Question Booklet Series:	MD/MS/PG Diploma Entrance Test – 2014 QUESTION BOOKLET Paper - I (Pre-Clinical and Para-Clinical)	Question Booklet Number:
A	INSTRUCTIONS	510408

Maximum Time Allowed: 2 Hours

No. of Questions: 150
Maximum Marks: 150

Roll Number: | | | | | | | Answer Sheet Number: | | | | | | |

Please read the following instructions carefully:

1) **Check the booklet thoroughly**: In case of any defect – Misprint, Missing question(s) or duplication of question(s) / Page(s) get the booklet changed with the booklet of the same series from the Room Invigilator. No complaint shall be entertained after the entrance test.

2) Write your Roll Number and the OMR Answer Sheet Number on the question booklet.

3) Mark carefully your Roll Number, Question Booklet Number, Paper Code, Question Booklet Series and Course on the OMR Answer Sheet and sign at the appropriate place. Incomplete and/or incorrect particulars will result in the non-evaluation of your answer sheet.

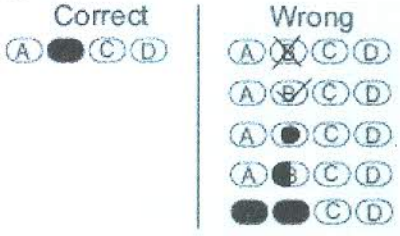
4) Strictly follow the instructions given by the Centre Supervisor / Room Invigilator and those given on the Question Booklet.

5) Candidates are not allowed to carry any papers, notes, books, calculators, cellular phones, scanning devices, pagers etc. to the Examination Hall. Any candidate found using, or in possession of such unauthorized material, indulging in copying or impersonation or adopting unfair means / reporting late / without Admit Card will be debarred from the written test.

6) Please mark the right responses on the OMR Sheet with ONLY a Blue/Black ball point pen. Use of eraser, whitener (fluid) and cutting on the OMR Answer Sheet is NOT allowed.

7) The test is of objective type containing multiple choice questions (MCQs). Each objective question is followed by four responses. Your task is to choose the correct/best response and mark your response on the OMR Answer Sheet and NOT on the Question Booklet.

8) For marking response to a question, completely darken the CIRCLE so that the alphabet inside the CIRCLE is not visible. Darken only ONE circle for each question. If you darken more than one circle, it will be treated as wrong answer. The CORRECT and the WRONG method of darkening the CIRCLE on the OMR Answer Sheet are shown below.



9) Please be careful while marking the response to questions. The response once marked cannot be changed and if done shall be treated as wrong answer.

10) In view of the tight time span, do NOT waste your time on a question which you find to be difficult. Attempt easier questions first and come back to the difficult questions later during the test.

11) DO NOT make any stray marks anywhere on the OMR Answer Sheet. DO NOT fold or wrinkle the OMR answer sheet.

12) Rough work MUST NOT be done on the OMR Answer Sheet. Use your test booklet for this purpose.

13) Candidates are provided carbonless OMR Answer Sheet having original copy and candidate's copy. After completing the examination, candidates are directed to fold at perforation on the top of the sheet, tear it to separate original copy and candidate's copy and then hand over the original copy of OMR Answer Sheet to the Room Invigilator and take candidate's copy with them.

