BIOLOGY

BOOKS - CENGAGE BIOLOGY (HINGLISH)

BODY FLUIDS AND CIRCULATIONS

Exercise Choose The Correct Option

1. There is no capillary system in case of most of the invertebrates except

A. Crustaceans

B. Cephalopods

C. Insects

D. Gastropods

Answer: B

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2. Which of the followng cannot be taken as a feature of open type circulatory system ?

A. Low pressure system

B. Well-regulated blood supply to different organs

C. Blood returns to the heart slowly

D. Non-perforation of capillaries

Answer: B

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3. In cockroach, the dorsal chamber of hemocoel is called

A. A pericardial sinus

B. perivisceral sinus

C. Perineural sinus

D. peritoneal sinus

Answer: A

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4. A pair of triangular muscles in each segment, present on the either side of a cockrroach heart, is of

A. Alary muscles

B. Tergosternal muscles

C. intercostal muscles

D. Phrenic muscles

Answer: A

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5. Which is not a function of blood in cockroach?

A. Transport of nutrients

B. Transport of gases

C. Reservoir of water

D. Main hydrostatic pressure

Answer: B

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6. In cockroach, the anterior end of heart opens into

A. Pericardia sinus

B. Perivisceral sinus

C. Perineural sinus

D. Head sinus

Answer: D

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7. Single type of circulation of blood is found in

A. Fish

B. Frog

C. Man

D. Lizard

Answer: A

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8. Fishes have venous heart. The heart receives deoxygen-ated blood from all over the body except

A. Fins

B. Hindlimbs

C. Gills

D. Forelimbs

Answer: C

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9. Find the odd one out.

A. Prawn and insects

B. Frog and snails

C. Snails and mussels

D. Prawn and mussels

Answer: B

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10. Blood is red but no RBCs are found in

A. Frog

B. Rabbit

C. Man

D. earthworm

Answer: D

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11. If one litre of blood is drawn out of 5 litres from the body of man, how much blood would be left by the next day ?

A. 5 L

B. 4.5 L

C. 4 L

D. 3 L

Answer: A

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12. Ringer solution contains.

A. Lodine and salt

B. Acetic acid and wax

C. sodium and potassium ions

D. water and acid fuchsine

Answer: C

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13. Which of the following has a neurogenic heart?

A. Cockroach

B. Octopus

C. Frog

D. Both(1)and(2)

Answer: A

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14. Which layer of the heart is responsible for differential thickness of different chambers?

A. Epicardium

B. Myocardium

C. Endocardium

D. Pericardium

Answer: B

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15. The two aurticles are demarcated extrenally from the ventricle by an irregular groove called

A. Inter-auricular septum

B. Inter-ventricular septum

C. Coronary sulcus

D. Inter-ventricular groove

Answer: C

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16. Which of following pulmonary bypasses are present in the cirulatory system before birth?

A. Foramen ovale

B. Ductus arteriosus

C. Conus arteriosus

D. Both (1) and (2)

Answer: D

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17. The opening of superior vena cava is guarded by

A. Semilunar valves

B. Columnae carnae

C. Principal septum

D. None of these

Answer: D

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18. The opening of pulmonary vein is without valve because

A. It is a very small aperture

B. It has low blood pressure

C. Its opening is oblique

D. None of these

Answer: C

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19. The aperture between right auricle and ventricles called

A. Semilunar valves

B. Tricuspid valves

C. Bicuspid valve

D. Valve of inferior vena cava

Answer: B

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20. Chordae tendinae in the heart are found in

A. Ventricle

B. Left auricle

C. Right auricle

D. None of these

Answer: A

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21. One of the following lies in the wall of right auricle

A. Purkinje fibers

B. bundle of his

C. SA node

D. Chordae tendinae

Answer: C

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22. Ventricular systole is stimulated by

A. SA node

B. AV valve

C. AV node

D. AV aperture

Answer: C

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23. The center for heartbeat regulation is present in

A. Pons varolii

B. Cerebrum

C. Cerebellum

D. Medulla

Answer: D

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24. A cardiac cycle invloves

A. (1)Joint diastole-ventricular systole-auricular systole

B. (2) Auricular systole-ventricular systole-completecar-siac diastole

C. (3) Auricular systole-joint diastole-ventricular systole

D. (4) Auricular systole-ventricular diastole-joint diastole

Answer: B

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25. Mammals are said to have a double circulatory system.it means that

A. There are two types of blood vessels attached to every orgen, e.g,an artery and a vein.

B. There are two system, one from the heart to the lungs and back to the rest of the body via heart.

C. The blood circulates twice in the heart.

D. Both (2) and (3)

Answer: D

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26. The duration of the ventricular diastole in a normal cardiac cycle is

A. 0.3 s

B. 0.5 s

C. 0.4 s

D. 0.7 s

Answer: B

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27. Time interval between the closure of semilunar valve and closure of AV valve is

A. 0.3 s

B. 0.5 s

C. 0.1 s

D. 0.7 s

Answer: B

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28. The wall of arteries and veins differ from each other mainly w.r.t.

