

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

Subject Code :

2	2
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Test Booklet No. : 00294

TEST BOOKLET MEDICAL SCIENCES

Time Allowed : 2 (Two) Hours

Full Marks : 200

INSTRUCTIONS

1. The name of the Subject, Roll Number as mentioned in the Admission Certificate, Test Booklet No. and Subject Code shall be written legibly and correctly in the space provided on the Answer Sheet with black ball pen.
2. Space provided for Series in the Answer Sheet is not applicable for Optional Subject. So the space shall be left blank.
3. All questions carry equal marks. Your total marks will depend only on the number of correct responses marked by you in the Answer Sheet.
4. No candidate shall be admitted to the Examination Hall/Room 20 minutes after commencement of distribution of the paper. The Supervisor of the Examination Hall/Room will be the timekeeper and his/her decision in this regard is final.
5. No candidate shall leave the Examination Hall/Room without prior permission of the Supervisor/Invigilator. No candidate shall be permitted to hand over his/her Answer Sheet and leave the Examination Hall/Room before expiry of the full time allotted for each paper.
6. No Mobile Phone, Pager, etc., are allowed to be carried inside the Examination Hall/Room by the candidates. Any Mobile Phone, Pager, etc., found in possession of the candidate inside the Examination Hall/Room, even if on off mode, shall be liable for confiscation.
7. No candidate shall have in his/her possession inside the Examination Hall/Room any book, notebook or loose paper, except his/her Admission Certificate and other connected paper permitted by the Commission.
8. Complete silence must be observed in the Examination Hall/Room. No candidate shall copy from the paper of any other candidate, or permit his/her own paper to be copied, or give, or attempt to give, or obtain, or attempt to obtain irregular assistance of any kind.
9. After you have completed filling in all your responses on the Answer Sheet and the Examination has concluded, you should hand over to the Invigilator *only the Answer Sheet*. You are permitted to take away with you the Test Booklet.
10. Violation of any of the above Rules will render the candidate liable to expulsion from the Examination Hall/Room and disqualification from the Examination, and according to the nature and gravity of his/her offence, he/she may be debarred from future Examinations and Interviews conducted by the Commission for appointment to Government Service.
11. Smoking inside the Examination Hall/Room is strictly prohibited.
12. This Test Booklet contains one sheet (two pages) for Rough Work at the end.

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[No. of Questions : 100]

SEAL

1. Klumpke's palsy involves

- (A) C₆
- (B) C₇
- (C) C₈
- (D) T₁

2. All of the following structures are in lateral wall of cavernous sinus, except

- (A) oculomotor
- (B) trochlear
- (C) trigeminal
- (D) ophthalmic

3. The complete family size may be estimated by

- (A) birthrate
- (B) death rate
- (C) total fertility rate
- (D) age-specific fertility rate

4. The most common complication in hiatus hernia is

- (A) esophagitis
- (B) aspiration pneumonia
- (C) volvulus
- (D) esophageal stricture

5. The most common cause of gastric outlet obstruction in India is

- (A) TB
- (B) Ca stomach
- (C) duodenal lymphoma
- (D) peptic ulcer disease

6. A 60-year-old smoker came with a history of painless gross haematuria for one day. The most logical investigation would be

- (A) urine routine
- (B) plain X-ray KUB
- (C) USG KUB
- (D) urine microscopy for malignant cytology

7. The best prognosis factor for head injury is

- (A) Glasgow Coma Scale
- (B) age
- (C) mode of injury
- (D) CT

8. A newborn child has not passed meconium for 48 hours. What is the diagnostic procedure of choice?

- (A) USG
- (B) Contrast enema
- (C) CT
- (D) MRI

9. Epispadias is associated with

- (A) bifid pubic symphysis
- (B) chordae
- (C) anal atresia
- (D) intestinal obstruction

10. Clara cells are found in

- (A) trachea
- (B) bronchioles
- (C) alveoli
- (D) esophagus

11. The substance that does not cross the placental membrane is

- (A) IgG
- (B) IgA
- (C) IgM
- (D) IgE

12. In polio, contracture of the iliotibial tract leads to

- (A) hip flexion and abduction
- (B) varus deformity of knee
- (C) knee flexion
- (D) lateral rotation of tibia

