



BIOLOGY

BOOKS - KUMAR PRAKASHAN KENDRA

BIOLOGY (GUJRATI ENGLISH)

BODY FLUIDS AND CIRCULATION

**Section A Exam Oriented Questions Answers
From Darapan**

1. Explain in short the mechanism of circulation in living organism.



View Text Solution

2. Give composition of blood. Give information about its components in short.



View Text Solution

3. Explain composition and function of plasma in detail.



[View Text Solution](#)

4. Blood Corpuscles.



[View Text Solution](#)

5. Discuss in detail about types, proportion and function of blood corpuscles.



[View Text Solution](#)

6. Write a short note on ABO group :



[View Text Solution](#)

7. Give information about Rh blood group.



[View Text Solution](#)

8. Explain the process of coagulation of blood.



[View Text Solution](#)

9. Write a short note on : Lymph



[View Text Solution](#)

10. Give information about open and closed type of circulatory pathways.



[View Text Solution](#)

11. Discuss circulatory system in various vertebrates and gradual development of heart.



View Text Solution

12. Describe external structure of heart.



View Text Solution

13. Describe internal structure of heart in detail .



[View Text Solution](#)

14. Draw a labelled diagram showing internal structure of heart .



[View Text Solution](#)

15. Describe cardiac cycle .



[View Text Solution](#)

16. Explain in short : Lub and Dub sounds



View Text Solution

17. Describe in detail : ECG



View Text Solution

18. Describe internal structure of artery and vein in short.



View Text Solution

19. What is called double circulation ? Explain the pathway of double of double circulation with diagram.



View Text Solution

20. How does regulation of cardiac activity done ?



View Text Solution

21. Give information about diseases related to blood circulation.



[View Text Solution](#)

Section B Difference Scientific Reasons

1. Atrium and ventricles



[View Text Solution](#)

2. BBCs and WBCs



[View Text Solution](#)

3. Artery and vein



[View Text Solution](#)

4. Plaque stimulates/causes formation of blood clot in the wall of artery.



[View Text Solution](#)

5. Blood pressure and smoking have direct relation with obesity.



[View Text Solution](#)

6. It is necessary to send /deliver blood from right ventricle to lungs.



[View Text Solution](#)

7. Herat is called double pump.



[View Text Solution](#)

8. Smoking is a reason of hypertension.



[View Text Solution](#)

**Section C Definition Explanation Terms Location
Function**

1. Definitions / Explanation : Thrombus



[View Text Solution](#)

2. Definitions / Explanation : Embolus :



[View Text Solution](#)

3. Definitions / Explanation Pacemaker :



[View Text Solution](#)

4. Definitions / Explanation Erythroblastosis



[View Text Solution](#)

5. Av valve (Tricuspid) :



[View Text Solution](#)

6. Mitral (Bicuspid) valves :



[View Text Solution](#)

7. Semi lunar valve :



[View Text Solution](#)

Section C Full Name

1. Full Names : Rh factor .



[View Text Solution](#)

2. Full Names : AHG .



[View Text Solution](#)

3. Full Names : PTA .



[View Text Solution](#)

4. Full Names : FSF .



[View Text Solution](#)

5. Full Names : ECG .



[View Text Solution](#)

Section D Textula Exercise

1. Name the components of the formed elements in the blood and mention one major function of each of them.



[View Text Solution](#)

2. What is the importance of plasma proteins ?



[View Text Solution](#)

3. Match column I with column II :

Column-I		Column-II	
(a)	Eosinophils	(i)	Coagulation
(b)	RBC	(ii)	Universal recipient
(c)	AB Group	(iii)	Resist infections
(d)	Platelets	(iv)	Contraction of heart
(e)	Systole	(v)	Gas transport



[View Text Solution](#)

4. Why do we consider blood as a connective tissue ?



[View Text Solution](#)

5. What is the difference between lymph and blood ?



[View Text Solution](#)

6. What is meant by double circulation ? What is its significance ?



[View Text Solution](#)

7. Write the differences between :

Blood and Lymph .



