

090/2026

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

Total No. of questions : 100

Time : 1 Hour 30 Minutes

Maximum : 100 Marks

INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball-Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

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Time : 1 hour and 30 minutes

1. Human Anatomical wastes are put in _____ colour coded container.
(A) Green (B) Yellow
(C) Blue (D) Red
2. Example for a corrosive chemical is :
(A) Benzaldehyde (B) Potassium Cyanide
(C) Conc. Acids (D) O-Toluidine
3. The working principle of colorimeter is based on _____ law.
(A) Beer – Lambert’s law (B) Pascal’s law
(C) Newton’s third law (D) Bohr’s law
4. The temperature of incubator is usually kept at :
(A) 48°C (B) 37°C
(C) 24°C (D) 19°C
5. The RPM in centrifuge stands for _____.
(A) Repulsion per minute (B) Rotation per minute
(C) Rate per minute (D) Revolution per minute
6. Hazard warning symbols are :
(A) Round black pictures in white background
(B) Round white pictures in blue background
(C) Round green pictures in white background
(D) Black pictures in yellow or orange background
7. Which one is correct in case of severe burns?
(A) Apply ointment (B) Remove his clothes
(C) Do not remove his clothes (D) None of the above
8. Which one of the following is a powerful disinfectant?
(A) Phenol (B) Dettol
(C) Soap (D) Sanitizer

9. The burning of wastes at high temperature is :
 (A) Deep burial (B) Fumigation
 (C) Incineration (D) Sewage disposal
10. New Glass wares should be soaked in _____ before use.
 (A) Alkali (B) Distilled water
 (C) Deionised water (D) Acids
11. The ratio of potassium oxalate to ammonium oxalate in double oxalate mixture's _____.
 (A) 2 : 3 (B) 1 : 3
 (C) 3 : 2 (D) All of these
12. Sites of capillary blood collection from the following is _____.
 (A) Finger tip (B) Ear lobe
 (C) Great toe or heel (D) All of these
13. Which anticoagulant is used as choice for CBC investigations?
 (A) 3.8% trisodium citrate (B) EDTA
 (C) Double oxalate mixture (D) All of these
14. Blood react with Drabkins reagent to form a stable coloured product is _____.
 (A) Acid haematin (B) Methaemoglobin
 (C) Cyanmeth haemoglobin (D) All of these
15. _____ act as solvent in polychrome staining solution.
 (A) Methanol (B) Ethanol
 (C) H_2SO_4 (D) HCl
16. Haematocrit tube can hold _____ blood.
 (A) 0.1 ml (B) 5 ml
 (C) 1 ml (D) 10 ml
17. _____ is used for blood smear staining.
 (A) Leishman staining (B) Wright stain
 (C) Geimsa stain (D) All of these

18. An example of supravital staining solution :
- (A) Leishman stain (B) Feilds stain
(C) MGG (D) Brilliant cresyl blue
19. Which of these are the principles employed for cell analysis by automated cell counters?
- (A) Impedance measurement
(B) Light scattering
(C) Centrifugation and quantitative buffy coat analysis
(D) All of these
20. Blood group antigens present on :
- (A) red cell membrane (B) serum
(C) plasma (D) none of these
21. Routinely used anticoagulant in blood bank :
- (A) EDTA (B) CPD
(C) Double oxalate (D) Heparin
22. Bombay blood group lacks :
- (A) A antigen (B) H antigen
(C) B antigen (D) All of these
23. In infants _____ is the commonest site of venipuncture.
- (A) umbilical vein (B) femoral vein
(C) antecubital vein (D) none of these
24. Which CSF pattern is most characteristic of acute bacterial meningitis?
- (A) Lymphocytosis, normal glucose and mildly increased protein
(B) Neutrophilic Pleocytosis, decreased glucose and increased protein
(C) Normal cell count, decreased protein and increased glucose
(D) Eosinophilia with increased glucose
25. An increased amount of fecal fat is most directly associated with :
- (A) Meningitis (B) Hematuria
(C) Steatorrhea (D) Diabetes insipidus