A. Tunica adventitia

B. Tunica media

C. tunica externa

D. Tunica intima

Answer: B

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29. The course of blood from the heart to the lungs and back to the heart is called

A. Systemic circulation

B. Pulmonary circulation

C. Singe circulation

D. double circulation

Answer: B

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30. Superior mesenteric artery supplies blood to

A. Pancreas and ileum

B. Hepatic and gastric arteries

C. Both(1)and (2)

D. Stomach and proximal half of large intestine

Answer: A

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31. The blood from diaphragm is collected by

A. Phrenic vein

B. Iliac vein

C. Hepatic vein

D. Renal vein

Answer: A

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32. Hypogastric artery supplies blood to

A. Urinary bladder

B. Pancreas

C. Abdominal body wall

D. Both or and

Answer: A

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33. A portal system is one in which

A. A vein start from an organ and end up in heart

B. A vein starts from an organ and ends up in another organ

C. A vein starts from heart and ends up in lugs

D. None of these

Answer: B

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34. Hepatic portal system is present in

A. Fishes, amphibians, and reptiles

B. Reptiles and birds

C. Allmammals

D. All vertebrates

Answer: D

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35. The middle man of the body is

A. Blood

B. Plasma

C. Lymph

D. Serum

Answer: C

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36. Lymph differs from blood in possessing

A. More proteins and fewer waste products

B. Fewer proteins and more waste products

C. More proteins and waste products

D. Fewer proteins and waste products

Answer: B

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37. Lymphatic vessels from the lower body part from

A. Right lymphatic duct

B. Thoracic duct

C. Carotid duct

D. Jugular duct

Answer: B

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38. Thoracic duct opens into

A. Right subclavian artery

B. Left subclavian artery

C. Right subclavian vein

D. Left subclavian vein

Answer: D

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39. Which of the following waves of ECG shows ventricular depolarization

A. P wave

B. QRS wave

C. T wave

D. U wave

Answer: B

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40. The time taken by the impulse to travel through atria, AV node, and the rest of conducting tissue is

A. PQ interval

B. PQRS interval

C. QRS interval

D. ST segment

Answer: A

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41. PQ interval gets lengthened during

A. Rheumatic fever

B. Arteriosclerotic heart (plaque formation)

C. Arteriosclerotic heart (calcification)

D. All of these

Answer: D

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42. William Harvey is known for the discovery pf

A. Blood transfusion

B. Blood clotting

C. Blood circulation

D. Blood purification

Answer: C

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43. Which one of the following does not have an open circu-latory system?

A. Chelone

B. Cockroach

C. Frog's tadpole

D. Both(1)and(3)

Answer: D

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44. The heart of a crocodile consists of

A. A single auricle and two ventricles

B. Two auricles and a single ventricle

C. Two auricles and two ventricles

D. Asingle auricle and a single ventricle

Answer: C

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45. Which of the following has myogenic heart?

A. Frog

B. Humans

C. Rabbit

D. All of the above

Answer: D

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46. Purkinje's fibres are special types of

A. Muscle fibers located in heart

B. Nerve fibers located in cerebrum

C. Connective tissue fibers joining one bone to another bone

D. Sensory fibers extending from retina into optic nerve

Answer: A

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47. The regulation of heartbeat in mammals is due to

A. The volume of blood in the circulatory system

B. The presence of excess of oxygen in blood

C. The presence of thyroxine in blood

D. The presence of pacemaker in the heart

Answer: D

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48. The first heart sound is

A. "Lub"sound at the end of systole

B. "Dub"sound at the end of systole

C. "Lub" sound at the end of systole

D. "Dub"sound at the beginning of systole

Answer: C

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49. Which one is the correct route through which pulse making impulse travels in the heart

A. SA node $\rightarrow$ Purkinje fibers Bundle of His $\rightarrow$ AV node $\rightarrow$ Heart muscles

B. AV node $\rightarrow$ SA node $\rightarrow$ Purkinje fibers Bundle of His $\rightarrow$ Heart muscles

C. AV node $\rightarrow$ Bundle of His $\rightarrow$ SA node $\rightarrow$ Purkinje fibers Heart muscles

D. SA node $\rightarrow$ AV node $\rightarrow$ Bundle of His

$\rightarrow$ Purkinje fibers Heart muscles

Answer: D

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50. If the vagus branch of frog is stimulate the heart will show : —

A. Stoppage of heartbeat

B. Decreased heartbeat

C. Increased heartbeat

D. No change

Answer: B

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51. During diastole

A. Blood enter lungs

B. Blood leaves the ventricle

C. Blood leaves the heart

D. Blood enter the heart

Answer: D

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52. During the systole of ventricle

A. Blood enters the heart

B. Blood leaves the heart

C. Blood leaves the ventricle

D. Blood enters lungs

Answer: C

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53. The apex beat of heart is synchronous with

A. First sound

B. Second sound

C. Third sound

D. Fourth sound

Answer: A

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54. Covering of heart is called

A. Pericardium

B. Peritoneum

C. Perineurium

D. Periostium

Answer: A

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55. Post caval in the right auricle is guarded by

A. Eustachian valve

B. Bicuspid valve

C. Tricuspid valve

D. Atrio-ventricular valve

Answer: A

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56. Tunica media of an elastic artery is made up mainly

