

**EXERCISE**

**BLOOD**

- Which of following act as middleman :-  
 (1) WBC (2) Lymph  
 (3) Plasma (4) Blood
- Process by which blood cells are formed in bone marrow :-  
 (1) Haemopoiesis (2) Haemolysis  
 (3) Thrombopoiesis (4) Erythroblastosis
- Largest leucocytes :-  
 (1) Neutrophil (2) Basophil  
 (3) Monocyte (4) Lymphocyte
- Content of haemoglobin / 100 ml of Blood :-  
 (1) 15 gm (2) 20 gm  
 (3) 10 gm (4) 5 gm
- Identify the given diagram :-

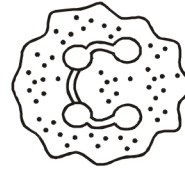


- Identify the given diagram :-  
 (1) Basophils (2) Acidophils  
 (3) Monocytes (4) Lymphocytes
- Serum is :-  
 (1) Blood - Blood cells (2) Plasma - Fibrinogen  
 (3) Blood - Plasma (4) Blood - RBC
- Blood bank of body is :-  
 (1) Liver (2) Spleen  
 (3) Heart (4) Bone marrow
- Worn out RBC are destroyed by :-  
 (1) Kupffer's cells (2) Bone cells  
 (3) Mast cells (4) None
- Which of the following is the correct function of diagram given below :-



- Protect body against allergy
- Secrete heparin and histamin
- Destroy bacteria and virus
- Directly kill microbe

- Identify the DLC of the diagram given below :-



- Identify the DLC of the diagram given below :-  
 (1) 60% to 65% (2) 2% to 3%  
 (3) 6% to 8% (4) 20% to 25%
- Which statement is true for WBC :-  
 (1) Non nucleated  
 (2) In deficiency cancer is caused  
 (3) Manufactured in thymus  
 (4) Can squeeze through blood capillaries
- Which WBC has maximum lobes of nucleus :-  
 (1) Neutrophil (2) Acidophil  
 (3) Basophil (4) Lymphocyte
- Blood cells are produced by bone marrow in :-  
 (1) All bones (2) Some bones  
 (3) Most of the bones (4) None
- Which WBC has maximum life span :-  
 (1) Basophil (2) Monocyte  
 (3) Acidophil (4) Neutrophil
- 100 ml. pure blood carries :-  
 (1) 1.34 ml. O<sub>2</sub> (2) 20 ml. O<sub>2</sub>  
 (3) 15 ml. O<sub>2</sub> (4) 4 ml. O<sub>2</sub>
- T-lymphocyte are differentiate in :-  
 (1) Bone marrow (2) Liver  
 (3) Thymus gland (4) Kidney
- Ion which present maximum in blood plasma :-  
 (1) K<sup>+</sup> (2) Ca<sup>++</sup>  
 (3) Mg<sup>++</sup> (4) Na<sup>+</sup>
- A person having Blood group 'A' receive should blood from which group-  
 (1) A, AB, O (2) A, O  
 (3) O (4) B, AB
- Which is not a plasma protein :-  
 (1) Heparin (2) Albumin  
 (3) Prothrombin (4) Fibrinogen