26. The most appropriate specimen for routine microbiological examination of lower respiratory tract infection is :
- (A) Saliva collected after rinsing the mouth
 - (B) Deep-cough early morning sputum
 - (C) Nasal Secretion
 - (D) Oral Swab
27. A patient has a positive urine glucose test. Which statement is most accurate?
- (A) It always indicates diabetes mellitus
 - (B) It always indicates renal failure
 - (C) It may occur when blood glucose exceeds the renal threshold
 - (D) It is diagnostic of glomerulonephritis
28. A semen specimen remains markedly viscous after the expected liquefaction period. Which interpretation is most appropriate?
- (A) Delayed liquefaction may interfere with accurate assessment of sperm motility
 - (B) It is always evidence of azoospermia
 - (C) It proves complete obstruction of the vas deferens
 - (D) It indicates absence of seminal plasma
29. Which of the following enzymes are indicators of liver dysfunction?
- (A) ALT
 - (B) GGT
 - (C) ALP
 - (D) All of the above
30. Diazo reagent is :
- (i) Sulphanilic acid in Hydrochloric acid
 - (ii) Sodium nitrite solution
 - (iii) Sulphanilic acid in water
 - (iv) Sulphanilic acid in Sulphuric acid
- (A) (i) only
 - (B) (i) and (ii)
 - (C) (ii) and (iii)
 - (D) (ii) and (iv)
31. The enzyme Enolase is inhibited by :
- (A) Sodium fluoride
 - (B) Potassium oxalate
 - (C) EDTA
 - (D) None of the above

32. Reliable markers for Myocardial infarction except :
- | | |
|----------------|----------|
| (A) Troponin I | (B) CKMB |
| (C) LDH | (D) ALT |
33. Normal range of HbA1C :
- | | |
|-----------------|-----------------|
| (A) 5.7 % | (B) 3.2 – 8.5 % |
| (C) 4 % – 5.6 % | (D) 1.5 – 4.6 % |
34. Which of the following is not a tumour marker?
- | | |
|------------|---------|
| (A) AFP | (B) ABG |
| (C) CA 125 | (D) PSA |
35. Lipoprotein with fastest electrophoretic mobility :
- | | |
|----------|-----------------|
| (A) HDL | (B) LDL |
| (C) VLDL | (D) Chylomicron |
36. Which of the following is true regarding dry chemistry analysis?
- | | |
|------------------------------|---------------------------|
| (A) Bioluminescence | (B) Emission spectroscopy |
| (C) Reflectance Spectroscopy | (D) None of the above |
37. Inulin is a polymer of :
- | | |
|--------------|---------------|
| (A) Glucose | (B) Galactose |
| (C) Fructose | (D) Lactose |
38. Which of the following is used for the measurement of renal plasma flow?
- | | |
|-----------------------------|--------------|
| (A) Paraaminohippurate test | (B) PSP test |
| (C) Hippuric acid test | (D) BSP test |
39. Example for bacteria that does not possess a cell wall is :
- | | |
|----------------|--------------------|
| (A) Micrococci | (B) Myco bacterium |
| (C) Mycoplasma | (D) Spirochaetes |
40. About Oxidase test which of the following is true?
- | |
|---|
| (A) Enterobacteriaceae is oxidase negative |
| (B) Pseudomonas and Vibrio are oxidase positive |
| (C) Neisseria are Oxidase positive |
| (D) All the above are true |

41. Culture method used for sensitivity testing are :
- (A) Anaerobic culture (B) Pour plate culture
(C) Streak culture (D) Lawn culture
42. Counter stain used in AFB Staining is :
- (A) Methylene Blue (B) Congo Red
(C) Carbol fuchsin (D) Mordant
43. Agar is :
- (A) Non-Nutritive chemical (B) Derived from sea weeds
(C) Used to prepare solid media (D) All are true
44. Which of the following is not true for Thick smear?
- (A) De-haemoglobinisation is required
(B) Species wise identification of parasite is difficult
(C) High sensitivity as large amount of blood is used
(D) Used only for Filaria not for Malaria
45. QBC in Laboratory is :
- (A) Method of detection of malarial parasite
(B) Method of anaerobic culture
(C) Quality of Blood culture
(D) All the three
46. Histokinet is an instrument :
- (A) Used to cut Tissue sections
(B) Used for automated processing of Tissues
(C) Kinetic energy regulator
(D) Cytology sample collection devices
47. Which of the following is not a fixative?
- (A) 10% Formalin (B) 5% Nitric Acid
(C) Bouins fluid (D) Carnoys fluid
48. FNAC is a :
- (A) Needle aspiration technique
(B) Microtome part
(C) Centre where Training and research conducted
(D) Rapid fixation method

