIME.

Acceptance of a person as a candidate for writing the Entrance Test does not confer on the person, the right of equivalent eligibility for admission to any of the above courses. The decision on the eligibility of the candidates for admission to a course entirely rests with the admitting authority offering the courses.

<u>**Other state candidates**</u> **can also appear for the Entrance Test, but the eligibility conditions will be fixed by the admitting authority / University.**

2.2 **Permission to appear for the Common Entrance Test is only an enabling provision and does not mean that the candidate satisfies all the requirements stipulated for admission to the MBA / MCA / M.E / M.Tech / M.Arch courses as listed above.**

3.0 DETAILS OF ENTRANCE TEST, HALL TICKET AND MARK SHEET

3.1 The application form (Data Sheet) is common for MBA / MCA / M.E/ M.Tech/ M.Arch Common Entrance Test. Candidates have to submit one application form only. The application form (Data sheet) for MBA / MCA / M.E/ M.Tech/ M.Arch can be obtained in person on payment of Rs.50/- (Rupees Fifty only) by cash from the Consortium office and MBA / MCA / M.E / M.Tech / M.Arch member colleges of the consortium (Refer Website : www.tnsfconsortium.org) or can be obtained by post by sending a requisition letter (written in english with clear address, Pincode & Mobile Number) addressed to

The Secretary

MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test - 2016

**Consortium of Self-Financing Professional, Arts and Science Colleges in Tamilnadu,
New No.29, Ganapathy Street, Royapettah, Chennai - 600 014.**

along with demand draft for Rs.100/- (Rupees One Hundred only) drawn in favour of **"Consortium of Self Financing Professional, Arts and Science Colleges in Tamilnadu" payable at Chennai, obtained from any nationalised bank**

3.2 Detailed instructions and guidelines to fill applications for appearing in the Common Entrance Test are given in Section 6.

3.3 The Hall ticket must be brought to the Examination hall and produced for verification.

3.4 Schedule of MBA/MCA/M.E/M.Tech/M.Arch Common Entrance Test is as follows:

SCHEDULE OF MBA/ MCA/ M.E/ M.Tech / M.Arch COMMON ENTRANCE TEST - 2016			
COURSE	**DATE**	**DAY**	**TIME**
MBA	**06.08.2016**	**Saturday**	**10.00 a.m. to 12.00 Noon**
MCA	**06.08.2016**	**Saturday**	**2.30 p.m. to 4.30 p.m.**
M.E., / M.Tech., / M.Arch.,	**07.08.2016**	**Sunday**	**10.00 a.m. to 12.00 Noon**

3.5 The MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test Center will be indicated on the Hall Ticket.

3.6 Mark Sheet showing the marks scored by the candidates in the Common Entrance Test - 2016 will be mailed soon after the publication of results.

3.7 Mark Sheet must be produced by the candidates at the time of admission.

4.0 Details of MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test - 2016 Centers:

Refer Annexure -1 for the list of MBA / MCA / M.E / M.Tech / M.Arch CET- 2016 Examination Centers

(Visit our consortium website www.tnsfconsortium.org for updated list of MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test- 2016 Centers)

4.1   Every effort will be made to comply with his/her choice of the Examination Center for the MBA / MCA/ M.E / M.Tech / M.Arch Common Entrance Test. However, for reasons like non-availability of seats, another center may be allotted for a few candidates. **In any case, a center once allotted cannot be altered.**

4.2   If an applicant does not receive the Hall Ticket, the same can be obtained from the examination centre of his / her choice after producing the relevant proof (Xerox copy of the MBA / MCA / M.E/ M.Tech / M.Arch CET-2016 application form (Data Sheet) and xerox copy of the demand draft) thereof.

4.3   Candidates will appear for the MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test at the allotted Centres at their own cost and risk.

5.0   DETAILS OF QUESTION BOOKS AND ANSWER SHEETS

5.1   **Syllabus for Entrance Test**

(a)   M.B.A. Degree Programme:

The Question paper will be of 5 parts with the following topics

Part 1 : To evalute the candidate's ability to pick out critically the data and apply the data to business decisions from given typical business situations.

Part 2 : To evalute the skill of the candidate in answering questions based on the passages in the comprehension.

Part 3 : To evalute the skill on solving mathematical problems of graduate level including those learnt in plus two or equivalent level.

Part 4 : To test on determining data sufficiency for answering certain questions using data given plus the knowledge of Mathematics and use of day-to-day facts.

Part 5 : To test the knowledge on written English with questions on errors in usage, grammar, punctuation etc.,

Candidates are required to answer 100 objective type questions in 2 hours. Each question will have four probable answers. The candidate has to choose the correct answer and shade the appropriate box against the question in the answer sheet with HB Pencil.

(b)   MCA Degree Programme:

The question paper will be designed to test the capability of the candidates in the following areas:

1. Quantitative ability   2. Analytical reasoning

3. Logical reasoning   4. Computer awareness

There may also be a few questions on verbal activity, basic sciences etc.

The question paper will have 100 objective type questions, each objective type question will have four probable answers, the candidate has to choose the correct answer and shade the appropriate box against the question in the answer sheet with HB pencil.

(c)   MBA / MCA / M.E / M.Tech / M.Arch Degree Programme:

As per the detailed syllabus given in Annexure 2.

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5.2 **Evaluation Scheme**

While evaluating the answer, one mark is awarded for each correct answer. **No deduction will be made for incorrect answers and unanswered questions.**

The candidate is expected to attempt all the questions to secure the highest mark. In other words there is no choice among the questions.

The model questions are given in **annexure 2.** The candidate has to choose the correct answer and shade the corresponding box in the answer sheet with HB pencil for that question.

Wherever writing is involved use **"black ball point pen"** only.

A specimen answer sheet is given in **annexure 3.** By taking photo copies of this specimen answer sheet, you can practice yourself before appearing for the Common Entrance Test.

During evaluation, the answer sheets are fed into a scanner. The shaded information are captured by the scanner and the details are transferred to computer for evaluation. Even a small stray Pen / Pencil mark on the sheet will be captured by the scanner which may mislead the evaluation process. When you wish to make changes in the answer, erase the previous shading completely and shade the appropriate box. Shade the box fully so that alphabet printed inside completely disappears. Improper shading and light shading are likely to be missed by the scanner which may result in reduction of marks.

If more than one box is shaded for a question, it will be treated as wrong answer.

The candidates are advised to shade the boxes with HB pencil as this will help them to make changes if needed.

The candidates will not be permitted to take home the Question Book at the end of the MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test.

6.0 **Instruction and Guidelines to fill applications**

Candidates desirous of appearing for the **MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test - 2016** conducted by the Consortium should fill their applications in the prescribed format through any of the following two modes.

1. In the prescribed application format by post.

2. Online direct mode.

1. **IN THE PRESCRIBED APPLICATION FORMAT BY POST.**

(i) The candidates have to fill in the application form (Data Sheet) given along with the information booklet.

(ii) Send the completed application form (Data Sheet) along with the Examination fees in the form of a crossed demand draft for **Rs.450/- (Rupees Four Hundred and Fifty Only) (Rs.200/- for Tamil Nadu SC/ SCA/ST candidates)** drawn in favour of **"Consortium of Self Financing Professional, Arts and Science Colleges in Tamilnadu"** payable at **Chennai, obtained from any nationalised bank** (Refer Table -1 of Page 10, for Fee particulars). The SC/SCA/ST candidates will have to enclose and attested xerox copy of their permanent community certificate card issued by competent authority along with the application.

(iii) **If the Candidate is desirous of attending both MBA / MCA and M.E / M.Tech / M.Arch Common Entrance Test, he/she has to enclose an additional Common Entrance Test fees in the form of a demand draft for Rs.900/- (Rupees Nine Hundred Only) (Rs.400/- for TamilNadu SC/SCA/ST candidates) along with the filled in application form (Data Sheet).** (Refer Table -1 of Page 10, for Fee particulars.)

(iv) The completed application form (Data sheet) along with the enclosures should reach the following address **on or before 5.00 p.m. on 18.07.2016.**

The Secretary

MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test - 2016

Consortium of Self - Financing Professional, Arts and Science Colleges in Tamilnadu, New No. 29, Ganapathy street, Royapettah, Chennai - 600 014.

(v) After processing, the hall tickets will be sent by post to the eligible candidates.

2. ONLINE DIRECT MODE

Candidates residing outside Tamilnadu and who are unable to reach the application distribution center to fill applications, may opt for this mode. The procedure is as follows:

(I) Log into internet / Go to any internet browsing center

(ii) Log on to www.tnsfconsortium.org

(iii) Read the instructions thoroughly by downloading the **MBA / MCA / M.E / M.Tech / M.Arch COMMON ENTRANCE TEST- 2016** information brochure and follow the steps.

(iv) For online registration of your application click on **MBA / MCA / M.E / M.Tech / M.Arch CET-2016 ONLINE APPLICATION**

(v) Open the application format by clicking the **MBA / MCA / M.E / M.Tech / M.Arch CET-2016 ONLINE APPLICATION** and type required data. Verify whether all data are correctly entered.

(vi) Submit the application by clicking the submit button at the bottom of the application format.

(vii) After a short time, your filled in application along with an application number will appear on the computer monitor screen. Take a Printout of this application on a A4 size standard copier paper.