[View Text Solution](#)

8. Write the differences between :

Open and closed system of circulation



[View Text Solution](#)

9. Write the differences between :

Systole and diastole



View Text Solution

10. Write the differences between :

P-wave and T-wave



View Text Solution

11. Why do we call our heart myogenic ?



[View Text Solution](#)

12. Sino-atrial node is called the pacemaker of our heart. Why ?



[View Text Solution](#)

13. What is the significance of atrio-ventricular node and atrio-ventricular bundle in the functioning of heart ?



[View Text Solution](#)

14. Define a cardiac cycle and the cardiac output.



[View Text Solution](#)

Section E Multiple Choice Question Mcqs

1. Which of the following cells do not exhibit phagocytotic activity ?

A. Monocytes

B. Neutrophil

C. Basophil

D. Macrophage

Answer: C



View Text Solution

2. One of the common symptoms observed in people infected with dengue fever is

A. Significant decrease in RBCs count

B. Significant decrease in WBC count

C. Significant decrease in platelets count

D. Significant increase in platelets cpount

Answer: C



View Text Solution

3. Which among the followings is correct during each cardiac cycle ?

- A. The volume of blood pumped out by the Rt and Lt ventricles is same
- B. The volume of blood pumped out by the Rt and Lt ventricles is different.
- C. The volume of blood received by each atrium is different
- D. the volume of blood received by each atrium and pulmonary artery is different

Answer: A



View Text Solution

4. Cardiac activity could be moderated by the autonomous neural system. Tick the correct

A. the parasympathetic system stimulates heart rate and stroke volume.

B. the sympathetic system stimulates heart rate and stroke volume.

C. The parasympathetic system decreases the heart rate but increase stroke volume.

D. The sympathetic system decreases the heart rate but increase stroke volume,

Answer: B



View Text Solution

5. Mark the pair of substances among the following which is essential for coagulation of blood.

A. Heparin and calcium ions

B. Calcium ions and platelet factors

C. Oxalates and citrates

D. Platelet factors and heparin

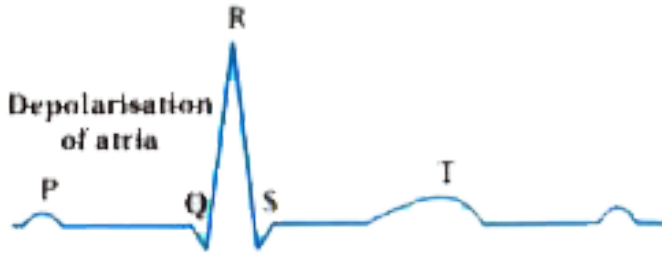
Answer: B



View Text Solution

6. ECG depicts the depolarisation and repolarisation processes during the cardiac cycle. In the ECG of a normal healthy individual one of the following waves is not

represented.



(A) Depolarisation of atria

(B) Repolarisation of atria

A. Depolarisation of atria

B. Repolarisation of atria

C. Depolarisation of ventricles

D. Repolarisation of ventricles

Answer: B



View Text Solution

7. Which of the following type of cells lack nucleus in hormones ?

A. RBC

B. Neutrophil

C. Eosinophils

D. Errythrocytes

Answer: A



View Text Solution

8. Which one of the following blood cells is involved in antibody production ?

A. B-lymphocytes

B. T-lymphocytes

C. RBC

D. Neutrophils

Answer: A



View Text Solution

9. The cardiac impulse is initiated and conducted further upto ventricle. The correct sequence of conduction of impulses is

A. SA node → AV Node → Purkinje fiber
→ AV Bundle

B. SA Node → Purkinje fiber → AV Node
→ AV Bundle

C. SA Node → AV Node → AV Bundle
→ Purkinje fiber

D. SA Node → Pankinje fiber → AV

Bundle → AV Node

Answer: C



View Text Solution

10. Agranulocytes responsible for immune response of the body are

A. Basophils

B. Neutrophils

C. Eosinophils

D. Lymphocytes

Answer: D



View Text Solution

11. The second heart sound (dubb) is associated with the closure of

A. Tricuspid valve

B. Semilunar valves

C. Bicuspid valve

D. Tricuspid and bicuspid valve

Answer: B



View Text Solution

12. Which of the following correctly explains a phase/event in cardiac cycle in a standard electrocardiogram ?

A. QRS complex indicates atrial contraction.

B. QRTs complex indicates ventricular contraction.

C. Time between S and T represents atrial systole.

D. P-wave indicates beginning of ventricular contraction.

Answer: B



View Text Solution

13. Which of the following statement is incorrect ?

A. A person of 'o' blood group has anti 'A' and anti 'B' antibodies in his blood plasma.

B. A person of 'B' blood group can't donate blood to a person of 'A' blood group.

C. Blood group is designated on the basis of the presence of antibodies in the

blood plasma.

