

61/2014

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Specimens containing blood can be fixed by :  
(A) Formalin (B) Methanol  
(C) Isopropanol (D) Carnoy's fluid
2. Heparin prevents coagulation by :  
(A) Chelating action (B) Anti thrombin action  
(C) Activation of plasmin (D) Preventing aggregation of platelets
3. The amino acids from which creatinine is formed:  
(A) Arginine, Glycine, Methionine (B) Glycine, Glutamic acid, Valine  
(C) Methionine, Arginine, Glutamic acid (D) Arginine, Glutamic acid, Lysine
4. Which among the following diseases is not transmitted through blood transfusion?  
(A) HIV (B) Hepatitis B  
(C) Filariasis (D) Hepatitis C
5. Which among these radiations is not a cold method of sterilization?  
(A) Gamma rays (B) X-rays  
(C) Cosmic rays (D) Infrared radiation
6. Urobilinogen is absent in urine in which type of jaundice?  
(A) Haemolytic (B) Obstructive  
(C) Hepatic (D) Both (A) and (C)
7. The pH of Sabouraud's Dextrose Agar medium is :  
(A) 5.8-6.0 (B) 4.2-5.2  
(C) 5.4-5.6 (D) 6.0-6.4
8. Which among these is known as bad cholesterol?  
(A) HDL (B) LDL  
(C) IDL (D) VLDL

A

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[P.T.O.]

9. Pick up the statement that is not true with respect to *Haemophilus influenzae* :
- (A) Growth on chocolate agar medium      (B) Pleomorphism  
(C) Satellitism      (D) Resistance to refrigeration
10. Choose the method used for the estimation of blood urea :
- (A) Liebermann-Burchard reaction      (B) Jaffee reaction  
(C) Berthelot reaction      (D) Van den Bergh reaction
11. Ketone bodies in urine is detected by which test?
- (A) Benzedine test      (B) Ehrlich's test  
(C) Fouchet's test      (D) Rothera's test
12. Trench fever is caused by :
- (A) *Bartonella quintana*      (B) *Coxiella burnetii*  
(C) *Orientia tsutsugamushi*      (D) *Rickettsia prowazekii*
13. The intestinal helminth belonging to the super family oxyuroidea is :
- (A) *Anchylostoma duodenale*      (B) *Taenia solium*  
(C) *Enterobius vermicularis*      (D) *Ascaris lumbricoides*
14. Renal threshold of glucose is :
- (A) 180 mg/dl      (B) 200 mg/dl  
(C) 170 mg/dl      (D) 160 mg/dl
15. Thrombocytes are formed from :
- (A) Myeloblast      (B) Myelocyte  
(C) Megakaryocyte      (D) Megaloblast
16. Which among the following agents is not used for decalcification of tissues?
- (A) EDTA      (B) Chloroform  
(C) Nitric acid      (D) Hydrochloric acid
17. The advantages of RPR test over VDRL test include the following statements except :
- (A) Serum or plasma can be used      (B) Results read with naked eyes  
(C) Antigen is ready to use      (D) Requires inactivation of serum

18. Reticulin fibres are demonstrated by :
- (A) PAS staining (B) Trichrome staining  
(C) Gomori's staining (D) Mallory's PTAH staining
19. The earliest reliable indicator of myocardial infarction is :
- (A) LDH (B) CKMB  
(C) SGOT (D) SGPT
20. Auer rods may be found in :
- (A) ALL (B) AML  
(C) CML (D) CLL
21. In Sickle cell anaemia the abnormality found in the sixth position of the beta chain of haemoglobin is :
- (A) Glutamate is replaced by valine (B) Glutamate is replaced by lysine  
(C) Valine is replaced by glutamate (D) Lysine is replaced by glutamate
22. Cryoprecipitate is infused to patient's having :
- (A) Anaemia (B) Leukaemia  
(C) Sickle cell disease (D) Haemophilia
23. The concentration technique not used for sputum in pulmonary tuberculosis :
- (A) Hank's flocculation method (B) Jungman's method  
(C) Ehrlich's method (D) Petroff's method
24. PAS staining is used for the demonstration of :
- (A) Collagen (B) Neutral mucin  
(C) Melanin (D) Fibrin
25. The light chains in immunoglobulin's are :
- (A) Kappa (B) Lambda  
(C) Both (A) and (B) (D) Alpha
26. The ratio of sodium citrate to blood used for coagulation studies is :
- (A) 1 : 9 (B) 1 : 4  
(C) 1 : 6 (D) 1 : 10