A. Smooth muscle fibre

B. Loose alveolar tissue

C. Elastic fibers

D. Collagen fibres

Answer: A

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57. How much of the total blood volume is present in heart

A. 0.025

B. 0.17

C. 0.09

D. 0.15

Answer: A

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58. Pylangium is part of

A. Truncus arteriosus

B. Left atrium

C. Right atrium

D. Ventricles

Answer: A

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59. The coronary sinus in the heart is situated along its

A. Left margin

B. Right margin

C. Diaphragmatic surface

D. Lower boarder of the heart

Answer: B

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60. In all the leads of ECG, all the following are positive waves except

A. P

B. Q

C. R

D. T

Answer: B

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61. Cardiac output signifies

A. The amount of blood entering the heart per unit time

B. The amount of blood entering the lung per unit time

C. The amount of blood leaving the heart per unit time

D. The amount of blood leaving the lung per unit time

Answer: C

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62. Heartbeat in vertebrates is

A. Neurogenic

B. Myogenic

C. Both

D. None

Answer: B

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63. Single circuit heart occurs in

A. Fishes

B. frog

C. Reptiles

D. Man

Answer: A

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64. Which of these has a closed type of circulatory system : —

A. Cockroach

B. Fish

C. Mollusca

D. Scorpion

Answer: B

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65. The study of blood circulation system is called

A. Angiology

B. Cardiology

C. Hematology

D. Osteology

Answer: A

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66. Father of angiology is

A. William harvey

B. Batson

C. Marsello malpighi

D. Landsteiner

Answer: A

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67. The color of lymph is

A. White

B. Pale yellow

C. Colourless

D. Milky

Answer: C

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68. Lymph nodes in man are found abundantly in

A. Fingers

B. Neck

C. Arms

D. Legs

Answer: B

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69. Coagulation of lymph is :

A. Faster than blood

B. Not possoble

C. Slower than blood

D. A passive process

Answer: C

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70. An artery can be distinguished from a vein in having

A. Thicker wall

B. Lesser lumen

C. No valves

D. All of the above

Answer: D

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71. Glucose is carried from digestive tract to liver by

A. Hepatic artery

B. Heoatic portal vein

C. Pulmonary vein

D. None of the above

Answer: B

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72. Pulmonary artery differs from pulmonary vein in having

A. Thick wall

B. Thin wall

C. Valves

D. Both (2) and (3)

Answer: A

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73. Ventricular contraction in command of : —

A. SA node

B. AV node

C. Purkinje fibers

D. Papillary muscles

Answer: A

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74. Fully digested food reaches to liver by

A. Hepatic portal vein

B. Hepatic artery

C. Hepatic vein

D. All the above

Answer: A

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75. Impulse of heartbeat originates from

A. SA node

B. AV node

C. Vagus nerve

D. Cardiac nerve

Answer: A

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76. Which of the following statement is true for lymph ?

A. WBC and serum

B. All components of except RBCs, platets,and some protelets

C. RBCs, WBCs, and plasma

D. RBCs, proteins and platelets

Answer: B

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77. Bundle of His is a network of

A. Muscle fibers distributed troughout the heart walls

B. Muscle fibers found only in the ventricle wall

C. Nerve fibers distributed in ventricle

D. Nerve fibers found throughout the heart

Answer: B

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78. Systemic heart refers to

A. The heart that contracts under stimulation from ner-vous system

B. Left auricle and left ventricle in higher vertebrates

C. Entire heart in lower vertebrates

D. The two ventricles together in humans

Answer: B

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79. The cardiac pacemaker in a patient fails to function normally. The doctors find that an artifical pacemaker is to be grafted in him. It is likely that it will be grafted at the site of –

A. Purkinje system

B. SA node

C. AV node

D. AV bundle

Answer: B

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80. Which has no muscular walls : —

A. Artery

B. Vein

C. Arteriole

D. Capillary

Answer: D

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81. The process of blood clot formation within the circulatory system is

A. Thrombosis

B. Thrombocytes

C. Thrombin

D. Thrombocytopenia

Answer: A

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82. When the right ventricle contracts the blood goes into

A. Aorta

B. Brani

C. Pulmonary artery

D. Noe

Answer: C

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83. Splenic artery arises from

A. Anterior mesenteric artery

B. Coeliac artery

C. Posterior mesenteric artery

D. Intestinal artery

Answer: C

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84. Which of the following carries glucose form digestive tract to liver

A. Hepatic artery

B. Hepatic portal vein

C. Pulmonary vein

D. None of these

Answer: B

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85. Systemic heart refers to

A. The two ventricles together in humans

B. The heart that contracts under stimulation from ner-vous system

C. Left auricle and left ventricle in higher vertebrates

D. Entire heart in lower vertebrates

Answer: C

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86. Carotid artery carries

A. Impure blood from brain

B. Oxygenated blood to anterior region of body or to brain

C. Impure blood to kidney

D. Oxygenated blood to heart

Answer: B

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87. Blood circulation that starts in capillaries and ends in capillaries is called

A. Portal circulation

B. Hepatic circulation

C. Cardiac circulation

D. None of these

Answer: A

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88. A portal system is a system in which

A. Avein starts from an organ and ends up in heart.

B. An artery breaks up in an organ and restarts by the union of its capillaries.

C. The blood from the gut is brought into the kindley before it is poured into posterior vena cava.

D. A vein breaks up in an organ into capillaries and re-starts by their union as a new nein in the same organ.

Answer: D

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89. Spleen is

A. Hematopoeitic

B. Lymphoid

C. Reproductive

D. Celluloid

Answer: B

90. In connection with circulatory system valves are present

A. Not only in heart and blood vessels of verte bertebrates and invertebrates, but

in vertebrate lymphatics as well

B. In vertebrates heart only

C. In both vertrate and invertebrate hearts

D. In both vertebrate and invertebrate hearts and their blood vessels as well

Answer: A

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91. In a standard ECG which one of the following alphabets is the correct representation of the respective activity of the human heart ?