D. A person of AB blood group is universal recipient.

Answer: C



View Text Solution

14. What would be the cardiac output of a person having 72 beats per minute and a stroke volume of 50 ml ?

A. 360 ml

B. 3600 ml

C. 7200 ml

D. 5000 ml

Answer: B



View Text Solution

15. Match the following columns.

Column-I		Column-II	
(a)	Lymphatic system	(i)	Carries oxygenated blood
(b)	Pulmonary vein	(ii)	Immune response
(c)	Thrombocytes	(iii)	To drain back the tissue fluid to the circulatory system
(d)	Lymphocytes	(iv)	Coagulation of blood

A. (a - ii), (b - i), (c - iii), (d - iv)

B. (a - iii), (b - i), (c - iv), (d - ii)

C. (a - iii), (b - i), (c - iii), (d - iv)

D. (a - ii), (b - i), (c - iii), (d - iv)

Answer: B



View Text Solution

16. Read the following statements and choose the correct option.

Statement 1 : Atria receive blood from all parts of the body which subsequently flows to ventricles.

statement 2 : Action potential generated at sino-atrial node passes from atria to ventricles.

A. Action mentioned in statement 1 is dependent on action mentioned in statement 2

B. Action mentioned in statement 2 is dependent on action mentioned in statement 1

C. Action mentioned in statement 1 and 2 are independent of each other.

D. Action mentioned in statement 1 and 2 are synchronous.

Answer: D



View Text Solution

Section E Very Short Answer Type Questions Vsqs

1. Name the blood component which is viscous and straw coloured fluid.



View Text Solution

2. Complete the missing word in the statement
given below :

Plasma without Factors is called serum.



[View Text Solution](#)

3. Complete the missing word in the statement
given below :

..... and monocytes are phagocytic cells .



[View Text Solution](#)

4. Complete the missing word in the statement
given below :

Eosinophils are associated with Reactions.



[View Text Solution](#)

5. Complete the missing word in the statement
given below :

..... Ions play a significant role in clotting.



[View Text Solution](#)

6. Complete the missing word in the statement given below :

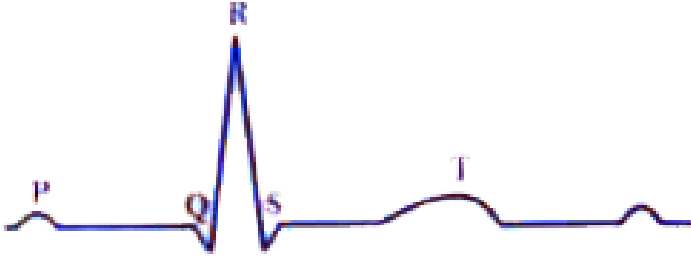
One can determine the heart beat rate by counting the number of in an ECG.



[View Text Solution](#)

7. Given below is the diagrammatic representation of a standard ECG. Label its

different peaks.



[View Text Solution](#)

8. Name the vascular connection that exists between the digestive tract and liver.

[View Text Solution](#)

9. Give below are the abnormal conditions related to blood circulation. Name the disorders.

(a) Acute chest pain due to failure of O_2 supply to heart muscles

(b) Increased systolic pressure

 [View Text Solution](#)

10. Which coronary artery diseases is caused due to narrowing of the lumen of arteries ?





[View Text Solution](#)

11. Define the following terms and give their location.

(a) Purkinje fiber (b) Bundle of His.



[View Text Solution](#)

12. State the functions of the following in blood

Fibrinogen.



[View Text Solution](#)

13. State the functions of the following in blood

Globulin .



View Text Solution

14. State the functions of the following in blood

Neutrophils .



View Text Solution

15. State the functions of the following in blood

Lymphocytes.



View Text Solution

16. What physiological circumstances lead to erythroblastosis foetalis ?



View Text Solution

17. Explain the consequence of a situation in which blood does not coagulate.



[View Text Solution](#)

18. What is the significance of time gap in the passage of action potential from sino-atrial node to the ventricle ?



[View Text Solution](#)

19. How will you interpret an electrocardiogram (ECG) in which time take in QRS complex is higher ?



[View Text Solution](#)

Section E Short Answer Type Questions

1. The Walls of ventricles are much thicker than atria. Explain.



[View Text Solution](#)

2. Differentiate between :

Blood and Lymph .



View Text Solution

3. Differentiate between :

Basophils and Eosinophils .



View Text Solution

4. Differentiate between :

Tricuspid and bicuspid valve .



