

QUESTION BANK

Sub: Introduction of 100% objective paper for promotional examination to expedite and simplify examination process – Reg Question Bank for the post of Lab. Supdt. In Level-6(Rs. 9300-34800)GP-rs.4200/- in Medical department of Eastern Railway.

Ref: PCMD/ER's letter No. PCMD.247/1/3/LAB/NG dated 13.12.21

Tick the correct option:

1. The difference between Plasma and Serum is:
(i) Plasma lacks fibrinogen. (iii) Both of the above.
(ii) Serum lacks fibrinogen. (iv) None of the above.
2. Ratio of Trisodium Citrate solution and Blood used for estimation of ESR in Westergren tube is:
(i) 1:4 (ii) 1:6 (iii) 1:9 (iv) 1:10
3. Following are all Romanowsky's stains except:
(i) May-Grunwald-Giemsa stain (iii) Perls' stain
(ii) Field's method of rapid stain (iv) Leishman's stain
4. Best anticoagulant that can be used for Osmotic fragility test among the following is:
(i) EDTA (iii) Oxalate
(ii) Trisodium Citrate (iv) Heparin
5. All are features of haematuria except :
(i) Reddish or smoky urine.
(ii) Benzidine test gives red colour reaction of urine.
(iii) Microscopically RBCs can be seen in significant number.
(iv) Benzidine test gives blue colour reaction of urine.
6. Most suitable preservative among the following, that can be used in urine for estimation of sugar is:
(i) Acetic acid (ii) Methanol (iii) Thymol (iv) Distilled water
7. Detection of protein in urine can be done by using:
(i) Sulphosalicylic acid (iii) Nitric acid
(ii) Protein reagent strip (iv) All of the above
8. Components of Drabkin's solution are all except:
(i) Potassium ferricyanide (iii) Potassium cyanide
(ii) Potassium ferrocyanide (iv) Potassium hydrogen phosphate
9. Improper floating of the histopathological sections and placement on the slides can commonly lead to the following defects except :
(i) Folding of the sections (iii) Cracking of the sections
(ii) Chattering of the sections (iv) Thickening of section
10. All are lactose fermenters except:

- (i) Escherichia coli
 - (ii) Klebsiella
 - (iii) Enterobacteria
 - (iv) Shigella
11. Ratio of anticoagulant and Whole Blood in a Blood Bag of 350 ml:
- (i) 1:7
 - (ii) 50:7
 - (iii) 7:1
 - (iv) 7:50
12. Culture media that can be used to grow anaerobic organisms is:
- (i) Mac Conkey's media
 - (ii) Potassium Tellurite media
 - (iii) Blood agar
 - (iv) Robertson's cooked meat media
13. Minimum interval between two Voluntary Blood Donation for a person should be:
- (i) 1 month
 - (ii) 3 months
 - (iii) 2 months
 - (iv) 5 months
14. Reagent used for decalcification is:
- (i) Formic acid
 - (ii) Nitric acid
 - (iii) EDTA
 - (iv) All of the above
15. Collection of Blood is done from:
- (i) Veins
 - (ii) Capillaries
 - (iii) Both
 - (iv) None
16. Normal range of platelet count in adults -
- (i) 50,000 to 1 lakh/cumm
 - (ii) 1.5 to 4 lakh/cumm
 - (iii) 10 to 15 lakh/cumm
 - (iv) 8 to 10 lakh/cumm
17. Most commonly used fixative used in Histotechnique is :
- (i) 01% Formalin
 - (ii) 10% Formalin
 - (iii) 100% Formalin
 - (iv) 50% Formalin
18. Which of the following stains is used for Reticulocyte staining?
- (i) H&E
 - (ii) PAP
 - (iii) Brilliant Cresyl Blue
 - (iv) Reticulin
19. In which of the following Blood groups is Antigen "A" seen?
- (i) A
 - (ii) B
 - (iii) O
 - (iv) Bombay
20. In Z-N stain for M. tuberculosis, concentration of H_2SO_4 used is -
- (i) 5%
 - (ii) 20%
 - (iii) 30%
 - (iv) 40%
21. For clearing in Histotechnique, which of the following substance is used?
- (i) Formalin
 - (ii) Xylene
 - (iii) Paraffin
 - (iv) All of the above.
22. Thickness of tissue sections in histopathology is:

