

069/23

Question Booklet Alpha Code

A

Question Booklet Sl. No.

Total Number of Questions : 100

Time : 90 Minutes

Maximum Marks : 100

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/her 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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1. Dipotassium salt of EDTA is recommended in CBC because it is
 - A) More water soluble
 - B) More water solvent
 - C) Less water soluble
 - D) Less water solvent

2. 1 mm thickness of buffy coat approximately equal to total leucocyte count of about
 - A) 1,000
 - B) 5,000
 - C) 10,000
 - D) 12,000

3. Method of estimation of Haemoglobin from the amount of oxygen it absorbed is
 - A) Gasometric method
 - B) Cyanmeth haemoglobin method
 - C) Oxy haemoglobin method
 - D) Sahli's method

4. Inclusion bodies seen in RBCs of patients with G6PD deficiency
 - A) Schuffner's granules
 - B) Heinz bodies
 - C) Howel – Jolly bodies
 - D) Pappen heimer bodies

5. Substitution of valine for glutamic acid in position 6 of the β globin chain of haemoglobin causes
 - A) A plastic anaemia
 - B) Leukaemia
 - C) Sickle cell anaemia
 - D) Thalassemia

6. Test used to measure fructose concentration in semen
 - A) Benedict's test
 - B) Osazone test
 - C) Resorcinol test
 - D) GOD – POD test

7. In which condition increased urobilinogen is found ?
 - A) Haemolytic anaemia
 - B) Pernicious anaemia
 - C) Malaria
 - D) All the above

8. Urine preservative which causes a false positive reaction for proteins
 - A) Thymol
 - B) Formalin
 - C) Boric acid
 - D) HCL

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9. Normal adult CSF pressure when the patient is lying in the horizontal position
- A) 100 – 200 mm of water B) 200 – 300 mm of water
C) 250 – 350 mm of water D) 10 – 50 mm of water
10. For the earliest pregnancy determination, one should use
- A) Urine B) Serum
C) Vaginal fluid D) Saliva
11. Name the subgroup of B group blood
- A) B₁ type and B₂ type B) B_x type and B_m type
C) Both (A) and (B) D) None of the above
12. Monoclonal antibodies to blood groups are derived from
- A) Hybridoma cell lines B) Antibioma cell lines
C) Sarcoma cell lines D) Plasmacytoma cell lines
13. In direct agglutination tests which of the following is used to enhance the reactivity of blood grouping and typing antibodies ?
- A) Bovine serum globulin B) Bovine serum albumin
C) Bovine serum ceruloplasmin D) None of the above
14. Which of the serological test not performed on blood after collection from donor for blood transfusion ?
- A) HIV test B) Hepatitis B virus test
C) Test for syphilis D) Test for typhoid
15. The following statements are correct regarding a delayed haemolytic transfusion reaction.
- A) Blood film shows spherocytosis B) Positive direct antiglobulin test
C) Unconjugated bilirubin raised D) All the above

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16. Saturated formaldehyde solution in water is of _____ percentage.
- A) 20
B) 30
C) 40
D) 10
17. Following are micro anatomical fixatives except
- A) Zenker's fluid
B) Bouin's fluid
C) Buffered neutral formalin
D) Clarke's fluid
18. Best clearing agent used for research purpose
- A) Chloroform
B) Cedar wood oil
C) Xylene
D) Toluene
19. For cutting thin sections of most tissue temperature of cryostat should be kept at
- A) -20°C
B) -10°C
C) -5°C
D) -25°C
20. Perl's prussian blue reaction is done for demonstration of
- A) Reticulin
B) Haemosiderin
C) Connective tissue
D) Glycogen
21. Most commonly used cytological fixative
- A) Absolute alcohol
B) 95% ethyl alcohol
C) Methanol
D) Formalin
22. Special fixative for cytological preparation of sputum
- A) Carnoy's fluid
B) Carbowax
C) Saccomanno's Fixative
D) 50% ethanol
23. Stain used for identification of Barr Body
- A) Biebrich Scarlet – Fast green
B) Methyl green
C) Shorr's Stain
D) PAP Stain

