

Question Booklet
Series:

D

MDS Entrance Test – 2015
QUESTION BOOKLET
Paper - I (Pre-Clinical and Para-Clinical)

INSTRUCTIONS

Question Booklet
Number:

240048

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 Question Booklet thoroughly:** In case of any defect - Misprint, Missing question(s), Missing page, Blank page, Damaged or Defaced page, 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 is over.

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 particulars given will result in the non-evaluation of your Answer Sheet.

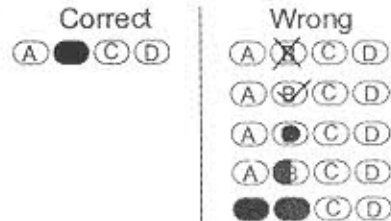
4) Strictly follow the instructions given by the Centre Supervisor / Room Invigilator and those given on the Question Booklet.

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 or indulging in copying or impersonation or adopting unfair means / reporting late / without Admit Card will be debarred from the Entrance 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. You are required 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 a wrong answer. The CORRECT and the WRONG methods 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 a wrong answer.

10) In view of the limited time, do NOT waste your time on a question which you find 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 rough page of your Question 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 retain candidate's copy.

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

1. Neumann and Hallopeau are clinical subtypes of
 - (A) P. Vegetans
 - (B) P. Vulgaris
 - (C) P. Foliaceus
 - (D) Familial benign pemphigus
2. Which one of the following muscle causes lateral rotation of hip joint?
 - (A) Psoas major
 - (B) Iliacus
 - (C) Quadratus femoris
 - (D) Pectineus
3. Which one of the following muscle is supplied by Abducent nerve?
 - (A) Superior oblique
 - (B) Superior rectus
 - (C) Lateral rectus
 - (D) Medial rectus
4. The function of which of the following is dominated by the sympathetic nervous system?
 - (A) Systemic blood vessels
 - (B) Heart
 - (C) Gastrointestinal gland secretion
 - (D) Salivary glands
5. Empowerment approach of health promotion adopts
 - (A) Top-down approach
 - (B) Bottom-up approach
 - (C) Vertical approach
 - (D) Horizontal approach
6. Endogenous catecholamines include all EXCEPT:
 - (A) Noradrenaline
 - (B) Adrenaline
 - (C) Dobutamine
 - (D) Dopamine
7. For regulatory purposes the generic name of a drug is the:
 - (A) Chemical name
 - (B) Non-proprietary name
 - (C) Pharmacological name
 - (D) Proprietary name
8. Which of these amino acids is NOT present in proteins of human body?
 - (A) Isoleucine
 - (B) Homocysteine
 - (C) Hydroxyproline
 - (D) Gamma carboxyglutamate
9. The generation time of *Mycobacterium leprae* is :
 - (A) 10 minutes
 - (B) 10 hours
 - (C) 12-13 days
 - (D) 12-13 weeks
10. 4 out of 1,00,000 persons are diagnosed of oral squamous cell carcinoma in a given population during a specified time period is best described as
 - (A) Relative risk
 - (B) Absolute risk
 - (C) Population attributable risk
 - (D) Attributable risk
11. Calcination temperature for gypsum to form dental gypsum products lies in a range of:
 - (A) 200-220 °F
 - (B) 230-260 °F
 - (C) 270-300 °F
 - (D) 110-130 °F
12. Which of the following is an approach to handling confounding?
 - (A) Individual matching
 - (B) Stratification
 - (C) Group Matching
 - (D) All of the above

13. The non-working pathways of maxillary cusp on mandibular posterior teeth is towards
- (A) Disto-facial
 - (B) Disto-lingual
 - (C) Mesio-facial
 - (D) Mesio-lingual
14. Which are the components in dentifrices that inhibits the growth of crystals in calculus?
- (A) Sodium Phosphate and Disodium dihydrogen pyrophosphate
 - (B) Carbamide peroxide and Stannous Fluoride
 - (C) Sorbitol and Calcium Carbonate
 - (D) Stannous Fluoride and Sodium Benzoate
15. Which of the following has the highest contact angle of water on solid surfaces?
- (A) Amalgam
 - (B) Acrylic denture resin
 - (C) Dental ceramic
 - (D) Teflon
16. In healthy oral conditions the interdental papillae is shortest cervico-incisally / cervico-occlusally between mandibular.
- (A) Central incisors
 - (B) Lateral Incisor and canine
 - (C) 1st and 2nd PM
 - (D) 2nd PM and 1st Molar
17. Which of the following segments of the circulatory system has the highest velocity of blood flow?
- (A) Aorta
 - (B) Arteries
 - (C) Capillaries
 - (D) Venules
18. The greatest difficulty in removing calculus from root trunk area of molars is seen on
- (A) Mesial surface of mandibular second
 - (B) Distal surface of maxillary first
 - (C) Mesial of maxillary second
 - (D) Distal of mandibular first
19. The route of drug administration used to achieve smooth plasma concentrations of the drug without fluctuations, minimize interindividual variations, improve patient convenience and compliance is:
- (A) Oral
 - (B) Intravenous infusion
 - (C) Transdermal
 - (D) Inhalation
20. Modifiable risk factors for atherosclerosis include all EXCEPT:
- (A) Hyperlipidemia
 - (B) Hypertension
 - (C) Diabetes
 - (D) Increasing age
21. Tsuchihashi classification is used for
- (A) Lip print analysis
 - (B) Bite mark analysis
 - (C) Age estimation in children
 - (D) Age estimation in adults
22. Which of these does NOT fall in to any of the classes of dental materials?
- (A) Ceramics
 - (B) Composites
 - (C) Cements
 - (D) Polymers

23. Sensory fibers from the spinal cord and brain stem relay in which one of the following thalamic nucleus?
(A) Ventral posterior
(B) Ventral anterior
(C) Ventral lateral
(D) Ventral intermediate
24. Which of the following would most likely be used for prophylaxis of transient ischemic heart attack?
(A) Heparin
(B) Warfarin
(C) Aspirin
(D) Streptokinase
25. Topical antidote for hydrofluoric acid is
(A) Calcium oxalate
(B) Calcium stearate
(C) Calcium gluconate
(D) Calcium carbonate
26. The severe form of leprosy is:
(A) Tuberculoid leprosy
(B) Borderline tuberculoid leprosy
(C) Lepromatous Leprosy
(D) Borderline lepromatous leprosy
27. Which of the following material possess coefficient of thermal expansion closest to that of tooth enamel?
(A) Dentin
(B) CP Titanium
(C) Gold palladium alloy
(D) Amalgam
28. Which of the following has good prognosis?
(A) Acute Lymphoblastic Leukemia
(B) Acute Myeloblastic Leukemia
(C) Chronic Myelocytic Leukemia
(D) Chronic Lymphocytic Leukemia
29. Which of the following muscle is an extensor of shoulder joint?
(A) Teres minor
(B) Teres major
(C) Supraspinatus
(D) Serratus anterior
30. Latrogenic diseases are caused by:
(A) Microbes
(B) Natural minerals
(C) Drugs
(D) Cause is not known
31. Which of the following is most likely to produce the greatest increase in insulin secretion?
(A) Amino acids
(B) Amino acids and glucose
(C) Amino acids and somatostatin
(D) Glucose and somatostatin
32. How many serotypes are there in dengue virus?
(A) Four
(B) Five
(C) Ten
(D) One
33. Which of the following structures is related to mediastinal surface of left lung?
(A) Descending thoracic aorta
(B) Superior vena cava
(C) Inferior vena cava
(D) Brachiocephalic vein
34. All of the following are benign tumours EXCEPT:
(A) Papilloma
(B) Lymphoma
(C) Chondroma
(D) Adenoma

35. Calcification of primary maxillary canine start at (months in utero)
- (A) 3
 - (B) 4
 - (C) 6
 - (D) 5
36. Negri bodies are found in cells infected with:
- (A) Rabies virus
 - (B) Vaccinia virus
 - (C) Variola virus
 - (D) Orthomyxovirus
37. Precancerous conditions include all of the following EXCEPT:
- (A) Rheumatoid arthritis
 - (B) Chronic atrophic gastritis
 - (C) Chronic ulcerative colitis
 - (D) Leukoplakia
38. A case control study is characterized by all of the following EXCEPT:
- (A) Relatively inexpensive compared with most other epidemiological study designs
 - (B) Patient with disease are compared with persons without disease
 - (C) Definition of case may be difficult
 - (D) Incidence rates may be computed directly
39. HMG CoA lyase is present only in
- (A) RBC
 - (B) Heart
 - (C) Brain
 - (D) Liver
40. Maximum facio-lingual inclination is seen in
- (A) Mandibular 2nd Molar
 - (B) Maxillary 2nd Molar
 - (C) Maxillary 2nd PM
 - (D) Mandibular 1st molar
41. In anaphylactic shock, adrenaline is injected intramuscularly at a concentration of:
- (A) 1:1,00,000
 - (B) 1:10,000
 - (C) 1:1000
 - (D) 1:100
42. The radiographic appearance of Cherubism is
- (A) Unilateral, Multilocular, Radiolucency
 - (B) Unilateral, Unilocular, Radiolucency
 - (C) Bilateral, Unilocular, Radiolucency
 - (D) Bilateral, Multilocular, Radiolucency
43. Familial cancers are characterized by all of the following features EXCEPT:
- (A) Late age of onset
 - (B) Tumours in close relatives
 - (C) Multiple tumours
 - (D) Bilateral tumours
44. What causes the release of histamine in an allergic reaction?
- (A) Binding of IgM to basophils
 - (B) Binding of IgE to mast cells
 - (C) Release of histamine by helper T cells
 - (D) Free radical stimulation of endothelial cells
45. For drugs with a high first pass metabolism
- (A) Oral dose is considerably lesser than sublingual
 - (B) Oral dose is considerably lesser than parenteral dose
 - (C) The onset of drug action is fast
 - (D) Oral bioavailability is decreased in patients with liver disease
46. Which immunoglobulin is heat-labile?
- (A) Ig-M
 - (B) Ig-A
 - (C) Ig-G
 - (D) Ig-E

47. The anterior relations of left kidney are all of the following EXCEPT:
(A) Stomach
(B) Spleen
(C) Tail of pancreas
(D) Duodenum
48. According to U.S. Food and Drug Administration Regulations For Medical Devices which class of devices are subject to most regulatory control?
(A) Class I
(B) Class II
(C) Class III
(D) Class IV
49. The mesiodistal diameter of crown of mandibular 2nd molar is
(A) 10
(B) 10.5
(C) 9.5
(D) 11
50. When ΔG (free energy) of a system is zero, the reaction is
(A) proceeding in forward direction
(B) proceeding in backward direction
(C) not occurring in any direction
(D) occurring at equal rate in both direction
51. Primary Mandibular 1st Molar has
(A) 4 Pulp horns -3 canals
(B) 5 Pulp horns -4 canals
(C) 4 Pulp horns -4 canals
(D) 5 Pulp horns -3 canals
52. Which of the following muscle is supplied by the glossopharyngeal nerve?
(A) Styloglossus
(B) Stylopharyngeus
(C) Stylohyoid
(D) Palatoglossus
53. Which of the following arteries supply the fundus of the stomach?
(A) Short gastric
(B) Left gastric
(C) Hepatic
(D) Right gastric
54. Melting point of methyl methacrylate is
(A) 48 °C
(B) 100.8 °C
(C) 0 °C
(D) -48 °C
55. The deciduous canine usually erupt by
(A) 12 months
(B) 14 months
(C) 16 months
(D) 20 months
56. The property of an index to measure what it is intended to measure is called
(A) Validity
(B) Reliability
(C) Objectivity
(D) Sensitivity
57. Which one of the following opens in the inferior meatus of the nose?
(A) Frontal air sinus
(B) Maxillary air sinus
(C) Nasolacrimal duct
(D) Posterior ethmoidal air sinus
58. The tumour suppressor gene is:
(A) myc
(B) fms
(C) ras
(D) Rb

59. Which of the following statement is NOT true about a bronchopulmonary segment in the lung?
- (A) It is supplied by an independent segmental bronchus
 - (B) It is resectable
 - (C) It is drained by a segmental vein
 - (D) It is supplied by a segmental artery
60. Drugs requiring a dose reduction in renal disease include all EXCEPT
- (A) Aminoglycoside
 - (B) Cephalixin
 - (C) Paracetamol
 - (D) Amphotericin B
61. The metabolic pathway that is essential for conjugation of bilirubin is
- (A) Glycolytic pathway
 - (B) Glycogenolytic pathway
 - (C) Pentose phosphate pathway
 - (D) Uronic acid pathway
62. Tulip shaped teeth are seen in:
- (A) Amelogenesis imperfecta
 - (B) Dentin dysplasia
 - (C) Regional odontodysplasia
 - (D) Dentinogenesis imperfecta
63. On which teeth matrix placement can pose special problem?
- (A) Maxillary 1st PM
 - (B) Mandibular 1st PM
 - (C) Maxillary 1st Molar
 - (D) Mandibular 1st Molar
64. Which of the following viruses can produce diarrhoea?
- (A) Rotavirus
 - (B) Calcivirus
 - (C) Astrovirus
 - (D) All of the above
65. Ottawa Charter focuses on
- (A) Health promotion
 - (B) Health rehabilitation
 - (C) Secondary level of prevention
 - (D) Tertiary prevention
66. The three basic educational objectives are
- (A) Cognitive, affective and behavioural
 - (B) Planning, implementation and evaluation
 - (C) Mental, psychological and behavioural
 - (D) Social, psychomotor and interventional
67. Nasal, lacrimal, salivary, and gastrointestinal glands are stimulated by which of the following substances?
- (A) Acetylcholine
 - (B) Norepinephrine
 - (C) Epinephrine
 - (D) Serotonin
68. Winging of scapula occurs as a result of injury to which one of the following nerves?
- (A) Thoracodorsal
 - (B) Long thoracic
 - (C) Axillary
 - (D) Suprascapular
69. Which transmitter agent used by the slow pain fibers is released slowly over a period of seconds of minutes at synapses in the dorsal horn?
- (A) Acetylcholine
 - (B) Calcitonin gene-related peptide
 - (C) GABA
 - (D) Substance P
70. The success of monophasic impression technique depends on which property of material?
- (A) Thixotropy
 - (B) Pseudoplasticity
 - (C) Dilatants
 - (D) Newtonian

71. The type of ATPase that transport anion is
(A) A-type
(B) P-type
(C) F-type
(D) V-type
72. Which of the following components of the circulatory system contains the largest percentage of total blood volume?
(A) Arterioles
(B) Capillaries
(C) Veins
(D) Pulmonary circulation
73. Most common neoplasm in patients with AIDS is:
(A) Non-Hodgkin Lymphoma
(B) Cervical carcinoma
(C) Kaposi's sarcoma
(D) Anal cancer
74. Where does the transmigration of white blood cells occur in response to infectious agents?
(A) Arterioles
(B) Lymphatic ducts
(C) Venules
(D) Inflamed arteries
75. Crescent shaped groove is seen in
(A) Mandibular 1st PM
(B) Mandibular 2nd PM
(C) Maxillary 1st PM
(D) Maxillary 2nd PM
76. A drug compendia that would be used to get information regarding description of chemical structure, molecular weight, physical and chemical characteristics, solubility, identification, assay methods, standards of purity, storage conditions and dosage forms of officially approved drugs in a country is:
(A) Formulary
(B) Pharmacopoeia
(C) Physicians Desk Reference
(D) Drugs Facts and Comparison
77. The causative agent of Louse-borne relapsing fever is:
(A) *Borrelia recurrentis*
(B) *Borrelia duttoni*
(C) *Borrelia burgdorferi*
(D) None of the above
78. All of the following can be seen in hemolytic disorders EXCEPT
(A) Erythroid Hyperplasia
(B) Raised Bilirubin levels
(C) Raised erythropoietin levels
(D) Increased red cell life span
79. Primary tuberculosis can occur at all of the following sites EXCEPT:
(A) Lung
(B) Lymph nodes
(C) Intestine
(D) Skin
80. The alpha blocker that is NOT approved as an antihypertensive:
(A) Prazosin
(B) Alfuzosin
(C) Terazosin
(D) Doxazosin

81. The function of gum rosin in ZOE impression paste is:
- (A) Act as an accelerator
 - (B) Act as plasticizer
 - (C) Increases flow
 - (D) Act as filler
82. All of the following are oxidase positive bacteria EXCEPT:
- (A) Neisseria species
 - (B) Pseudomonas species
 - (C) Klebsiella species
 - (D) Vibrio species
83. Eruption of mandibular primary canine (in months)
- (A) 11-12
 - (B) 16-20
 - (C) 14-16
 - (D) 18-25
84. Which one of the following muscle causes abduction of vocal cords?
- (A) Oblique arytenoid
 - (B) Transverse arytenoid
 - (C) Posterior cricoarytenoid
 - (D) Aryepiglotticus
85. Myospherulosis occurs due to
- (A) Mycobacterium tuberculosis
 - (B) Mycobacterium leprae
 - (C) Antibiotic paste
 - (D) Actinomyces Israelii
86. Isoenzyme may differ from each other in all of the following aspects EXCEPT that
- (A) they have different electrophoretic mobility
 - (B) they may differ in heat stability
 - (C) they differ in catalytic function
 - (D) they may have different K_m value
87. Why do some malnourished patients bleed excessively when injured?
- (A) Vitamin K deficiency
 - (B) Platelet sequestration by fatty liver
 - (C) Increased serum bilirubin, neutralizing thrombin
 - (D) Low serum protein levels, causing factor XIII problem
88. Which of the following is NOT an area of high stress concentration?
- (A) Surface defects such as porosity
 - (B) A large difference in elastic moduli or COTE across a bonded interface
 - (C) Hertzian load
 - (D) None of the above
89. Iron deficiency is associated with all of the following EXCEPT:
- (A) Decreased Serum Iron levels
 - (B) Decreased serum ferritin levels
 - (C) Decreased iron binding capacity
 - (D) Decreased transferrin saturation
90. Rugger Jersey sign is seen in
- (A) Marfan syndrome
 - (B) Achondrogenesis
 - (C) Osteopetrosis
 - (D) Osteogenesis imperfecta
91. Which of the components of dentifrices is contraindicated in patients with oral mucosal lesions?
- (A) Sorbitol
 - (B) Gum Tragacanth
 - (C) Sodium Lauryl Sulphate
 - (D) Sodium bicarbonate

92. All are true about gemination EXCEPT:
- (A) Anomaly results due to invagination of single tooth germ
 - (B) Union of two normally separated tooth germs
 - (C) Two completely or incompletely separated crowns that have a single root and root canal
 - (D) Difficult to differentiate between gemination and a case in which there has been fusion between a normal tooth and supernumerary tooth
93. To check the purity of microsomal isolate, the marker enzyme that is assayed is
- (A) ATP synthase
 - (B) Cathepsin
 - (C) Glucose 6-phosphatase
 - (D) Lactate dehydrogenase
94. Lipopolysaccharide is a major constituent of cell wall of:
- (A) Gram-negative bacteria
 - (B) Viruses
 - (C) Gram-positive bacteria
 - (D) Fungi
95. *S. Mutans* is associated with all of the following EXCEPT
- (A) Deep dentinal caries
 - (B) Pit and fissure caries
 - (C) Root surface caries
 - (D) Smooth surface caries
96. MMR vaccine is:
- (A) A live attenuated vaccine
 - (B) A killed vaccine
 - (C) A subunit vaccine
 - (D) None of the above
97. In Treacher Collins syndrome there is:
- (A) Upward sloping of the palpebral fissure
 - (B) Poorly developed or absent malar bones
 - (C) Mandibular prognathism
 - (D) Normal hair growth
98. Fossa's bodies are intracellular inclusion bodies seen in
- (A) Aplastic anemia
 - (B) Thrombocytopenia
 - (C) Polycythemia vera
 - (D) Cooley's anemia
99. Autosplenectomy can occur in:
- (A) Hereditary spherocytosis
 - (B) Sickle cell anaemia
 - (C) Thalassemia
 - (D) Hereditary ovalocytosis
100. B lymphocytes develop into:
- (A) Monocytes
 - (B) Natural Killer cells
 - (C) Plasma cells
 - (D) Dendritic cells
101. The caries activity test that measures the rapidity of acid formation when the sample of stimulated saliva is inoculated into glucose agar is
- (A) Buffer capacity Test
 - (B) Snyder test
 - (C) Fosdick Calcium Dissolution test
 - (D) Plaque-toothpick test
102. In which type of shock does cardiac output often increase?
- (A) Hemorrhagic shock
 - (B) Anaphylactic shock
 - (C) Septic shock
 - (D) Neurogenic shock