13. Which of the following is a feature of Y chromosome?

- (A) Acrocentric
- (B) Telocentric
- (C) Submetacentric
- (D) Metacentric

14. Portosystemic shunt is not seen in

- (A) liver
- (B) spleen
- (C) anorectum
- (D) gastro-esophageal

15. All of the following are pneumatic bones, except

- (A) maxilla
- (B) parietal
- (C) ethmoid
- (D) mastoid

16. The cycle which is absent in human is

- (A) menstrual
- (B) ovarian
- (C) hormonal
- (D) estrous

17. Plastic syringes are sterilized by

- (A) gamma rays
- (B) hot air oven
- (C) autoclave
- (D) washing in phenol

18. In North India, the most common congenital lesion is

- (A) neural tube defect
- (B) cleft palate
- (C) clubfoot
- (D) congenital heart disease

19. The maximum level of chloride in drinking water is

- (A) 600 mg/L
- (B) 500 mg/L
- (C) 300 mg/L
- (D) 200 mg/L

20. Which one of the following is organophosphorus poison?

- (A) Physostigmine
- (B) Dyflos
- (C) Tacrine
- (D) Edrophonium

21. Chronic carrier in Salmonella is

- (A) faecal carrier
- (B) urinary carrier
- (C) blood carrier
- (D) None of the above

22. Oral polio vaccine is a

- (A) live attenuated vaccine
- (B) killed vaccine
- (C) subunit vaccine
- (D) None of the above

23. The main purpose of BCG given to a child is to

- (A) prevent all forms of TB
- (B) prevent severe form of TB
- (C) prevent severe complications
- (D) control all forms of TB

24. High-fibre diet

- (A) modifies stool transit time
- (B) decreases incidences of colon cancer
- (C) Both (A) and (B)
- (D) None of the above

25. India was declared smallpox-free in the year

- (A) 1973
- (B) 1975
- (C) 1976
- (D) 1977

26. The virus most commonly associated with viral myocarditis is

- (A) mumps
- (B) rubella
- (C) coxsackie B
- (D) hepatitis A

27. Asbestos exposure causes

- (A) mesothelioma
- (B) tetralogy of Fallot
- (C) cerebral palsy
- (D) repeated abortion

28. Antigenic drift is usually seen in

- (A) smallpox
- (B) measles
- (C) yellow fever
- (D) influenza

29. Lyme disease is caused by a

- (A) virus
- (B) fungus
- (C) bacterium
- (D) Spirochaeta

30. pH factor is a/an

- (A) antibody
- (B) mucopolysaccharide
- (C) lipoprotein
- (D) glycoprotein

31. KAP study in India was first used to study

- (A) HIV
- (B) malaria
- (C) family planning
- (D) cancer cervix

32. Isolation is strictly recommended for

- (A) mumps
- (B) measles
- (C) hepatitis A
- (D) pneumonic plague

33. Pontine stroke is associated with all, except

- (A) bilateral pinpoint pupil
- (B) pyrexia
- (C) vagal palsy
- (D) quadriparesis

34. The speed of conduction is slowest in

- (A) AV node
- (B) bundle of HIS
- (C) Purkinje's fibres
- (D) ventricular myocardial fibre

35. Cobalt is a constituent of

- (A) folic acid
- (B) vitamin B₁₂
- (C) niacin
- (D) biotin

36. Erythropoietin is increased in all of the following conditions, except

- (A) hepatocellular carcinoma
- (B) renal cell carcinoma
- (C) cerebellar hemangioblastoma
- (D) pancreatic carcinoma

37. The most common tumor in the posterior mediastinum is

- (A) neurofibroma
- (B) teratoma
- (C) lymphoma
- (D) bronchogenic cyst

38. The most common histological type of thyroid carcinoma is

- (A) medullary type
- (B) follicular type
- (C) papillary type
- (D) anaplastic type

39. Diffuse esophageal spasm is best diagnosed by

- (A) endoscopy
- (B) manometry
- (C) barium swallow
- (D) CT

40. Which of the following organelles play a pivotal role in apoptosis?

- (A) Mitochondrion
- (B) Endoplasmic reticulum
- (C) Nucleus
- (D) Golgi apparatus

41. Gut-associated lymphoid tissue (GALT) is primarily located in

- (A) lamina propria
- (B) submucosa
- (C) muscularis mucosa
- (D) serosa

42. Coagulative necrosis is commonly seen in

- (A) tuberculosis
- (B) fungal infection
- (C) sarcoidosis
- (D) wet gangrene

43. Chief cells of stomach are most abundant in

- (A) fundus
- (B) body
- (C) antrum
- (D) pylorus

44. The molecular weight of haemoglobin is

- (A) 44,450
- (B) 54,450
- (C) 64,450
- (D) 74,450

45. DNA is denatured by

- (A) heat
- (B) acid
- (C) alkali
- (D) All of the above

46. Which of the following markers is specific for gastrointestinal stromal tumours (GIST)?

- (A) CD117
- (B) CD34
- (C) CD23
- (D) S-100

47. DIC is seen in which type of AML?

- (A) M1
- (B) M3
- (C) M4
- (D) M6

48. The drug of choice in chronic myeloid leukaemia (CML) is
- (A) hydroxyurea
 - (B) imatinib
 - (C) infliximab
 - (D) IFN
49. Which of the following is a non-absorbable suture?
- (A) Polypropylene
 - (B) Vicryl
 - (C) Catgut
 - (D) Polydioxanone
50. TCA cycle does not take place in
- (A) hepatocyte
 - (B) osteocyte
 - (C) neuron
 - (D) erythrocyte
51. The total number of spinal segment is
- (A) 30
 - (B) 31
 - (C) 32
 - (D) 33
52. All of the following structures traverse through the anterior compartment of the neck, except
- (A) digestive tract
 - (B) respiratory tract
 - (C) internal jugular vein
 - (D) spinal cord
53. Collagen of which type is found in hyaline cartilage?
- (A) Type I
 - (B) Type II
 - (C) Type III
 - (D) Type IV
54. Peroxidase enzyme is used in estimating
- (A) haemoglobin
 - (B) ammonia
 - (C) creatinine
 - (D) glucose
55. All of the following are essential amino acids, except
- (A) methionine
 - (B) lysine
 - (C) alanine
 - (D) leucine

56. The amino acid producing ammonia in kidney is

- (A) glutamine
- (B) alanine
- (C) methionine
- (D) glycine

57. The site of RBC formation in a 20-year-old healthy male is

- (A) flat bone
- (B) long bone
- (C) liver
- (D) yolk sac

58. Testosterone production is mainly contributed by

- (A) Leydig cells
- (B) Sertoli cells
- (C) seminiferous tubule
- (D) epididymis

59. Heme is converted to bilirubin mainly in

- (A) kidney
- (B) liver
- (C) spleen
- (D) bone marrow

60. All of the following organs may be involved in leprosy, except

- (A) uterus
- (B) ovary
- (C) testis
- (D) eye

61. Which of the following is not a common site for metastatic calcification?

- (A) Gastric mucosa
- (B) Kidney
- (C) Parathyroid
- (D) Lung

62. Virchow's triad includes all, except

- (A) injury to vein
- (B) venous thrombosis
- (C) venous stasis
- (D) hypercoagulability of blood

63. Thymus is located in

- (A) superior mediastinum
- (B) middle mediastinum
- (C) posterior mediastinum
- (D) anterior mediastinum

64. Carpal tunnel syndrome occurs due to entrapment of
- (A) median nerve
 - (B) ulnar nerve
 - (C) radial nerve
 - (D) musculocutaneous nerve
65. Conducting system of heart is a modification of
- (A) epicardium
 - (B) myocardium
 - (C) endocardium
 - (D) None of the above
66. Which of the following is not true about juvenile rheumatoid arthritis?
- (A) Fever
 - (B) Rheumatic nodule
 - (C) Uveitis
 - (D) Raynaud's phenomenon
67. In India, the maximum maternal mortality rate is due to
- (A) anaemia
 - (B) haemorrhage
 - (C) abortion
 - (D) sepsis
68. Which of the following attains adult size before birth?
- (A) Ear ossicle
 - (B) Maxilla
 - (C) Mastoid process
 - (D) Parietal bone
69. Which of the following vaccines is contraindicated in pregnancy?
- (A) Rubella
 - (B) Diphtheria
 - (C) Tetanus
 - (D) Hepatitis B
70. Amoebiasis is transmitted by all of the following, except
- (A) cockroach
 - (B) fecal oral transmission
 - (C) vertical transmission
 - (D) oroanal transmission
71. A patient with 14 days of fever is suspected of having typhoid fever. What investigation should be done?
- (A) Blood culture
 - (B) Widal test
 - (C) Stool culture
 - (D) Urine culture

72. Primary receptor for human immuno-deficiency virus (HIV) is

- (A) CD4
- (B) CD8
- (C) CD56
- (D) CD3

73. Embryologically tympanic membrane is derived from

- (A) ectoderm
- (B) mesoderm
- (C) endoderm
- (D) All of the above

74. Reconstituted vaccine should be used within

- (A) 1 hour
- (B) 3 hours
- (C) 6 hours
- (D) 12 hours

75. Cranial nerve not carrying para-sympathetic fibre is

- (A) 4th
- (B) 7th
- (C) 3rd
- (D) 9th

76. Rods and cones are present in

- (A) iris
- (B) retina
- (C) lens
- (D) cornea

77. Fish is deficient in which of the following nutrients?

- (A) Iodine
- (B) Vitamin A
- (C) Iron
- (D) Phosphorus

78. All of the mediators are of acute inflammation, except

- (A) angiotensin
- (B) P4/E2
- (C) Kallikrein
- (D) C3a

79. The highest percentage of poly-unsaturated fatty acids is present in

- (A) groundnut oil
- (B) soybean oil
- (C) margarine
- (D) palm oil

80. Earliest symptom in acute appendicitis is

- (A) pain
- (B) fever
- (C) vomiting
- (D) rise in pulse rate

81. All of the following nerves innervate the postquadrant of scalp, except

- (A) auriculotemporal
- (B) great auricular
- (C) greater occipital
- (D) lesser occipital

82. Part of the brain which undergoes degenerative changes in parkinsonism is

- (A) crus cerebri
- (B) substantia nigra
- (C) red nucleus
- (D) subthalamus

83. Which of the following bones is not a sutural bone?

- (A) Epipteric bone
- (B) Inca bone
- (C) OS kerkring
- (D) Interparietal bone

84. Carbon dioxide is primarily transported in the arterial blood as

- (A) dissolved CO_2
- (B) carbonic acid
- (C) carbamine haemoglobin
- (D) bicarbonate

85. The most common mode of lead poisoning is

- (A) ingestion
- (B) dermally
- (C) inhalation
- (D) None of the above

86. In a patient with head injury, damage in the brain is aggravated by

- (A) hyperglycemia
- (B) hypothermia
- (C) hypocapnia
- (D) serum osmolarity

87. Gout is a disorder of
- (A) purine metabolism
 - (B) pyrimidine metabolism
 - (C) ketone metabolism
 - (D) protein metabolism
88. All of the following drugs are used for managing status epilepticus, except
- (A) phenytoin
 - (B) diazepam
 - (C) thiopentone sodium
 - (D) carbamazepine
89. A metastatic carcinoma in the brain of an adult most often comes from primary in the
- (A) stomach
 - (B) ovary
 - (C) oral cavity
 - (D) lung
90. Anal fissure is best diagnosed by
- (A) anoscopy
 - (B) history and superficial clinical examination
 - (C) PR examination
 - (D) USG
91. The best diagnostic method for breast lump is
- (A) USG
 - (B) mammogram
 - (C) biopsy
 - (D) FNAC
92. Shock is clinically best assessed by
- (A) urine output
 - (B) CVP
 - (C) BP
 - (D) hydration
93. Egg is the ideal protein, because it has
- (A) high cholesterol
 - (B) high protein per 100 g
 - (C) no limiting amino acid
 - (D) high biological efficiency and NPW
94. Sympathetic stimulation causes all of the following, except
- (A) increase in heart rate
 - (B) increase in blood pressure
 - (C) increase in total peripheral resistance
 - (D) increase in venous capacity

95. Which of the following parts of the duodenum is called duodenal cap?

(A) 1st part

(B) 2nd part

(C) 3rd part

(D) 4th part

96. Chemoprophylaxis can be done for all of the following, except

(A) meningitis

(B) typhoid

(C) cholera

(D) diphtheria

97. Key regulator of sleep is located in

(A) hypothalamus

(B) thalamus

(C) putamen

(D) limbic cortex

98. The uveal tract consists of the following structures, except

(A) choroid

(B) ora serrata

(C) ciliary body

(D) iris

99. Following are the features of cortico-spinal involvement, except

(A) cogwheel rigidity

(B) spasticity

(C) plantar extensor response

(D) exaggerated deep tendon reflexes

100. Which of the following secretions has a very high pH?

(A) Gastric juice

(B) Pancreatic juice

(C) Bile in gallbladder

(D) Saliva