A. P:depolarization of the atria

B. R:repolarization of ventricles

C. S:start of systole

D. T:end of diastole

Answer: A

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92. If due to some injury the chordae tendineae of the tricuspid valve of the human heart is partially non-functional, what will be the immediate effect ?

A. The pacemaker will stop working

B. The blood will tend to flow back into the left atrium.

C. The flow of blood into the arota will be slowed down.

D. The flow of blood into the pumonary artery will be reduced.

Answer: D

93. Fastest distribution of some injectible meterial/medicine and with no risk of any kind can be achieved by injecting it into the

A. Muscles

B. Arteries

C. Veins

D. Lymph vessels

Answer: C

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94. Which statement is true about the venous blood vessels of frog?

A. Lingual and submandibular unite to from internal jugular.

B. Musculo-cutaneous and brachial unite to from the subclavian.

C. The ventral abdominal vein drains into the posterior vena cava.

D. The pelvic veins unite to from the renal portal vein.

Answer: C

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95. Which of following is not a major organ of lymphatic system?

A. Spleen

B. Kidney

C. Thoracic duct

D. Jugular vein

Answer: B

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96. Lymph vessels are united to form

A. Lymph heaet

B. Cisterna chyli

C. Thoracic duct

D. Jugular vein

Answer: C

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97. Cardiac output is determined by

A. Heat rate

B. Stroke volume

C. Blood flow

D. Both(2)and(3)

Answer: D

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98. During high blood pressure, regulatinos of heart beat and circulation are controlled by

A. Vasodilator and vasconstrictor centers

B. Cardio-stimulatory and vasoconstrictor centers

C. Cardio-Inhibitory and vasoconstrictor centers

D. Cardio-inhibitory and vasodilator centers

Answer: D

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99. Blood pressure is measured by

A. Sphygmomanometer

B. Phonocardiogram

C. Electrocardiogram

D. Stethoscope

Answer: A

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100. All veins have deoxygenated blood except

A. Renal vein

B. Hepatic vein

C. Hepatic portal vein

D. Pulmonary veins

Answer: D

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101. Common thrombosis leading to myocardial infarction is of

A. Right circumflex coronary artery

B. Left circumflex coronary artery

C. Left anterior descending artery

D. Right coronary artery

Answer: C

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102. Which organ received only oxygenated blood?

A. Gill

B. Spleen

C. Lung

D. Liver

Answer: B

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103. Blood vessel which brings oxygenated blood to left auricle is

A. Pre caval vein

B. Post caval vein

C. Pulmonary vein

D. Pulmonary artery

Answer: C

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104. Oxygenated blood is carried by

A. Pulmonary vein

B. Pulmonary artery

C. Renal vein

D. Hepatic portal vein

Answer: A

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105. The blood vessel which brings oxygenated blood from lungs towards the heart of frog

A. Pre caval vein

B. Post caval vein

C. Pulmonary vein

D. Pulmonary artery

Answer: C

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106. All arteries carry oxygenated blood except

A. Systemic

B. hepatic

C. Pulmonary

D. Cardiac nerve

Answer: C

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107. The blood vessel of frog which opens in its ventricles bringing oxygenated blood is

A. Pulmocutaneous artery

B. Inferior vena cava

C. Pulmocutaneous vein

D. Superior vena cava

Answer: A

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108. A yellow substance oozing out from wound has

A. Lymph+RBC+WBC

B. Lymph+RBC+Dead bacteria

C. Lymph+WBC+Deadbacteria

D. Lymph+Dead leucocytes

Answer: B

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109. Which organ is considered as "graveyard of RBC" where most of them are destroyed by macrophages?

A. Red bone marrow

B. Spleen

C. Kidney

D. Intestine

Answer: B

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110. Iliac artery carries blood to

A. Hind limb

B. Fore limb

C. Lung

D. Brain

Answer: A

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111. Hypophyseal portal system is found in

A. Kidney

B. Liver

C. Brain

D. Heart

Answer: C

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112. Which of the following statements is wrong about the closed circulatory system?

A. Blood remains within blood vessels and never comes in direct connect with the body cells.

B. In it flow of fluid can be more precisely regulated.

C. There is no blood capillary.

D. Blood flow is more rapid due to higher pressure.

Answer: C

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113. Incomplete double circulation is found in which of the following animals?

A. Birds

B. Mammals

C. Birds and mammals

D. Amphibians and reptiles

Answer: D

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114. Which of the following is correct about human heart ?

