

**SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY,
THIRUVANANTHAPURAM-695011**

ENTRANCE EXAMINATION: ACADEMIC SESSION JANUARY 2019

PROGRAMME: DIPLOMA IN BLOOD BANK TECHNOLOGY

Time: 90 Minutes

Max. Marks: 100

(Select the most appropriate answer; Each question carries one mark)

(There are no negative marks for wrong answer)

- 1. Which of the following is due to a congenital defect in structure of hemoglobin?**
 - A) Polycythemia
 - B) Methemoglobinemia
 - C) Sickle cell anemia
 - D) Sulphaemoglobinemia

- 2. Number of WBC's present in 1 mm³ of blood is**
 - A) 4000-10000
 - B) 500-1000
 - C) 1000-2000
 - D) 20,000 -30,000

- 3. Proteins are hydrolyzed by**
 - A) Amylase
 - B) Lipase
 - C) Pepsin
 - D) Zymase

- 4. Down's syndrome is a typical case of**
 - A) Trisomy
 - B) Nullosoy
 - C) Gene mutation
 - D) Monosomy

- 5. Mammals can regenerate**
 - A) Brain
 - B) Liver
 - C) Lung
 - D) Urinary bladder

6. Genetic material of retrovirus is

- A) DNA
- B) RNA
- C) DNA & RNA
- D) Nucleoprotein complexes

7. Which one is caused by virus?

- A) Malaria
- B) Polio
- C) Plague
- D) Tuberculosis

8. Adrenal gland is associated with

- A) Pharynx
- B) Pancreas
- C) Kidney
- D) Brain

9. The cerebellum is concerned with

- A) Co ordination of muscle movement
- B) Perception
- C) Memory
- D) Vision

10. Hormone that stimulates heart rate is

- A) Insulin
- B) Adrenalin
- C) Glucagon
- D) Gastrin

11. The function of calcium ions in blood

- A) Anticoagulation
- B) Blood clotting
- C) Nutrition
- D) Maintenance of blood pressure

12. Erythroblastosis Fetalis is a condition due to

- A) ABO group incompatibility between mother & fetus
- B) Rh incompatibility
- C) Other blood group incompatibility
- D) All the above

13. **Erythropoietin is reduced in diseases of**
- A) Liver
 - B) Kidney
 - C) Bone marrow
 - D) Spleen
14. **Antibodies are produced by**
- A) Eosinophils
 - B) Macrophages
 - C) T Lymphocytes
 - D) B Lymphocytes
15. **Oxytocin is secreted by**
- A) Adrenals
 - B) Ovary
 - C) Pituitary
 - D) Uterus
16. **Covering of heart is**
- A) Peritonium
 - B) Pericardium
 - C) Perichondrium
 - D) Pleural sac
17. **Largest and thickest heart chamber is**
- A) Left ventricle
 - B) Left atrium
 - C) Right atrium
 - D) Right ventricle
18. **Metabolic rate is controlled by**
- A) Liver
 - B) Thyroid
 - C) Pituitary
 - D) Pancreas
19. **Which one is found in the alimentary canal of humans?**
- A) Pseudomonas
 - B) Rhizobium
 - C) Bacillus
 - D) Escherichia coli

20. Hormone present in the urine in pregnancy

- A) Progesterone
- B) FSH
- C) Leutinising hormone
- D) Chorionic gonadotropin

21. Megakaryocytes take part in

- A) Production of Leucocytes
- B) Production of blood platelets
- C) Transport of Oxygen
- D) Transport of Oxygen and carbon dioxide

22. Blood protein that initiates clotting

- A) Thromboplastin
- B) Prothrombin
- C) Fibrinogen
- D) Fibrin

23. Purpura is a condition due to defect in

- A) Red cells
- B) White cells
- C) Platelets
- D) plasma

24. Systolic pressure coincides with

- A) Ventricular systole
- B) Atrial systole
- C) Ventricular diastole
- D) Atrial diastole

25. Centre for sense of smell is

- A) Cerebellum
- B) Olfactory lobe
- C) Pons
- D) Midbrain

26. The chemical mediating allergic response

- A) Adrenalin
- B) Nor adrenalin
- C) Histamine
- D) Acetylcholine

27. **At the time of fertilization, chromosome number is**
A) Half
B) Becomes diploid
C) Remains haploid
D) Does not change
28. **Excess production of growth hormone during growing stage result in a condition called**
A) Acromegaly
B) Gigantism
C) Pituitary dwarf
D) Cretinism
29. **Normal adult hemoglobin is**
A) Hemoglobin C
B) Hemoglobin A
C) Hemoglobin F
D) Hemoglobin S
30. **Organ transplant rejection may be prevented by**
A) Antibodies
B) Immunosuppressive drugs
C) New T Cells
D) Immunostimulatory drugs
31. **Pharynx is connected to tympanic cavity by**
A) Glottis
B) Gullet
C) Eustachian tube
D) Internal nares
32. **Diabetes insipidus is a condition due to**
A) Increased vasopressin
B) Decreased vasopressin
C) Increased insulin
D) Decreased insulin
33. **Bradycardia is a condition when**
A) Heart rate is reduced
B) Heart rate is increased
C) Cardiac muscles are contracted
D) Cardiac muscles are relaxed