- (i) 2-5 micron (iii) 7-8 micron
(ii) 6 -7 micron (iv) 10 -12 micron
23. Which of the following test is used for detection of ketone bodies in urine?
(i) Benedict's test (iii) Rothera's test
(ii) Heat and acetic test (iv) Hay's test
24. Normal serum bilirubin in adults:
(i) 0.1 to 1.2 mg/dl (iii) 5.5-7.5 mg/dl
(ii) 3.5 to 5.5 mg/dl (iv) 8-10 mg/dl
25. Unconjugated bilirubin is increased in
(i) Thalassemia (iii) Sickle cell anaemia
(ii) Hereditary Spherocytosis (iv) All of the above.
26. Colour of anti-B antibody reagent is:
(i) Blue (iii) Colourless
(ii) Yellow (iv) Red
27. Which of the following is a mucin stain?
(i) PAP (iii) PAS
(ii) MGG (iv) Reticulin
28. Westergren's Pipette is used for estimation of -
(i) PCV (iii) Hb
(ii) ESR (iv) All of the above.
29. In which part of the Neubauer's Chamber, Sperm count is done?
(i) RBC chamber (iii) Both
(ii) WBC chamber (iv) None.
30. In which Malaria, Banana shaped gametocyte is seen ?
(i) P. Vivax (iii) P. Malariae
(ii) P. Falciparum (iv) P. Ovale
31. Bombay Blood Group has which of the following antigen?
(i) A antigen (iii) H antigen
(ii) B antigen (iv) None.
32. Major Cross Match in Blood Bank is done with:
(i) Donor's cell and recipient's serum
(ii) Donor's serum and recipient's cell
(iii) Donor's cell and recipient's cell

- (iv) Donor's serum and recipient's serum
33. Stain used for cervical cytology smear for screening purpose is-
(i) PAS stain (iii) Perls' stain
(ii) Reticulin stain (iv) PAP stain
34. One cannot donate Blood if the following conditions are present except -
(i) Uncontrolled hyperglycemia (iii) Known Malignancy
(ii) Severe anaemia (iv) Overweight
35. Which test is not done during screening of donated Blood?
(i) HIV (iii) Malaria
(ii) Hepatitis B (iv) Influenza
36. Causative agent for Dengue is -
(i) Virus (iii) Protozoa
(ii) Bacteria (iv) Fungi
37. Magnification power of oil immersion objective is -
(i) 10X (ii) 4X (iii) 40X (iv) 100X
38. Fluoride vial is used for estimation of -
(i) Glucose (iii) Liver function test
(ii) Electrolyte (iv) Lipid Profile.
39. Which Hb shows a rise in Thalassemia major -
(i) HbA (iii) HbC
(ii) HbS (iv) HbF
40. Fragments of red cells are called :
(i) Burr cells (iii) Sick cells
(ii) Acanthocytes (iv) Schistocytes
41. Which of the following reagents is used in the sickling test?
(i) 2% sodium metabisulphite (iii) 10% ammonium hydroxide
(ii) 2% sodium hydroxide (iv) 10% sodium bicarbonate
42. Haemoglobin Electrophoresis is indicated in -
(i) Liver disease (iii) Thalassemia
(ii) COPD (iv) Hypothyroidism
43. Which substance is used for embedding of Tissue in Histopathology?
(i) Paraffin (iii) Glutaryldehyde
(ii) Xylene (iv) Formalin
44. Which of the following is an agranulocyte?
(i) Neutrophil (iii) Basophil
(ii) Eosinophil (iv) Monocyte