A. The volume of both atria gt the volume of both ven-tricles

B. The volume of both ventricle gt the volume of both atria

C. The volume of atria = the volume of both ven-tricles

D. Ventricles are upper chambers and atria are lower chambers in our heart

Answer: B

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115. During cardiac cycle each ventricle pumps out about 70 ml of blood which is called

A. Stroke volume

B. Cardiac output

C. Tidal volume

D. Residual volume

Answer: A

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116. Which of the following options represents the pulmonary circulation in human being?

A. Left Auricle $\xrightarrow[\text{blood}]{\text{Oxygenated}}$ Lungs $\xrightarrow[\text{blood}]{\text{Deoxygenated}}$ Right Ventricle

B. Left Auricle $\xrightarrow[\text{blood}]{\text{Deoxygenated}}$ Lungs $\xrightarrow[\text{blood}]{\text{Oxygenated}}$ Right Ventricle

C. Right Ventricle $\xrightarrow[\text{blood}]{\text{Deoxygenated}}$ Lungs $\xrightarrow[\text{blood}]{\text{Oxygenated}}$ Left Ventricle

D. Right Ventricle $\xrightarrow[\text{blood}]{\text{Oxygenated}}$ Lungs $\xrightarrow[\text{blood}]{\text{Deoxygenated}}$ Left Ventricle

Answer: C

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117. Hepatic portal system carries

A. Oxygenated blood from liver to intestine

B. Deoxygenated blood from liver to intestine

C. Oxygenated blood from intestine to liver

D. Deoxygenated blood from intestine to liver

Answer: D

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118. The cardiac cycle includes all of the following events EXCEPT

A. The closing and opening of the heart valves during each heartbeat.

B. The movement of impulse from the SA node to all regions of the heart wall.

C. The number of time the heart beats in one minute.

D. The changes in blood volume in all chambers of the heart.

Answer: C

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119. Heavines with sever chest pain which may disappear with rest indicates

A. Angina pectoris

B. Atherosclerosis

C. Arteriosclerosis

D. Hyperthyroidism

Answer: A

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120. Select correct combination of statements for lymph.

i. It helps to maintain fluid balance of the body.

ii. It is contained in lymphatic vessels and lymphatic organs in mammals.

iii.It is derived from tissue fluid.

iv. It contains less antibodies than plasma.

v. It flows in both directions.

A. (i), (ii), (iii) and (v)

B. (ii), (iii), (iv)

C. (i), (iv), (v)

D. (iii), (iv), (v)

Answer: B

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121.

Blood Group	Antigen on RBCs	Anti-body in Plasma	Donor's Group
A	A	anti b	A, O
B	B	anti A	B, O
AB	X	Nil	Z
O	Nil	Y	O

Choose the correct option for X, Y and Z.

A. X-B, Y-A, Z-AB

B. X-AB, Y-Nil, Z-AB, ABO

C. X-AB, Y-anti-AB, Z-AB, A,B,O

D. X-AB,Y-anti-AB,Z-AB,A,B

Answer: C

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122. Erythropoiesis is associated with

i. Spleen

ii. Red bone marrow

iii. Kidney

iv. Liver

A. i and ii only

B. ii and iv only

C. i and iv only

D. i, ii, iii and iv

Answer: D

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123. Blood vessel carrying least CO_2 is

A. Pulmonary vein

B. Pulmonary artery

C. Vena cava

D. Hepatic vein

Answer: A

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124. Heart block is the failure of stimulation to the ventricles following atrial contraction. Which one of the following heart structures could not be involved in heart block?

A. Atrioventricular node

B. Bundle of his fibers

C. Purkinje fibers

D. sinoatrial node

Answer: D

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125. Rupture of chordae tendineae:

A. Help the A-V valve to close

B. Prevent the bulging of A-V valve into the atria during contraction

C. Causes regurgination of blood into the atria during ventricular systole

D. Has no effect on haemodynamics of circulation

Answer: C

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126. Maximum filling of the ventricles takes place during which phase of the cardiac cycle?

A. Protodiastoie

B. Isovolumetric ventricular relaxation phase

C. Ventricular diastole proper

D. Last rapid filling phase due to atrial systole

Answer: C

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127. True statement regarding diastasis is :

A. It occurs during the emptying phase of ventricles

B. Slow filling of ventricles occur in the this period

C. Third heart sound coincides with perod

D. A-V valve open at the beginning of this period

Answer: B

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128. Which of following is not recorded in ECG?

A. Atrial depolarization

B. Atrial repolarization

C. Ventricular depolarization

D. Ventricular repolarization

Answer: B

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129. The duration of cardiac cycle in a normal man is

A. 0.8 seconds

B. 80 seconds

C. 60 seconds

D. 72 seconds

Answer: A

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130. Contraction of right ventricle pumps blood into

A. Dorsal aorta

B. Pulmonary vein

C. Coronary artery

D. Pulmonary artery

Answer: D

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131. Which of the following events do not occur during joint diastole ?