(viii) Affix your recently taken colour passport size photograph on the application in the space provided for this purpose.

(ix) Affix your signature in the space provided for this purpose.

(x) Send the completed application form (Data sheet) along with the enclosures and a crossed demand draft **Rs.500/-** (Examination fee **Rs.450/- and application fee Rs.50/-**), **Rs.250/-** for Tamilnadu **SC/SCA/ST candidates** (Examination fee **Rs.200/- and application fee Rs.50/- drawn in favour of "Consortium of Self Financing Professional, Arts and Science Colleges in Tamilnadu"** payable at chennai, obtained from any nationalised bank (Refer Table -1 of Page 10, for Fee particulars).

The SC/SCA/ST candidates will have to enclose an attested xerox copy of their permanent community certificate card issued by competent authority along with the application.

If the Candidate is desirous of attending both MBA / MCA and M.E / M.Tech / M.Arch Common Entrance Test, he/she has to enclose an additional Common Entrance Test fees in the form of a demand draft for Rs.950/- (Rupees Nine Hundred and fifty Only) Rs.450/- for Tamilnadu SC/SCA/ST candidates) along with the filled in application form (Data sheet). (Refer Table -1 of Page, 10, for Fee particulars).

(xi) The application must be sent to the following address so as to reach the Consortium Office **on or before 5.00 p.m on 18.07.2016.**

The Secretary

MBA / MCA / M.E / M.Tech / M.Arch Common Entrance Test-2016
Consortium of Self-financing Professional, Arts and Science Colleges in Tamilnadu,
New No.29, Ganapathy Street, Royapettah, Chennai - 600 014.

(xii) On receipt of your application along with demand draft, processing will be done and the Hall Ticket will be despatched by post to eligible candidates.

NOTE:

1. Candidates are requested to put a tick mark in the relevant boxes provided in the cover and also requested to write the six digit application number in the space provided for it.

2. Other State candidates will be classified only under 'OTHERS' as applicable.

3. Candidates are advised to post the completed application form (Data sheet) well in advance so that it will reach before the above specified date and time.

4. The Consortium will not be responsible for postal or any other delay. Applications received after the above said date and time will be summarily rejected.

5. **Candidates must write their Application Number and their Name on the back side of the Demand Draft, and also on the right hand top corner of all the xerox copies of certificates enclosed.**

6. Xerox copy of the filled in aplllication form (Data sheet) and Demand Draft can be retained by the candidates for future reference.

7. Do not punch or staple the Data sheet. Do not fold, smudge or scribble on the Data sheet.

8. The Data sheet should be kept loosely and safely and sent in the same cover provided for this purpose.

9. All enclosures can be stapled together, but **the Data sheet should be kept separately** in the same cover along with the enclosures.

10. The SC/SCA/ST candidates belonging to Tamilnadu desirous of availing fee concession should submit an attested xerox copy of the permanent community certificate card.

11. Individual Application form should be enclosed with prescribed fee (Refer Table 1, Page 10). **Bulk applications and DD with Bulk Amount will not be accepted.**

12. All the columns on both sides of the Application Form (Data sheet) must be filled without fail.

13. Xerox copies of the application Form (Data Sheet) should not be used.

14. The downloaded blank application from the Consortium Website should not be used.

15. For further Correspondence kindly quote your application number and contact phone number.

   No Further Correspondence will be entertained on matters pertaining to the MBA / MCA / M.E / M.Tech / M. Arch Common Entrance Test- 2016.

STATUS OF APPLICATION FORM

   Candidates can track the status of their applications through Consortium website **www.tnsfconsortium.org** by typing in the application number or name of the candidate and date of birth as input.

TABLE 1: MBA/MCA/ M.E/ M.Tech/ M.Arch CET-2016   FEE PARTICULARS

SI.No	NAME OF THE COURSE	TEST FEE IN RUPEES	
		Tamilnadu SC/SCA/ST	Others
1.	MBA	200	450
2.	MCA	200	450
3.	Both MBA and MCA	400	900
4.	MBA- Online registration (Examination Fee+Application Fee)	250	500
5.	MCA - Online registration (Examination Fee+application Fee)	250	500
6	Both MBA and MCA - Online registration (Examination Fee+Application Fee)	450	950
7.	M.E / M.Tech / M.Arch	200	450
8.	M.E / M.Tech / M.Arch Online registration (Examination Fee+Application Fee)	250	500
9.	Both MBA and M.E / M.Tech/ M.Arch.	400	900
10.	Both MBA and M.E / M.Tech/ M.Arch. Online registration (Exam Fee+Application Fee)	450	950

IMPORTANT DATES

1. Commencement of issue of Application Forms   :   06.06.2016

2. Last Date of Issue of Application Forms   :   15.07.2016

3. Last Date for the Submission of filled in Application Forms   :   18.07.2016

4. Commencement of Issue of Hall Tickets   :   20.07.2016

5. Date of MBA / MCA Common Entrance Test - 2016   :   06.08.2016
   MBA : 10:00 am to 12:00 noon, MCA : 2:30 pm to 4:30 pm

6. Date of M.E., / M.Tech., / M.Arch Common Entrance Test - 2016   :   07.08.2016
   M.E. / M.Tech. / M.Arch. : 10:00 am to 12:00 noon

7. Publication of Results and Rank List   :   26.08.2016

Code No.	ENGINEERING COLLEGES
101	Sathyabama University, Jeppiaar Nagar, Chennai-600 119
102	Adhiparasakthi College of Engineering, Kalavai - 632 506
103	Adhiparasakthi Engineering College, Melmaruvathur - 603 319
104	Anand Institute of Higher Technology, Kazhipattur, Chennai - 603 103
105	Arunai Engineering College, Mathur, Tiruvannamalai - 606 603
106	AVC College of Engineering, Mayiladuthurai - 609 305
107	C.Abdul Hakeem College of Engineering & Technology, Melvisharam - 632 509
108	C.S.I. Institute of Technology, Thovalai, Kanyakumari Dt. - 629 302
109	Coimbatore Institute of Management And Technology, Narasipuram, Coimbatore-641 109
110	Dhanalakshmi College of Engineering, Varadarajapuram PO, Chennai - 601 301
111	Dhanalakshmi Srinivasan College of Engg. and Technology, Mamallapuram, Chennai - 603 104
112	Dhanalakshmi Srinivasan Engineering College, Perambalur - 621 212
113	Dhanish Ahmed College of Engineering, Vanchuvancherry, Padappai, Chennai - 603 101
114	DMI College of Engineering, Nazarethpet PO, Chennai - 602 103
115	Dr.Naavalar Nedoonchezhiyan College of Engg., Thozhudur - 606 303
116	Dr.Pauls Engineering College, Villupuram - 605109
117	Dr.Sivanthi Aditanar College of Engineering, Tiruchendur - 628 215
118	Easwari Engineering College, Ramapuram, Chennai - 600 089
119	Edayathangudy G.S.Pillay Engineering College, Nagapatinam - 611 002
120	G.K.M College of Engineering & Technology, Mappedu Road, Chennai - 600 063
121	Ganadipathy Tulsi's Engineering College, Kaniyampadi, Vellore - 632 102
122	I.F.E.T. College of Engineering, Valavanur Post, Villupuram - 605 108
123	Indira Institute of Engg. And Tech., VGR Nagar, Pandur, Thiruvallur - 631 203
124	Infant Jesus College of Engineering & Technology, Tuticorin - 628 851
125	J.J.College of Engineering & Technology, Ammapettai, Trichy - 620 009
126	James College of Engineering and Technology, Esathanimangalam, Kanyakumari Dt - 629852
127	Jaya Engineering College, Tiruninravoor, Chennai - 602 024
128	Jeppiaar Engineering College, Old Mamallapuram Road, Chennai - 600 119
129	Jerusalem College of Engineering, Pallikaranai, Chennai - 601 302
130	K.C.G.College of Technology, Karapakkam, Chennai - 600 096
131	K.L.N.College of Engineering, Pottalpalyam - 630 611
132	Karaikudi Institute of Technology & Karaikudi Institute of Management,Thalakkavur,KKDI - 630 307
133	Karpaga Vinayaga College of Engg. and Technology, Madhuranthagam Taluk - 603 308
134	King College of Technology, Nallur, Pudupatty Post, Namakkal - 637 020
135	Krishnasamy college of Engg. & Technology, Cuddalore - 607 109
136	Loyola Institute of Technology and Sciece, Kanyakumari Dt. - 629302
137	Madha Engineering College, Kundrathur, Chennai - 600 069
138	Mailam Engineering College, Mailam, Tindivanam - 604 304