34. **Placenta in mammals is formed by**
A) Allantois
B) Amnion
C) Yolk Sac
D) Chorion
35. **The constituent of blood which retain the fluid inside the blood vessel**
A) Globulin
B) Albumin
C) Hemoglobin
D) Clotting factors
36. **Increase in intraocular pressure cause**
A) Colour blindness
B) Night blindness
C) Glaucoma
D) Cataract
37. **Brain and spinal cord develop from**
A) Endoderm
B) Mesoderm
C) Ectoderm
D) Dermatome
38. **Bilirubin and biliverdin are the degradation products of**
A) Hemoglobin
B) Myoglobin
C) Albumin
D) Plasma
39. **Calcitonin is a hormone produced by**
A) Pancreas
B) Kidney
C) Pituitary
D) Parathyroid
40. **Prions are pathogens, which cause**
A) Typhoid
B) Yellow fever
C) Creutzfeldt disease
D) Syphilis

41. **Mumps is a viral disease with painful swelling of**
A) Thyroid
B) Thymus
C) Sublingual Glands
D) Parotid Glands
42. **Instrument for counting RBC**
A) Hematocrit
B) Hemocytometer
C) Hemoglobinometer
D) Hemogram
43. **Heart beat is initiated by**
A) AV node
B) Bundle of His
C) Purkinje fibers
D) SA node
44. **A protein deficiency disease**
A) Kwashiorkor
B) Marasmus
C) Pellagra
D) Cheilosis
45. **Formation of blood cell is known as**
A) Hemolysis
B) Rouleaux
C) Hemopoiesis
D) Phagocytosis
46. **There is an increase in number of RBC s at higher altitude to compensate for**
A) High rate of destruction
B) Lower turn over
C) Low level of oxygen
D) Higher requirement of energy
47. **Islets of Langerhans are present in**
A) Brain
B) Stomach
C) Ovary
D) Pancreas

48. **Lungs have a large number of narrow tubes called**
A) Alveoli
B) Bronchioles
C) Bronchi
D) Lingula
49. **Which is correct about leucocytes**
A) They are red coloured
B) They can cross capillaries
C) They are anucleate
D) Decrease in their number causes leukemia
50. **In Deoxy ribonucleic acid adenine binds with**
A) Cytosine
B) Guanine
C) Thymine
D) Uracil
51. **Tetanus is caused by**
A) Bacteria
B) Virus
C) Parasite
D) Fungus
52. **The number of chromosome pairs in human beings**
A) 22
B) 23
C) 24
D) None of the above
53. **The mode of inheritance of Christmas disease is**
A) Autosomal Dominant
B) Autosomal Recessive
C) X Linked Recessive
D) X linked Dominant
54. **The pigment which determines skin colour**
A) Serotonin
B) Melatonin
C) Melanin
D) Glucagon

55. **The vitamin required for calcium absorption is**

- A) Vitamin A
- B) Vitamin C
- C) Vitamin D
- D) Vitamin E

56. **The chemical secreted by gastric mucosal cells**

- A) HCl
- B) NaCl
- C) H₂SO₄
- D) Na OH

57. **The mature blood cell which has a nucleus**

- A) RBC
- B) WBC
- C) Platelet
- D) None of the above

58. **Transcription is the conversion of**

- A) RNA to DNA
- B) RNA to Protein
- C) DNA to RNA
- D) Protein to RNA

59. **Agglutination of blood refers to**

- A) Clot formation
- B) Sticking together of RBCs
- C) Rupture of RBCs
- D) Inability to form clot

60. **Number of bones in adult human is**

- A) 306
- B) 204
- C) 206
- D) 300

61. **Turners syndrome is**

- A) 46 XY
- B) 45 XO
- C) 46 XX
- D) 47 XXY

62. Which of the following disease is seen in India?

- a. Yellow fever
- b. Chagas disease
- c. Japanese encephalitis
- d. HTLV-1

63. Which of the following is not seen in ARDS?

- a. Stiff lung
- b. Pulmonary edema
- c. Hypoxia
- d. Hypercapnia

64. Prozone phenomenon is due to

- a. Excess antigens
- b. Excess antibodies
- c. Disproportionate antigen and antibody
- d. Hyperimmune reactions

65. The best skin graft for open wounds is

- a. Autograft
- b. Allograft
- c. Homograft
- d. Isograft

66. Which one of the following is not used in diagnosis of syphilis?

- a. VDRL
- b. Frei's test
- c. Reagin test
- d. TPHA

67. Which one of the following reduces sweating?

- a. Alpha blocker
- b. Beta blocker
- c. Atropine
- d. Eserine

68. Following are advice given to patient who has undergone vasectomy except

- a. Scrotal support
- b. Contraception for 3 weeks
- c. Bed rest
- d. Semen analysis for 3 months