(A) All four chamber of heart are in relaxed

state

(B) Atrial repolarization valve open

(C) Action potential is conducted from SAN to AVN

(D) Blood from the pulmonary veins and vena cava flows into the left and right ventricles respectively through the left and right atria

(E) The semilunar valves are closed

A. Only E

B. Only C

C. Only D

D. Only A and B

Answer: B

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132. Identify the correct sequence of events in a cardiac cycle

A. Diastole,atrial,systole,ventricular diastole

B. Atrial systole,ventricular diastole, ventricular systole

C. Atrial systole,ventricular systole,joint diastole

D. Ventricular diastole diastole,diastole,ventricular systole,atrial systole

Answer: C

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133. Which one indicates the hypertension ?

A. 120/80 mmHg

B. 80/120 mmHg

C. 140/90 mmHg

D. 40/60 mmHg

Answer: C

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134. The blood circulation, which starts and ends into capillaries is

A. Portal circulation

B. Renal circulation

C. Hepatic circulation

D. Lymphatic circulation

Answer: A

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135. Which of the following is correct identifications ?

A. B-capillary : Made up of double layer of Squamous rpithelium.

B. A-Vein: Tunica media is thin.

C. C-Artery : Tunica Externa and tunica interna is think.

D. B-capillary : Made up of single layer columnar epithelium.

Answer: B

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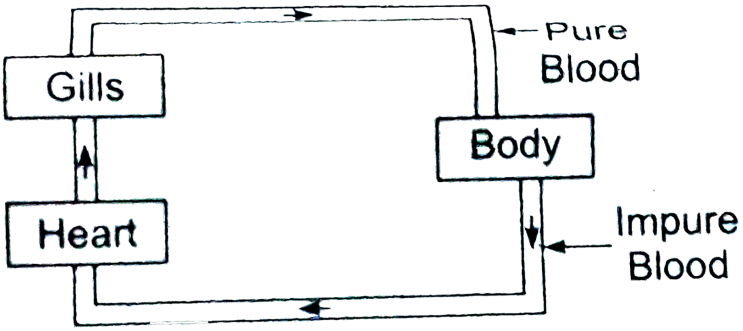
136. The given diagram represents circulation in



A. Reptites

B. Amphibians

C. Fish

D. Birds

Answer: C

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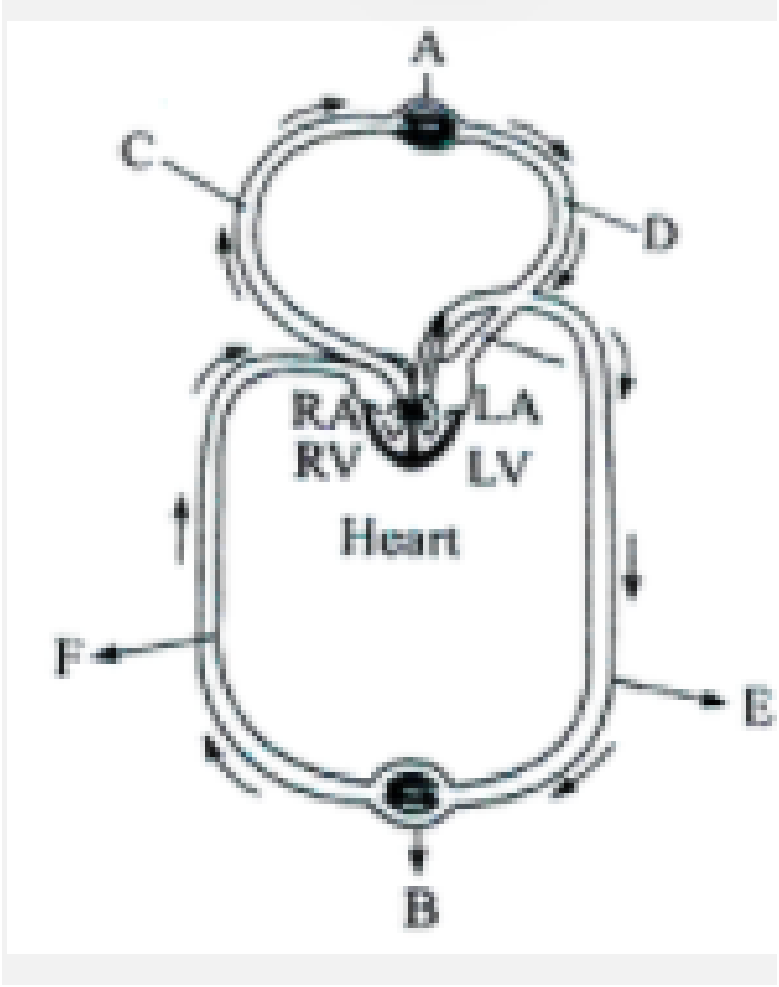
137. Identify A to F.



A. A-Lungs, B-Body parts, C-Pulmonary vein, D-Pulmonary artery, E-Dorsal aorta, F-Vena cava

B. A-Lungs, B-Body parts, C-Pulmonary artery, D-Pulmonary vein, E-Dorsal aorta, F-Vena cava

C. A- Lungs, B-Body parts, C-Pulmonary artery, D-Pulmonary vein, E-Vena cava, F-Dorsal aorta

D. A-Body parts, B-Lungs, C-Pulmonary artery, D-Pulmonary vein, E-Vena cava, F-Dorsal aorta

Answer: B

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138. Identify whether the given statements are true or false for double circulation.

