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SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY
THIRUVANANTHAPURAM—695 011

ENTRANCE EXAMINATION - ACADEMIC SESSION JANUARY 2022

Program: PG Diploma in Blood Banking Technology

Time:90 Minutes

Max.Marks: 100

(Select the most appropriate answer)

(There are no negative marks for wrong answers)

- 1 The power plant of the cell is
 - a. Ribosomes
 - b. Golgi Apparatus
 - c. Endoplasmic Reticulum
 - d. Mitochondria
- 2 Which one of these is caused by virus?
 - a. Malaria
 - b. Mumps
 - c. Leishmaniasis
 - d. Tuberculosis
- 3 The largest corpuscle in the blood
 - a. Neutrophil
 - b. Basophil
 - c. Monocyte
 - d. Eosinophil
- 4 Functional and structural unit of Kidney is
 - a. Nephron
 - b. Seminiferous Tubules
 - c. Loop of Henle
 - d. Acini
- 5 Down syndrome is due to
 - a. 18 Trisomy
 - b. 21 Trisomy
 - c. 25 Trisomy
 - d. 31 Trisomy
- 6 Genetic material of retrovirus is
 - a. DNA
 - b. RNA
 - c. Nucleic acid
 - d. Nucleoprotein
- 7 Megakaryocytes take part in
 - a. Production of Leucocytes
 - b. Production of Mesophils
 - c. Production of Platelets
 - d. Production of Erythrocytes
- 8 Erythropoietin is produced in
 - a. Kidney
 - b. Pancreas
 - c. Bone Marrow
 - d. Spleen

- 9 Antibodies are produced by
- a. Macrophages
 - b. T-lymphocytes
 - c. B-lymphocytes
 - d. Dendritic Cells
- 10 Normal Adult hemoglobin is
- a. Hemoglobin A
 - b. Hemoglobin C
 - c. Hemoglobin E
 - d. Hemoglobin F
- 11 What is the life span of RBC
- a. 90 days
 - b. 100 days
 - c. 110 days
 - d. 120 days
- 12 Thalassemia is a disease due to defect in
- a. Red Cell Membrane
 - b. Bone Marrow
 - c. Hemoglobin
 - d. Spleen
- 13 The minimum time period between two consecutive blood donations is
- a. 6 weeks
 - b. 8 weeks
 - c. 10 weeks
 - d. 12 weeks
- 14 Which antibody commonly causes hemolytic disease of newborn?
- a. Anti-A
 - b. Anti-B
 - c. Anti-D
 - d. Anti-H
- 15 Which immunoglobulin has the maximum molecular weight?
- a. IgM
 - b. IgG
 - c. IgD
 - d. IgA
- 16 Specific gravity of blood is
- a. 1.01
 - b. 1.05
 - c. 3.01
 - d. 3.05
- 17 Agar agar is obtained from which algae
- a. Fucus
 - b. Geledium
 - c. Polysiphonia
 - d. Laminaria
- 18 A cell without a cell wall is termed as
- a. Tonoplast
 - b. Protoplast
 - c. Anoplast
 - d. Symplast
- 19 Anticoagulant used to collect and store blood in blood bags is
- a. Citrate
 - b. Oxalate
 - c. EDTA
 - d. Heparin
- 20 An example of a food borne toxin is
- a. Diphtheria Toxin
 - b. Tetanus Toxin
 - c. Shigella Toxin
 - d. Botulinum Toxin
- 21 The pH of blood is
- a. 6.1
 - b. 6.4
 - c. 7.1
 - d. 7.4