DO NOT OPEN THE SEAL OF THIS BOOKLET UNTIL TOLD TO DO SO

1. Which one of the following statements about the peptide shown below is correct?
   (A) The peptide contains a majority of amino acids with basic side chains
   (B) It contains glutamine
   (C) It can form an internal disulphide bond
   (D) It is glycated
2. The drug that acts primarily on a receptor located in the membrane of the effector nerve or muscle cell is
   (A) Clonidine
   (B) Cocaine
   (C) Tyramine
   (D) Amphetamine
3. Alkaptonuric patients exhibit
   (A) Mousy odour of urine
   (B) Darkening of urine on standing
   (C) Excretion of imidazole pyruvate in urine
   (D) Fruity odour of urine
4. Corynebacterium diphtheriae can be cultivated on:
   (A) Neomycin blood agar
   (B) Loefflers serum slope
   (C) Aronsons medium
   (D) Ashdown's medium
5. Chromosomal pattern of Turners Syndrome
   (A) XO
   (B) XXY
   (C) XYY
   (D) XXX
6. As per Fick's law of diffusion, the diffusion of lipid soluble substances across a membrane would increase with an increase in any of the following EXCEPT:
   (A) Temperature of solution
   (B) Area of the membrane
   (C) Size of particles
   (D) Concentration gradient of the particles
7. The lateral cutaneous nerve of the forearm is the continuation of
   (A) Axillary nerve
   (B) Radial nerve
   (C) Median nerve
   (D) Musculocutaneous nerve
8. All the following are oncogenic viruses EXCEPT
   (A) Human papilloma virus
   (B) Epstein Barr virus
   (C) Hepatitis B virus
   (D) Cytomegalovirus
9. The persistent suppression of bacterial growth that may occur following limited exposure to some anti-microbial drugs is called
   (A) Time dependent killing
   (B) Sequential blockade
   (C) Concentration dependent killing
   (D) The 'post-antibiotic effect'
10. In the intestine and testes, glucose transporter 5 (GLUT 5) is the primary transporter for
    (A) Glucose
    (B) Galactose
    (C) Fructose
    (D) Mannose
11. The following antimicrobials act on the cell wall of the bacteria
    (A) Chloramphenicol
    (B) Ciprofloxacin
    (C) Imipenem
    (D) Rifampicin

12. A 63-year-old woman developed severe back pain. On taking an X-ray, it was discovered that she had osteoporosis. The doctor recommended taking calcium and a vitamin. What vitamin was most likely prescribed and what is the mechanism of action?
    (A) Vitamin C decreases the renal excretion of calcium
    (B) Vitamin D increases the intestinal absorption of calcium
    (C) Vitamin E activates the calcium in the liver
    (D) Vitamin K helps calcium influx into the cell
13. Which of the following anti-seizure drugs is likely to elevate the plasma concentration of other concomitantly administered drugs?
    (A) Carbamazepine
    (B) Phenobarbitone
    (C) Phenytoin
    (D) Valproic acid
14. Thiamine pyrophosphate is required as a coenzyme for all of the following enzymes EXCEPT
    (A) Transketolase
    (B) Sorbitol dehydrogenase
    (C) Pyruvate dehydrogenase
    (D) Alpha-ketoglutarate dehydrogenase
15. Primary visual cortex is related to
    (A) Calcarine sulcus
    (B) Central sulcus
    (C) Lateral sulcus
    (D) Collateral sulcus
16. The primary mechanism moving water molecules from the blood plasma to the interstitial fluid is:
    (A) Active transport
    (B) Facilitated diffusion
    (C) Co-transport with Na+
    (D) Filtration
17. Which of the following is NOT a prominent effect of atropine at therapeutic doses?
    (A) Dryness of mouth
    (B) Constriction of pupils
    (C) Tachycardia
    (D) Difficulty in micturition
18. The middle cardiac vein lies in
    (A) Anterior atrioventricular sulcus
    (B) Posterior atrioventricular sulcus
    (C) Posterior interventricular sulcus
    (D) Anterior interventricular sulcus
19. The most common cause of fungal meningitis in HIV patients is:
    (A) Coccidioides immitis
    (B) Candida albicans
    (C) Aspergillus fumigatus
    (D) Cryptococcus neoformans
20. Which of the following is an androgen receptor antagonist?
    (A) Flutamide
    (B) Stanozolol
    (C) Nadrolone
    (D) Danazol
21. Which of the following fetal abnormalities is most likely to be found when there is a dietary deprivation of green leafy vegetables during pregnancy?
    (A) Anencephaly
    (B) Diaphragmatic hernia
    (C) Low birth weight
    (D) Neuroblastoma
22. The normal brown-red color of feces results from the presence of
    (A) Stercobilinogen
    (B) Urobilin
    (C) Bilirubin diglucuronide
    (D) Coproporphyrin