# BODY FLUIDS AND CIRCULATION

- 20.** Megakaryocyte cell is :-  
(1) RBC producer  
(2) Thrombocyte producer  
(3) WBC producer  
(4) Protein producer
- 21.** Person having 'B' blood group have antibody :-  
(1) Anti A (2) Anti B (3) Both (4) None
- 22.** In which pair erythroblastosis foetalis occur :-  
(1) Rh<sup>+</sup> male & Rh<sup>-</sup> female  
(2) Rh<sup>-</sup> male & Rh<sup>-</sup> female  
(3) Rh<sup>+</sup> male & Rh<sup>+</sup> female  
(4) Rh<sup>-</sup> male & Rh<sup>+</sup> female
- 23.** AB blood group can be donated to :-  
(1) A (2) B (3) AB (4) O
- 24.** Blood clotting requires  
(1) Na<sup>+</sup> and K<sup>+</sup>  
(2) Na<sup>+</sup> and prothrombin  
(3) Na<sup>+</sup> and thromboplastin  
(4) Ca<sup>2+</sup> and thromboplastin.
- 25.** Platelets are a source of  
(1) Fibrinogen (2) Calcium  
(3) Thromboplastin (4) Haemoglobin
- 26.** Maximum number of white blood corpuscles is that of  
(1) Basophils (2) Neutrophils  
(3) Monocytes (4) Eosinophils.
- 27.** Life span of human white blood corpuscles is  
(1) 24 hours (2) Less than 10 days  
(3) 120 days (4) 100 hours.
- 28.** Which of the following is not a granulocyte ?  
(1) Lymphocyte (2) Basophil  
(3) Neutrophil (4) Eosinophil.
- 29.** Which of the following are involved in body defence  
(1) Neutrophils (2) Lymphocytes  
(3) Macrophages (4) All the above.
- 30.** Prothrombin, albumin and fibrinogen are synthesised by  
(1) Pancreas (2) Bone marrow  
(3) Spleen (4) Liver.
- 31.** Immature RBCs of mammals have  
(1) No nucleus  
(2) Single beaded nucleus  
(3) Many nuclei  
(4) Single nucleus.
- 32.** Megakaryocytes  
(1) Produce leucocytes  
(2) Forms blood platelets  
(3) Are bone cells  
(4) Are carriers of oxygen
- 33.** During blood clotting, fibrin is produced by  
(1) Thrombokinase (2) Prothrombin  
(3) Liver (4) Proteolysis
- 34.** Number of erythrocytes per mm<sup>3</sup> of human blood is  
(1) 4 million (2) 5 million  
(3) 8 million (4) 0.5 million
- 35.** Number of WBCs per mm<sup>3</sup> of human blood is  
(1) 8000 (2) 100000  
(3) 5000 (4) 16000
- 36.** Globulin is  
(1) Plasma protein  
(2) Antigen  
(3) Serum  
(4) Found in lymphatic tissue.
- HISTOLOGY OF HUMAN HEART, ANATOMY OF HUMAN HEART, HEARTS OF VERTEBRATES, CIRCULATORY PATHWAYS**
- 37.** The valves of the heart are attached to papillary muscles by :-  
(1) Columnae carinae (2) Chordae tendinae  
(3) Tendinae (4) Pectinati muscles
- 38.** Heart of fish has :-  
(1) Oxygenated blood (2) Deoxygenated blood  
(3) Both (4) None
- 39.** Membrane surrounding the heart is :-  
(1) Peritoneum  
(2) Visceral membrane  
(3) Pericardium  
(4) None
- 40.** Which has the thickest walls :-  
(1) Right auricle (2) Left auricle  
(3) Right ventricles (4) Left ventricle
- 41.** Three chambered heart found in :-  
(1) Fish (2) Frog  
(3) Rabbit (4) Man
- 42.** The mitral valve is supported by :-  
(1) Bundle of HIS (2) Ductus arteriosus  
(3) Foramen ovale (4) Chorda tendinae

## BODY FLUIDS AND CIRCULATION

- 43.** The largest and the thickest heart chamber is  
(1) Left ventricle (2) Left atrium  
(3) Right atrium (4) Right ventricle
- 44.** Valves present between right atrium and right ventricle is  
(1) Mitral valve (2) Tricuspid valve  
(3) Bicuspid valve (4) Semilunar valve
- 45.** Closed circulatory system occurs in  
(1) Cockroach (2) Fish  
(3) Mosquito (4) Housefly
- 46.** Pericardial fluid is secreted by  
(1) Myocardium (2) Parietal peritoneum  
(3) Visceral peritoneum (4) Pericardium
- 47.** Systemic heart refers to :-  
(1) The heart that contracts under stimulation from nervous system  
(2) Left auricle and left ventricle in higher vertebrates  
(3) Entire heart in lower vertebrates  
(4) The two ventricles together in humans
- 48.** Number of set of papillary muscles found in human heart :-  
(1) Two (2) Three  
(3) Four (4) Five
- 49.** Which animal has most mixing of oxygenated and deoxygenated blood in the ventricles ?  
(1) Scoliodon (2) Rabbit  
(3) Frog (4) Human
- 50.** Open circulatory system is present in  
(a) Arthropoda (b) Annelida  
(c) Chordates (d) Mollusca  
(1) c only (2) c and b  
(3) a and b (4) a and d
- 51.** Papillary muscles are located  
(1) Heart ventricle of rabbit  
(2) Dermis of mammalian skin  
(3) Orbit of vertebrates eyes  
(4) Pylorus of vertebrate stomach
- 52.** Purkinje fibers are found in  
(1) Brain (2) Kidney  
(3) Skin (4) Heart
- 53.** If due to some injury the chordae tendinae of the tricuspid valve of the human heart is partially non-functional, what will be the immediate effect ?  
(1) The flow of blood into the pulmonary artery will be reduced  
(2) The flow of blood into the aorta will be slowed down  
(3) The 'pacemaker' will stop working  
(4) The blood will tend to flow back into the left atrium