45. All of the following crystals are seen in urine except -
- | | |
|-----------------------|----------------------|
| (i) Calcium oxalate | (iii) Uric acid |
| (ii) Triple phosphate | (iv) Sodium chloride |
46. Megakaryocytes give rise to -
- | | |
|----------|-----------------|
| (i) RBC | (iii) Platelet |
| (ii) WBC | (iv) Fibrinogen |
47. Value of Hb below which a voluntary blood donor is unfit for blood donation is -
- | | |
|-----------------|------------------|
| (i) 12.5 gm/dl | (iii) 16.5 gm/dl |
| (ii) 14.5 gm/dl | (iv) 18.5 gm/dl |
48. Blood sample for LFT should be collected in-
- | | |
|-------------------|---------------------|
| (i) EDTA vial | (iii) Fluoride vial |
| (ii) Clotted Vial | (iv) Citrate Vial |
49. Colour of Vial cap for PT-INR testing is -
- | | |
|-----------|------------------|
| (i) Red | (iii) Light Blue |
| (ii) Grey | (iv) Green |
50. Shelf life of Whole blood in Blood Bank is
- | | |
|--------------|---------------|
| (i) 5 days | (iii) 35 days |
| (ii) 21 days | (iv) 60 days |
51. Normal CSF is usually -----in appearance
- | | |
|------------|--------------------|
| (i) Turbid | (iii) Haemorrhagic |
| (ii) Clear | (iv) Milky |
52. Semen with ----- motile sperm is considered normal.
- | | |
|----------|-----------|
| (i) 30% | (iii) 20% |
| (ii) 10% | (iv) 80% |
53. Ova of *Trichuris trichiura*
- | |
|--|
| (i) Bile stained and floats on saline water |
| (ii) Bile stained but does not float on saline water |
| (iii) Floats on saline water but is not bile stained |
| (iv) None of the above is correct. |
54. Wintrobe's tube is useful for determination of
- | | |
|----------|-----------------------|
| (i) PCV | (iii) LE Cell |
| (ii) ESR | (iv) All of the above |
55. Oil-Red-O is a well known stain for demonstration of -----in frozen sections
- | | |
|------------------|------------|
| (i) Carbohydrate | (iii) Fat |
| (ii) Protein | (iv) Mucin |

56. One of the causes of cutting alternate thick and thin sections by a microtome is

- (i) Too thick blade
- (ii) Loosely fitted knife
- (iii) Undecalcified hard tissue
- (iv) None of the above

57. Hyaline cast may be seen in urine of

- (i) Patient with fever
- (ii) A normal person after strenuous exercise
- (iii) Normal person
- (iv) All of the above

58. Determination of 'O' Blood group requires

- (i) Anti A Sera
- (ii) Anti H Sera
- (iii) Anti B Sera
- (iv) All of the above

59. Possibility of Thalassaemia is suspected if HbA2 level is more than

- (i) 0.01%
- (ii) 0.03%
- (iii) 0.025%
- (iv) 2.5%

60. The main disadvantage of using Benzidine for testing occult blood in stool is

- (i) Benzidine is not an efficient reagent.
- (ii) Benzidine is carcinogenic
- (iii) Benzidine corrodes the container instantly
- (iv) None of the above is true

61. Sharp wastes of laboratory should be discarded in

- (i) Yellow plastic bag
- (ii) Red plastic bag
- (iii) Puncture proof container
- (iv) None of the above

62. Commonest buffering agent used for Formol Saline is

- (i) Bicarbonate buffer
- (ii) Phosphate buffer
- (iii) Sulphate buffer
- (iv) Chloride buffer

63. FNAC smears are fixed by -----, if PAP staining is to be performed.

- (i) Air drying
- (ii) Formalin vapour
- (iii) Ethanol
- (iv) None of the above

64. ----- can be used as an alternative to Xylene as clearing agent in histopathological techniques

- | | |
|--------------------------|------------------------|
| (i) Sodium Chloride | (iii) Chloroform |
| (ii) Calcium Bicarbonate | (iv) None of the above |

65. Alcohol can be made anhydrous by using

- | | |
|--------------------------------|---------------------------------|
| (i) Anhydrous CaCl_2 | (iii) Anhydrous CuCl_2 |
| (ii) Anhydrous CuSO_4 | (iv) None of the above |

66. Coombs' reagent is actually

- | | |
|----------------------|------------------------|
| (i) Anti A antibody | (iii) Anti D antibody |
| (ii) Anti B antibody | (iv) Anti IgG antibody |

67. In heat test of urine, if the haziness disappears with addition of 33% Acetic acid then there is presence of ----- in urine:

- | | |
|--------------|------------------------|
| (i) Protein | (iii) Phosphate |
| (ii) Glucose | (iv) None of the above |

68. A globular organism found to be highly motile in freshly voided urine on microscopy is

- | | |
|-----------------------------------|------------------------------------|
| (i) <i>Proteus vulgaris</i> | (iii) <i>Trichomonas vaginalis</i> |
| (ii) <i>Staphylococcus aureus</i> | (iv) <i>Plasmodium vivax</i> |