Code No.	ENGINEERING COLLEGES
139	Meenakshi College of Engineering, K K Nagar, Chennai - 600 078
140	Misrimal Navajee Munoth Jain Engineering College, Thorapakkam, Chennai - 600 096
141	Mohamed Sathak Engineering College, Kilakarai - 623 806
142	P.T.R College of Engineering & Technology, Madurai - 625 008
143	Pallavan College of Engineering, Thimmasamudhram, Kancheepuram - 631 502
144	Panimalar Engineering College, Nazarethpettai, Chennai - 602 103
145	Pavendar Bharathidasan College of Engg., and Technology, Mathur, Tiruchy - 620 024
146	Prathyusha Institute of Technology and Management, Tiruvallur Dt. - 602 025
147	Priyadarshini Engineering College, Vaniyambadi - 635 751
148	PSNA College of Engineering & Technology, Dindigul - 624 622
149	R.M.K.Engineering College, Gummidipoondi - 601 206
150	R.V.S.College of Engineering & Technology, Karur Road, Dindigul - 624 005
151	Raja College of Engineering & Technology, Madurai - 625 020
152	Rajalakshmi Engineering College, Thandalam, Thandalam - 602 105
153	Roever Engineering College, Perambalur - 621 212
154	S S M College of Engineering, Komarapalayam, Namakkal - 638 183
155	S.A.Engineering College, Thruverkadu, Chennai - 600 077
156	S.K.R.Engineering College, Poonamallee, Chennai - 602 103
157	Sakthi Mariamman Engineering College, Thandalam, Chennai - 602 105
158	Saranathan College of Engineering, Tiruchy - 620 012
159	Sardar Raja College of Engineering, Alangulam, Tirunelveli Dt. - 627 808
160	Shivani Institute of Technology, Navalurkuttapattu, Tiruchirapalli - 620 009.
161	SKP Engineering College, Somasipadi,Chinnakangiyanur, Tiruvannamalai - 606 611
162	SNS College of Technology, SNS Kalvi Nagar, Sathy Main Road (NH-209), Vazhiyampalayam, Saravanampatti Post, Coimbatore - 641 035,
163	Sri Krishna Engineering College, Chennai-601301
164	Sri Balaji Chockalingam Engineering College, Arni - 632 317
165	Sri Muthukumaran Institute of Technology, Kundrathur Road, Mangadu, Chennai-600096
166	Sri Nandhanam College of Engineering & Technology, Tirupattur - 635 601
167	Sri Sairam Engineering College, West Tambaram, Chennai - 600 044
168	Sri Venkateswara College of Engineering & Technology, Thirupachur - 631 203
169	Sriram Engineering College, Veppampattu - 602 024
170	St. Michael College of Engineering & Technology, Kalayarkoil, Sivagangai - 630 551
171	St.Joseph's College of Engineering, Jeppiaar Nagar, Rajiv Gandhi Road, Chennai - 600 119
172	Surya College of Engg. & Technology, Vikravandi post, Villupuram Dt.
173	Tagore Engineering College, Vandalur Post, Chennai - 600 048
174	Thangavelu Engineering College, Karapakkam, Chennai - 600 096
175	The Rajaas Engineering College, Vadakangulam, Tirunelveli Dt. - 627 116
176	Thirumalai Engineering College, Kilambi, Kancheepuram Dt. - 631 551
177	Thiruvalluvar College of Engineering and Technology, Vandavasi - 604 505
178	Udaya School of Engineering, Ammandivilai Post, Kanyakumari Dt. - 629 204

Code No.	ENGINEERING COLLEGES
179	V.S.B. Engineering college, Karudayampalayam, Karur-639111
180	Valliammai Engineering College, Kattankulathur, Kancheepuram Dt. - 603 203
181	Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College, Avadi, Chennai - 600 062
182	Velammal Engineering College, Velammal Nagar, Ambattur -Red hills Road, Chennai - 600 066.
183	Vins Christian College of Engineering, Nagercoil - 629 807
184	Vivekanandha College of Engg. for Women, Elayampalayam, Namakkal - 637205
	(II) ARTS, & SCIENCE AND MANAGEMENT COLLEGES
185	Adaikala Matha College, Arun Nagar, Vallam, Thanjavur - 613 403
186	Agni School of Business Excellence, NH 45, Trichy Road, Morepatti, Vadamadurai,Dindigul -628 402
187	Asan Memorial College of Arts & Science, Velachery - Tambaram Road, , Near Pallikaranai, Chennai - 600 100
188	Bishop Appasamy College of Arts & Science, Coimbatore - 641 018
189	Cauvery College for Women, Tiruchirappalli district - 620 018
190	G R Damodaran College of Science, Coimbatore-641006
191	Guruvayurappan Institute of Management, Coimbatore - 641 105
192	J J College of Arts and Science, Pudukkottai - 622 404
193	KGISL Institute of Information & Management, Coimbatore-641035
194	Nadar Saraswathi College of Arts and Science, Theni District - 625 531
195	Nehru College Of Management, Coimbatore-641 105
196	P.K.R. Arts College for Women, Gobichettipalayam - 638 476
197	R.L.Institute of Management studies, Madurai - 625 002
198	Rathinam College of Arts & Science, Pollachi Main Road, KPM Nagar, Coimbatore district - 641 021
199	S.Vellaichamy Nadar College, Nagamalai, Madurai-625 019
200	Sacred Heart College, Tirupattur - 635 601
201	SAN International Business School, Coimbatore - 641105
202	Shri Nehru Maha Vidyalaya College of arts and science, Coimbatore-641021
203	Shrimati Indra Gandhi College, Tiruchrapalli -620002
204	Sree Saraswathi Thyagaraja College, Pollachi - 642107
205	Sri Amman Arts and Science College, Erode district - 638 102
206	Sri Kaliswari College, A.Meenakshipuram, Anaikuttam Post, Sivakasi - 626 130
207	Sri Saradha College, Tirunelveli-627011
208	Srimad Andavan Arts & Science College, Tiruchirappalli - 620 005
209	STET School of Management, Sundarakkottai, Mannargudi, Thiruvarur District - 614 001
210	Tamilavel Uma Maheswarnar Karanthai Arts College, Thanjavur - 613 002
211	The American College , Tallakkulam , Madurai - 625 002
212	The New College, Royapettah,Chennai - 600 014
213	Valliammal College for Women, Chennai - 600 102
214	Virudhunagar Hindu Nadars' Senthikumara Nadar College, Virudhunagar - 626 001
215	Vivekanandha Institute of Information and Management studies, Namakkal - 637 205

MODEL QUESTIONS
MBA DEGREE PROGRAMME

SECTION -I: ANALYSIS OF BUSINESS SITUATION

This section contains lengthy passages. Read the passages and also the directions before answering the question that follow the passage, the questions are of two types.

(1) Data evaluation questions.

(2) Data application questions.

SECTION -II: READING SOLVING

This part contains reading passages. You have to read the passages carefully. Each passage will be followed by questions based on its contents. Choose the best answer to each question out of the four probable answers given.

SECTION -III: PROBLEM SOLVING

This part evaluates the skill on solving mathematical problems of graduate level including those learnt in plus two or equivalent level.

e.g.: a is thrice as good a workman as B.B takes 60 days more than A to finish a piece of work. The time in which they can do it working together is:

(a) 25 days   (b) 30 days

(c) 27 days   (d) $22^{1}/_{2}$ days

SECTION -IV : DATA SUFFICIENCY

Each question will be followed by two statements (a) and (b). Your have to determine whether the data given in the statement are sufficient for answering the questions, use the data given, plus with your knowledge of mathematics and every day facts, to choose your answer.

SECTION -V: ENGLISH USAGE

In each of the sentences below, four words or phrases have been underline. Select the underlined part which contains an error in usage, grammar or punctuation.

e.g.: She <u>informed </u>me that she <u>had been</u> ill for sometimes <u>but that</u> she hoped to be better by <u>summer</u>

           (a)   (b)   (c)   (d)

14

MCA DEGREE PROGRAMME

SECTION -I: QUANTITATIVE ABILITY

This section contains mathematical problems of graduate level including those learnt in plus two or equivalent level.

e.g.: The sum of even numbers between 1 and 31 is

(a) 16   (b) 128

(c) 240   (d) 512

SECTION -II: ANALYTICAL REASONING

This part contains problems which would test the analytical capability of the candidate.

e.g.: Find the next number, of 4,7,12,19 _____

(a) 26   (b) 29

(c) 27   (d) 28

SECTION -III: LOGICAL REASONING

e.g.: If CHINA is written as 38126 and NEPAL, is 25769, how is PLAINE coded?

(a) 971625   (b) 769125

(c) 796125   (d) 679125

SECTION -IV: COMPUTER AWARENESS

e.g.: Which of the following was the first digital computer

(a) UNIVAC   (b) ILLIAC

(c) VAZII/780   (d) ENIAC

SECTION -V: ENGLISH USAGE AND BASIC SCIENCE

This section consists of questions, that evaluate the knowledge of the candidate in English Language. Also questions will be asked on General Sciences

e.g. : Numismatcis is the study of   . .

(a) Numbers   (b) Coins and medals

(c) Weights and Measures   (d) Calculators

M.E. / M.Tech / M.Arch Degree Programme

PART 01 - ENGINEERING MATHEMATICS

This section contains mathematical problems of graduate level including those learnt in plus two or equivalent level.

e.g.: For what values of λ the equations have a $x + y + 2z = 0, 3x + 4y + \lambda z = 0, 2x + y + 2z = 0$ non-trivial solution?