## CONDUCTING SYSTEM OF HEART, HEART BEAT, REGULATION OF CARDIAC ACTIVITY

- 54.** Which one generates heart beat?  
(1) Purkinje fibres  
(2) Cardiac branch of vagus nerve  
(3) SA node  
(4) AV node
- 55.** Heart beat is initiated by  
(1) AV node (2) SA node  
(3) Bundle of His (4) Purkinje fibres
- 56.** Ventricular contraction in command of  
(1) S.A. Node (2) A.V. Node  
(3) Purkinje fibers (4) Papillary muscles
- 57.** Impulse of heart beat originates from -  
(1) S. A. Node (2) A. V. Node  
(3) Vagus Nerve (4) Cardiac Nerve
- 58.** Bundle of His is a network of :-  
(1) Muscle fibres distributed throughout the heart walls  
(2) Muscle fibres found only in the ventricle wall  
(3) Nerve fibres distributed in ventricles  
(4) Nerve fibres found throughout the heart
- 59.** SA node is located in the wall of :-  
(1) Right ventricle  
(2) Left ventricle  
(3) Right atrium  
(4) Left atrium
- 60.** If parasympathetic nerve of the human is cut then heart beat :-  
(1) Unaffected (2) Decreases  
(3) Increases (4) Stop
- 61.** When does the blood enter in atria. Choose the correct answer :-  
(a) during generation of impulse from SAN  
(b) atrial relaxation  
(c) as the tricuspid and bicuspid valves are open  
(d) joint diastole  
(1) a, b (2) a, b, c (3) b, c, d (4) all
- 62.** Choose the correct pathway of the transmission of impulses in the heart beat :  
(1) AV node → S A node → Bundle of His → Purkinje fibres  
(2) SA node → AV node → Bundle of His → Purkinje fibres  
(3) SA node → Bundle of His → AV node → Purkinje fibres  
(4) AV node → Bundle of His → SA node → Purkinje fibres

# BODY FLUIDS AND CIRCULATION

63. Pacemaker and pacesetter in human heart are \_\_\_\_\_ and \_\_\_\_\_ respectively :-  
(1) SA node, Bundle of his  
(2) AV node, Bundle of his  
(3) SA node, AV node  
(4) SA node, Purkinje fibres

## CARDIAC CYCLE, DOUBLE CIRCULATION, PORTAL SYSTEM

64. Stroke volume and cardiac output are \_\_\_\_\_ and \_\_\_\_\_ respectively :-  
(1) 50 ml, 5 L (2) 5 L, 50 ml  
(3) 70 ml, 5 L (4) 120 ml, 5L
65. 1<sup>st</sup> Heart sound is heard as :-  
(1) 'Lub' at end of systole  
(2) 'Dub' at end of systole  
(3) 'Lub' at beginning of Ventricular systole  
(4) 'Dub' at beginning of Ventricular systole
66. The sound of lubb is produced during closure of  
(1) Bicuspid valve (2) Tricuspid valve  
(3) Semilunar valves (4) Both (1) and (2)
67. Identify the correct statement regarding the heart sounds :-  
(A) In a healthy individual, there are two normal heart sounds called *lubb* and *dubb*  
(B) *Lubb* is the first heart sound. It is associated with the closure of the semilunar and bicuspid valves at the beginning of atrial systole.  
(C) The second heart sound *dubb* is associated with the closure of the semilunar valves at the beginning of joint diastole.  
(1) A and B (2) A and C  
(3) B and C (4) All
68. Cardiac output is the :-  
(1) Amount of blood pumped by both ventricles in one minute  
(2) Amount of blood pumped by each ventricle in one minute  
(3) Amount of blood pumped by each ventricle in one second  
(4) Amount of blood pumped by each ventricle in one stroke
69. Time period of cardiac cycle in human heart is 0.8 sec. In which of the following condition this time period is decreases :-  
(a) Exercise (b) Infants  
(c) Old age (d) Athletes  
(e) Relax condition  
(1) a, b, c (2) a, b  
(3) b, c, e (4) d, e

70. During atrial systole flow of blood into ventricles increases about :-  
(1) 70% (2) 5% (3) 30% (4) 50%
71. Which among the following is correct during each cardiac cycle ?  
(1) The volume of blood pumped out by the right and left ventricles is same.  
(2) The volume of blood pumped out by the right and left ventricles is different  
(3) The volume of blood received by each atrium is different  
(4) The volume of blood received by the aorta and pulmonary artery is different
72. Blood enters into the heart because muscles of :  
(1) Atria relax  
(2) Ventricle contract  
(3) Ventricle relax  
(4) Atria contract
73. Cardiac output is determined by  
(1) Heart rate  
(2) Stroke volume  
(3) Blood flow  
(4) Both 1 and 2
74. The duration of cardiac cycle is  
(1) 0.8 sec. (2) 0.8  $\mu$  sec.  
(3) 0.08 sec. (4) 0.008 sec.