23. Compared with ICF, ECF has
    (A) Lower sodium ion concentration
    (B) Lower chloride ion concentration
    (C) Lower potassium ion concentration
    (D) Lower calcium ion concentration
24. The dose limiting toxicity of the anti-fungal drug amphoteracin B is
    (A) Myelosuppression
    (B) Infusion related effects
    (C) Renal tubular acidosis
    (D) Postural hypotension
25. Which one of the following marker is useful in differentiating mesothelioma from adenocarcinoma?
    (A) CEA
    (B) Cytokeratins
    (C) Calretinin
    (D) TTF
26. The immunoglobulin that crosses the placental barrier is
    (A) IgG
    (B) IgM
    (C) IgE
    (D) IgA
27. A 25-year-old man is to be treated for exercise induced asthma. Which of the following drugs would provide bronchodilation with minimal cardiovascular stimulation?
    (A) Metoprolol
    (B) Salbutamol
    (C) Epinephrine
    (D) Phenoxybenzamine
28. A 27 year old pregnant woman went to the hospital for a regular checkup. On doing the routine investigations, it was found that her fasting blood sugar was 144 mg/dL. A repeat test confirmed this result. What medication would you recommend?
    (A) Insulin
    (B) Glyburide
    (C) Pioglitazone
    (D) Glucagon
29. The enzyme ribonucleotide reductase that converts ribonucleotides to deoxyribonucleotides acts on
    (A) Monophosphate ribonucleotides
    (B) Diphosphate ribonucleotides
    (C) Triphosphate ribonucleotides
    (D) Purine nucleotides only
30. Donnan effect in cells is due to:
    (A) Presence of diffusible cations in the cell
    (B) Presence of diffusible anions in the cell
    (C) Presence of indiffusible anions in the cell
    (D) Presence of indiffusible cations in the cell
31. Monoclonal antibodies are routinely used in all of the following EXCEPT
    (A) The identification and epidemiological study of infectious microorganisms
    (B) The identification of tumor antigens
    (C) The classification of leukemias
    (D) The manipulation of the immune response
32. Cyclophosphamide was administered to a 50-year-old man suffering from cancer, along with other drugs. He complained of blood in his urine and of pain during micturation. Which one of the following drugs will give him relief from this condition?
    (A) Mesna
    (B) Interferons
    (C) Interleukins
    (D) Irinotecan

33. Which of the following antiarrhythmics is NOT a class I drug?
    (A) Lidocaine
    (B) Phenytoin
    (C) Procainamide
    (D) Bretylium
34. Factors that contribute to the pathogenesis of H.pylori related gastritis include all the following EXCEPT
    (A) Elaboration of urease
    (B) Expression of VacA cytotoxin
    (C) Expression of CagA cytotoxin
    (D) Expression of VacC cytotoxin
35. Insulin/glucose infusion is used as emergency treatment of:
    (A) Hypokalemia
    (B) Hypernatremia
    (C) Hyperkalemia
    (D) Hypoglycemia
36. The parotid abscess is always drained by horizontal incision to avoid injury to
    (A) Maxillary artery
    (B) Facial nerve
    (C) Parotid duct
    (D) Retromandibular vein
37. Which of the following drugs is used for treating respiratory syncytial virus bronchiolitis in infants and children?
    (A) Ribavirin
    (B) Amantadine
    (C) Acyclovir
    (D) Zidovudine
38. The vitamin that must be given in adjunct with the anti-tuberculosis drug, isoniazid, is
    (A) Niacin
    (B) Folic acid
    (C) Thiamine
    (D) Pyridoxine
39. The ventral pancreatic bud gives rise to
    (A) Distal part of main pancreatic duct
    (B) Body of pancreas
    (C) Uncinate process of pancreas
    (D) Superior part of head of pancreas
40. Melatonin is secreted by
    (A) Pars nervosa
    (B) Pars distalis
    (C) Pars intermedia
    (D) Pineal gland
41. The Na+/2Cl-/K+ symporter in the nephron is blocked by:-
    (A) Amiloride
    (B) Acetazolamide
    (C) Captopril
    (D) Furosemide
42. The venous sinus present in falx cerebelli is
    (A) Sigmoid sinus
    (B) Straight sinus
    (C) Occipital sinus
    (D) Transverse sinus
43. Peptic ulcers are most commonly located in the
    (A) Gastroesophageal junction
    (B) Gastric antrum
    (C) Pylorus
    (D) First part of duodenum
44. Which of the following drugs used for tuberculosis can cause loss of equilibrium and auditory damage?
    (A) Ethambutol
    (B) Amikacin
    (C) Isoniazid
    (D) Thiazetazone