- 22 Which one of the following is the graveyard of RBCs?
 a. Gall Bladder c. Spleen
 b. Kidney d. Liver
- 23 Which of the following is NOT a vitamin?
 a. Folic Acid c. Pantothenic Acid
 b. Ascorbic Acid d. Oleic Acid
- 24 The vitamin which is required for maturation of erythrocytes?
 a. B1 c. B6
 b. B4 d. B12
- 25 Sandfly is the vector for
 a. Yellow Fever c. Malaria
 b. Kala azar d. Filaria
- 26 Purpura is a condition due to defect in
 a. Red Blood Cells c. Platelets
 b. White Blood Cells d. Gangliosides
- 27 The acid present in gastric juice is
 a. Sulphuric Acid c. Nitric Acid
 b. Hydrochloric Acid d. Oxalic Acid
- 28 Infective stage of plasmodium in man is
 a. Schizont c. Sporozite
 b. Merozite d. Trophozite
- 29 Breakdown product of haemoglobin is
 a. Iron c. Ferritin
 b. Bilirubin d. Calcium
- 30 The method of separation of proteins is
 a. Distillation c. Electrophoresis
 b. Centrifugation d. Heating
- 31 Saliva converts starch into
 a. Maltose c. Lactose
 b. Glucose d. Fructose
- 32 Roentgen unit is a measure of
 a. Beta Rays c. Infrared Rays
 b. Ultraviolet Rays d. Gamma Rays
- 33 Increase in haematocrit is seen in
 a. Polycythemia c. Anaemia
 b. Leukaemia d. Myeloma
- 34 Father of Transfusion Medicine is
 a. William Harvey c. Alexender Fleming
 b. Karl Landsteiner d. Robert Koch

- 35 The immunoglobulin abundant in colostrum is
 a. IgM c. IgA
 b. IgG d. IgE
- 36 The most abundant element found in our body is
 a. Nitrogen c. Carbon
 b. Oxygen d. Hydrogen
- 37 All are antigen-antibody reaction, except
 a. Agglutination c. Flocculation
 b. Precipitation d. Immobilization
- 38 The confirmatory test for HIV infection
 a. Northern Blot c. Eastern Blot
 b. Western Blot d. Southern Blot
- 39 Who among the following invented the smallpox vaccine?
 a. Robert Koch c. Louis Pasteur
 b. Robert Hooke d. Edward Jenner
- 40 Plants developing in dry conditions
 a. Xerophytes c. Lithophytes
 b. Mesophytes d. Hydrophytes
- 41 Ornithology is the study of
 a. Insects c. Reptiles
 b. Birds d. Fish
- 42 The term Rh used in blood groups is derived from which animal
 a. Mice c. Sheep
 b. Goat d. Monkey
- 43 Eosinophilia is common in
 a. Allergy c. Infection
 b. Cancer d. Malnutrition
- 44 Photosynthesis occurs in
 a. Chloroplast c. Endoplasmic Reticulum
 b. Golgi Bodies d. Nucleus
- 45 Which is the most primitive form of algae
 a. Green Algae c. Brown Algae
 b. Red Algae d. Blue Green Algae
- 46 Reticulocytes refer to
 a. Immature RBC c. Immature Platelets
 b. Immature WBC d. Immature Nerve Cells
- 47 Myelin sheath is the covering of
 a. Muscle Cells c. Blood Vessels
 b. Axon d. Osteocytes

- 48 The chemical mediating allergic response is
 a. Histamine c. Noradrenaline
 b. Adrenaline d. Catecholamine
- 49 Islets of Langerhans are present in
 a. Brain c. Liver
 b. Stomach d. Pancreas
- 50 The apparatus used to measure the amount of inhaled air
 a. Calorimeter c. Barometer
 b. Spirometer d. Ventilator
- 51 Adrenal glands is associated with
 a. Pharynx c. Kidney
 b. Pancreas d. Brain
- 52 Hormone that stimulates heart rate is
 a. Adrenaline c. Glucagon
 b. Insulin d. Gastrin
- 53 Covering of heart is
 a. Peritoneum c. Pericardium
 b. Pleural Sac d. Perichondrium
- 54 Largest and thickest heart chamber is
 a. Left Ventricle c. Left Atrium
 b. Right Ventricle d. Right Atrium
- 55 Tetanus is caused by
 a. Virus c. Fungus
 b. Parasite d. Bacteria
- 56 The vitamin which is required for calcium absorption
 a. Vitamin A c. Vitamin D
 b. Vitamin C d. Vitamin E
- 57 Urine of a prolonged fasting person will have
 a. Ketones c. Fats
 b. Glucose d. Amino Acid
- 58 Arteries carry oxygenated blood except for
 a. Cardiac c. Hepatic
 b. Systemic d. Pulmonary
- 59 The liquid portion of blood after a clot has formed is called
 a. Plasma c. Lymph
 b. Serum d. Buffy Coat
- 60 Transcription is the conversion of
 a. RNA to DNA c. RNA to Protein
 b. DNA to RNA d. Protein to RNA
- 61 Mammal can regenerate
 a. Brain c. Liver
 b. Lung d. Kidney