27. In quality control precision indicates what?
- (A) True value
  - (B) Same value for repeated analysis
  - (C) Measurement of a particular substance
  - (D) Measurement of minute quantity
28. Microcytic hypochromic red blood cells are seen in which type of anaemia?
- (A) Iron deficiency anaemia
  - (B) Aplastic anaemia
  - (C) Haemolytic anaemia
  - (D) Megaloblastic anaemia
29. The examination of Duodenal contents is useful to detect :
- (A) Larvae of *Strongyloides stercoralis*
  - (B) Eggs of *Fasciola* species
  - (C) *Giardia intestinalis*
  - (D) All of these
30. Which among these is a non-reducing sugar?
- (A) Fructose
  - (B) Lactose
  - (C) Sucrose
  - (D) Maltose
31. Reticulocytes are increased in peripheral blood in :
- (A) After acute blood loss
  - (B) Aplastic anaemia
  - (C) Haemolytic anaemia
  - (D) Both (A) and (C)
32. The reference method for glucose estimation is :
- (A) Hexo kinase method
  - (B) Glucose oxidase method
  - (C) Ortho toluidine method
  - (D) Nelson-Somogyi method
33. In hypothyroidism :
- (A)  $T_3$ ,  $T_4$  and TSH increases
  - (B)  $T_3$  and  $T_4$  decrease, TSH increases
  - (C)  $T_3$ ,  $T_4$  and TSH decreases
  - (D)  $T_3$  and  $T_4$  increase, TSH decreases
34. Which enzyme activity is highly elevated in acute hepatic disease?
- (A) Alanine transaminase
  - (B) Aspartate transaminase
  - (C) Amylase
  - (D) Creatine kinase

35. The disadvantage of using frozen sections is :
- (A) Serial sections are not obtained
  - (B) Sections prepared within a few minutes
  - (C) Many histochemical methods use freezing microtomy
  - (D) Intra operative surgical consultation
36. Which of the following reagent is used to detect acetyl methyl carbinol?
- (A) Kovac's reagent
  - (B) Ehrlich's reagent
  - (C) Barritt's reagent
  - (D) None of these
37. Barr body is absent in :
- (A) Edward's syndrome
  - (B) Super female
  - (C) Turner's syndrome
  - (D) None of these
38. In histopathological processing of tissues the sequence of processing is :
- (A) Fixation, dehydration, clearing, infiltration
  - (B) Fixation, clearing, dehydration, infiltration
  - (C) Fixation, infiltration, clearing, dehydration
  - (D) Fixation, infiltration, dehydration, clearing
39. The normal level of CSF chloride is :
- (A) 600-660 mg/dl
  - (B) 460-540 mg/dl
  - (C) 700-760 mg/dl
  - (D) 550-610 mg/dl
40. Coomb's reagent is :
- (A) Anti human globulin
  - (B) Anti H serum
  - (C) Anti A serum
  - (D) Anti B serum
41. The end product of purine metabolism is :
- (A) Urea
  - (B) Uric acid
  - (C) Bilirubin
  - (D) Creatinine
42. Rees-Ecker solution is used for counting :
- (A) WBC's
  - (B) Eosinophil's
  - (C) Spermatozoa
  - (D) Platelets

43. The viral disease that is not sexually transmitted is :
- (A) Rubella (B) HIV infection  
(C) Hepatitis B (D) Molluscum contagiosum
44. Which among the following is an intracellular buffer?
- (A) Carbonate buffer (B) Phosphate buffer  
(C) Citrate buffer (D) Acetate buffer
45. Acid washed glass wares are used for the estimation of :
- (A) Minerals (B) Vitamins  
(C) Hormones (D) Enzymes
46. The viral disease transmitted by the vector *Aedes aegypti* is :
- (A) Japanese encephalitis (B) Yellow fever  
(C) Dengue fever (D) Both (B) and (C)
47. Among the following which solution has the highest osmotic pressure?
- (A) 1M solution of NaCl (B) 1M solution of  $\text{CaCl}_2$   
(C) 1M solution of glucose (D) 1M solution of KCl
48. Which among the following coagulation factors is not Vitamin K dependent?
- (A) Factor V (B) Factor II  
(C) Factor VII (D) Factor IX
49. The staining technique used for hormonal cytology is :
- (A) MGG (B) H and E staining  
(C) Shorr's staining (D) Giemsa staining
50. A plane-wedge type of knife is used for cutting :
- (A) Frozen sections (B) Ordinary paraffin sections  
(C) Serial sections (D) All of these
51. Hypo segmentation of neutrophils are associated with :
- (A) Megaloblastic anaemia (B) May-Heggler anomaly  
(C) Pelger-Huet anomaly (D) Thalassaemia

52. Bombay blood group contains which antibody?  
 (A) Anti A (B) Anti B  
 (C) Anti H (D) All of these
53. The infective stage of hookworm is :  
 (A) Embryonated egg (B) Filariform larva  
 (C) Rhabditiform larva (D) Microfilaria
54. What is the colour code of the hub of a 23G needle?  
 (A) Pink (B) Violet  
 (C) Black (D) Blue
55. Conversion of glycogen to glucose is called :  
 (A) Glycolysis (B) Glycogenolysis  
 (C) Gluconeogenesis (D) Glycogenesis
56. Which among the following is the gold standard of clearance tests?  
 (A) Inulin clearance (B) Urea clearance  
 (C) Creatinine clearance (D) Hippuric acid clearance
57. The recommended concentration of chlorine releasing compounds used for disinfecting spillages of blood/body fluids is :  
 (A) 1000 ppm (B) 10000 ppm  
 (C) 100 ppm (D) 100000 ppm
58. Which among the following is not a transport medium?  
 (A) Pike's medium (B) Buffered glycerol saline  
 (C) Stuart's medium (D) Todd-Hewitt medium
59. The past glucose content in blood can be estimated by measuring :  
 (A) Methylated haemoglobin (B) Carboxylated haemoglobin  
 (C) Glycosylated haemoglobin (D) None of these
60. For which among the following investigations can whole blood be used?  
 (A) Glycosylated haemoglobin (B) Haemoglobin electrophoresis  
 (C) Glucose 6 phosphate dehydrogenase (D) All of these

61. Convert 90 mg% glucose to millimoles/L :
- (A) 2.5 millimoles/L (B) 4.0 millimoles/L  
(C) 6.0 millimoles/L (D) 5.0 millimoles/L
62. The highly infectious virus is :
- (A) HIV (B) Hepatitis B  
(C) Hepatitis C (D) Hepatitis A
63. Autoinfection occurs in :
- (A) *Enterobius vermicularis* (B) *Strongyloides stercoralis*  
(C) *Hymenolepis nana* (D) All of these
64. Which among the following is a true yeast?
- (A) *Blastomyces dermatitidis* (B) *Candida albicans*  
(C) *Cryptococcus neoformans* (D) *Coccidioides immitis*
65. The defect of RBC's in Paroxysmal Nocturnal Haematuria is their susceptibility to :
- (A) Complement mediated lysis (B) Membrane abnormality  
(C) Hb abnormality (D) Enzyme deficiency
66. p24 antigen can be detected in the serum of a HIV patient during :
- (A) Early stage of infection before the appearance of antibody  
(B) Severe symptomatic disease  
(C) None of these  
(D) Both (A) and (B)
67. A medium for which the exact composition is known as :
- (A) Synthetic medium (B) Semi-defined medium  
(C) Both (A) and (B) (D) None of these
68. For osmotic fragility test red blood cells are placed in :
- (A) Hypertonic saline solution (B) Buffered saline solution  
(C) Hypotonic saline solution (D) Normal saline solution



69. All of these are zoonotic diseases except :
- (A) Pertussis (B) Brucellosis  
(C) Plague (D) Tularemia
70. The resolving power of a microscope is directly proportional to :
- (A) Refractive index of the medium (B) Numerical aperture  
(C) Both (A) and (B) (D) Wavelength of light
71. Basophilic stippling of RBC's is common in :
- (A) Lead poisoning (B) Iron deficiency  
(C) Vitamin B<sub>12</sub> deficiency (D) Both (A) and (C)
72. Alkaline phosphatase activity is elevated in :
- (A) Bone disease (B) Obstructive jaundice  
(C) Both (A) and (B) (D) None of these
73. Which enzyme action is inhibited by iodo acetate in glycolytic path way?
- (A) Enolase  
(B) Hexokinase  
(C) Phospho fructokinase  
(D) Glyceraldehyde 3-phosphate dehydrogenase
74. Heinz bodies are not associated with :
- (A) G<sub>6</sub>PD deficiency (B) Exposure to oxidative drugs  
(C) Megaloblastic anaemia (D) Unstable Hb
75. H<sub>2</sub>S production by bacteria can be detected by using :
- (A) Lysine iron agar (B) Triple sugar iron agar  
(C) Kligler's iron agar (D) All of these
76. Fiske-Subburow method is used for the estimation of :
- (A) Uric acid in serum (B) Inorganic phosphorous in serum  
(C) Calcium in serum (D) Copper in serum

77. The normal level of serum potassium is :
- (A) 4.2-5.8 meq/L (B) 3.5-5.4 meq/L  
(C) 3.0-5.8 meq/L (D) 135-145 meq/L
78. The method used for the quantitative culture of urine is :
- (A) Standard loop method (B) Dip slide method  
(C) Pour plate method (D) Dip spoon method
79. Which among these tests is not used to identify *Streptococcus agalactiae*?
- (A) Aesculin hydrolysis (B) CAMP test  
(C) Hippurate hydrolysis (D) Pigment production in Columbia agar
80. What is the percentage concentration of 1.5N NaOH?
- (A) 3% (B) 4.5%  
(C) 6% (D) 7.5%
81. Name the winner of Nobel Literature prize 2013 :
- (A) Harper Collins (B) Alice Munro  
(C) Jhumpa Lahiri (D) Jim Grace
82. The President of the Indian National Congress at the Surat session in 1907 was :
- (A) Bal Gangadhar Tilak (B) Bipin Chandra Pal  
(C) Bhupindra Nath Datta (D) Ras Behari Ghosh
83. The famous 'Savarna Jatha' organised under the leadership of Mannath Padmanabhan in connection with :
- (A) Vaikom Satyagraham (B) 'Nivarthana' (Abstention Agitation)  
(C) Temple entry proclamation (D) Guruvayur Satyagraham
84. Name the author of 'Long Walk to Freedom' :
- (A) Barack Obama (B) Martin Luther King Jr.  
(C) Nelson Mandela (D) Abraham Lincoln
85. Tiger woods is a good player of the game :
- (A) Soccer (B) Basketball  
(C) Golf (D) Tennis

86. The Indian people play people's role in the people's war was the slogan of :
- (A) Communist Party of India  
(B) Forward block  
(C) Hindustan Socialist Republican Association  
(D) Ghadar party
87. The first man-made object to venture into interstellar space :
- (A) Prospero (B) Explorer  
(C) Mariner-4 (D) Voyager-1
88. The song 'Amar Sonar Bengla' written during the Swedeshi Movement against the partition of Bengal was of :
- (A) Rajnikanth Sen (B) Rabindranath Tagore  
(C) Dwijendralal Ray (D) Syed Abu Mohammad
89. Sadhu Jana Paripalana Yogam was founded in :
- (A) 1907 (B) 1909  
(C) 1911 (D) 1913
90. The person who launched a book titled 1283 :
- (A) Rafael Nadal (B) Pele  
(C) Sachin Tendulkar (D) Gabriel Garci-a Marquez
91. Magnus Carlsen, the World No. 1 Chess Champion who unseated Viswanathan Anand in Chennai on November 2013, belongs to :
- (A) Denmark (B) Sweden  
(C) Bulgaria (D) Norway
92. Name the President of Syria on November 2013 :
- (A) Hazem Al-Beblawi (B) Mamnoon Hussain  
(C) Bashar Al-Assad (D) Hassan Rouhani
93. Name the political party which emerged as the single largest party in the recently held election in Nepal :
- (A) Nepali Congress (B) Communist party of Nepal (UML)  
(C) UCPN (Maoist) (D) RPP (Nepal)

94. Where does Puralimala locate?  
(A) Idikki (B) Kanyakumari  
(C) Munnar (D) Thalassery
95. 'Magna Carta' of English Education in India :  
(A) Macaulay's Minute  
(B) Wood's Despatch  
(C) Founding of Fort William College at Calcutta  
(D) Hunter Commission
96. Name the winner of the European Union Human Rights Price :  
(A) Jhumpa Lahiri (B) Mikhail Khodorkovsky  
(C) Malala Yousafzai (D) Lars Peter Hansen
97. The Summit meeting of the G-20 nations was held on September 5, 6, 2013 at :  
(A) St. Petersburg (B) Copenhagen  
(C) Tokyo (D) Shanghai
98. Ilbert Bill controversy during Lord Lytton's time was related to the concept of :  
(A) Fundamental rights  
(B) Participation in the Legislative Council  
(C) Freedom and equality  
(D) Judicial equality
99. Name the Home Minister of India :  
(A) Salman Khurshid (B) Sushilkumar Shinde  
(C) P. Chidambaram (D) Sarath Pawar
100. The mediator of the historic agrarian strike led by Ayyankali :  
(A) Changanassery Parameswaran Pillai (B) C.P. Ramaswami Ayyar  
(C) Kandala Nayan Pilla (D) Kunnath Sasankanpilla