45. A 28 year old woman has sporadic attacks of intense anxiety, with physical symptoms including sweating hyperventilation and tachycardia. If she is diagnosed to be suffering from panic disorder, the most appropriate drug to use
    (A) Alprazolam
    (B) Chloral hydrate
    (C) Chlorazepate
    (D) Flurazepam
46. A patient is admitted to the Emergency department with severe bradycardia following drug overdose. His family reports he has been depressed about his hypertension. Each of the following drugs can slow the heart EXCEPT
    (A) Clonidine
    (B) Hydralazine
    (C) Propranalol
    (D) Reserpine
47. The following are causes of gas gangrene in humans EXCEPT
    (A) Clostridium septicum
    (B) Clostridium novyi
    (C) Clostridium difficle
    (D) Clostridium perfringens
48. Calcium influx through the L-type calcium channels in a ventricular muscle fibre occurs in which phase of its action potential?
    (A) Phase - 1
    (B) Phase - 2
    (C) Phase - 3
    (D) Phase - 4
49. Examples of carriers used in passive agglutination tests are the following EXCEPT
    (A) Staphylococcus aureus
    (B) Latex
    (C) Bacillus anthracis
    (D) Bentonite
50. The muscle supplied by external laryneal nerve is
    (A) Thyroarytenoideus
    (B) Thyroepiglotticus
    (C) Aryepiglotticus
    (D) Cricothyroid
51. Epispadias is a condition in which
    (A) Glans penis is absent
    (B) External urethral orifice is on the ventral surface
    (C) Females are rarely affected
    (D) Endoderm fails to develop in the abdominal wall
52. Omeprazole is a blocker of
    (A) H+ pump
    (B) Na+/K+ pump
    (C) H+/K+ pump
    (D) Gastrin
53. Natural killer cells express
    (A) T-cell antigen receptor
    (B) B-cell antigen receptor
    (C) Both T-and B-cell antigen receptors
    (D) Neither T- nor B-cell antigen receptors
54. The following are the bone forming tumours EXCEPT
    (A) Osteoma
    (B) Osteoblastoma
    (C) Osteochondroma
    (D) Osteosarcoma
55. The conversion of pyruvate to acetyl CoA
    (A) Occurs in the cytosol
    (B) Is reversible
    (C) Depends on the coenzyme biotin
    (D) Involves participation of lipoic acid
56. Organic bone matrix contains
    (A) Collagen type I
    (B) Collagen type II
    (C) Collagen type III
    (D) Collagen type IV

57. The cells responsible for lasting immune protection to a particular pathogen are called
(A) T-helper cells
(B) B-helper cells
(C) T memory cells
(D) B memory cell

58. Hypoxic death of cells in all tissues results in coagulative necrosis EXCEPT
(A) Myocardium
(B) Liver
(C) Brain
(D) Lung

59. The organism(s) that is (are) anaerogenic :
(A) Salmonella typhi
(B) Salmonella paratyphi A
(C) Salmonella enteritidis
(D) Salmonella typhimurium

60. A premature infant is to be given colfosceril palmitate in the neonatal intensive care unit. For which of the following complications should the medical team be on the alert?
(A) Hypersensitivity reaction to bovine protein
(B) Reduced myocardial contractility
(C) Airway obstruction
(D) Nephrolithiasis

61. A 'crab-like' configuration is adopted by the following class of antibody when binding to a microorganism
(A) IgA
(B) IgD
(C) IgM
(D) IgG

62. The type of amyloid protein associated with long term haemodialysis is:
(A) AL
(B) AA
(C) A beta
(D) A beta 2 microglobulin

63. A 30-year-old man received superficial burns on his abdomen while working in a factory. Which one of the topical antibacterial agents will be appropriate to prevent the growth of pseudomonas infection?
(A) Sulfacetamide
(B) Sulfisoxazole
(C) Silver sulfadiazine
(D) Silver sulfacetamide

64. The cells with the ability to engage with and damage large extracellular parasites are
(A) Basophils
(B) Eosinophils
(C) Neutrophils
(D) Kuppfer cells

65. Which of the following is a phase II drug-metabolising reaction?
(A) Acetylation
(B) Hydrolysis
(C) Oxidation
(D) Reduction

66. Urea is synthesized in the
(A) Kidney
(B) Spleen
(C) Muscle
(D) Liver

67. Which of the following drugs is NOT an anticholinergic?
(A) Atropine
(B) Scopolamine
(C) Pirenzipine
(D) Tacrine

68. All the following statements regarding diploic veins are correct EXCEPT
(A) They do not possess valves
(B) They are small veins located in the diploe of the cranial bones
(C) They have communications with the dural venous sinuses
(D) They pass through openings in the cranial wall

