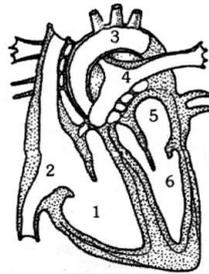


1. The blood vessel, having valves is
(A) arteries (B) veins (C) capillaries (D) all the above
2. About how much blood is in the circulatory system of an average person?
(A) 1 litre (B) 2 litres (C) 5 litres (D) 10 litres
3. Number of RBC in an adult man per mm^3 of blood is
(A) 5,000 (B) 50,000 (C) 5,00,000 (D) 5,000,000
4. The life span of human WBC is normally
(A) 12-13 days (B) 80-90 days (C) 100-120 days (D) 20-30 days
5. Oxygenated blood is carried by
(A) pulmonary vein (B) pulmonary artery (C) hepatic portal vein (D) renal vein
6. Which chamber of the heart has the thickest muscular walls
(A) right auricle (B) left auricle (C) right ventricle (D) left ventricle
7. Which one of the following is called pace maker of the heart
(A) SA node (B) AV node (C) chordae tendinae (D) AV septum
8. Hepatic portal system starts from
(A) digestive system to liver (B) kidney to liver
(C) liver to heart (D) liver to kidney
9. A person with 'o' blood group is called universal donor because his blood has
(A) 'A' antigen (B) 'A' and 'B' antigens (C) 'B' antigen (D) no antigen at all
10. When in a person both antibodies are present but there is no antigen his blood group is
(A) A (B) AB (C) B (D) O
11. In the cardiac cycle, diastole is
(A) the number of heart beats per minute (B) the relaxation period after contraction of the heart.
(C) the forceful pumping action of the heart (D) the contraction period after relaxation of the heart
12. Blood vessel carrying blood from the lungs to the heart is
(A) pulmonary artery (B) pulmonary vein (C) coronary artery (D) none of the above
13. Normal blood pressure is
(A) 120/80 mm of Hg (B) 120/60 mm of Hg (C) 180/80 mm of Hg (D) 160/80 mm of Hg
14. Pulmonary vein open into
(A) left ventricle (B) left auricle (C) right auricle (D) right ventricle
15. Indicate correct statement for man?
(A) arteries always carry oxygenated blood while veins always carry deoxygenated blood
(B) arteries are provided with valves while veins are devoid of valves
(C) arteries always carry blood away from the heart, while veins always carry blood towards the heart
(D) venous blood is returned to left auricle
16. An erythrocyte lives for approximately
(A) one week (B) one month (C) three months (D) one year
17. The advantage of RBC's being concave is that
(A) to increase surface area (B) they can be packed up like coins
(C) they can fit into capillaries (D) none of the above
18. Which of the metallic ions is essential for blood clotting?
(A) Na^+ (B) Ca^{++} (C) K^+ (D) Fe^{++}
19. A clot of blood contains
(A) prothrombin (B) fibrinogen (C) fibrin (D) thrombin

20. The tricuspid valve occurs between the
 (A) right auricle and right ventricle (B) pulmonary aorta
 (C) left auricle and left ventricle (D) right auricle and left auricle
21. Systole causes
 (A) entry of blood into lungs (B) entry of blood into heart
 (C) exit of blood from heart (D) exit of blood from ventricles
22. The blood groups in man were discovered by
 (A) Mendel (B) Francis Nelson (C) S. Miller (D) Landsteiner
23. Open type of circulatory system is present in
 (A) porifera (B) coelenterata (C) arthropods (D) none of the above
24. The plasma contains about _____ percent water
 (A) 92% (B) 82% (C) 70% (D) 62%
25. Antibodies in blood are present in
 (A) erythrocytes (B) leucocytes (C) plasma (D) all of the above
26. Universal recipients are people with blood group
 (A) O (B) A (C) B (D) AB
27. _____ brings blood from head and shoulders to heart
 (A) inferior vena cava (B) superior vena cava (C) aorta (D) pulmonary artery
28. Lymph is a part of
 (A) digestive system (B) excretory system (C) nervous system (D) transport system
29. Which of the following is an agranulocyte?
 (A) monocyte (B) basophil (C) neutrophil (D) eosinophil
30. A two lobed nucleus occurs in
 (A) basophil (B) monocyte (C) eosinophil (D) lymphocyte
31. Blood group antigens in blood are present on
 (A) monocytes (B) basophils (C) lymphocytes (D) RBC
32. The human heart is divided into _____ chambers
 (A) 3 (B) 2 (C) 4 (D) 1
33. The number of hearts in megascolex
 (A) 9 pairs (B) 8 pairs (C) 7 pairs (D) 6 pairs
34. Incompletely divided four chambered heart is present in
 (A) reptiles (B) birds (C) mammals (D) fish
35. In fish the heart is _____ chambered
 (A) one (B) two (C) three (D) four
36. Blood stains were found at the site of crime. If DNA fingerprinting is to be used for conviction, which of the following can be used?
 (A) Erythrocytes (B) Leucocytes (C) Platelets (D) Serum
37. Blood cells that increase in number during allergic conditions like asthma are
 (A) Neutrophils (B) Basophils (C) Eosinophils (D) Lymphocytes
38. In mammals, veins differs from arteries in having
 (A) Thicker walls (B) Deeply present
 (C) Carry blood away from heart (D) Internal valves
39. Choose the correct statement that describes arteries
 (A) They have thick elastic walls, blood flows under high pressure; collect blood from different organs and bring it back to the heart
 (B) They have thin walls with valves inside, blood flows under low pressure and carry blood away from the heart to various organs of the body
 (C) They have thick elastic walls, blood flows under low pressure; carry blood from the heart to various organs of the body
 (D) They have thick elastic walls without valves insides, blood flows under high pressure and carry blood away from the heart to different parts of the body.