69. Enlargement of Blind spot is a sign of

- a. Avulsion of optic nerve
- b. Papillitis
- c. Papilledema
- d. Retinal detachment

70. Commonest method of sterilization of Hospital generated waste is

- a. Incineration
- b. Autoclaving
- c. Deep burial
- d. Irradiation

71. Aspirin causes the following, except

- a. Decreased platelet adhesions
- b. Increased cholesterol level
- c. Increased bleeding time
- d. Acidosis

72. CT scan was invented by

- a. Geoffery Houndsfield
- b. Eric Storz
- c. John Snow
- d. Takashita Koba

73. Orthotolidine test enables estimation in water of the presence of

- a. Combined chlorine
- b. Free chlorine
- c. Both of the above
- d. None of the above

74. HIV is a

- a. Arbovirus
- b. Oncovirus
- c. Flavivirus
- d. Retrovirus

75. The mass media with the least effect in changing behavior of a person is

- a. Television
- b. Poster
- c. Films
- d. Health education

76. **Sarcolemma is the membrane which covers**
A) Muscle fibers
B) Nerve fibers
C) Viscera
D) Spinal cord
77. **Parkinson's disease is caused by degeneration of neurons that secrete**
A) Dopamine
B) GABA
C) Norepinephrine
D) Acetylcholine
78. **Which hormone has anti insulin effect?**
A) Cortisol
B) Aldosterone
C) Calcitonin
D) Oxytocin
79. **Unconjugated bilirubin is also called**
A) Prehepatic bilirubin
B) Biliverdin
C) Urobilinogen
D) Total bilirubin
80. **Destruction of all microorganisms including spores is called**
A) Sanitation
B) Antisepsis
C) Sterilization
D) Disinfection
81. **The liquid portion of blood after a clot has formed is called**
A) Buffy coat
B) Serum
C) Plasma
D) Lymph
82. **Blood group A individuals have**
A) Anti A in serum
B) Anti H in serum
C) Anti D in serum
D) Anti B in serum

83. **Which test cannot be performed in serum sample?**
A) Iron
B) Vit B₁₂
C) Total lipids
D) Clotting factors
84. **A biohazard container is used to discard**
A) Lancet
B) Band aid wrapper
C) Both A and B
D) Food waste
85. **A test procedure that uses Westegrens tube is**
A) ESR
B) Hematocrit
C) Reticulocyte count
D) Differential count
86. **Glycosylated Hb**
A) Causes sickle cell disease
B) Causes Thalassemia
C) Is affected by food intake on the day of testing
D) Indicates blood glucose levels from preceding months
87. **End products of protein digestion are**
A) Glycol
B) Fatty acids
C) Triglycerides
D) Amino acids
88. **Water free of charged particles is**
A) Distilled
B) Radioactive
C) Deionized
D) Heavy
89. **Which is not an iron containing protein?**
A) Lactoferrin
B) Transferrin
C) Hemosiderin
D) Ceruloplasmin

90. **Atypical lymphocytes are seen in**
A) Malaria
B) Infectious mononucleosis
C) Hepatitis
D) HIV
91. **The symbiotic association of fungi and algae is called**
A) Lichen
B) Mycorrhiza
C) Rhizome
D) Endomycorrhiza
92. **The difference between prokaryotic and Eukaryotic cells is**
A) Cell wall
B) Nuclear membrane
C) Ribosome
D) None of these
93. **The entry of food into the larynx is prevented by**
A) Mitral valve
B) Diaphragm
C) Epiglottis
D) Frenulum
94. **Osteoporosis, an age related disease of skeletal system may occur due to**
A) Decreased level of oestrogen
B) Accumulation of uric acid leading to inflammation of joints
C) Immune disorder affecting neuromuscular junction leading to fatigue
D) High concentration of Ca^{++} and Na^{+}
95. **Human genome project (HGP) is associated with the rapid development of a new area in biology called**
A) Biotechnology
B) Bioinformatics
C) Biogeography
D) Bioscience
96. **Vaccine for tuberculosis is**
A) PAS vaccine
B) BCG vaccine
C) OPV vaccine
D) DPT vaccine

97. **High value of BOD (Biological oxygen Demand) Indicates that**
- A) Water is highly polluted
 - B) Water is less polluted
 - C) Consumption of organic matter is higher by the microbes
 - D) Water is pure
98. **Which of the following disease is confirmed by widal test**
- A) Tuberculosis
 - B) Typhoid
 - C) Plague
 - D) Tetanus
99. **Which of the following disease is not transmitted by contaminated water**
- A) Typhoid
 - B) Diphtheria
 - C) Amoebiasis
 - D) Hepatitis A
100. **Corpus callosum connects**
- A) Two cerebral hemisphere
 - B) Two ventricles of brain
 - C) Two cerebellar hemisphere
 - D) Two optic thalamus