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24. Chemical Ripening agent used in Harri's haematoxylin is
- A) Sodium iodate
 - B) Mercuric oxide
 - C) Aluminium sulfate
 - D) Chloral hydrate
25. Coating fixative are usually sprayed over smear at a distance of _____
- A) 25 – 30 cm
 - B) 10 – 12 cm
 - C) 5 – 10 cm
 - D) 3 – 6 cm
26. Metaphase arrest solution used in karyotyping is
- A) Colchicine
 - B) TC 199
 - C) PHA
 - D) Methanol
27. Stain used in Karyotyping
- A) Leishman
 - B) Wright stain
 - C) Giemsa
 - D) PAS
28. The correct determination of human diploid chromosome number 46, by
- A) Tijo and Levan
 - B) Jacobs and Strung
 - C) Friedrich Miescher
 - D) Watson and Crick
29. Down's Syndrome is
- A) Trisomy 13
 - B) Trisomy 21
 - C) Trisomy 18
 - D) None of the above
30. Method of choice for demonstrating philadelphia chromosome is
- A) Blood
 - B) Bone Marrow
 - C) CSF
 - D) Amniotic fluid
31. Biological hazard can be caused by
- A) M. tuberculosis
 - B) Hepatitis B Virus
 - C) HIV
 - D) All of the above

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32. Antibiotic Penicillin is discovered by
A) Edward Jenner
B) Alexander Fleming
C) Robert Koch
D) Louis Pasteur
33. Staphylococcus and Streptococcus can be differentiated by
A) Coagulase Test
B) Oxidase Test
C) Catalase Test
D) Indole Test
34. H₂S production can be detected by
A) TSI Agar
B) TCBS Agar
C) Blood Agar
D) IMViC Test
35. Liquid paraffin is sterilized by
A) Hot air oven
B) Autoclave
C) Filtration
D) Inspissation
36. The decolourising agent used for *M. leprae* in AFB stain is
A) 20% H₂SO₄
B) 15% H₂SO₄
C) 10% H₂SO₄
D) 5% H₂SO₄
37. Nocturnal periodicity is characterised by
A) Microfilaria
B) Leishmania
C) *P. falciparum*
D) Trypanosomes
38. Hook worm is the common name of
A) *Trichuris Trichiura*
B) *Ancylostoma duodenale*
C) *Ascaris lumbricoides*
D) *Enterobius vermicularis*
39. QBC technique is a rapid test used for the diagnosis of
A) Filariasis
B) Leishmaniasis
C) Amoebiasis
D) Malaria

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40. Hydatid Cyst seen in
A) Cysticercosis
B) Trypanosomiasis
C) Echinococcosis
D) Filariasis
41. Trichomonas vaginalis life cycle consists of
A) Trophozoite
B) Precystic stage
C) Cyst
D) All of the above
42. The Source of infection in Ancylostoma duodenale is
A) Water
B) Soil
C) Food
D) Insect Vector
43. "Satellitism" is a characteristic feature of
A) Staphylococcus
B) H.influenzae
C) Pneumococci
D) Y.pestis
44. Trench fever is caused by
A) R.rickettsii
B) R.conori
C) Ro.quintana
D) R.tsutsugamushi
45. "Inclusion blenorhea" is a form of _____
A) conjunctivitis
B) diarrhoea
C) meningitis
D) pneumonia
46. Klebs-Loeffler bacillus is _____
A) M.tuberculosis
B) M.leprae
C) B.anthraxis
D) C.diphtheriae
47. Oxidase reagent is
A) P-dimethyl amino benzaldehyde
B) Hydrogen peroxide
C) Naphthylamene
D) Tetra methyl p-phenylene hydrochloride

