

243/23

Question Booklet Sl. No.

Question Booklet Alpha Code

A

A

Total Number of Questions : 100

Time : 90 Minutes

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

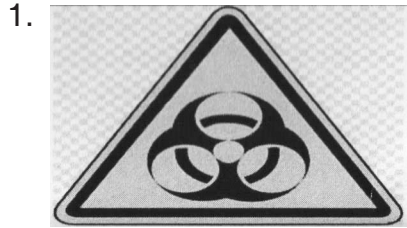
1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C & D**.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The 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.

A

243/23

A

-2-

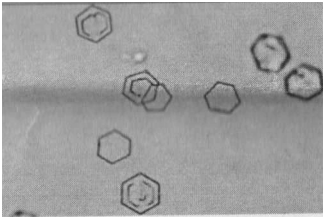


Identify the hazard symbol.

- | | |
|----------------------|-------------------------|
| A) Radiation hazard | B) Respiratory irritant |
| C) Biological hazard | D) IMAGE |
2. As part of biomedical waste segregation yellow coloured non-chlorinated containers are used to collect
- | | |
|--|---------------------------------|
| A) Blood and body fluids | B) Contaminated Metallic sharps |
| C) Contaminated recyclable plastic items | D) General waste |
3. Which one of the following is an accreditation agency for testing and calibration laboratories in India ?
- | | | | |
|---------|---------|---------|--------|
| A) NABH | B) NABL | C) NACL | D) ISI |
|---------|---------|---------|--------|
4. A low fixed specific gravity of Urine is an indication for
- | | |
|------------------------------|-------------------------------|
| A) Chronic Diabetes mellitus | B) Chronic Diabetes insipidus |
| C) Chronic renal failure | D) Acute renal failure |
5. Fruity odour in urine specifically indicate presence of
- | | |
|------------------------------|-------------|
| A) Maple syrup urine disease | B) Bacteria |
| C) Ketone bodies | D) Sugars |
6. Bence – Jones Proteins are
- | | |
|-----------------|-------------------|
| A) Albumin | B) Immunoglobulin |
| C) Microalbumin | D) Lipoprotein |
7. Normally there is no presence of glucose in urine sample. What is the renal threshold for glucose ?
- | | |
|------------------|------------|
| A) 70 – 110 mg% | B) 150 mg% |
| C) 120 – 150 mg% | D) 180 mg% |
8. Hay's test is done in urine sample for the detection of
- | | |
|------------------------|---------------------|
| A) Sodium taurocholate | B) Sodium gluconate |
| C) Bilirubin | D) Bilicyanin |

9. In obstructive jaundice
- A) Urine conjugated bilirubin is high and urobilinogen is decreased
 - B) Urine unconjugated bilirubin is high and urobilinogen is decreased
 - C) Urobilinogen is high giving a cherry red colour
 - D) Urine is colourless

10.



Identify the urine crystal.

- A) Cholesterol crystal
 - B) Tyrosine crystal
 - C) Cystine crystal
 - D) Oxalate crystal
11. Human Chorionic Gonadotropin (HCG) is hormone that is released by placenta can be detected in
- A) Urine sample only
 - B) Urine and blood sample
 - C) Pleural fluid
 - D) None of the above
12. Curschmann's spirals are seen in sputum in
- A) Bronchial Asthma
 - B) Pneumonia
 - C) Tuberculosis
 - D) None of the above
13. Which is the most preferred concentration method for parasites in faecal sample ?
- A) Saturated sodium chloride method
 - B) Zinc sulphate floatation technique
 - C) Formal ether concentration technique
 - D) Simple centrifugation method
14. Which one of the following gives false negative results with Benzidine test for Occult blood ?
- A) Intake of large amount aspirin
 - B) Intake of red meat
 - C) Intake of Iron tablets
 - D) Intake of large amount of Vitamin C
15. Necrozoospermia is referred to which condition ?
- A) Presence of no sperm in semen
 - B) Presence of a few sperm in the semen
 - C) Presence of non-viable and non-motile sperm
 - D) Presence of headless sperm