(a) 7   (b)   3 (c)   8   (d)   4

PART 02 - BASIC ENGINEERING AND SCIENCES

e.g.: The moment of inertia of a rectangle about its centroidal axis parallel to the base is $20cm^4$, the moment of inertia about its base is _____ cm^4

(a) 80 (b)   60   (c)   40   (d)   30

PART 03 - CIVIL ENGINEERING AND GEO INFORMATICS

e.g.: If the ratio of modulus of elasticity to rigidity modulus is 2.5 then the ratio of the modulus of elasticity to bulk modulus is

(a) 2.5 (b)   1.5   (c)   0.67 (d)   0.4

PART 04 - MECHANICAL ENGINEERING

e.g.: The resultant of a force acting on a body will be zero if the body?

(a) Rotates with uniform deceleration   (b) Rotates with uniform acceleration

(c) Does not rotate   (d) Rotates

PART 05 - PRODUCTION AND INDUSTRIAL ENGINEERING

e.g. : The _____ process that uses reciprocating motion of the cutter is used in the manufacture of spur gears.

(a) Gear shaping   (b) Gear hobbing

(c) Gear shaving   (d) Orbital forming

PART 06 - ELECTRICAL, ELECTRONICS AND INSTRUMENTATION ENGINEERING

e.g. : Capacitance of a parallel capacitor will remain unchanged by altering

(a) Area of the plate

(b) Dielectric medium

(c) Thickness of the plates

(d) Distance between the plate

PART 07 - ELECTRONIC AND COMMUNICATION ENGINEERING

e.g. : The input resistance of a JFET is of the order of

(a) $1 \text{ k}\Omega$

(b) $10 \text{ k}\Omega$

(c) $1 \text{ m}\Omega$

(d) $100 \text{ k}\Omega$

PART 08 - COMPUTER SCIENCE ENGINEERING AND INFORMATION TECHNOLOGY

e.g. : In which of the following adder circuits, is the carry look ripple delay eliminated?

(a) Half adder

(b) Full adder

(c) Parallel adder

(d) Carry-look-ahead adder

PART 09 - CHEMICAL ENGINEERING, CERAMIC TECHNOLOGY & BIOTECHNOLOGY

e.g. : Heat capacity of the substance is the ratio of (dQ = heat transfer, dt = temperature changer)

(a) $C = dQ * dT$

(b) $C = dQ/dT$

(c) $C = dT/dQ$

(d) $C = dQ$

PART 10 - ARCHITECTURE

e.g. : Sabarmathi ashram designed by

(a) Le Corbusier

(b) B.V. Doshi

(c) Charles Correa

(d) Louis Khan

Consortium of Self - Financing Professional,
Arts and Science Colleges in Tamilnadu, Chennai - 14.
MBA / MCA / M.E / M.TECH / M.ARCH Common Entrance Test - 2016
SPECIMEN ANSWER SHEET

Name of the Examination Centre	Answer Sheet Number

Signature of the Candidate :

Name of the Candidate :

I certify that I have verified the entries and shading of Register Number and the Candidate's Signature.

Signature of the Invigilator :

Name of the Invigilator :

Seal of the Examination Centre

Register Number

[1] [1] [1] [1] [1] [1] [1] [1] [1] [1]
[2] [2] [2] [2] [2] [2] [2] [2] [2] [2]
[3] [3] [3] [3] [3] [3] [3] [3] [3] [3]
[4] [4] [4] [4] [4] [4] [4] [4] [4] [4]
[5] [5] [5] [5] [5] [5] [5] [5] [5] [5]
[6] [6] [6] [6] [6] [6] [6] [6] [6] [6]
[7] [7] [7] [7] [7] [7] [7] [7] [7] [7]
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Part 1 and 2 are compulsory (Question Numbers 1 To 75). You have to choose any one of the remaining parts 03 to 10. Write and shade the Part Number chosen for answering Question number 76 onwards.

Part Number

[1] [1]
[2]
[3]
[4]
[5]
[6]
[7]
[8]
[9]
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INSTRUCTIONS TO CANDIDATES

1. Use Ball Point Pen for writing the information. Use HB Pencil for shading inside the brackets as shown below :

Correct Method		Wrong Method	
Q. No.	Answers	Q. No.	Answers
1	[a] ■ [c] [d]	1	[a] [X] [●] [d]

2. Ensure your choice before shading, If you wish to change your choice erase the pencil shading completely and shade the new brackets.
3. Do not make any stray marks inside the answer brackets as the scanner will treat it as multiple shading.

Q.No.	Answers				Q.No.	Answers				Q.No.	Answers				Q.No.	Answers			
1	[a]	[b]	[c]	[d]	31	[a]	[b]	[c]	[d]	61	[a]	[b]	[c]	[d]	91	[a]	[b]	[c]	[d]
2	[a]	[b]	[c]	[d]	32	[a]	[b]	[c]	[d]	62	[a]	[b]	[c]	[d]	92	[a]	[b]	[c]	[d]
3	[a]	[b]	[c]	[d]	33	[a]	[b]	[c]	[d]	63	[a]	[b]	[c]	[d]	93	[a]	[b]	[c]	[d]
4	[a]	[b]	[c]	[d]	34	[a]	[b]	[c]	[d]	64	[a]	[b]	[c]	[d]	94	[a]	[b]	[c]	[d]
5	[a]	[b]	[c]	[d]	35	[a]	[b]	[c]	[d]	65	[a]	[b]	[c]	[d]	95	[a]	[b]	[c]	[d]
6	[a]	[b]	[c]	[d]	36	[a]	[b]	[c]	[d]	66	[a]	[b]	[c]	[d]	96	[a]	[b]	[c]	[d]
7	[a]	[b]	[c]	[d]	37	[a]	[b]	[c]	[d]	67	[a]	[b]	[c]	[d]	97	[a]	[b]	[c]	[d]
8	[a]	[b]	[c]	[d]	38	[a]	[b]	[c]	[d]	68	[a]	[b]	[c]	[d]	98	[a]	[b]	[c]	[d]
9	[a]	[b]	[c]	[d]	39	[a]	[b]	[c]	[d]	69	[a]	[b]	[c]	[d]	99	[a]	[b]	[c]	[d]
10	[a]	[b]	[c]	[d]	40	[a]	[b]	[c]	[d]	70	[a]	[b]	[c]	[d]	100	[a]	[b]	[c]	[d]
11	[a]	[b]	[c]	[d]	41	[a]	[b]	[c]	[d]	71	[a]	[b]	[c]	[d]	101	[a]	[b]	[c]	[d]
12	[a]	[b]	[c]	[d]	42	[a]	[b]	[c]	[d]	72	[a]	[b]	[c]	[d]	102	[a]	[b]	[c]	[d]
13	[a]	[b]	[c]	[d]	43	[a]	[b]	[c]	[d]	73	[a]	[b]	[c]	[d]	103	[a]	[b]	[c]	[d]
14	[a]	[b]	[c]	[d]	44	[a]	[b]	[c]	[d]	74	[a]	[b]	[c]	[d]	104	[a]	[b]	[c]	[d]
15	[a]	[b]	[c]	[d]	45	[a]	[b]	[c]	[d]	75	[a]	[b]	[c]	[d]	105	[a]	[b]	[c]	[d]
16	[a]	[b]	[c]	[d]	46	[a]	[b]	[c]	[d]	76	[a]	[b]	[c]	[d]	106	[a]	[b]	[c]	[d]
17	[a]	[b]	[c]	[d]	47	[a]	[b]	[c]	[d]	77	[a]	[b]	[c]	[d]	107	[a]	[b]	[c]	[d]
18	[a]	[b]	[c]	[d]	48	[a]	[b]	[c]	[d]	78	[a]	[b]	[c]	[d]	108	[a]	[b]	[c]	[d]
19	[a]	[b]	[c]	[d]	49	[a]	[b]	[c]	[d]	79	[a]	[b]	[c]	[d]	109	[a]	[b]	[c]	[d]
20	[a]	[b]	[c]	[d]	50	[a]	[b]	[c]	[d]	80	[a]	[b]	[c]	[d]	110	[a]	[b]	[c]	[d]
21	[a]	[b]	[c]	[d]	51	[a]	[b]	[c]	[d]	81	[a]	[b]	[c]	[d]	111	[a]	[b]	[c]	[d]
22	[a]	[b]	[c]	[d]	52	[a]	[b]	[c]	[d]	82	[a]	[b]	[c]	[d]	112	[a]	[b]	[c]	[d]
23	[a]	[b]	[c]	[d]	53	[a]	[b]	[c]	[d]	83	[a]	[b]	[c]	[d]	113	[a]	[b]	[c]	[d]
24	[a]	[b]	[c]	[d]	54	[a]	[b]	[c]	[d]	84	[a]	[b]	[c]	[d]	114	[a]	[b]	[c]	[d]
25	[a]	[b]	[c]	[d]	55	[a]	[b]	[c]	[d]	85	[a]	[b]	[c]	[d]	115	[a]	[b]	[c]	[d]
26	[a]	[b]	[c]	[d]	56	[a]	[b]	[c]	[d]	86	[a]	[b]	[c]	[d]	116	[a]	[b]	[c]	[d]
27	[a]	[b]	[c]	[d]	57	[a]	[b]	[c]	[d]	87	[a]	[b]	[c]	[d]	117	[a]	[b]	[c]	[d]
28	[a]	[b]	[c]	[d]	58	[a]	[b]	[c]	[d]	88	[a]	[b]	[c]	[d]	118	[a]	[b]	[c]	[d]
29	[a]	[b]	[c]	[d]	59	[a]	[b]	[c]	[d]	89	[a]	[b]	[c]	[d]	119	[a]	[b]	[c]	[d]
30	[a]	[b]	[c]	[d]	60	[a]	[b]	[c]	[d]	90	[a]	[b]	[c]	[d]	120	[a]	[b]	[c]	[d]

SYLLABI FOR THE ENTRANCE TEST - M.E., / M.Tech., / M.Arch.,

PART - 1

ENGINEERING MATHEMATICS (Common to all Candidates)

Determinants and Matrices: Solving system of equations - Rank of the Matrix - Eigen values and eigen vectors - Reduction of quadratic form to canonical form.