I. It checks the mixing of oxygenated and deoxygenated blood.

II. It carries only oxygenated blood.

Choose the correct option accordingly.

A. I-False, II-False

B. I-True, II-True

C. II-False, I-True

D. I-True, II-False

Answer: B

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139. Carotid artery supplies oxygenated blood to

A. Lungs

B. Intestine

C. Brain

D. None of these

Answer: C

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140. Which of the following is a cell fragment ?

A. Blood platelets

B. Bone cells

C. Lymphocytes

D. Leucocytes

Answer: A

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141. Which the following option represent correct blood flow pathway in pulmonary circulation ?

A. Right ventricle $\xrightarrow[\text{Artery}]{\text{Pulmonary}}$ Lung $\xrightarrow[\text{vein}]{\text{Pulmonary}}$ Right atrium

B. Left ventricle $\xrightarrow{\text{Aorta}}$ Body $\xrightarrow{\text{Vena cava}}$ Right atrium

C. Right ventricle $\xrightarrow[\text{vein}]{\text{Pulmonary}}$ Lung $\xrightarrow[\text{Artery}]{\text{Pulmonary}}$ Left atrium

D. Right ventricle $\xrightarrow[\text{Artery}]{\text{Pulmonary}}$ Lung $\xrightarrow[\text{Vein}]{\text{Pulmonary}}$ Left atrium

Answer: D

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142. Heart failure

(i) Same as heart attack

(ii) Heart is not pumping blood effectively enough to meet the needs of the body.

(iii) It is often referred to as Atherosclerosis.

(iv) It is sometimes called congestive heart failure.

(v) It occurs due to conditions that affect the blood flow.

(vi) The heart stops beating.

Incorrect statements are :

A. i, ii, iii, iv

B. ii, iii, iv, v

C. ii, iii, iv

D. i, iii, v, vi

Answer: D

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Exercise Assertion Reasoning Questions

1. A : The cardiac impulse which originates from SA node in mammalian heart cannot spread directly from atria to ventricles

R : In mammalian heart there is no continuity between cardiac muscle fibres of atria and those of ventricles except AV bundles.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

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2. A : First phase of ventricular filling is rapid and causes 3^{rd} sound of heart.

R : It is because of auricular systole.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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3. A : Dub is a long and sharp sound.

R : It is caused by closing of atrio ventricular valves.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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4. A : Portal system consists of veins which start from capillaries and end into capillaries.

R : All vertebrates have hepatic portal system.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: B

5. Assertion Arteries possess smooth muslces on their walls.

Reason These smooth muscles help in regulating blood volume flowing through a tissue of organ.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

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6. Assertion : The open circulatory system is more efficient than the closed circulatory system.

Reasoning : The blood flows far more rapidly in open circulatory system than in the closed one.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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7. Assertion : The heart of fish contains only deoxygenated blood.

Reasoning : Oxygenated blood does not return back to the heart in fishes.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

8. Assertion : The cardiac impulse is said to be myogenic.

Reasoning : The rate of formation and conduction of cardiac impulse can be changed by the action of nerves.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: B

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9. Assertion Left ventricle of heart has a thinner wall than that of right ventricle.

Reason Left ventricle needs to pump blood to nearby lungs only.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct

explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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10. Assertion : The AV bundle is essential for the conduction of cardiac impulse.

Reason: There is no continuity between the

cardiac muscle fibers of the auricles and those of the ventricles.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

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11. Assertion : The AV node is also called as the pacemaker of the heart.

Reasoning : It is because of the fact that the AV node determines the rate of heartbeat.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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12. Assertion : There is no mixing of oxygenated and deoxygenated blood in the human heart.

Reason : Valves are present in the heart which allows the movement of blood in one direction only.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: B

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13. Assertion : Hypotension is observed in arteriosclerotic patients.

Reasoning : In the condition of arterosclerosis, arteries gain their elasticity and get stiffened.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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14. Assertion : ECG is of immense diagonstic value in the cardiac diseases.

Reasoning : Defects in cardiac functions can be reflected in changes in the pattern of electrical potential recorded in the ECG.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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15. Assertion : An artificial pacemaker can replace the SA node of heart.

Reasoning : This is because an artificial pacemaker is capable of stimulating the heart electrically to maintain its beats.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

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Archives Choose The Correct Option

1. A drop of each of the following, is placed separately on four sides. Which of them will not coagulate ?

A. Whole blood from pulmonary vein

B. Blood plasma

C. Blood serum

D. Sample from the thoracic duct of lymphatic system

Answer: C

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2. In humans, blood passes from the post caval to the diastomic right atrium of heat due to

A. stimulation of the sino auricular node

B. pressure difference between the post caval and atrium

C. pushing open of the venous valves

D. suction pull

Answer: D

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3. Most active phagocytic white blood cells are

A. eosinophils and lymphocytes

B. neutrophils and monocytes

C. neutrophils and eosinophils

D. lymphocytes and macrophages

Answer: B

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4. Which type of white blood cells are concerned with the release of histamine and the natural anticoagulant heparin ?