16. Which sugar is present in semen sample ?
A) Glucose B) Fructose C) Maltose D) Sucrose
17. Spider web coagulam or cobweb is usually seen in CSF in cases of
A) Tuberculous meningitis B) Syphilis
C) Pneumonia D) All of the above
18. New glassware is soaked in 1% HCl solution and washed thoroughly, this is done because
A) To remove dirt in the glassware
B) To remove stains in the glassware
C) To remove the mild alkalinity in the glassware
D) To make the glassware durable
19. Diffraction grating is used in spectrophotometer for
A) Reducing the light transmitted
B) Measurement of intensity of light transmitted
C) For providing narrower wavelength monochromatic light
D) For measuring the intensity of light absorbed
20. For detection of elemental analysis, we use
A) Flame photometer
B) Atomic absorption spectrophotometer
C) Inductively coupled plasma
D) All of the above
21. Glucose Challenge Test (GCT) is done in Pregnant ladies at
A) 8 – 12 weeks of Gestation B) 24 – 28 weeks of Gestation
C) 12 – 24 weeks of Gestation D) First week of Pregnancy
22. Fasting plasma Glucose concentration exceeding _____ mg/dL in more than one occasion is diagnostic of Diabetes Mellitus.
A) 100 B) 110 C) 126 D) 160
23. Ideal Exogenous marker for GFR to assess kidney function
A) Inulin B) Creatinine
C) Cystatin C D) Urea

243/23

24. Which of the following is true for both Kidney and Liver disease ?
- A) Urine Albumin is decreased
 - B) Serum Albumin is decreased
 - C) Serum Creatinine is increased
 - D) Urine Creatinine is increased
25. Tests based on detoxication function of Liver include
- A) Brom Sulphthalein test
 - B) Rose Bengal Dye test
 - C) Hippuric acid test
 - D) None of the above
26. Negative Thymol Turbidity and Positive Jirgl's Flocculation test is seen in
- A) Haemolytic Jaundice
 - B) Hepatic Jaundice
 - C) Prehepatic Jaundice
 - D) Obstructive Jaundice
27. In the colon by action of enzyme systems of intestinal Microorganisms two Vinyl groups of Bilirubin are reduced to Ethyl groups to form
- A) Biliverdin
 - B) Mesobilirubin
 - C) Stercobilinogen
 - D) Mesobilirubinogen
28. Find the right combination.
- i. Increased amount of unconjugated Bilirubin
 - ii. Tumour in head of pancreas
 - iii. Incomplete blood transfusion
 - iv. Dark brown colour of faeces
 - v. Malaria
- A) i, iii, ii and v
 - B) ii, v, i and iv
 - C) i, iv, v and iii
 - D) i, ii, iii and iv

A

29. Hypercholesterolemia is seen when serum cholesterol increases above
A) 240 mg/dL
B) 200 mg/dL
C) 280 mg/dL
D) 180 mg/dL
30. Serum Amylase test is done for the diagnosis of
A) Myocardial Infarction
B) Pancreatitis
C) Obstructive Jaundice
D) Both B) and C)
31. CA 125 is a tumour marker for
A) Ovarian cancer
B) Colorectal cancer
C) Pancreatic Carcinoma
D) None of the above
32. Hypernatremia is seen in
A) Chronic renal disease with acidosis
B) Addison's disease
C) Excessive water consumption
D) Cushing's disease
33. Milk ejection Hormone
A) Prolactin
B) Vasopressin
C) Oxytocin
D) Oestrogen
34. Closeness of result to the true value refers to
A) Sensitivity
B) BIAS
C) Precision
D) Accuracy
35. Number of Test Results produced per Hour in an Automated machine is known as
A) Dwell time
B) Throughput
C) STAT
D) Intervention Time
36. The person having no signs and symptoms of disease and can infect another person is called Carrier. If a carrier acquires infection from another carrier the person is called
A) Paradoxical Carrier
B) Contact Carrier
C) Temporary Carrier
D) All of the above