69. Platelet concentrate is stored in

- | | |
|----------------------------|------------------------------|
| (i) 2-8 degree centigrade | (iii) 5 -6 degree centigrade |
| (ii) 1-2 degree centigrade | (iv) 22-25 degree centigrade |

70. Drumstick shaped structures signify presence of

- | | |
|-------------------------------------|------------------------------|
| (i) <i>Clostridium tetani</i> | (iii) <i>Vibrio cholerae</i> |
| (ii) <i>Stertococcus pneumoniae</i> | (iv) <i>Bacillus cereus</i> |

71. Blood spillage in laboratory should be immediately disinfected with

- | | |
|-----------------------------------|-----------------------------------|
| (i) Conc. H_2SO_4 | (iii) Sodium Citrate |
| (ii) Normal saline | (iv) Sodium hypochlorite solution |

72. The reagent used in pregnancy test of urine is

- | | |
|--|---------------------------------|
| (i) Anti IgA sera | (iii) Anti human immunoglobulin |
| (ii) Anti human chorionic gonadotropin | (iv) Anti TPO Antibody |

73. -----eggs of *Ascaris lumbricoides* floats in saturated solution of common salt.

- | | |
|-------------------|--|
| (i) Fertilized | (iii) Both Fertilized and Unfertilized |
| (ii) Unfertilized | (iv) None of the above |

74. On Blood grouping by slide method, if agglutination occurs both with Anti A antisera and Anti B antisera then the ABO Blood group is

- | | |
|--------|----------|
| (i) A | (iii) AB |
| (ii) B | (iv) O |

75. Iron particles are visualized as -----coloured granules with Perls' stain.

- | | |
|----------|--------------|
| (i) Blue | (iii) Yellow |
| (ii) Red | (iv) Green |

76. *Corynebacterium diphtheriae* are

- | | |
|--------------------|----------------------------------|
| (i) Gram positive | (iii) Non reactive to Gram stain |
| (ii) Gram negative | (iv) None of the above |

77. The following reagent is used for final confirmation of Rh-negative Blood group is

- | | |
|-----------------------|------------------------|
| (i) Anti A1 antisera | (iii) Anti Du antisera |
| (ii) Anti AB antisera | (iv) None of the above |

78. In Histopathology Lab, -----is used to mount the slide.

- | | |
|-------------|----------------------|
| (i) DPX | (iii) Vaseline |
| (ii) Saline | (iv) Distilled water |

79. CPDA consists of – Citrate, phosphate, dextrose and-----

- | | |
|--------------|-----------------|
| (i) Alanine | (iii) Adenosine |
| (ii) Adenine | (iv) Ammonia |

80. Negative Urine culture report should be given after

- | | |
|---------------|----------------|
| (i) 10 hours | (iii) 20 hours |
| (ii) 15 hours | (iv) 48 hours |

81. Orthotoluidine can be used in routine examination of

- | | |
|------------|------------------------|
| (i) Stool | (iii) Throat swab |
| (ii) Semen | (iv) None of the above |

82. The shape of oxalate crystals in urine is

- | | |
|-----------------|-------------------|
| (i) Globular | (iii) Needle like |
| (ii) Octahedral | (iv) Non specific |

83. Albert stain is required for demonstration of

- | | |
|--|-----------------|
| (i) <i>Corynebacterium diphtheriae</i> | (iii) COVID -19 |
| (ii) Dengue virus | (iv) HIV |

84. What is the full form of ELISA?

- | |
|--|
| (i) Ester Linked Immunosorbent assay |
| (ii) Enzyme Lipase Immunosorbent assay |

- (iii) Enzyme Linked Immunosorbent assay
- (iv) Enzyme Linked Immunosorbent assessment