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48. Plague bacillus is
- A) *L.interrogans*
 - B) *Y.pestis*
 - C) *Borrelia vincentii*
 - D) *B.burgdorferi*
49. Moniliasis is commonly caused by
- A) *P.brasiliensis*
 - B) *C.albicans*
 - C) *H.duboisii*
 - D) *C.neoformans*
50. Black fungus disease is
- A) Histoplasmosis
 - B) Phycomycosis
 - C) Mucormycosis
 - D) Coccidiomycosis
51. Asexual spores produced by Phycomycetes are
- A) ascospores
 - B) basidiospores
 - C) zygospores
 - D) sporangiospores
52. Dermatophytes are examples of
- A) Moulds
 - B) Yeast
 - C) Dimorphic fungi
 - D) Yeast like fungi
53. Commonly used culture media in mycology is
- A) Chocolate agar
 - B) Cornmeal agar
 - C) Blood agar
 - D) MHA
54. Black piedra is a fungal infection caused by
- A) *Piedraia hortai*
 - B) *Trichosporon beigellii*
 - C) *Cladosporium wernickii*
 - D) *C.albicans*
55. Hepatitis A virus belongs to the family
- A) Flavi virus
 - B) Calci virus
 - C) Arena virus
 - D) Picorna virus

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56. Japanese encephalitis is transmitted by
A) Tick
B) Mosquito
C) Sand fly
D) House fly
57. An example of RNA virus is
A) Adenovirus
B) Parvovirus
C) Picornavirus
D) Herpesvirus
58. Inclusion bodies in braincells of animals in case of rabies
A) Negri bodies
B) Guarnieri bodies
C) Bollinger bodies
D) Molluscum bodies
59. "Kissing disease" is related to
A) Cytomegalo virus
B) Herpes virus
C) Epstein-Barr virus
D) Pox virus
60. Bullet shaped virion is a feature of
A) Arbovirus
B) Rhabdovirus
C) Herpesvirus
D) Orthomyxovirus
61. Anticoagulant used for blood glucose estimation
A) Fluoride oxalate mixture
B) EDTA
C) Heparin
D) Citrate
62. The characteristic feature of metabolic acidosis is _____
A) Primary deficiency of alkali
B) Primary excess of bicarbonate
C) Primary excess of carbonic acid
D) Primary deficiency of bicarbonate
63. _____ refers to reproducibility of the result.
A) Accuracy
B) Precision
C) Specificity
D) Sensitivity

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64. Choose the chromatographic separation technique for glycated haemoglobin.
- A) Gas liquid chromatography
 - B) Ion exchange chromatography
 - C) Affinity chromatography
 - D) Gel filtration chromatography
65. Pipette used to deliver variable quantities of fluid is _____
- A) Pasteur pipette
 - B) Volumetric pipette
 - C) Graduated pipette
 - D) Serological pipette
66. Identify the toxic chemical from the following.
- A) Sodium azide
 - B) Benzidine
 - C) Naphthyl amine
 - D) Selenite
67. _____ is the purest form of water.
- A) Distilled water
 - B) Rain water
 - C) Tap water
 - D) Deionized water
68. Solution containing one gram molecular weight of substance in 1000 gram of a solvent is _____
- A) Normal solution
 - B) Molar solution
 - C) Percentage solution
 - D) Molal solution
69. Which of the following is used as SI unit of time ?
- A) minute
 - B) hour
 - C) second
 - D) none of these
70. Glassware used for the preparation of standard solution
- A) Volumetric flask
 - B) Flat bottomed flask
 - C) Round bottomed flask
 - D) Erlenmeyer flask