37. Which of the following Bacteria is motile with Endoflagella ?
- A) Vibrio
 - B) Klebsiella
 - C) Leptospira
 - D) Salmonella
38. Plasmids in bacteria
- A) Give antibiotic resistance to host bacterium
 - B) They are extrachromosomal genetic material
 - C) Transfer information from one cell to another
 - D) All of the above
39. Autoclave is used for the sterilization of all except
- A) Grease
 - B) Surgical equipment
 - C) Culture Media
 - D) None of the above
40. Find the right pair.
- i. LJ medium
 - ii. Sugar medium
 - iii. Tyndallization
 - iv. Holder Method
 - v. Inspissation
- A) i and iv
 - B) i and iii
 - C) ii and v
 - D) ii and iii
41. Endoscope is sterilized using
- A) Phenol
 - B) Glutaraldehyde
 - C) Autoclave
 - D) Ethylene Oxide
42. Concentration of Agar in culture broth is
- A) 4.5%
 - B) 1.5%
 - C) 0%
 - D) None of these
43. In Fluid Medium, bacterial growth detected by
- A) Turbidity
 - B) Deposit
 - C) Nature of surface growth
 - D) All of these

44. Which of the following is low selective and differential medium ?
A) Chocolate agar
B) MacConkey agar
C) Blood agar
D) All of these
45. Which of the following used to detect bacterial motility ?
A) Mannitol motility medium
B) Motility indoleurea medium
C) Hanging drop motility test
D) All of these
46. _____ is act as mordant in Ziehl Neelsen staining.
A) Acetone
B) 20% H₂SO₄
C) Phenol
D) All of these
47. Antibody that cross placenta give protection, to baby after birth till its own immunity begins to develop
A) IgG
B) IgM
C) Ige
D) IgA
48. The strength of binding of Antigen with Antibody is
A) Avidity
B) Affinity
C) Titre
D) All of these
49. Widal Test is used for diagnosis of
A) Typhoid
B) Syphilis
C) Rheumatoid Arthritis
D) All of these
50. The most common cause of Urinary Tract Infection is
A) Proteus
B) E.Coli
C) Klebsiella
D) Pseudomonas
51. A spider web clot formed in CSF specimen after standing
A) Pneumococcal meningitis
B) Tuberculous meningitis
C) Neisseria meningitis
D) All of these

243/23

52. Sputum smear is prepared by
A) Salivary
B) Purulent
C) Blood muco purulent
D) All of these
53. Antimicrobial sensitivity testing most helpful for
A) Prevent side effect
B) Prevent resistance to other pathogenic organism
C) Selecting effective antimicrobial drug
D) All of these
54. Viruses are
A) Intracellular parasite
B) Posses only RNA or DNA
C) Unable to reproduce
D) All of these
55. A vector is an organism act as
A) Carrier
B) Transmit parasite from one body to another
C) Insects are most common
D) All of these
56. True about thick blood smear examination
A) 50 times more chance to detect parasites
B) Species identification possible
C) Only parasitic body seen
D) All of these
57. Malaria caused by
A) Plasmodium
B) Microfilaria
C) Trypanosomes
D) Leishmania
58. Ideal rapid water soluble stain for thick blood smear examination
A) Hematoxylene
B) JSB
C) Wrightstain
D) Leishman stain

A

59. Lab diagnosis of filariasis done by
A) Wetfilm
B) Stained blood smear
C) Lymphnode biopsy
D) All of these
60. Ova of Enterobius characterised by
A) Planoconcave
B) Colorless
C) Enclosed in shell
D) All of these
61. Fixation plays important role in
A) Prevent putrefaction autolysis
B) Hardening of soft tissues
C) Refractive index change
D) All of these
62. Which of the following is not a property of formalin as a fixative ?
A) Cheap and easy to prepare
B) A pleasant smell
C) Good tissue penetration
D) Prevent autolysis and putrefaction
63. Which is the special procedure required before tissue processing for tissues like teeth or bones ?
A) Dehydration
B) Clearing
C) Decalcification
D) Impregnation
64. Name the chemical which is not included in the PAP staining procedure.
A) OG 6
B) Methylene Blue
C) E A 36
D) Harris haematoxylin
65. In FNAC the letter 'N' stands for
A) Normal
B) Nuclear
C) Needle
D) Number
66. Among the cell organelles protein synthesis is performed by
A) Nucleus
B) Mitochondria
C) Lysosome
D) Ribosomes
67. Study about tissues is called
A) Histology
B) Toxicology
C) Cytology
D) Mycology
68. The hormone TSH is produced by
A) Thyroid
B) Adrenal
C) Parathyroid
D) Pituitary gland