85. Life span of RBC is _____ days

- (i) 20
- (ii) 50
- (iii) 80
- (iv) 120

86. The White Blood Corpuscle that shows a rise in allergic conditions is

- (i) Neutrophil
- (ii) Lymphocyte
- (iii) Eosinophil
- (iv) Monocyte

87. The test that is used for detection of reducing substance in urine is

- (i) Microscopy
- (ii) Benedict's
- (iii) Esbach's
- (iv) Heat test

88. Thick smear is used for detection of

- (i) Dengue
- (ii) COVID-19
- (iii) Chikungunya
- (iv) Malaria parasite

89. Widal test is done for diagnosis of

- (i) Malaria
- (ii) Dengue
- (iii) Typhoid fever
- (iv) Pneumonia

90. VDRL test is done for screening of

- (i) Hepatitis B
- (ii) Hepatitis C
- (iii) Syphilis
- (iv) HIV

91. Hemophilia A is due to deficiency of

- (i) Factor V
- (ii) Factor VI
- (iii) Factor VII
- (iv) Factor VIII

92. For PT/INR test, the anticoagulant of choice is

- (i) Warfarin
- (ii) Citrate
- (iii) EDTA
- (iv) Fluoride

93. Largest White Blood Cell in peripheral smear is

- (i) Neutrophil
- (ii) Eosinophil
- (iii) Monocyte
- (iv) Basophil

94. Osmotic Fragility test is done for screening of

- (i) Kala azar
- (iii) Leukemia

(ii) Thalassemia

(iv) Spherocytosis

95. When there is no time for cross matching, Fresh Frozen Plasma of which group can be transfused safely –

(i) AB positive

(iii) O positive

(ii) AB negative

(iv) O negative

96. Which of the following is not a Gram positive bacteria ? –

(i) Streptococcus

(iii) Mycobacteria

(ii) Pseudomonas

(iv) Staphylococcus

97. The test that indicates the number of immature Red Blood Cells is –

(i) PT/INR

(iii) LAP score

(ii) Reticulocyte count

(iv) Stab cell count

98. The colour of Gram positive bacteria in Gram's stain is –

(i) Pink

(iii) Black

(ii) Purple

(iv) Colourless

99. What test cannot be performed on a serum sample ? –

(i) Iron

(iii) Total lipids

(ii) Vitamin B₁₂

(iv) Platelet count

100. Neubauer's Chamber is used for total count of –

(i) Red Blood Cell

(iii) Platelet

(ii) White Blood Cell

(iv) All of the above

ANSWER KEY

Sub: Introduction of 100% objective paper for promotional examination to expedite and simplify examination process – Reg Question Bank for the post of Lab. Supdt. In Level-6(Rs. 9300-34800)GP-rs.4200/- in Medical department of Eastern Railway.

Ref: PCMD/ER's letter No. PCMD.247/1/3/LAB/NG dated 13.12.21

1. (ii)
2. (i)
3. (iii)
4. (iv)
5. (ii)
6. (iii)
7. (iv)
8. (iii)
9. (ii)
10. (iv)
11. (iv)
12. (iv)
13. (ii)
14. (iv)
15. (iii)
16. (ii)
17. (ii)
18. (iii)
19. (i)
20. (i)
21. (ii)
22. (i)
23. (iii)
24. (i)
25. (iv)
26. (ii)
27. (iii)
28. (ii)
29. (i)
30. (ii)
31. (iv)
32. (i)
33. (iv)

- 34. (iv)
- 35. (iv)
- 36. (i)
- 37. (iv)
- 38. (i)
- 39. (iv)
- 40. (iv)
- 41. (i)
- 42. (iii)
- 43. (i)
- 44. (iv)
- 45. (iv)
- 46. (iii)
- 47. (i)
- 48. (ii)
- 49. (iii)
- 50. (iii)
- 51. (ii)
- 52. (iv)
- 53. (i)
- 54. (iv)
- 55. (iii)
- 56. (ii)
- 57. (iv)
- 58. (iv)
- 59. (iv)
- 60. (ii)
- 61. (iii)
- 62. (ii)
- 63. (iii)
- 64. (iii)
- 65. (ii)
- 66. (iv)
- 67. (iii)
- 68. (iii)
- 69. (iv)
- 70. (i)
- 71. (iv)
- 72. (ii)
- 73. (i)
- 74. (iii)
- 75. (i)

- 76. (i)
- 77. (iii)
- 78. (i)
- 79. (ii)
- 80. (iv)
- 81. (i)
- 82. (ii)
- 83. (i)
- 84. (iii)
- 85. (iv)
- 86. (iii)
- 87. (ii)
- 88. (iv)
- 89. (iii)
- 90. (iii)
- 91. (iv)
- 92. (ii)
- 93. (iii)
- 94. (iv)
- 95. (iv)
- 96. (ii)
- 97. (ii)
- 98. (ii)
- 99. (iv)
- 100. (iv)