[View Text Solution](#)

5. Briefly describe the following :

(a) Anaemia (b) Angina Pectors .

(c) Atherosclerosis (d) Hypertension.

(e) Heart failure (f) Erythroblastosis foetalis .



[View Text Solution](#)

6. Explain the advantage of the complete partition of ventricle among birds and mammals and hence leading to double circulation.



View Text Solution

7. What is the significance of hepatic portal system in the circulatory system ?



View Text Solution

8. Explain the functional significance of lymphatic system ?



[View Text Solution](#)

9. Write the features that distinguish between the two :

(a) Plasma and serum

(b) Open and closed circulatory system

(c) Sino-atrial node and Atrio-ventricular node



[View Text Solution](#)

10. Thrombocytes are essential for coagulation of blood. Comment.



View Text Solution

11. Answer the following :

Name the major site where RBCs are formed.



View Text Solution

12. Answer the following :

Which part of heart is responsible for initiating and maintaining its rhythmic activity ?



View Text Solution

13. Answer the following :

What is specific in the heart of crocodiles among reptilians ?



View Text Solution

Question For Module Important Mcq For Neet

1. For the contraction of cardiac muscles circulatory system produces potentiality in each part but sino - atrial node act as pace maker because

A. Each part of the heart do not have potentially

B. Only sino - atrial node is auto stimulating and auto rhythmic

C. S.A. node has high depolarisation rate by birth

D. S.A. node has less depolarisation rate by birth .

Answer: C



View Text Solution

2. When electric waves reach from S . A node to node it slows down in heart. This slowing down is essential as

A. It gives rest to auricles

B. It makes strong contracting of right auricle

C. It helps ventricle in receiving more blood from auricles .

D. Helps right auricle to receive blood from vena cava .

Answer: C



View Text Solution

3. In four slides separately drop of each is placed . Among which drop will not coagulate ?

A. Thin fluid portion of blood

B. One sample from thoracic duct of lymphatic system

C. All blood of pulmonary

D. Serum

Answer: A



View Text Solution

4. Patient brought in hospital with myocardial infection should normally givenimmediately .

- A. Penicillin
- B. Streptokinase
- C. Cyclosporin - A
- D. Statins

Answer: B



[View Text Solution](#)

Body Fluids And Circulation Multiple Choice Questions Mcqs

1. Heart of crocodiles and birds are

- A. 3 chambered
- B. 4 chambered
- C. 2 chambered
- D. incomplete 3 chambered

Answer: B



View Text Solution

2. Pacemaker of heart is .

A. SA Node

B. AV Node

C. AV septa

D. IA septa

Answer: A



[View Text Solution](#)

3. Which one is not related to the clotting of blood

A. Fibrin

B. Fibrinogen

C. Ca^{++}

D. Na^+ of plasma

Answer: D



 [View Text Solution](#)

4. Serum is

- A. Blood without corpuscles
- B. Blood without fibrinogen
- C. Blood without fibrinogen & corpuscles
- D. Otherwise called as plasma

Answer: C



[View Text Solution](#)

5. Mitral valves guard

- A. Opening between the left atrium and the right ventricle
- B. Opening between the left atrium and the right atrium
- C. Opening between the left atrium and the left ventricle
- D. Opening between the right atrium and the right ventricle .

Answer: C



View Text Solution

6. Fats are absorbed through

- A. Blood in the capillaries
- B. Lymph in the lacterals
- C. Lymph in the stomach
- D. Lymph in the heart

Answer: B



[View Text Solution](#)

7. Graveyards of RBS.

A. Liver

B. Spleen

C. Albumin

D. All of these

Answer: B



[View Text Solution](#)