243/23

69. The instrument used to measure the electrical activity of Heart is
A) Sphygmomanometer
B) Electrocardiograph
C) Electroencephalogram
D) Electrocardiogram
70. Pulse can be measured from
A) Brachial artery
B) Radial artery
C) Carotid artery
D) All of the above
71. Glass Pipets with a long narrow tip is called
A) Graduated pipets
B) Pasteur pipets
C) Blood pipets
D) Volumetric pipets
72. Solution used in calorimeter with all reagents and without sample to be tested are called
A) Test solution
B) Standard
C) Blank
D) Positive control
73. Equipment flame photometer is used to measure
A) Hormones
B) Electrolytes
C) Enzymes
D) Vitamins
74. Which of the following blood cell having maximum weight ?
A) Monocyte
B) Epithelial cells
C) Large lymphocyte
D) Red blood cell
75. Example for a natural anticoagulant
A) Heparin
B) EDTA
C) Sodium citrate
D) Double oxalate
76. Needles used to collect blood from infants are with a Gauge of
A) 16
B) 21
C) 23
D) None of the above
77. Which of the protein present in plasma and not in serum ?
A) Albumen
B) Globulin
C) Immunoglobulin
D) Fibrinogen

A

78. Cells that increase during allergy are
 A) Monocytes
 B) RBC
 C) Eosinophils
 D) Platelets
79. Which is the commonly used anticoagulant for ESR estimation by Westergren's method ?
 A) Trisodium citrate
 B) Heparin
 C) EDTA
 D) ACD solution
80. When WBCs are counted manually by Tuerk's reagent, blood is diluted by ratio
 A) 1 : 100
 B) 1 : 50
 C) 1 : 20
 D) 1 : 10
81. New methylene blue stain is used for staining which type of blood cells ?
 A) Platelets
 B) Reticulocytes
 C) Spherocytes
 D) Monocytes
82. The normal total platelet count in adult is
 A) 1.5 – 4.5 lakhs/cu mm of blood
 B) 6.5 – 9.5 lakhs/cu mm of blood
 C) 2.5 – 5.5 millions/cu mm of blood
 D) 4.5 – 6.5 millions/cu mm of blood
83. Which test does not monitor a patient's coagulation mechanism ?
 A) PT
 B) APTT
 C) TT
 D) ACTH
84. The cellular components of buffy coat are
 A) RBCs and Platelets
 B) WBCs and Platelets
 C) RBCs and WBCs
 D) RBCs and Reticulocytes
85. The speed and the time selected for PCV test by Wintrobe's method
 A) 3000 RPM and 30 Minutes
 B) 2000 RPM and 20 Minutes
 C) 5000 RPM and 30 Minutes
 D) 2500 RPM and 20 Minutes
86. Lymphocytes normally comprise _____ % of the total WBCs.
 A) 10 %
 B) 30 %
 C) 40 %
 D) 60 %

243/23

87. What cell shape is most commonly associated with increased MCHC ?
A) Drepanocyte B) Leptocyte
C) Ovalocyte D) Spherocyte
88. Parasitic infections and allergic reactions cause an increase in
A) Neutrophils B) Eosinophils
C) Basophils D) Monocytes
89. The most popular method of haemoglobin estimation is
A) Sahli's method B) Oxyhaemoglobin method
C) Alkaline haematin method D) Cyanmeth haemoglobin method
90. The solvent in Leishman's stain is
A) Acetone B) Acetone free methyl alcohol
C) Ethyl alcohol D) Distilled water
91. For coagulation studies, blood is mixed with the anticoagulant in the ratio of
A) 1 : 4 B) 4 : 1
C) 1 : 9 D) 9 : 1
92. All of the following are uses of WBC pipette except
A) Absolute Eosinophil count B) CSF cell count
C) Platelet count D) Sperm count
93. The factor that increases the ESR is
A) Exposure to sunlight B) Presence of excess albumin
C) Unclean tubes D) Presence of microcytes
94. Blood group antigen present on the surface of
A) RBC B) WBC
C) Platelet D) Lymphocyte

A

Space for Rough Work