40. The walls of arteries consist of
 (A) Striated muscle and are under voluntary control
 (B) Striated muscle and are not under voluntary control
 (C) Smooth muscle and are not under voluntary control
 (D) Smooth muscle and are under voluntary control
41. Right atrium of mammalian heart receives blood from
 (A) Pulmonary artery (B) Pulmonary veins
 (C) Aorta (D) Superior vena cava and inferior vena cava
42. Role of pace maker is to
 (A) Increase heartbeat (B) Decrease heartbeat
 (C) Initiate heartbeat (D) Control blood supply to heart
43. Contraction of right ventricle pumps blood into
 (A) Dorsal aorta (B) Pulmonary artery (C) Pulmonary vein (D) Coronary artery
44. Pacemaker is situated in heart
 (A) In the wall of right atrium (B) On the Interauricular septum
 (C) On interventricular septum (D) In the wall of left atrium
45. Systole causes
 (A) Entry of blood into lungs (B) Entry of blood into heart
 (C) Exit of blood from ventricles (D) None of the above
46. The blood leaving the lungs is rich in _____ than the blood entering the lung
 (A) Oxygen (B) CO_2 (C) Hydrogen (D) Moisture
47. The given diagram is of the adult human heart. The chambers of vessels that carry oxygenated blood include which of the following?



- (A) 1 and 2 only (B) 3 only (C) 1, 2 and 4 (D) 3, 5 and 6
48. Which of the following statement(s) is (are) true about heart?
 i. Left atrium receives oxygenated blood from different parts of body while right atrium receives deoxygenated blood from lungs
 ii. Left ventricle pumps oxygenated blood to different body parts while right ventricle pumps deoxygenated blood to lungs
 iii. Left atrium transfers oxygenated blood to right ventricle which sends it to different body parts
 iv. Right atrium receives deoxygenated blood from different parts of the body while left ventricle pumps oxygenated blood to different parts of the body
 (A) I (B) ii (C) ii and iv (D) i and iii
49. Mammals are said to have double circulation. It means
 (A) Blood vessels are paired
 (B) There are two types of blood vessels attached to every organ
 (C) There are two systems, one from the heart to the lungs and back to the rest of the body
 (D) The blood circulates twice through the heart during completion of one full circuit
50. In a human, which of the following vessels is the blood pressure the highest?
 (A) Aorta (B) Pulmonary Vein
 (C) Vena cava(superior) (D) Vena cava (inferior)

51. Circulation in Human is
 (A) Single & Open (B) Double & Open (C) Double & Closed (D) Single & Closed
52. Water will be absorbed by root hair when
 (A) Concentration of solutes in the cell sap is high
 (B) Plant is rapidly respiring
 (C) They are separated from soil by permeable membrane
 (D) Concentration of salts in the soil is high
53. The principal pathways by which water is translocated in angiosperms is
 (A) Xylem vessel system (B) Xylem and phloem
 (C) Sieve tubes members of phloem (D) Sieve cells of phloem
54. Due to high temperature the rate of transpiration will
 (A) Increase (B) Decrease slowly (C) Decrease rapidly (D) Remain unaffected
55. The transpiration in plants will be lowest
 (A) When there is high humidity in the atmosphere
 (B) There is excess of water in the cell
 (C) Environment conditions are very dry
 (D) High wind velocity
56. Which of the following is not a function of transpiration?
 (A) Excretion of minerals (B) Cooling of leaves
 (C) Uptake of water (D) Uptake of minerals
57. Match Column-I with Column-II and select the correct option from the codes given below

| | Column-I | | Column-II |
|-----|-----------------|-----|--|
| (A) | Phloem | (p) | Contain respiratory pigment |
| (B) | Arteries | (q) | Translocation of food in plants |
| (C) | Red blood cells | (r) | Carry oxygenated blood away from the heart |
| (D) | Xylem | (s) | Have thin walls |
| (E) | Veins | (t) | Conducts water from roots to leaves |