A. Eosinophils

B. Monocytes

C. Neutrophils

D. Basophils

Answer: D

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5. Globulins contained in human blood plasma are primarily involved in

A. Clotting of blood

B. Defence mechanisms of body

C. Osmotic balance of body fluids

D. Oxygen transport in the blood

Answer: B

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6. In a standard ECG which one of the following alphabets is the correct representation of the respective activity of the human heart ?

A. P-depolarisation of the atria

B. R-repolarisation of ventricles

C. S-start of systole

D. T-end of diastole

Answer: A

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7. There is no DNA in

A. Hair root

B. An enucleated ovum

C. Mature RBCs

D. A mature spermatozoan

Answer: C

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8. Compared to blood our lymph has

A. More RBCs and less WBCs

B. No plasma

C. Plasma without proteins

D. More WBSc and no RBCs

Answer: D

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9. Which one of the following plasma protein is involved in the coagulation of blood ?

A. Fibrinogen

B. an albumin

C. serum amylase

D. a globulin

Answer: A

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10. Which one of the following statements is correct regarding blood pressure ?

A. 190/110 mm Hg may harm vital organs like brain and kidney

B. 130/90 mm Hg is considered hight and requires treatment

C. 100/55 mm Hg is considered an ideal blood pressure

D. 105/50 mm Hg makes one very active

Answer: A

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11. A person with unknown blood group under ABO system, has suffered much loss in an accident and needs immediate blood trasfusion. His one friend who has a valid certifacte of his own blood type. What would have been the type of blood group of the donor friend

A. Type A

B. Type B

C. Type AB

D. Type O

Answer: D

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12. If due to some injury the chordae tendineae of the tricuspid valve of the human heart is partially non-functional, what will be the immediate effect ?

A. The flow of blood into the arota will be slowed down

B. The pacemaker will stop working

C. The blood will tend to flow back into the left atrium

D. The flow of blood into the pumonary artery will be reduced.

Answer: D

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13. Which two of the following changes (A-B) usually tend to occur in the plain dwellers when they move to high altitudes (3500 m or more)

(A) Increase in red blood cell size

(B) Increase in red blood cell production

(C) Increased breathing rate

(D) Increase in thrombocyte count

A. (b) and (c)

B. (c) and (d)

C. (a) and (d)

D. (a) and (b)

Answer: A

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14. Bundle of His is a part of which one of the following organs in humans

A. Brain

B. Heart

C. Kideny

D. Pancreas

Answer: B

15. Arteries are best defined as the vessels which

A. Supply oxygenated blood to different organs

B. Break up into capillaries which reunite to from a vein

C. Break up into capillaries which reunite to from a artery

D. Carry blood from one visceral organ to another visceral ogran

Answer: B

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16. A certain road accident patien with unknown blood group needs immediate blood transfusion. His one docter friend at once offers his blood .What was the blood group of the doner ?

A. Blood group O

B. Blood group A

C. Blood group B

D. Blood group AB

Answer: A

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17. Person with blood group AB is considered as universal recipient because he has

A. both A and B antigens on RBC but no antibodies in the plasma.

B. both A and B antibodies in the plasma.

C. no antigen on RBC and no antibody in the plasma

D. both Aand B antigens in the plasma but no antibodies

Answer: A

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18. How do parasympathertic neural signals affect the working the heart

A. Reduce both heart rate and cardiac output

B. Heart rate is increased without affecting the cardiac output.

C. Both heat rate and cardiac output increase

D. Heart rate decreases but cardiac output increases.

Answer: A

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19. Which one of the following is correct ?

A. Blood = Plasma + RBC + WBC + Platelets

B. Plasma = Blood - Lymphocytes

C. Serum = Blood + Fibrinogen

D. Lymph = Plasma + RBC + WBC

Answer: A

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20. Erythropoiesis starts in

A. Red bone marrow

B. Kidney

C. Liver

D. Spleen

Answer: A

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21. Blood pressure in the mammalian aorta is maximum during

A. Diastole of the right atrium

B. Systole of the left atrium

C. Diastole of the right ventricle

D. Systole of the left ventricle

Answer: D

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22. Which one of the following animals has two separate circulatory pathways

A. Shark

B. Frog

C. Lizard

D. Whale

Answer: D

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23. Doctors use stethoscope to hear the sounds produced during each cardiac cycle. The second sound is heard when

A. AV node receives signal from SA node

B. AV valves open up

C. Ventricular walls vibrate due to gushing of blood from atria

D. Semilunar valves close down after the blood flows into vessels from ventricles

Answer: D

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24. Reduction in pH of blood will

A. reduce the rate of heart beat.

B. reduce the blood supply to the brain.

C. decrease the affinity of hemoglobin with oxygen.

D. release bicarbonate ions by the liver.

Answer: C

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25. Blood pressure in the pulmonary artery is

A. same as that in the aorta.

B. more than that in the carotid.

C. more than that in the pulmonary vein.

D. less than that in the venae cavae.

Answer: C

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26. Name the blood cells, whose reduction in number can cause clotting disorder, leading to excessive loss of blood from the body.

A. Neutrophils

B. Thrombocytes

C. Erthrocytes

D. Leucocytes

Answer: B

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27. Serum differs from blood in

A. Lacking clotting factors

B. Lacking antibodies

C. Lacking globulins

D. Lacking albumins

Answer: A

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