69. Which of the following drugs is NOT an anticholinesterase?
    (A) Physostigmine
    (B) Muscarine
    (C) Tacrine
    (D) Edrophonium
70. The first tenet of clonal selection theory relies SPECIFICALLY on
    (A) Combinatorial joinings
    (B) Somatic mutations
    (C) B-cell clones
    (D) T-cell clones
71. The drug that blocks the vesicular carrier of dopamine and norepinephrine into the vesicle for storage in the presynaptic cell is
    (A) Botulinum toxin
    (B) Cocaine
    (C) Guanethidine
    (D) Reserpine
72. The antigen used in Weil-Felix test is obtained from:
    (A) Rickettsiae
    (B) Pseudomonas
    (C) Providence
    (D) Proteus
73. Which of the following is TRUE regarding Interleukin-1 (IL-1)?
    (A) Are derived mainly from the neutrophils
    (B) Produces necrosis of tumour cell
    (C) Increases the expression of MHC-coded proteins
    (D) Upregulates adhesion molecule
74. Which one of the following statements about osteoclastoma is INCORRECT?
    (A) Usually occurs between 20-40 years of age
    (B) Involves both the epiphysis and metaphysis
    (C) Radiographically large, purely lytic and eccentric tumour
    (D) Sarcomatous transformation is common
75. The following test is used in the diagnosis of latent tuberculosis
    (A) Acid fast staining of clinical specimens
    (B) Interferon gamma assays
    (C) ELISA for Antigen detection
    (D) Tuberculin skin test
76. The major determinant of total peripheral resistance that is involved in its regulation is
    (A) Viscosity of blood
    (B) Velocity of blood flow
    (C) Diameter of the capillaires
    (D) Radius of arterioles
77. A 25-year-old woman developed cough and sputum during her first trimester of pregnancy. Her doctor prescribed tetracycline to treat her respiratory infection. Two years later the mother discovered that her baby was suffering from what condition?
    (A) Ventricular septal defect
    (B) Deformation of teeth
    (C) Neural tube defects
    (D) Behavioural disorder
78. Lateral spinothalamic tract consists mainly of:
    (A) First order neurons in the pain pathway
    (B) Higher order neurons in the pain pathway
    (C) First order neurons in the touch pathway
    (D) Higher order neurons in the touch pathway
79. Aldosterone escape is due to
    (A) Aldosterone
    (B) Anti-diuretic hormone
    (C) Atrial natriuretic peptide
    (D) Renin
80. A key metabolite that is involved in regulation of the rate of gluconeogenesis in a cell is
    (A) Fructose-6-phosphate
    (B) Fructose-1,6-bisphosphate
    (C) Fructose-2,6-bisphosphate
    (D) Fructose-1-phosphate

81. The superficial inguinal ring is the deficiency in
    (A) External oblique aponeurosis
    (B) External oblique abdominis
    (C) Internal oblique aponeurosis
    (D) Transversalis fascia
82. All the following are TRUE regarding Granulation tissue EXCEPT
    (A) Is a feature of wound healing
    (B) Contains fibroblasts
    (C) Contains thin-walled capillaries
    (D) Often contains granuloma
83. SIADH causes
    (A) Hypokalemia
    (B) Hypocalcaemia
    (C) Hyponatraemia
    (D) Hypoglycemia
84. A chest x-ray of a 45 year old woman shows a peripheral 2.5 cm diameter "coin lesion" in the right mid-lung field. Which of the following biologic characteristics best distinguishes this lesion as a neoplasm, rather than a granuloma?
    (A) Recurrence following excision
    (B) Rapid increase in size
    (C) Sensitivity to radiation or chemotherapy
    (D) Uncontrolled (autonomous) growth
85. Identification of lactase deficiency can be done by giving an oral load of lactose and measuring the breath content of
    (A) Carbon-dioxide
    (B) Nitrogen
    (C) Hydrogen
    (D) Carbon monoxide
86. Telomere shortening occurs in
    (A) Sperm cells
    (B) Cancer cells
    (C) Stem cells
    (D) Hepatocytes
87. The most common site of extranodal lymphoma is the:
    (A) Spleen
    (B) Liver
    (C) Tonsils
    (D) Stomach
88. Esophageal varices are primarily located in the
    (A) Mucosa
    (B) Muscularis mucosa
    (C) Submucosa
    (D) Adventitia
89. Parathyroid hormone stimulates
    (A) Osteoclast
    (B) Osteoblast
    (C) Osteocyte
    (D) Monocyte
90. The most common site in the gastrointestinal tract affected by lymphoma is the:
    (A) Ileocecal region
    (B) Duodenum
    (C) Stomach
    (D) Ileum
91. The most common malignant thyroid neoplasm is:
    (A) Follicular carcinoma
    (B) Papillary carcinoma
    (C) Medullary carcinoma
    (D) Malignant lymphoma
92. The free margin of lesser omentum contains
    (A) Inferior vena cava
    (B) Superior mesenteric artery
    (C) Portal vein
    (D) Cystic duct
93. Antigen fragments are presented on the surface of the cells by a specialized group of molecules which are
    (A) T-cell receptors
    (B) Cluster differentiation markers
    (C) Complement activation factors
    (D) Major histocompatibility complex