- 62 The constituent of blood which retain the fluid inside the blood vessel
- Globulin
 - Albumin
 - Hemoglobin
 - Clotting Factors
- 63 Excess production of growth hormone during growing stage result in a condition called
- Cretinism
 - Pituitary Dwarf
 - Acromegaly
 - Gigantism
- 64 Number of bones in adult human is
- 204
 - 206
 - 304
 - 306
- 65 The difference between Prokaryotic and Eukaryotic cells is
- Cell Wall
 - Nuclear Membrane
 - Ribosome
 - None of those
- 66 The majority of CO₂ in the body is transported to lungs as
- Dissolved in Blood
 - Carbonates
 - Bicarbonates
 - Attached to Hemoglobin
- 67 There is an increase in number of RBC s at higher altitude to compensate for
- High Rate of Destruction
 - Low Level of Oxygen
 - Lower Turn Over
 - Higher Requirement of Energy
- 68 Number of WBC's present in per mm³ of blood is
- 500-1000
 - 2000-3500
 - 4500-10000
 - 12000-15000
- 69 Bradycardia is a condition when
- Heart Rate is Increased
 - Heart Rate is Reduced
 - Cardiac Muscles are Contracted
 - Cardiac Muscles are Relaxed
- 70 High value of BOD (Biological oxygen Demand) indicates that
- Water is highly polluted
 - Water is less polluted
 - Consumption of organic matter is higher by the microbes
 - Water is pure
- 71 Oxytocin is secreted by
- Adrenal
 - Pituitary
 - Ovary
 - Uterus
- 72 Bilirubin and biliverdin are the degradation products of
- Myoglobin
 - Albumin
 - Hemoglobin
 - Plama Protein
- 73 Calcitonin is a hormone produced by
- Pancreas
 - Adrenal
 - Pituitary
 - Parathyroid

- 74 A test procedure that uses Westergrens tube is
- | | |
|---------------|-----------------------|
| a. Hematocrit | c. Differential Count |
| b. ESR | d. Reticulocyte Count |
- 75 The symbiotic association of fungi and algae is called
- | | |
|------------|--------------------|
| a. Lichen | c. Mycorrhizza |
| b. Rhizome | d. Endomycorrhizza |
- 76 The entry of food into the larynx is prevented by
- | | |
|---------------|-----------------|
| a. Diaphragm | c. Frenulum |
| b. Epiglottis | d. Mitral Valve |
- 77 Lungs have a large number of narrow tubes called
- | | |
|-------------|----------------|
| a. Alveoli | c. Bronchioles |
| b. Bronchus | d. Lingula |
- 78 National voluntary Blood Donation day is celebrated on
- | | |
|--------------------------|-----------------------------|
| a. 1 st April | c. 1 st October |
| b. 1 st July | d. 1 st December |
- 79 Organ transplant rejection may be prevented by
- | | |
|-----------------------------|-----------------------------|
| a. Antibodies | c. New T-cells |
| b. Immuno Suppressive Drugs | d. Immuno Stimulatory Drugs |
- 80 Which of the following disease is not transmitted by contaminated water
- | | |
|---------------|----------------|
| a. Typhoid | c. Amoebiasis |
| b. Diphtheria | d. Hepatitis-A |
- 81 Metabolic rate is controlled by
- | | |
|------------|--------------|
| a. Thyroid | c. Pancreas |
| b. Liver | d. Pituitary |
- 82 Increase in intraocular pressure cause
- | | |
|---------------------|-------------|
| a. Colour Blindness | c. Glaucoma |
| b. Night Blindness | d. Cataract |
- 83 Heart beat is initiated by
- | | |
|------------------|--------------------|
| a. AV Node | c. Purkinje Fibres |
| b. Bundle of HIS | d. SA Node |
- 84 Corpus callosum connects
- | | |
|----------------------------|------------------------------|
| a. Two Cerebral Hemisphere | c. Two Cerebellar Hemisphere |
| b. Two Ventricles of Brain | d. Two Optic Thalamus |
- 85 Human genome project (HGP) is associated with the rapid development of a new area in biology called
- | | |
|-------------------|-----------------|
| a. Biotechnology | c. Biogeography |
| b. Bioinformatics | d. Bioscience |