Calculus and Differential Equations: Partial derivatives - Jacobians - Taylor's expansion - Maxima and Minima. Linear ordinary differential equations with constant coefficients -Simultaneous first order linear equations with constant coefficients. Formation of partial differential equation (PDE) - Solution of first order PDE - Solution of linear higher order PDE with constant coefficients.

Vector Calculus: Double and triple integrations and their applications - Gradient, Divergence, Curl and Laplacian - Green's, Gauss divergence and Stroke's theorem.

Functions of Complex Variables and Complex Integration: Analytic functions - Conformal Mapping- Bilinear transformation - Cauchy's integral theorem and integral formula - Taylor and Laurent Series - Singularities - Residues - Residue theorem and its applications.

Transforms: Laplace Transform - Inverse transforms - Application to solution of linear ordinary differential equations with constant coefficients. Fourier integral theorem - Fourier transform pair- Sine and Cosine transforms. -Transform - Inverse Z-transform - Solution of difference equations using Z-transform.

Numerical Methods: Solution of Linear system by direct and iterative methods - Interpolation and approximation - Numerical Differentiation and Integration - Solving Ordinary Differential Equations.

Applied Probability: Probability and Random variables - Standard Discrete and Continuous distribution - Moments - Moment generating function and their properties. Two-Dimensional Random Variables-Covariance-Correlation and Regression.

PART - 2

BASIC ENGINEERING & SCIENCES (Common to all Candidates)

Applied Mechanics: Law of Mechanics - Lame's theorem - Forces, Moments and Couples -Displacement, velocity and Acceleration - Friction - Moment of Inertia.

Mechanical Engineering: Laws of thermodynamics-Open and closed systems - Equation of state - Heat and Work.

Physics: Sound - Latices - Ultrasonic flaw detector - X-ray radiography - Interference Fringes- Planck's quantum theory - Laser and Fibre Optics.

Material Science: Fracture - Magnetic and Dielectric materials - Conductor and Semi conductor materials - Ceramic and Super conductor materials.

Civil Engineering : Fluid Statics and Dynamics - Boundary Layer- Pumps and Turbines -Environmental Pollution.

Electrical Engineering : Ohm's Law - Kirchoff's Law - A.C. Circuits - D.C. Machines -Transformers - Synchronous machines - Instrumentation.

Computers: Computer organization - Architecture - Arrays - Pointers - User defines function - C program.

Chemistry: Adsorption - Chromatography - Chemical kinetics - Electrochemistry -Spectroscopy- Fuels and Combustion.

PART - 3
CIVIL ENGINEERING & GEO INFORMATICS

i) Structural Engineering Division:

Mechanics: Stress-Strain Relationships - Principal stresses and Principal strain in two dimension and three dimension. Composite Bars -Composite Beams - Elastic Constants. Beams and Bending -Shear Force and Bending Moment Diagrams - Flexural and Shear Stresses. Slope and Deflection of Beams. Thin and Thick Cylinders. Theories of Failure - Unsymmetrical Bending - Curved Beams -Theories of Columns. Combined Direct and Bending Stresses.

Structural Analysis: Static and Kinematic Indeterminancy - Energy Principles - Deflection of pin jointed plane frames - rigid frames. Classical Method of Analysis of Indeterminate structures (Slope deflection and Moment Distribution) - Matrix Method. Arches and Suspension Bridges - Influence, Line for Determinate and Indeterminate Structures. Plastic Analysis of Structures.

Building Materials: Cement - Concrete - properties of ingredients - Mix Design - Quality Control - Special Concrete - Concreting Methods - Brick - Brick Masonry - Stone - Timber -Steel.

Concrete Structures: Design Methods - Limit State Design for beams, slabs, columns and footings - retaining walls - Water Tanks, Prestressed Concrete - Principles - Methods -Losses - Deflection - Design.

Steel Structures: Steel Sections - Connections - Design of Tension and Compression Members - Beams, Column Bases - Plate Girders and Trusses.

ii) Soil Mechanics and Foundation Engineering:

Soil Mechanics: Nature of soil - phase relationships - Soil classification: Soil water - static pressure -effective stress principle: permeability - seepage: Stress distribution in soil - Consolidation (Terzaghi's one dimension consolidation theory): Compaction shear strength of soil - Mohr - Coulomb theory -determination of shear strength by different methods: slope stability analysis - protection measures.

Foundation Engineering: Site investigation - Scope and objectives - drilling techniques -depth and spacing of boreholes - sampling Techniques - penetration tests (SPT and SCPT) -plate load test - selection of foundation: Foundation types - shallow foundation - bearing capacity (Terzaghis Theory and BIS formula) - allowable bearing pressure - bearing capacity from field tests - settlement of foundation - allowable settlement- Codal provisions; Design of foundations - Isolated, combined and raft foundation; Pile foundations- static and dynamic pile driving formulae (Engineering News and Hiley method) - Pile groups - capacity and settlement - Codal provisions - pile load test - negative friction of piles; Earth pressure theories - Earth pressure on retaining walls - stability analysis of retaining wall.

iii) Transportation Engineering:

Highway Planning: Road Classification, Geometric Design of Highways, Construction of Earth, WBM, Bituminous and concrete roads, Design of flexible and rigid pavements. Drainage of roads, maintenance of roads.

Railways, Airways, Docks and Harbour Planning: Railway alignment, components of permanent way, geometric design Airport planning, components of airport, site selection, planning for terminal building runways. Harbour planning, components of harbour, inland water transport.

Traffic Engineering: Traffic characteristics, Traffic surveys, Traffic Signals, Road markings and signs.

iv) **Water Resources Engineering:**

Fluid Mechanics and Hydraulics: Properties of fluids. Fluid statics and relative equilibrium. Basic concepts of fluid flow-kinematics and dynamics. Concept of system and control volume application to continuity, momentum and energy equations. Dimensional analysis and model studies. Laminar and turbulent flow through pipes. Boundary layers. Steady uniform and gradually varied flow in open channels. Rapidly varied flows. Turbines and pumps and positive displacement pumps.

Hydrology and Ground Water : Hydrometeorology. Hydrologic cycle. Precipitation and its measurements. Abstractions. Runoff estimation. Hydrograph analysis. Unit Hydrograph. Hydrologic extremes floods and droughts. Rainwater harvesting. Properties of aquifer. Groundwater development. GEC norms. Well hydraulics. Steady and unsteady flows. Ground water quality.

Irrigation Engineering: Irrigation system. National water policy. Components of irrigation network. Design of lined and unlined channels. Waterways, head works, gravity dams and spillways. Design of weirs on permeable foundation. Soil water relations. Crop water requirements. Irrigation scheduling and methods. Dury, delta and base period. Irrigation water quality, Irrigation water management. Participatory approach.

v) **Environmental Engineering:**

Water and Waste water Engineering: Water requirements; water demand, quality standards; Development of water supply source, conveyance system; basic unit processes and operations for water treatment; water distribution; sewage characteristics; sewage treatment, primary and secondary treatment of sewage, sludge disposal, sewage disposal.

a) **Air Pollution and Control:** Types of Pollutants, their sources and impacts, air pollution meteorology, air pollution control, air quality standards and limits.

b) **Noise Pollution and Control:** Impacts of noise, permissible limits of noise pollution, measurement of noise and control of noise pollution.

vi) **Surveying And Remote Sensing:**

Surveying: Chain survey-traversing-plotting; Compasses-bearings-plane table-leveling - bench marks-temporary and permanent adjustments-reduction: contouring and volumes - theodolites - Gale's table-lay out - setting out works-curve ranging-mine surveying- techeometric survey-triangulation-base line -corrections - trigonometric leveling - errors and sources classification or errors - equation -level nets - astronomical survey - practical astonomy - photogrammetry - EDM-hydrographic survey - river.

Electronic survey: Infrared EDM-microwave system-modern positioning systems-trilateration.

Remote Sensing: Satellite system - EMR interaction with each feature, spectral signature -image characters - interpretation keys - Image enhancement, filters, classification -accuracy assessment-thematic maps.

GIS and Cartography: Cartography-map projection-map design-map compilation-generalization-map production-software and hardware GIS-data types-data base types-raster and vector-topology-data input-data analysis-DEM and TIN-data output-applications.

PART - 4
MECHANICAL, AUTOMOBILE & AERONAUTICAL ENGINEERING

i) **Mechanics:** Statics of Particles, Equilibrium of Rigid Bodies, Properties of Surfaces and Solids, Dynamics of Particles, Friction and Elements of Rigid Body Dynamics - Basics of Mechanisms, Kinematics of Linkage, Mechanisms, Kinematics of Cam Mechanisms, Gears and Gear and Trains, Friction, Force Analysis, Balancing and Vibration.

ii) **Strength of Materials and Design:** Stress, Strain and Deformation of Solids, Transverse Loading on Beams and Stresses in Beams, Deflection of Beams, Energy Principles, Thin cylinders and spherical resells Torsion - Fundamentals of Design for Strength and Stiffness of Machine Members, Design of Shafts and Couplings, Design of Fasteners and Welded Joints, Design of Springs and Engine Parts, Design of Engine parts, Bearings and Flywheels, Design of Transmission System for Flexible Elements, Spur Gears and Parallel Axis Helical Gears, Bevel, Worm Gears and Crossed Helical Gears, Design of Gear Boxes, Design of Cam, Clutches and Brakes.

iii) **Material Science and Metallurgy:** Constitution of Alloys and Phase Diagrams, Heat Treatment, Ferrous and Non ferrous Metals, Non-Metallic Materials, Mechanical Properties and Testing, Crystal Defects and Strengthening of Materials Conducting and Semi conducting Materials, Magnetic and Dielectric Materials, Nuclear Physics, Superconducting and New Engineering Materials.

iv) **Thermodynamics:** Basic Concepts and First Law, Second Law, Entropy and Availability, Properties of Steam, Psychometric, Ideal and Real Gases and Thermodynamic Relations, Fuels and Combustion - Gas Power Cycles, Stream Turbines, Internal Combustion Engines, Internal Combustion Engines Testing and Performance, Gas Turbines - Steam Nozzle, Air Compressor, Refrigeration and Air-Conditioning, Boilers, Cogeneration and Waste Heat Recovery.

v) **Heat Transfer:** Conduction, Phase Change Heat Transfer and Heat Exchangers, Radiation, Mass Transfer Refrigeration Cycle, Refrigerants, System Components and Balancing, Psychrometry, Air Conditioning Systems, Unconventional Refrigeration Cycles.

vi) **Production Technology:** Foundry Technology, Hot & Cold Working, Forging, Advances in Forming Process, Principles and Applications of Joining Processes, Theory of Metal Cutting, Centre Lathe and special Purpose Lathes, Reciprocating Machines, Milling Machines and Gear Cutting, ABRASIVE Process, Broaching, CNC Machine Tools and Part Programming.

vii) **Automotive Engines:** Engine Construction and Operation, SI Engine Fuel System, Cooling and Lubrication System, Combustion Chambers, Two Stroke Engines, Diesel Engine Basic Theory, Fuel Injection System, Air Motion, Combustion and Combustion Chambers, Supercharging and Turbo charging, Diesel Engine Testing and Performance.

viii) **Automotive Transmission and Pollution:** Clutch and Gear Box, Hydrodynamic Drive, Planetary Gear Boxes, Automatic Transmission Applications, Hydrostatic and Electric Drive -S.I. Engine Combustion and Emissions, CI Engine Combustion and Emissions, Control Techniques for Reduction of SI and CI Engine Emission, Test Procedure & Instrumentation for Emission Measurement and Emission Standards.

ix) **Aerodynamics:** Basic Fluid Mechanics, Two Dimensional Inviscid Incompressible Flow, Airfoil Theory, Subsonic Wing Theory, Laminar and Turbulent Flow, Fundamental Aspect of Compressible Flow, Shock and Expansion Waves, Two Dimensional compressible Flow, High speed flow over Airfoils, Wings and Airplane Configuration.

x) **Aerospace Propulsion:** Fundamentals of Gas Turbine Engines, Subsonic and Supersonic Inlets for Jet Engines, Centrifugal and Axial Flow Compressors, Combustion Chambers for Jet Engines, Turbines for Jet Engines, Nozzles for Jet Engines, Ramjet Propulsion, Hypersonic Airbreathing Propulsion, Chemical Rocket Propulsion, Advanced Propulsion Techniques.

PART - 5
PRODUCTION AND INDUSTRIAL ENGINEERING

i) **Basic Mechanisms and Elements of Design:** Mechanisms, Friction, Gearing and Cams, Balancing, Vibration, Fundamentals of Design, Design of Basic Machine Elements, Design of Mechanical drives, Design of Automotive components, Recent Advances.

ii) **Casting, Metal forming and Metal joining processes:** Casting Processes, Welding Processes, Special Casting Processes, Testing of Castings & Weldments -Fundamentals of Metal Forming, Forging and Rolling, Extrusion and Drawing Processes, Sheet Metal Forming Processes, Recent Advances, Mechanisms, Friction, Gearing and Cams, Balancing, Vibration, Fundamentals of Design, Design of Basic Machine Elements, Design of Mechanical drives, Design of Automotive components, Recent Advances.

iii) **Tool Engineering, Machine tool operation, Metrology and Inspection:** Mechanics of Metal Cutting, Tool Material, Tool Wear and Tool Life, Gear Manufacture, Concept & Programming of CNC machines, Advanced CNC programming & Tooling - General Concepts of measurements, Linear and Angular measurements, Measurement of Surface Finish Measuring Machines, Metrology of Screw Thread & Gears, Computer Aided Inspection and Laser Metrology - Strength and rigidity of machine tool structures, Slideways, Spindles and spindle supports, Machine Tool Dynamics.

iv) **Engineering Materials, and Computer Aided Manufacturing:** Introduction and Constitution of Alloys and Phase Diagrams, Heat Treatment, Ferrous and Non Ferrous Metals, Mechanical Properties and Testing, Welding and Foundry Metallurgy, Manufacturing Processes for Plastic, Mechanical, Chemical and Electro - chemical energy based processes, Electrical Energy based Waste Processes, Thermal Energy Process, Rapid Prototyping and Rapid Tooling - polymer Matrix Composites, Metal Matrix Composites, CERAMICS Matrix Composites, Advances in Polymers & Composites..

v) **Product and Process Design, Design of Jigs and Fixtures and press Tools:** Computer Aided Design, Computer Graphics Geometric Modeling, Product Design Concepts, Recent Advances, Process Planning, Estimating, Costing and Elements of Cost, Analysis of Overhead Expenses, Estimation of Costs for Forging, Casting and Welding, Estimation of Machine Time, Purpose Types and Functions of Jigs and Fixtures, Jigs, Fixtures, Press working Terminologies and Elements of dies and Strip Layout, Design and Development of Dies.

vi) **Operations Research:** Linear Programming, LP Extensions, Networks, Inventory Models, Dynamic Programming, Decision Analysis, Game Theory, Waiting Line Models, Markov Processes.

vii) **Operations Management:** Forecasting, Aggregate Planning, Capacity Management, Production Activity Control, Estimation and Costing, Product Cost Estimation, Software Cost Estimation, Costing Methods, Cost Analysis for Planning and Control.

viii) **Quality Control Reliability and Maintenance:** Quality Concepts, Statistical Process Control, Process Capability Analysis, Advanced Control Charts, Acceptance Sampling, Reliability Concepts, Failure Data Modeling, Reliability Prediction and Modeling, Reliability Management, Risk Assessment, Maintenance Concept, Maintenance Models, Maintenance Logistics, Total Production Maintenance, Fault Diagnosis.

PART - 6
ELECTRICAL & ELECTRONICS ENGINEERING AND
INSTRUMENTATION ENGINEERING

i)   **Electrical Circuits and Fields:** KCL, KVL, Nodal & Mesh analysis, transient response of D.C and A.C networks: sinusoidal steady-state analysis; resonance in electrical circuits; concepts of ideal voltage and current sources, network theorems, driving point admittance and transfer functions of two port network, three phase circuits; Fourier series and its application; Gauss theorem, electric field intensity and potential due to point, line, plane and spherical charge distribution, dielectric, capacitance calucations for simple configurations; Ampere's and Biot-Savart's Law, inductance calculations for simple configurations.

ii)   **Electrical Machines:** Single phase transformer - equivalent circuit, phasor diagram, tests, regulation and efficiency; three phase transformer-connections; auto transformer; principles of energy conversion windings of rotating machines; D.C generators and motors - characteristics, starting and speed control armature reaction and commutation; three phase induction motors - performance characteristics, starting and speed control; single-phase induction motors; synchronous generators-performance, regulation, synchronous motors-starting characteristics, applications, synchronous condensers; fractional horse power motors; permanent magnet and stepper motors.

iii)   **Power Systems:** Electric power generation - thermal, hydro, nuclear; transmission line parameters, steady-state performance of overhead transmission lines and cables and surge propagation; distribution system, insulators, bundle conductors, corona and radio interferences effects; per-unit quantities; bus admittance and impedence matrices; load flow; voltage control and power factor correction; economic operation; symmetrical components, analysis of symmetrical and usymmetrical faults; principle of over current, differential and distance protections; concepts and solid state relays and digital protection; circuit breakers; principles of system stability-swing curves and equal area criterion.

iv)   **Control Systems:** Principles of feedback; transfer function; block diagram; steady-state errors; stability-Routh and Nyquist criteria; Bode plots; compensation; root loci; elementary state variable formulation; state transition matrix and response for Linear time Invariant systems.

v)   **Power Electronics and Drives:** Semiconductor power devices-diodes, transistors, thyristors, triacs, GTO, MOSFETs and IGBTs-static characteristic 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.

vi) Digital Electronics:

    (a) Digital Logic Theory: Number systems-Combinational logic circuits-Minimization of Boolean functions-IC families - Arithmetic circuits, Multiplexer & decoders - Sequential circuits - Flip flops, counters, shift registers, Schmitt trigger, timers and multivibrators.

    (b) Microprocessor: General 8 bit microprocessor Architecture-8085, 8086 processor -Architecture, Memory, I/O interfacing, Instruction set, Addressing modes, Timing diagram & delays, Machine cycles, Interrupts, counters, Assembly language programming.

    (c) Microcontrollers: 8 bit microcontroller - 8051 architecture, bus configuration, Instruction sets, programming & applications.

vii) **Digital Signal Processing:** Analog signals-sampling & Aliasing-Discrete time signals & systems - LTI systems - Convolution sum-Difference equation representation - Z Transform & its Inverse-Discrete Fourier series & Fourier transform - Radix 2 FFT - Decimation in me and frequency- Inverse DFT using FFT-Analog Butterworth & Chebyshev filter design-IIR & FIR filter design and Realization.

viii) **Computer Control of Processes, Networks:** State models and state equations-controllability & observability-pole assignment-discrete data system - state space representation-stability-data hold, Z & modified Z transform - Pulse transfer function -programmable logic controllers.

Data networks - switching OSI, Data link control, Media access protocol-BISYNC, SDLC, HDLC, CSMA /CD,TCP / IP Bridges, routers, gateways, Ethernet and Arcnet configuration.

ix) **Communication Engineering** : Modulation and demodulation systems - Types of transmission lines - losses - standing waves - Ground wave and space wave propagation -Digital communication concepts - Data Communication codes, serial and parallel interface -Network protocol -Types of satellites -Advantages of optical fibre communication.

x) **Measurements, Instrumentation and Transducers:** Measurement of R, L and C-BRIDGES POTENTIOMETERS & GALVANOMETERS - Measurement of voltage, current, power, power factor and energy- Instrument transformers, Q meter, Waveform Analyzers - Digital voltmeter, Multimeter - Time, Phase and frequency measurements - Oscilloscope - display and recording devices - Noise and interference in Instrumentation.

xi) **Industrial Instrumentation:** Measurement of displacement, stress, strain, force, torque, velocity, Acceleration, Shock, Vibration, Humidity, Viscosity & density - Pressure, temperature, flow & level measurement.

xii) **Analytical Instrumentation:** Spectro Photometers-Spectral methods of analysis-source detectors and applications-Ion conductivity - sampling systems, ion selective electrodes, conductivity and pH meters-Analyzers-Chromatography - NMR & X ray spectroscopy-GM and proportional counters Mass spectrometer.

Units and standards-Calibration methods-Errors-Transducer classification, static characteristics, mathematical mode, zero, I and II order transducers - Response to different inputs - variable Resistance, Inductance and capacitance transducers-Piezo electric, Magnetostrictive, IC and smart sensors - Digital, Fibre optic, Hall effect and feedback transducers.

PART - 7

ELECTRONICS AND COMMUNICATION ENGINEERING

i) **Circuit Analysis:** DC Circuit analysis, Thevenin's and Norton's equivalent circuits, Sinusoidal steady state analysis, Transient and resonance in RLC circuits.

(a) Electronic Devices: Diodes, bipolar Junction Transistors, FET, MOSFET, UJT, Thyristor.

(b) Electronic Circuits: Small signal amplifers using BJT and FET Devices, Large signal amplifiers, Power supplies Feed back amplifiers, Oscillators, Pulse shaping circuits.

(c) **Digital Electronics:** Logic gates, Combinational Circuits, Sequential circuits.

(d) **Linear Integrated Circuits:** Operational amplifiers and its applications, PLL, Voltage regulators, A/D and D/A converters.

(e) **Measurements and Instrumentation:** Transducers, Digital Instruments, Display and Recording systems.

(f) **Microprocessor and its applications:** Microprocessors-8085 and 8086 architectures and interfaces, Micro-controller and applications.

ii) **Electromagnetic Fields:** Static Electric and Magnetic fields, Time varying Electric and Magnetic fields, Maxwell equations.

(a) **Transmission Lines and Networks:** Transmission line equations, impedance matching, Filters.

(b) **EM waves and waveguides:** Guided waves, Rectangular and cylindrical waveguides.

(c) **Antennas and Propagation:** Aperture antennas, arrays, Propagation of radio waves.

(d) **Microwave Engineering:** Microwave tubes, semiconductor devices, Passive components, Microwave Measurements.

iii) **Communication Theory and Systems:** AM, FM and PM, Sampling and Quantisation, PCM, DM, ADM, Multiplexing.

(a) **Digital Communication:** Base band signaling, Band pass signaling, Error control coding, Spread spectrum techniques.

(b) **Computer Communication Networks:** Definition of layers, data link protocols, Network interconnection. Message routing technologies, End-End protocols.

(c) **Optical Communication:** Optical Fibers, Optical transmitters and receivers.

iv) **Signals and Systems:** Continuous time signals and systems-Fourier Transform, Laplace transform, Discrete time signals and systems - DTFT, DFT, Z-Transform.

(a) **Digital Signal Processing:** IIR and FIR filters, Realization and implementation, Quantization effects.

(b) **Control Systems:** Transfer function, Time and frequency response analysis, Stability analysis, state variable analysis.

PART - 8

COMPUTER SCIENCE AND ENGINEERING AND INFORMATION TECHNOLOGY

i) **Applied Probability and Operations Research:** Random Processes, Probability Distributions, Queuing Models and Simulation, Testing of Hypothesis, Design of Experiments.

ii) **Discrete Mathematical Structures:** Formal Language and Automata-Graph Theory.

iii) Compiler Design : Optimization - Code Generation - Implementation - Principles of Programming Languages- Programming Paradigms.

iv) Operating Systems and System Software: Process Management, Storage Management, I/O Systems, Design and Implementation of LINUX OS, assemblers, Loaders, Linkers, Macro Processors.

v) Distributed Systems: Communication and Distributed Environment, Distributed Operating Systems, Distributed Shared Memory, Protocols, Fault Tolerance and Distributed File Systems, Distributed Object Based Systems.

vi) Programming and Data Structures: Problem Solving Techniques, Trees, Hashing and Priority Queues, Sorting, Graph, Heap Search.

vii) Algorithm Analysis and Design Techniques: Dynamic Programming, Greedy Algorithms, Advanced Algorithms, NP Completeness and Approximation Algorithms.

viii) Microprocessors and Microcontrollers - Computer Architecture and Organization: - Digital Fundamentals, Combinational Circuits, Synchronous and Asynchronous Sequential Circuits, Instruction Set Architecture (RISC, CISC, ALU Design), Instruction Level Parallelism, Processing Unit and Pipelining, Memory Organization.

ix) Digital Signal Processing: FFT, Filter Design.

x) Computer Networks: Data Communication Systems, Applications.

xi) Database Management Systems: Relational Model, Database Design, Implementation Techniques, Distributed Databases, Object Oriented Databases, Object Relational Databases, Data Mining and Data Warehousing.

xii) Software Engineering Methodologies: Software Product and Processes - Software Requirements Management - Requirements Engineering, Elicitation, Analysis, Requirements Development and Validation, Requirements Testing - Object Oriented Analysis And Design - Modular Design, Architectural Design, User Interface Design, Real Time Software Design, System Design, Data acquisition System - Software Testing and Quality Assurance - SQA Fundamentals, Quality Standards, Quality Metrics, Software Testing Principles, Defects, Test Case Design Strategies, Software Quality and reusability, Software Project Management, Software Cost Estimation, Function Point Models, Software Configuration Management, Software Maintenance.

xiii) Artificial Intelligence : Intelligent Agents, Search Strategies, Knowledge Representation, Learning, Applications.

xiv) Mobile Computing : Wireless Communication Fundamentals, Telecommunication Systems, Wireless Networks.

xv) Security In Computing : Program Security, Security in Operating Systems, Database and Network Security, Scientific Computing, Information Coding Techniques, Cryptography, Network Security.

PART - 9

CHEMICAL ENGINEERING, CERAMIC TECHNOLOGY AND BIOTECHNOLOGY

i) **Fluid Mechanics and Particle Technology:** Classification of fluids, flow patterns, manometry, continuity equation, Navier-Stokes equation, Bernoulli equation, Dimensional analysis, Flow through pipes, boundary layer concepts, Flow through fixed and fluidized beds, pumps - classification affinity laws, performance curves. Characteristics of solids, size analysis, Screening, Storage, Conveynance, Size reduction, Classifer, Centrifuges, Cyclones. Filtration, Mixing and agitation.

ii) **Chemical Technology and Process Calculations:** Gas calculations Material balance and Energy balance - Steady and unsteady state, Humidity and Saturation, Combustion, Thermo chemistry, Role of Chemical Engineers in Process industry, cement, glass and ceramic industries, paper industry-Oil, Soap, Detergent industries, Petroleum refining and petrochemicals - Polymer industry, Fertilizers, Food industry and other important process industries.

iii) **Thermodynamics and Kinetics:** Laws of thermodynamics, PVT behavior of fluids, Thermodynamic formulations, compression of fluids, Phase equilibria - Application of the correlation and prediction. Free energy change and reaction equilibria. Refrigeration -Principles, performance. Reaction rate - Laws, theories, analysis. Design of reactors, Factors affecting design, Thermal reactors and rates of heat exchanges. Non-ideal reactors, Heterogenous reactors and solid catalysts, Gas-solid catalytic reactors, Gas-solid non -catalytic reactors, Gas-Liquid reactors.

iv) **Heat and Mass Transfer:** Modes of Heat transfer. Heat conduction - steady and unsteady state, Natural and forced convection, Heat transfer to fluids with phase change, heat transfer coefficients, evaporation, heat exchangers-design and construction. Diffusion, Mass transfer coefficients, humidification, drying, absorption, distillation, extraction, leaching, crystallization, adsorption and ion exchange, analogies.

v) **Process Control and Computer Applications in Chemical Engineering:** Open loop systems, closed loop systems, Frequency response, advanced control systems, instrumentation. Application of spread sheet packages in Chemical engineering, Process flow sheeting, Development of software for design of equipments. Dynamic programming in Chemical engineering.

vi) **Organic and Surface Chemistry:** Carbohydrates, Oils, Fats and Waxes, Heterocyclic compounds, proteins, dyes and dyeing, Pharmaceutical chemistry. Adsorption - types, adsorption of gases over solids, isotherms, applications, ion exchange, adsorption chromatography, Catalysis-types, Equations.

vii) **Electro, Polymer and Corrosion Chemistry:** Factors influencing Corrosion, types of corrosion, corrosion control. Laws of migration of ions, conductometric titrations, advantages, galvanic cells, reversible and irreversible cells, Standard electrodes, electrode potentials, electrochemical series, Nernst equation. Polymeric materials, Teflon, Polymide, Nylon66, Kevlar, Polysters, Polythylene teryphthalate, poly butylenes, tetra phthalate, polycarbonates bakelite, reinforcement, composites. Introduction to spectroscopic analysis, Molecular spectroscopy, IR, NMR, Mass Spectrometry.

viii) Environmental Pollution and Control: Various methods of reduction of pollution, types of pollution, Air Pollution - sources and effects - control techniques, Water pollution - sources and effects - control techniques, Soil pollution - sources and effects - control techniques and Solid waste disposal.

ix) Bioprocess Engineering: Analysis of STR, Analysis of other configurations, Bioreactor scale-up, Modeling and simulation of Bioprocesses, Bioreactor considerations in Enzyme systems.

x) Cell and Molecular Biology: Cells, Cell lines, Cell culture, Cell Organelles and its functions, types of Cell divisions, cell cycle and its regulations mechanism. Transport Mechanism (passive, Active, ATPase pumps and Na^+ / K^+ pumps), Receptors, Signal Transduction, Models of Signal Amplification Secondary Messengers, Structure of Nucleic Acids, Replication, Transcription, Translation and DNA repair mechanism in Prokaryotes and Eukaryotes. Promoters, Enchancers and Transcription factors. Genetic Codes and Lac & trp operons.

xi) Biochemistry and Microbiology: Structure, function and metabolism of Carbohydrates, lipids Nucleic Acids and proteins. Enzymes and its mechanism. Electron Transport Chain system, High energy compound and reducing equivalents. History of Microbiology, Classification of Microorganism, Structural organization and multiplication of Microorganism. Physical and Chemical control of Microorganisms, Primary and Secondary metabolites and their applications.

xii) Genetic Engineering: Genes, control of gene expression, Restriction enzymes, Vectors, (prokaryotic and Eukaryotic) construction of cDNA and genomic Library. Screening of DNA libraries, PCR, RACE PCR, RAPD, RFLP, AFLP Site directed mutagenesis, Methods of Nucleic acid sequencing. Cloning vectors in plants, Transgenic and Knockout animals.

xiii) Immunology: Immune system, Immunity, Lymphoid organs, antigens, adjutants, types of immune response. Activation and different ion of T-cells and B-Cell responses. Immunity to viruses, Bacteria fungi and parasites, cytokines, complements, immunosuppression, allergy and hypersensitivity. Vaccines, Transplantation, Tumor Immunology, Autoimmunity and Autoimmune disorders.

xiv) Bioinformatics: Search engines and algorithms, data management, data echnology, biological databases and their uses. Pair wise sequence alignment (local and global), multiple sequence alignment, dot matrix, dynamic programming and Bayesian methods, BLAST, FASTA, machine learning and Hidden Markov models. Phylogenetic tree analysis. Bimolecular and celluar computing, microarray analysis and system Biology.

xv) White wares, ceramic processing and fine ceramics: Quarrying of ceramic materials, size reduction, mechanical separation, mixing and conveying, powder characterization, Classification of whiteware products, heavy clayware, tests and quality control.

xvi) Glass, Cement, Refractory and Ceramic coatings: Formation and Structure of glass, preparation of glass batch, glass melting process, Special glasses, annealing, different types of refractories, different types of cement, concrete, properties of cement and concrete,

PART - 10
ARCHITECTURE

i) **Building Materials, Construction and Technology:** Lime, Brick, Stone, Clay products, Timber, Industrial Timber; Paints and varnishes, Concrete, Special Concrete and lightweight concrete; Ferrous metals; non ferrous metals; Glass; Plastics; Eco friendly materials; Thermal Insulation materials and acoustic materials. Construction techniques and practices using the above listed materials; damp and water proofing; Pest control; Construction systems and equipment; Pre - stressed concrete and Tensile Structures; Grids domes; folded plates; Flat Slabs. Low cost construction & appropriate technologies.

ii) **History of Architecture:** Indian architecture - Hindu and Islamic; Indo Saracenic; Secular architecture of the princely states; Colonial and Post Independence Architecture; Works of masters such as Charles Correa; B V Doshi; Ananth Raje; Raj Rewal; Laurie Baker; Nari Gandhi; Kanvinde.

   (a) Western architecture: Ancient Greek and Rome; Early Christian; Gothic and Renaissance: Baroque: Neo Classicism: Chicago School and development of skyscraper.

   (b) Modern architecture: Art and Crafts: Art Noveau; Expressionism and Cubism; Bauhaus; International style; Post Modernism and Constructivism; Critical Regionalism; Theories and Projects of F L Wright; Le Corbusier; Gaudi, Groupius Aalto; Mies; Eisenmann; Zaha Hadid; Soleri; Hasan Fathy; Ando; Bawa; Gehry, Libeskind; Toyo Ito Lou Khan; Tschumi; Greg Lynn; Assymptote.

iii) **Theory and Principles of Architecture:** Elements of ordering principles; Organization of form and space; Design methodology and Creative thinking; Pattern Language; Contemporary Process Diagrams, Shape grammar, fractals, Digital hybrid, Liquid architecture.

iv) **Building Services:** Water supply and distribution systems; water and waste management Sewerage system; Electrical systems; Illumination and lighting; Air conditioning; Fire Safety; Building automation and IBMS.

v) **Building Science:** Climate responsive architecture; design of solar shading devices; acoustics & building design; Architecture & Energy-Active & passive solar architecture, Day lighting & natural ventilation, Landscape designs; Landscape & environment control.

vi) **Housing Urban Design and Town Planning:** National Housing Policy; Indra Awas Yogana Housing standards; housing projects in India: Urban morphology of early and contemporary cities; Case Studies on urban revitalization from developed and developed economies; Planning concepts - Patrick Geddes, Ebeneezer Howard, Le Corbusier, C A Perry; Urban planning, regional planning and Urban renewal in the Indian context.

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CHECK LIST TO BE VERIFIED BEFORE SUBMISSION OF THE APPLICATION FORM (DATA SHEET)

■ Data sheet completely filled with all details

■ Common Entrance Test Fee as a Crossed Demand draft drawn from any nationalised bank in favour of "CONSORTIUM OF SELF-FINANCING PROFESSIONAL, ARTS AND SCIENCE COLLEGES IN TAMILNADU" payable at CHENNAI enclosed.

■ Application number and Name of the candidate written on the backside of the crossed Demand Draft.

■ Photo copy of proof of date of birth is enclosed.

■ Attested xerox copy of their permanent community certificate card issued by competant authority of Government of Tamil Nadu, Minority Certificate (if any) is enclosed.

■ Application number and Name of the candidate written on the top right hand corner of all the copies of enclosed Certificates.

IMPORTANT INFORMATION AT A GLANCE

IMPORTANT DATES

1. Commencement of issue of Application Forms : 06.06.2016

2. Last Date of issue of Application Forms : 15.07.2016

3. Last Date for Submission of filled in Application Forms : 18.07.2016

4. Commencement of Issue of Hall Tickets : 20.07.2016

5. Date of Common Entrance Test MBA / MCA : 06.08.2016
   MBA : 10:00 am to 12:00 noon, MCA : 2:30 pm to 4:30 pm

6. Date of Common Entrance Test : 07.08.2016
   M.E. / M.Tech. / M.Arch. : 10:00 am to 12:00 noon

7. Publication of Results and Merit List : 26.08.2016

HELP DESK

Timings		General Enquiries
Monday to Friday -	9:00 am to 5:00 pm	Tel : 044 - 2450 2203
Saturday -	9:00 am to 1:00 pm	Fax : 044 - 2450 1270

Not operational during Sunday and other Public Holidays.