94. The DNA sequence that is most likely to be a recognition sequence for a restriction enzyme is
    (A) AAGGAA
    (B) AAGAAG
    (C) AAGAGA
    (D) AAGCTT

95. B cell immunodeficiencies include
    (A) X-linked agammaglobulinaemia
    (B) Thymic hypoplasia
    (C) Wiskott-Aldrich syndrome
    (D) Job's syndrome

96. All the following are TRUE regarding HLA (human leucocyte antigens) EXCEPT
    (A) Genetically determined by major histocompatability complex (MHC)
    (B) Glycoproteins
    (C) Involved in transplantation immunity
    (D) Found only in the leukocytes

97. The key enzyme in cholesterol synthesis is
    (A) HMG CoA synthase
    (B) Cholesterol oxidase
    (C) HMG CoA reductase
    (D) Lecithin cholesterol acly transferase (LCAT)

98. The common organisms causing neonatal meningitis
    (A) Streptococcus pneumoniae
    (B) Streptococcus agalactiae
    (C) Neisseria meningitidis
    (D) Klebsiella pneumoniae

99. The following findings would be seen in acute graft versus host disease EXCEPT
    (A) Basal vacuolation
    (B) Individual cell necrosis
    (C) Lymphocyte satellitosis
    (D) Dermal sclerosis

100. Transaminases require the cofactor
    (A) Folic acid
    (B) NAD
    (C) Pyridoxal phosphate
    (D) Coenzyme A

101. Oxygen-dependent killing mechanisms found in neutrophils involves the utilization of all the following EXCEPT
    (A) Myeloperoxidase
    (B) Chloride ion (CL-)
    (C) Hydrogen peroxide
    (D) Lysosomal proteolysis

102. Antigen presenting cells include all of the following EXCEPT
    (A) Langerhans' cells
    (B) Follicular dendritic cells
    (C) Germinal centre dendritic cells
    (D) Polymorphonuclear granulocytes

103. The Frank - Starling law of heart describes:
    (A) The force-frequency relation
    (B) The length-tension relationship
    (C) Temperature dependence of contractility
    (D) Relationship between afterload and contractility

104. The following are the features of Candida albicans EXCEPT
    (A) Produces germ tube
    (B) Susceptible to azoles
    (C) Resistant to amphotericin B
    (D) Produces chlamydo spores

105. Dermatophytosis
    (A) Occurs only in immunocompromised patients
    (B) Can be transmitted from person to person
    (C) Occurs in all people who come in contact with dermatophyte fungi
    (D) Can be invasive

106. A 6 cm friable mass in the cecum on microscopic examination shows a moderately differentiated adenocarcinoma. Which of the following findings is most likely to be present in the patient?
(A) A k-ras mutation in the neoplastic cells
(B) An immunoperoxidase stain positive for vimentin in the neoplastic cells
(C) A stool culture positive for Shigella flexneri
(D) A high titer DNA topoisomerase I autoantibody

107. A 24 year old man suddenly develops high grade fever, headache, vomiting and muscle weakness. A lumbar puncture reveals evidence of bacterial meningitis. What would your approach be towards antibiotic treatment?
(A) Tetracycline for 5 days only
(B) Penicillin, Gentamicin and Metronidazole IV till the culture and sensitivity reports are seen and then decide appropriately
(C) Amoxicillin oral for 7 days and then start on ciprofloxacin for another 7 days
(D) Sulfomethoxazole and trimethoprim for 14 days

108. Thalamic sensory relay nucleus concerned with visual sensation is
(A) Medial geniculate body
(B) Lateral geniculate body
(C) Posteroventral group of nuclei
(D) Ventrolateral group of nuclei

109. A 45-year-old man always felt hot and could not tolerate summer. He was losing weight and could hardly sleep. He would defecate frequently. What medication would be best for him?
(A) Levothyroxine
(B) Liothyronine
(C) Radioactive iodine
(D) Carbimazole