- 86 Which is not an iron containing protein?
- | | |
|----------------|------------------|
| a. Lactoferrin | c. Hemosiderin |
| b. Transferrin | d. Ceruloplasmin |
- 87 In Deoxy Ribonucleic Acid, Adenine binds with
- | | |
|-------------|------------|
| a. Cytosine | c. Thymine |
| b. Guanine | d. Uracil |
- 88 Which one is found in the alimentary canal of humans?
- | | |
|----------------|---------------------|
| a. Pseudomonas | c. Bacillus |
| b. Rhizobium | d. Escherichia coli |
- 89 Pharynx is connected to tympanic cavity by
- | | |
|--------------------|-------------------|
| a. Glottis | c. Gullet |
| b. Eustachian Tube | d. Internal Nares |
- 90 Destruction of all microorganisms including spores is called
- | | |
|-----------------|------------------|
| a. Disinfection | c. Sterilization |
| b. Antisepsis | d. Sanitization |
- 91 Centre for sense of smell is
- | | |
|-------------------|--------------|
| a. Cerebellum | c. Pons |
| b. Olfactory lobe | d. Mid Brain |
- 92 Prions are pathogens, which cause
- | | |
|-----------------|------------------------|
| a. Typhoid | c. Creutzfeldt disease |
| b. Yellow fever | d. Syphilis |
- 93 Formation of blood cell is known as
- | | |
|----------------|-----------------|
| a. Rouleaux | c. Hemolysis |
| b. Hemopoiesis | d. Phagocytosis |
- 94 Water free of charged particles is
- | | |
|----------------|--------------|
| a. Radioactive | c. Deionised |
| b. Distilled | d. Heavy |
- 95 Which of the following disease is confirmed by widal test
- | | |
|-----------------|------------|
| a. Tuberculosis | c. Plague |
| b. Thyphoid | d. Tetanus |
- 96 Which test cannot be performed in serum sample?
- | | |
|-----------------|---------------------|
| a. Total Lipids | c. Iron |
| b. Vitamin B12 | d. Clotting Factors |
- 97 Agglutination of blood refers to
- | | |
|------------------------------|---------------------------|
| a. Clot Formation | c. Rupture of RBCs |
| b. Sticking together of RBCs | d. Inability to form Clot |
- 98 Hormone present in the urine in pregnancy
- | | |
|-----------------|---------------------------|
| a. Progesterone | c. Leutinising Hormone |
| b. FSH | d. Chorionic Gonadotropin |

- 99 Diabetes insipidus is a condition due to
- a. Increased Vasopressin
 - b. Decreased Vasopressin
 - c. Increased Insulin
 - d. Decreased Insulin
- 100 Blood group A individuals have which antibody in plasma
- a. Anti-A
 - b. Anti-B
 - c. Anti-D
 - d. Anti-H

PGDBBT ANSWER KEY - JAN 2022

1	d
2	b
3	c
4	a
5	b
6	b
7	c
8	a
9	c
10	a
11	d
12	c
13	d
14	c
15	a
16	b
17	b

18	b
19	a
20	d
21	d
22	c
23	d
24	d
25	b
26	c
27	b
28	c
29	b
30	c
31	a
32	d
33	a
34	b

35	c
36	b
37	d
38	b
39	d
40	a
41	b
42	d
43	a
44	a
45	d
46	a
47	b
48	a
49	d
50	b
51	c

52	a
53	c
54	a
55	d
56	c
57	a
58	d
59	b
60	b
61	c
62	b
63	d
64	b
65	a
66	c
67	b
68	c

69	b
70	a
71	b
72	c
73	d
74	b
75	a
76	b
77	c
78	c
79	b
80	b
81	a
82	c
83	d
84	a

85	b
86	d
87	c
88	d
89	b
90	c
91	b
92	c
93	b
94	c
95	b
96	d
97	b
98	d
99	a
100	b

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