- (A) A → t; B → s; C → r; D → q; E → p (B) A → q; B → r; C → p; D → t; E → s
 (C) A → r; B → p; C → q; D → s; E → t (D) A → s; B → t; C → q; D → r; E → p
58. Stomata on the surface of a plant leaf open when water flows:
 (A) Out from the guard cells (B) Into the guard cells
 (C) From the xylem to palisade mesophyll cells (D) From the xylem to the leaf surface
59. Which of the following has the greatest effect on the ability of blood to transport oxygen?
 (A) capacity of the blood to dissolve oxygen (B) amount of haemoglobin in the blood
 (C) pH of plasma (D) temperature of the blood
60. The most abundant protein in human blood is
 (A) transferrin (B) albumin (C) γ - globulin (D) haemoglobin
61. Which of the following contains oxygenated blood in an adult human?
 (A) right atrium (B) pulmonary artery (C) pulmonary vein (D) all of the above
62. Which of the following is the most muscular chamber in a bird's heart or a mammal's heart?
 (A) the right atrium (B) the left atrium (C) the left ventricle (D) the right ventricle
63. Which of the following statement about circulatory systems is true?
 (A) hormones are transported in the blood
 (B) all invertebrates have an open circulatory system
 (C) capillaries have thicker walls than veins
 (D) the systemic circulation carries blood to and from the lungs

64. Which one of the following series represents the correct path of blood circulation?
 (A) left atrium, left ventricle, lungs, right atrium, right ventricle, body
 (B) right atrium, right ventricle, lungs, left atrium, left ventricle, body
 (C) left atrium, left ventricle, right atrium, right ventricle, lungs, body
 (D) right atrium, lungs, right ventricle, left atrium, body, left ventricle
65. The *lub* of the *lub-dub* sound the heart makes is caused by the
 (A) closing of the mitral and tricuspid valves (B) closing of the pulmonary and aortic valves
 (C) sound of blood rushing into the atria (D) sound of blood rushing into the ventricles
66. When compared to arteries, veins generally
 (A) are thinner walled (B) have more muscle in the tunica media
 (C) carry faster moving blood (D) have thicker endothelium
67. Which of the following statements are true?
 (A) it is impossible for people to kill themselves by holding their breath
 (B) the cerebral cortex provides voluntary control over breathing
 (C) emotional stimuli can alter respiration
 (D) certain chemical stimulation alter the rate and depth of breathing
 (A) 1, 2 and 4 (B) 2, 3 and 4 (C) 1, 3 and 4 (D) 1, 2, 3 and 4
68. Which of the following is responsible for the movement of O_2 from the alveoli into the blood in the pulmonary capillaries?
 (A) active transport (B) filtration
 (C) secondary active transport (D) passive diffusion
69. Most of the CO_2 transported in the blood
 (A) dissolved in plasma
 (B) in carbamino compounds formed from plasma proteins
 (C) bound to Cl^-
 (D) in the form of HCO_3^-

KEY

| | | | | |
|-------|-------|-------|-------|-------|
| 1. B | 2. C | 3. D | 4. A | 5. A |
| 6. D | 7. A | 8. A | 9. D | 10. D |
| 11. B | 12. B | 13. A | 14. B | 15. C |
| 16. C | 17. A | 18. B | 19. C | 20. A |
| 21. D | 22. D | 23. C | 24. A | 25. C |
| 26. D | 27. B | 28. D | 29. A | 30. C |
| 31. D | 32. C | 33. B | 34. A | 35. B |
| 36. B | 37. C | 38. D | 39. D | 40. C |
| 41. D | 42. C | 43. B | 44. A | 45. C |
| 46. A | 47. D | 48. C | 49. D | 50. A |
| 51. C | 52. A | 53. A | 54. A | 55. A |
| 56. A | 57. B | 58. B | 59. B | 60. D |
| 61. C | 62. C | 63. A | 64. B | 65. A |
| 66. A | 67. B | 68. D | 69. D | |