110. Transverse tubules in cardiac muscle are present at
(A) M line
(B) Z line
(C) I disc
(D) H band

111. A patient who has decreased activity of lipoprotein lipase would have
(A) an increase in level of chylomicrons
(B) a decrease in level of very low density lipoproteins
(C) an increase in level of low density lipoproteins
(D) a decrease in level of high density lipoproteins

112. Hypoxia leads to vasoconstriction in
(A) Coronary circulation
(B) Pulmonary circulation
(C) Renal circulation
(D) Cerebral circulation

113. Pulmonary capillary wedge pressure can be used to assess the pressure profile in:
(A) Right atrium
(B) Right ventricle
(C) Pulmonary artery
(D) Left atrium

114. A shift in the oxygen dissociation curve of haemoglobin to the right occurs when
(A) pH of blood is lowered
(B) Concentration of 2,3 bisphosphoglycerate in the RBC decreases
(C) Fetal haemoglobin persists in postnatal life
(D) Haemoglobin contains 2 alpha and 2 gamma chains

115. In the process of glycogen synthesis, the protein glycogenin can act as an acceptor of glucose residues from UDP-glucose. This reaction is catalysed by
(A) Glycogenin itself
(B) Glucose-6-phosphatase
(C) Debranching enzyme
(D) UDP-glucuronyl transferase

116. Natural passive immunity results from
    (A) Antibodies generated in inapparent infections
    (B) Antibodies generated in subclinical infections
    (C) Antibodies transferred from the mother to the child
    (D) Antibodies passively administered to an individual

117. Bipolar neurons are sensory neurons found in
    (A) Dorsal root ganglia
    (B) Sympathetic ganglia
    (C) Olfactory epithelium
    (D) Vestibular nuclei

118. The strongest environmental influence for carcinoma of pancreas is:
    (A) Alcohol intake
    (B) Diet rich in fat
    (C) Smoking
    (D) Carbohydrate rich diet

119. An example of a vitamin required for reactions involved in post-translational modification of proteins in the body is
    (A) Thiamine
    (B) Pantothenic acid
    (C) Ascorbic acid
    (D) Beta-carotene

120. The lateral medullary syndrome is due to the occlusion of
    (A) Anterior spinal artery
    (B) Posterior spinal artery
    (C) Anterior inferior cerebellar artery
    (D) Posterior inferior cerebellar artery

121. Examples of type I hypersensitivity include
    (A) Contact dermatitis
    (B) Atopy
    (C) Serum sickness
    (D) Membranous nephropathy

122. Portal vein is formed by the union of
    (A) Superior mesenteric vein and inferior mesenteric vein
    (B) Superior mesenteric vein and splenic vein
    (C) Inferior mesenteric vein and splenic vein
    (D) Superior mesenteric vein and left gastric vein

123. All of the following are deep cerebellar nuclei EXCEPT
    (A) Dentate nucleus
    (B) Emboliform nucleus
    (C) Fastigial nucleus
    (D) Olivary nucleus

124. All the following are branches of the external carotid artery EXCEPT
    (A) Superior thyroid
    (B) Lingual
    (C) Occipital
    (D) Inferior thyroid

125. Metronidazole is indicated in the following conditions EXCEPT
    (A) Vaginal thrush
    (B) Anaerobic bacterial vaginosis
    (C) Giardiasis
    (D) Amoebiasis

126. The following are TRUE of the causative agent of melioidosis EXCEPT
    (A) Found in soil
    (B) Inherently resistant to gentamicin
    (C) Oxidase negative
    (D) Susceptible to ceftazidime

127. The main function of Hippocampus is
    (A) Fine-tuning of motor performance
    (B) Consolidation of explicit memory
    (C) Intercortical transfer of information
    (D) Maintenance of the awake state

128. The person's nose 'runs' when he or she cries since the nasolacrimal duct opens into
(A) Sphenoethmoidal recess
(B) Superior meatus
(C) Middle meatus
(D) Inferior meatus

129. Sago spleen refers to:
(A) Amyloid deposition in splenic sinuses
(B) Tuberculous involvement of splenic follicles
(C) Amyloid deposits within splenic follicles
(D) Lymphomatous involvement of the follicles

130. Acetyl CoA, which is the priming molecule for the synthesis of palmitic acid, contributes to the fatty acids at carbon atoms
(A) 1 and 2
(B) 3 and 4
(C) 9 and 10
(D) 15 and 16