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71. Glucometer works on the principle of _____
- A) Optical absorption
B) Dry chemistry
C) Emission spectroscopy
D) Radioactivity
72. Identify the location reagent used for visualization of phospholipids in chromatographic separation.
- A) Acetic acid
B) Diphenyl amine
C) Ninhydrin
D) Sulphuric acid
73. Routine laboratory work is performed by _____
- A) Medical Laboratory technologist
B) Laboratory supervisor
C) Laboratory incharge
D) Medical Laboratory technician
74. Blood flow of heart could be analyzed by _____
- A) ^{99}Tc
B) ^{90}Sr
C) ^{131}I
D) ^{51}Cr
75. Which of the following is not a urine preservative ?
- A) Toluene
B) Boric acid
C) Formalin
D) Oxalic acid
76. During laboratory waste disposal, sharp objects like needles are put in _____ containers.
- A) Yellow
B) White
C) Green
D) Black
77. Instrument in which prism is used as monochromator is _____
- A) Flame photometer
B) Fluorimeter
C) Spectrophotometer
D) Colorimeter

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78. Pick out the primary standard chemical from the following.
- A) Oxalic acid
B) Sulphuric acid
C) Hydrochloric acid
D) Sodium hydroxide
79. pH of plasma is _____
- A) 7.9
B) 6.4
C) 7.4
D) 6.9
80. Identify the autoanalyzer which is parameter oriented.
- A) Selective analyzer
B) Batch analyzer
C) Random access analyzer
D) STAT analyzer
81. Insulin is a _____
- A) polypeptide hormone
B) steroid hormone
C) amino acid derivative
D) fatty acid derivative
82. Synthesis of glucose from non carbohydrate sources is known as _____
- A) gluconeogenesis
B) glycolysis
C) glycogenesis
D) glycogenolysis
83. Which of the following parameter is not included in LFT ?
- A) ALP
B) SGOT
C) Creatinine
D) Albumin
84. Conjugated bilirubin is _____
- A) water soluble
B) water insoluble
C) partially soluble
D) lipid soluble
85. The maximum energy per gram on oxidation is yielded from _____
- A) fat
B) protein
C) carbohydrate
D) dietary fibre

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86. The most abundant immunoglobulin is _____
A) Ig A B) Ig E C) Ig G D) Ig M
87. The major component of gastric juice is _____
A) sulphuric acid B) hydrochloric acid
C) carbonic acid D) phosphoric acid
88. Which urinary crystal has coffinlid shaped appearance ?
A) calcium oxalate B) calcium carbonate
C) triple phosphate D) amorphous phosphate
89. T lymphocytes, provide which type of immunity to our body ?
A) cell mediated immunity B) antibody mediated immunity
C) humoral immunity D) natural immunity
90. Appearance of M band in the electrophoresis of plasma proteins is an indicator of _____
A) leukaemia B) lymphoma
C) polycythemia D) multiple myeloma
91. Xerophthalmia is caused by the deficiency of vitamin _____
A) A B) C
C) E D) D
92. The end product of nucleic acid metabolism
A) urea B) uric acid
C) bilirubin D) creatinine
93. The pigment formed from the haemoglobin degradation in liver cells of human beings
A) bilirubin B) iron
C) urobilinogen D) myoglobin

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94. The most reliable and sensitive marker for alcoholic liver disease
- A) ALT
B) ALP
C) AST
D) GGT
95. In acute pancreatitis which enzyme is found to be increased ?
- A) LDH
B) AST
C) ALT
D) Amylase
96. Paradimethylaminobenzaldehyde PABA is the reagent used to detect _____ in urine.
- A) blood
B) bilirubin
C) bile salt
D) UBG (urobilinogen)
97. BSP test is used to detect
- A) excretory function of liver
B) synthetic function of liver
C) detoxifying function of liver
D) none of these
98. The technique used for the identification of specific DNA fragment is _____
- A) southern blot
B) western blot
C) northern blot
D) all of the above
99. The technique of PCR includes _____
- A) denaturation
B) annealing
C) amplification
D) all of the above
100. CRP, a plasma protein that is elevated in inflammations and infections, CRP falls into which category of the following proteins ?
- A) transport proteins
B) clotting proteins
C) plasma enzymes
D) acute phase proteins
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Space for Rough Work