49. In H and E technique E stands for :
(A) Energy (B) Essential
(C) Envelop (D) Eosin
50. Which of the following is related with diagnostic cytology?
(A) Ayers spatula (B) PAP staining
(C) Coplin jar (D) All the above
51. Find the number of significant figures in 0.2370 gcm^{-3} :
(A) 3 (B) 4
(C) 5 (D) 6
52. The Area under velocity-time graph is :
(A) Displacement (B) Velocity
(C) Acceleration (D) Force
53. The unit of the Power is :
(A) Nm/s (B) Nm^2/s
(C) Nm/s^2 (D) Nm^2/s^2
54. The value of Acceleration due to Gravity at Height equal to half the radius of the earth is :
(A) $(9/4) g$ (B) $(4/9) g$
(C) $(2/3) g$ (D) $(3/2) g$
55. The basic Principle of Hydraulic Lift is :
(A) Pascal's Law (B) Bernoulli's Principle
(C) Stoke's Law (D) Charle's Law
56. In a closed pipe the first, second and third harmonic frequencies are in the ratio :
(A) 1 : 2 : 3 (B) 1 : 3 : 5
(C) 1 : 4 : 8 (D) 1 : 2 : 4
57. Which of the following thermodynamic process $\Delta Q = 0$?
(A) Isothermal Process (B) Isobaric Process
(C) Isochoric Process (D) Adiabatic Process

58. What is Gauss's theorem in electrostatics?
- (A) $\phi = \frac{q}{\epsilon_0}$ (B) $\phi = \epsilon_0 q$
 (C) $q = \epsilon_0 \phi$ (D) $\epsilon_0 = \phi q$
59. When dielectric medium is placed between plates of capacitor, the capacitance?
- (A) Increased (B) Decreased
 (C) Remains same (D) None of these
60. A Galvanometer converted into voltmeter by connecting :
- (A) Low resistance parallel (B) Low resistance series
 (C) High resistance parallel (D) High resistance series
61. Which electromagnetic radiation is used in RADAR?
- (A) Microwave (B) Radio wave
 (C) Infrared (D) Gamma ray
62. What is the relation between the focal length (f) and radius of curvature (R) of spherical mirrors?
- (A) $R = 2f$ (B) $R = 3f$
 (C) $f = 2R$ (D) $f = 3R$
63. Which metal has the maximum work function related to photoelectric effect?
- (A) Platinum (B) Caesium
 (C) Sodium (D) Calcium
64. Which property of light is proved by its transverse nature?
- (A) Interference (B) Dispersion
 (C) Refraction (D) Polarisation
65. Which device is used to convert AC into DC (Alternating Current into Direct Current)?
- (A) Transformer (B) Rectifier
 (C) Oscillator (D) Amplifier
66. One mole of any substance contains :
- (A) 6.022×10^{22} particles (B) 6.022×10^{23} particles
 (C) 3.011×10^{23} particles (D) 1.204×10^{24} particles

67. The maximum number of electrons that can occupy the K shell is :
(A) 1 (B) 8 (C) 2 (D) 18
68. Which particle was used in Rutherford's scattering experiment?
(A) Beta particles (B) Alpha particle
(C) Electron (D) Neutron
69. A device that convert chemical energy into electrical energy is called :
(A) Galvanic cell (B) Electrolytic cell
(C) Fuel cell (D) Capacitor
70. The scattering of light by colloidal particles is called :
(A) Brownian movement (B) Electrophoresis
(C) Osmosis (D) Tyndall effect
71. Which element has the highest electronegativity?
(A) Oxygen (B) Chlorine
(C) Fluorine (D) Nitrogen
72. The chemical formula of heavy water :
(A) H_2O (B) D_2O (C) H_2O_2 (D) T_2O
73. Which allotrope of carbon is used as a lubricant?
(A) Graphite (B) Diamond
(C) Coal (D) Charcoal
74. The industrial manufacture of sulfuric acid is carried out by the :
(A) Haber process (B) Contact process
(C) Ostwald process (D) Solvay process
75. Which *d* block element is used in the manufacture of dry cell?
(A) Zinc (B) Iron
(C) Nickel (D) Cobalt
76. Saccharin is used as a _____.
(A) Food preservative (B) Artificial sweetener
(C) Anti-oxidant (D) Antibiotic

77. Which of the following base is not present in D.N.A.?
 (A) Adenine (B) Guanine (C) Thymine (D) Uracil
78. Glycerol is purified by which method?
 (A) Distillation under reduced pressure
 (B) Steam distillation
 (C) Fractional distillation
 (D) Simple distillation
79. Luca's test is used for the identification of _____
 (A) Aldehydes (B) Ketones
 (C) Alcohols (D) Carboxylic acids
80. Which is the water soluble vitamin?
 (A) Vitamin A (B) Vitamin B (C) Vitamin D (D) Vitamin K
81. Short interval between Meiosis I and Meiosis II :
 (A) Cytokinesis (B) Diakinesis
 (C) Interkinesis (D) Karyokinesis
82. Which statement is incorrect regarding Mesosome?
 (A) Present both in Prokaryotes and Eukaryotes
 (B) It is the infoldings of Plasma membrane
 (C) Found in the form of vesicles, tubules and lamellae
 (D) Help in DNA replication and its distribution
83. Which of the following best defines Apomixis?
 (A) Formation of fruit without fertilization
 (B) Formation of seed without fertilization
 (C) Formation of fruit without seed
 (D) Formation of seed after fertilization
84. Which of the following statements are true?
 (i) Rice is pollinated by wind
 (ii) Water lily is pollinated by water
 (iii) Vallisneria is pollinated by water
 (A) only (ii) (B) only (i) and (ii)
 (C) only (i) and (iii) (D) all (i), (ii) and (iii)

85. Scientific rearing of Honey bee :
 (A) Sericulture (B) Vermiculture
 (C) Silviculture (D) Apiculture
86. Thermostable 'Taq polymerase' enzyme used in PCR is isolated from :
 (A) *Agrobacterium tumefaciens* (B) *Thermus aquaticus*
 (C) *Bacillus thuringiensis* (D) *Haemophilus influenzae*
87. The first Transgenic cow that produces human protein, alpha - lactalbumin enriched milk is :
 (A) Rosie (B) Dolly (C) Tracy (D) Polly
88. The first clinical Gene therapy was done in 1990, for a child suffering from :
 (A) Thalassemia (B) PKU deficiency
 (C) Sickle cell anemia (D) ADA deficiency
89. The process by which water-soluble inorganic nutrients present in the detritus go down into the soil horizon and turn into unavailable salts :
 (A) Mineralisation (B) Catabolism
 (C) Leaching (D) Humification
90. The logistic population growth is expressed by the equation :
 (A) $dN/dt = rN \left(\frac{N-K}{K} \right)$ (B) $dN/dt = rN \left(\frac{K-N}{K} \right)$
 (C) $dN/dt = rN$ (D) $dN/dt = rN \left(\frac{N-K}{N} \right)$
91. Which part of mammalian alimentary canal does not secrete any enzymes?
 (A) Mouth (B) Stomach (C) Oesophagus (D) Deodenum
92. The second heart sound (dubb) is associated with the closure of :
 (A) Tricuspid valve (B) Semilunar valves
 (C) Bicuspid valve (D) Tricuspid and bicuspid valves
93. _____ is a special sensitive region in kidney formed by cellular modifications in the distal convoluted tubule and afferent arteriole at the location of their contact.
 (A) Juxta glomerular apparatus (B) Renal capsule
 (C) Columns of Bertini (D) Renal pelvis

94. Read the given statements and select the correct option :
 Statement A : Repeated activation of muscles can lead to fatigue.
 Statement B : Lactic acid accumulation by aerobic breakdown of glycogen causes muscle fatigue
- (A) Both statements A and B are correct
 (B) Statement A is correct but B is incorrect
 (C) Statement A is incorrect but Statement B is correct
 (D) Both statements A and B are incorrect
95. Which of the following cells are associated with the identification of colours in bright light?
- (A) Cone cells (B) Rod cells
 (C) Lacrimal cells (D) Cells of Muller
96. Which amino acid is substituted in sickle cell anaemia?
- (A) Glutamic acid by valine in α -chain
 (B) Glutamic acid by valine in β -chain
 (C) Valine by glutamic acid in β -chain
 (D) Valine by glutamic acid in α -chain
97. During transcription the site of DNA molecule at which RNA polymerase binds is called _____.
 (A) Promoter (B) Regulator (C) Receptor (D) Enhancer
98. Cancer cells do not exhibit the property of :
- (A) Generating tumors (B) Metastasis
 (C) Contact inhibition (D) Both (A) and (B)
99. Which of the following features is not present in Phylum Arthropoda?
- (A) Parapodia (B) Jointed appendages
 (C) Chitinous exoskeleton (D) Metameric segmentation
100. Excretory structures present in the members of Phylum Platyhelminthes :
- (A) Nephridia (B) Protonephridia
 (C) Malpighian tubules (D) Flame cells

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