## BLOOD VESSELS

75. The correct sequence of layers found in the walls of arteries from inside outward is :  
(1) Tunica adventitia, tunica interna & tunica media  
(2) Tunica interna, tunica externa & tunica media  
(3) Tunica interna, tunica media & tunica externa  
(4) Tunica media, tunica externa & tunica interna
76. Pulmonary artery differs from pulmonary vein in having  
(1) Thick wall (2) Thin wall  
(3) Valves (4) Both (2) and (3)
77. Blood vessel which brings oxygenated blood to left auricle is  
(1) precaval vein  
(2) Post caval vein  
(3) Pulmonary vein  
(4) Pulmonary artery

# BODY FLUIDS AND CIRCULATION

- 78.** An artery is a vessel that carries blood :  
 (1) Away from the heart  
 (2) Towards the heart  
 (3) Which is deoxygenated without any exception  
 (4) none of these
- 79.** What is true about vein  
 (1) All veins carry deoxygenated blood  
 (2) All veins carry oxygenated blood  
 (3) They carry blood from organs towards heart  
 (4) They carry blood from heart towards organs
- 80.** The exchange of materials between blood and interstitial fluid is by  
 (1) Arterioles (2) Arteries  
 (3) Capillaries (4) Veins
- 81.** Artery supply O<sub>2</sub> blood to liver is –  
 (1) Hepatic artery (2) Hepatic portal vein  
 (3) Hepatic vein (4) Renal artery
- 82.** Which of the following is poorly developed in vein?  
 (1) Tunica interna (2) Tunica externa  
 (3) Tunica media (4) None of the above
- 83.** Which organ is called as grave yard of RBCs ?  
 (1) Pancreas (2) Kidneys  
 (3) Liver (4) Spleen
- 86.** Normal pulse pressure is  
 (1) 80 mm Hg (2) 120 mm Hg  
 (3) 40 mm Hg (4) 320 mm Hg
- 87.** Coronary heart disease is due to :  
 (1) Streptococci bacteria  
 (2) Inflammation of pericardium  
 (3) Weakening of the heart valves  
 (4) Insufficient blood supply to the heart muscles
- 88.** Which one indicates the hypertension ?  
 (1) 90/60 mmHg  
 (2) 120/85 mmHg  
 (3) 110/70 mmHg  
 (4) 140/100 mmHg
- 89.** The deposition of lipids on the wall lining the lumen of large and medium sized arteries is referred to as  
 (1) Deep vein thrombosis  
 (2) Stokes – Adams syndrome  
 (3) Osteoarthritis  
 (4) Atherosclerosis
- 90.** To obtain a standard ECG a patient is connected to the machine with three electrodes  
 (1) one to each ankle and to the left wrist  
 (2) one to each wrist and to the left ankle  
 (3) one to each wrist and to the left chest region  
 (4) one to each ankle and to the left chest region
- 91.** The QRS complex of a standard ECG represents the  
 (1) excitation of the atria  
 (2) depolarization of the ventricles  
 (3) repolarisation of the ventricles  
 (4) None of the above

## BLOOD PRESSURE, DISEASES, ECG

- 84.** The value of diastolic blood pressure is  
 (1) 120 mm Hg (2) 80 mm Hg  
 (3) 120/80 mm Hg (4) 40 mm Hg
- 85.** Blood pressure is measured by  
 (1) Sphygmomanometer (2) Phonocardiogram  
 (3) Electrocardiogram (4) Stethoscope

## ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	2	1	3	1	2	2	2	1	2	1	4	1	2	2	2
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	3	4	2	1	2	1	1	3	4	3	2	2	1	4	4
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	4	2	2	2	1	1	2	2	3	4	2	4	1	2	2
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	4	2	4	3	4	1	4	1	3	2	1	1	2	3	3
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	3	2	3	3	3	4	2	2	2	3	1	1	4	1	3
Que.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	1	3	1	3	3	1	3	4	2	1	3	4	4	4	2
Que.	91														
Ans.	2														