131. In adults, woven bone tissue is present in
(A) Tooth socket
(B) Ends of long bones
(C) Shaft of clavicle
(D) Condyle of mandible

132. The regulatory enzyme in the biosynthesis of cholesterol is
(A) HMG CoA synthase
(B) HMG CoA lyase
(C) HMG CoA reductase
(D) Mevolanate kinase

133. 30 year old gentleman, previously fit & well, is admitted to casualty with acute onset of fever, cough and purulent secretions. The chest X-ray revealed a left lower lobe consolidation. The causative organisms can be identified in the microbiology laboratory by the following techniques EXCEPT
(A) Blood culture
(B) Urine Ag testing
(C) Sputum culture
(D) ELISA for antibodies

134. 'T' wave on the ECG signifies
(A) Atrial repolarisation
(B) Ventricular depolarization
(C) Ventricular repolarization
(D) Papillary muscle depolarization

135. Amino acids that are commonly found in beta-bends in a polypeptide include
(A) Alanine and serine
(B) Glycine and proline
(C) Arginine and valine
(D) Tyrosine and cysteine

136. The drug, oligomycin, produces its effects on mitochondria by
(A) Inhibiting the activity of NADH dehydrogenase
(B) Dissipating the electrochemical gradient
(C) Increasing the release of energy as heat
(D) Binding to and closing the H+ channel of ATP synthase

137. Hirschsprung's disease is a congenital condition in which
(A) Parasympathetic ganglia fail to migrate to the wall of the colon
(B) Parasympathetic ganglia fail to migrate to the wall of the small intestine
(C) The intestine is dilated below the affected region
(D) The intestine is dilated at the affected site

138. Endothelium-derived relaxing factor (EDRF) is:
    (A) Atrial natriuretic peptide
    (B) Nitric oxide
    (C) Carbon monoxide
    (D) Endothelin

139. Tissues such as the retina and lens are subject to deleterious effects of hyperglycemia because they have low activity of the enzyme
    (A) Hexokinase
    (B) Aldose reductase
    (C) Sorbitol dehydrogenase
    (D) Glucose-6-phosphatase

140. Amphotericin exerts its antifungal activity by
    (A) Binding to a sterol moiety, primarily ergosterol, that is present in the membrane of fungi
    (B) Inhibiting cell wall synthesis of fungi
    (C) Inhibiting protein synthesis in fungi
    (D) Inhibition of reverse transcriptase

141. Infra-tentorial dura in the cranium is supplied by
    (A) Vagus nerve
    (B) Trigeminal nerve
    (C) Facial nerve
    (D) Cranial accessory nerve

142. The major determinant of pre-load for the heart is:
    (A) Stroke volume
    (B) Cardiac output
    (C) Blood pressure
    (D) Venous return

143. Gastrointestinal stromal tumours with a normal c-kit gene show mutations of the following gene:
    (A) ST1571
    (B) PDGFRA
    (C) AP12
    (D) MLT

144. The compression of the following structure, which passes deep to the flexor retinaculum that results in carpal tunnel syndrome is
    (A) Ulnar nerve
    (B) Median nerve
    (C) Radial nerve
    (D) Anterior interosseous nerve

145. One of the earliest signs of vitamin A deficiency is
    (A) Nyctalopia
    (B) Keratomalacia
    (C) Xerophthalmia
    (D) Immunodeficiency

146. Insulin causes
    (A) Increased gluconeogenesis
    (B) Increased glycogenolysis
    (C) Increased glycogen synthesis
    (D) Decreased protein synthesis

147. The most common complication of peptic ulcer disease is
    (A) Perforation
    (B) Bleeding
    (C) Obstruction
    (D) Dysplasia

148. Grave's disease is due to antibodies:
    (A) Against thyroid peroxidase
    (B) Against thyroglobulin
    (C) Stimulating TSH receptors
    (D) Stimulating T-4 receptors

149. All of the following about Burkitt's lymphoma are TRUE EXCEPT:
    (A) Occurs in adolescents and young adults
    (B) Most tumours manifest at extranodal sites
    (C) Has a characteristic starry-sky pattern
    (D) The chromosomal abnormality is t(14:18)

150. The hormone responsible for increased body temperature after ovulation is most probably

(A) Luteinizing hormone

(B) Progesterone

(C) Oestrogen

(D) Follicle stimulating hormone

Space for Rough Work: