1. Select the incorrect statement from the following:
2. Simple organisms like sponges and coelenterates circulate water from their surroundings through their body cavities to facilitate the cells to exchange substances.
3. Different groups of animals have evolved the same method for transport.
4. Blood is the most commonly used body fluid by most of the higher organisms for transport.
5. Lymph also helps in the transport of certain substances in human.
6. Lymphocyte forms how much per cent of WBCs?
7. 20 to 25
8. 2 to 3
9. 6 to 8
10. 60 to 65
11. Select the correct statement from the following:
12. Surface antigens on RBC always induce autoimmune response.
13. Blood grouping (ABO) is an example of multiple allelism.
14. AB blood group is a universal recipient as well as donor.
15. Four phenotype of blood group (ABO) are possible and 5 genotype of blood group (ABO) are possible.
16. Select the incorrect statement from the following:
17. Clot or coagulum is formed mainly by a network of fibrin in which they died and damaged formed elements of blood are trapped.
18. Inactive fibrinogen is converted to fibrin by the hormone thrombin.
19. Prothrombin is converted into thrombin by the enzyme complex thrombokinase.
20. Platelet or injured tissue released certain factors which initiate coagulation.
21. Find the correct descending order to the percentage proportion of leucocytes in human blood.
22. Neutrophils → Basophils → Lymphocytes → Acidophils (Eosinophils) → Monocytes
23. Neutrophils → Monocytes → Lymphocytes → Acidophils → Basophils
24. Neutrophils → Lymphocytes → Monocytes → Acidophils → Basophils
25. Neutrophils → Acidophils → Basophils → Lymphocytes → Monocytes
26. Which of the following is expected if husband is Rh+ and wife is Rh-?
27. No problem in the first pregnancy
28. Problems in future pregnancies
29. Both (a) and (b)
30. No problem in any pregnancy
31. Select the correct matching:

|  |  |
| --- | --- |
| Column I | Column II |
| 1. Fishes 2. Amphibian 3. Reptiles 4. Birds 5. Mammals 6. Crocodile | 1. 3 chambered 2. 4 chambered 3. 1 chambered 4. 2 chambered |

1. (A), (B)–(iii)
2. (B), (C)–(i)
3. (D), (E), (F)–(iv)
4. (A), (B), (C)–(ii)
5. The given diagram represent circulation in



1. Fishes
2. Amphibians
3. Birds
4. Reptiles
5. Select the total number of thick structure out of the following:
6. Interatrial septum (muscular wall)
7. Interventricular septum
8. Atrioventricular septum (fibrous)
9. Walls of ventricles
10. 1
11. 2
12. 3
13. 4
14. Bundle of HIS consists of

(A) Right bundle branch

(B) Left bundle branch

(C) Purkinje fibres

(D) AV bundle

1. A, B and C only
2. A, B, C, D
3. B, C and D only
4. C and D only
5. SA node is called the pace maker of the heart. Why?
6. It can change contractile activity generated by AV node.
7. It delays the transmission of impulse between the atria and ventricles.
8. It gets stimulated when it receives neural signal.
9. It initiates and maintains the rhythmic contractile activity of heart.
10. During diastole, blood
11. Enters the heart
12. Leaves the heart
13. Leaves the ventricle
14. Enters into lungs
15. An artery is
16. Thick walled in which blood flows under low pressure.
17. Thin walled in which blood flows under high pressure.
18. Thick walled in which blood flows under high pressure.
19. Thin walled in which blood flows under low pressure.
20. During cardiac cycle, about \_\_\_\_\_\_\_\_\_ % of ventricular filling occurs prior to atrial contraction. \_\_\_\_\_\_\_\_\_ % ventricular filling occurs due to atrial contraction
21. 50, 50
22. 70, 30
23. 30, 70
24. 10, 90
25. Which of the following events do not occur during joint diastole?
26. All four chambers of heart are in relaxed state.
27. Tricuspid and bicuspid valves open.
28. Action potential is conducted from SAN to AVN.
29. Blood from the pulmonary veins and vena cava flows into the left and right ventricles respectively through the left and right atria.
30. The semilunar valves are closed.
31. Only E
32. Only C
33. Only D
34. Only A and B
35. Cardiac output is
36. Stroke volume (SV) × Heart rate (HR) = 5 L/m
37. SV × HR = 500 ml
38. SV × HR = 72 ml/m
39. SV × HR = 70 ml/m
40. Which of the following statement is wrong for second cardiac sound?
41. It is heard as dup
42. It is produced due to the closure of semilunar valves
43. It is clinically significant
44. It is clinically non-significant
45. Neural signal through the sympathetic nervous (part of ANS) increases the cardiac output because of
46. Increasing the rate of heart beat
47. Increasing the strength of ventricular contraction
48. Both (a) and (b)
49. Increasing the stimulation of vagus nerve
50. QRS complex represents the
51. Depolarization of ventricles
52. Repolarization of ventricles
53. Repolarization of atria
54. Depolarization of atria
55. A unique vascular connection that exist between the digestive tract and liver is called
56. Renal portal system
57. Hypothalamic-Hypophyseal portal system
58. Hepatic portal system
59. All the above
60. Which of the following is true about hypertension?
61. It leads to cardiac diseases.
62. It affects vital organs like brain and kidney.
63. It repeats the check of blood pressure of an individual as 140/90 or higher, it shows hypertensions.
64. All the above
65. Find the incorrect matching:
66. CAD–Atherosclerosis
67. Angina–Angina pectoris
68. Stroke volume–Beat volume
69. Heart failure–Heart attack
70. Match the Column I with Column II:

|  |  |
| --- | --- |
| Column I | Column II |
| 1. Heart failure 2. Cardiac arrest 3. Heart Attack 4. Coronary Artery disease 5. Angina pectoris | 1. Heart muscle is suddenly damaged by an inadequate blood supply. 2. Chest pain due to inadequate O2 reaching the heart muscles. 3. Atherosclosis 4. Heart not pumping blood effectively enough to meet the needs of the body (CAD). 5. Heart stops beating |

A B C D E

1. 4 5 1 3 2
2. 4 5 3 1 2
3. 4 3 5 2 1
4. 5 4 2 3 1
5. Which one of the following is absent in the human beings?
6. Hypophyseal-hypothalamic tract
7. Hepatic portal vein
8. Renal portal vein
9. None of these

*Read the assertion and reason carefully to mark the correct option out of the options given below:Question number 25 to27.*

1. If both the assertion and the reason are true and the reason is a correct explanation of the assertion.
2. If both the assertion and reason are true but the reason is not a correct explanation of the assertion.
3. If the assertion is true but the reason is false.
4. If both the assertion and reason are false.
5. Assertion: Plasma without the clotting factors is called serum.

Reason: Serum contains immunoglobulins.

1. Assertion: Basophils are involved in inflammatory reaction.

Reason: Basophils use to secrete histamine, serotonin, heparin, etc.

1. Assertion: The velocity of flow of blood is minimum in capillaries.

Reason: The surface area of capillaries is maximum among all blood vessels.

1. Blood pressure in the mammalian aorta is maximum during:
2. Systole of the left atrium
3. Diastole of the right ventricle
4. Systole of the left ventricle
5. Diastole of the right atrium
6. Pulmonary circulation is required for
7. Nutrient supply to lungs
8. Elimination of waste products from the lungs
9. Oxygenation of deoxygenated blood
10. Nutrient supply to heart
11. The instrument by which BP of human beings are determined is called
12. Ultrasound
13. BP meter
14. Stethoscope
15. Sphygmomanometer

|  |  |  |  |
| --- | --- | --- | --- |
| Question  nos | Answers | Question  nos | Answers |
| 1.  2.  3.  4.  5.  6.  7.  8.  9.  10.  11.  12.  13.  14.  15. | b  a  b  b  c  c  b  a  c  a  d  a  c  b  b | 16.  17.  18.  19.  20.  21.  22.  23.  24.  25.  26.  27.  28.  29.  30. | a  d  c  a  c  d  d  a  c  b  a  a  c  c  d |