8. Major protein of blood plasma

A. Fibrinogen

B. Globulin

C. Albumin

D. All of these

Answer: D



View Text Solution

9. The WBC which is least in number

A. Eosinophil

B. Basophil

C. Neutrophil

D. Monocytes .

Answer: B



View Text Solution

10. RBC in most of mammals are

A. Concave shaped

B. Convex shape

C. Biconcave shape

D. Biconvex shape

Answer: C



View Text Solution

11. Following are Agranulocytes

A. Monocytes

B. Eosinophills

C. Lymphocytes

D. Both (A) and (C)

Answer: D



View Text Solution

12. Mitral valve is also called as

A. Semilunar valve

B. Bicuspid valve

C. Tricuspid valve

D. All of these

Answer: B



View Text Solution

13. Duration of cardiac cycle is

A. 0.1 sec

B. 0.2 sec

C. 0.4 sec

D. 0.8 sec

Answer: D



View Text Solution

14. Cardiac output in a healthy individual

A. 5 ml

B. 500 ml

C. 5L

D. 50 L

Answer: C



View Text Solution

15. First heart sound is .

A. Lub due to closure of mitral value only

B. Lub due to closure of tricuspid value
only

C. Dulb due to closure of semiluar value

D. Lub due to closure of bicuspid and
tricuspid value

Answer: D



View Text Solution

16. SAN can generate maximum number of action potential of .

A. $70 - 75\text{min}^{-1}$

B. $70 - 75\text{sec}^{-1}$

C. $70 - 75\text{hr}^{-1}$

D. Till death

Answer: A



View Text Solution

17. High blood pressure is

A. 120/80 mm of Hg

B. 140/80 mm of Hg

C. 140 / 90 mm of Hg

D. 140/90 mm of Hg or higher

Answer: D



View Text Solution

18. T - wave in ECG marks

- A. Polarization of ventricles
- B. Repolarization of ventricles
- C. End of systole
- D. Both (B) and (C)

Answer: B



View Text Solution

19. Medulla oblongata can moderate cardiac function through .

A. CNS

B. ANS

C. Heart

D. Brain only

Answer: B



View Text Solution

20. Actual chest pain is a symptom of

A. Angina

B. CAD

C. Heart failure

D. Heart attack

Answer: A



View Text Solution

21. When heart muscles are suddenly damaged by an inadequate blood supply?

- A. Cardiac arrest
- B. Cardiac failure
- C. Heart attack
- D. Heart failure

Answer: C



View Text Solution

22. What is very common among middle aged and elderly women and man?

A. CAD

B. Angina

C. Cardiac arrest

D. All of these

Answer: B



View Text Solution

23. Vein has

- A. Thick tunica media
- B. Thin tunica media
- C. Thick tunica interna
- D. Thick tunica externa

Answer: B



View Text Solution

24. Stroke volume of heart is

A. 70 mL blood

B. 7 ml blood

C. 7 L blood

D. 7000 L blood

Answer: A



View Text Solution

Body Fluids And Circulation Assertion Reasoning Type Questions

1. A : Walls of left ventricle are thicker than that of right ventricles.

R : Left ventricles pump blood to the farthest end of body.

A. A and B both are correct and R is correct explanation of A .

B. A and R are correct but R is not explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: A



View Text Solution

2. A : Blood of vertebrates is red in colour.

R : Erythrocytes contain a respiratory pigment hemoglobin .

A. A and B both are correct and R is correct explanation of A .

B. A and R are correct but R is not explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: A



View Text Solution

3. A: Veins have valves which open away from the heart.

R : Veins distribute blood to the various parts of body.

A. A and B both are correct and R is correct explanation of A .

B. A and R are correct but R is not explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: D



View Text Solution

4. A : SA node acts as pacemaker.

R: SA node is located in the wall of right atrium near interatrial septa.

A. A and B both are correct and R is correct explanation of A .

B. A and R are correct but R is not explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: C



View Text Solution

5. A: Prothrombin is essential for blood clotting.

R : Prothrombin is synthesized in the liver in presence of Ca^{++} .

A. A and B both are correct and R is correct explanation of A .

B. A and R are correct but R is not explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: C



View Text Solution

6. A : Serum cannot clott.

R: Serum lacks fibrinogen.

A. A and B both are correct and R is correct

explanation of A .

B. A and R are correct but R is not

explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: A



7. A: Pulmonary vein contains oxygenated blood.

R : It brings oxygenated blood from lungs.

A. A and B both are correct and R is correct explanation of A .

B. A and R are correct but R is not explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: A



View Text Solution

8. A : Pulmonary artery contains deoxygenated blood .

R : It goes to respiratory organ for oxygenation from heart.

A. A and B both are correct and R is correct explanation of A .

B. A and R are correct but R is not explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: A



View Text Solution

9. A: Lymphatic vessels coming from intestine is red in colour.

R : It brings blood from intestine

A. A and B both are correct and R is correct explanation of A .

B. A and R are correct but R is not explanation of A.

C. A is correct and R is false

D. A and R are false

Answer: D



View Text Solution

Body Fluids And Circulation Analogy Type Questions

1. Mammalian RBC :Enucleated :: WBC..... .



View Text Solution

2. O Blood group : universal donor : AB :..... .



[View Text Solution](#)

3. Left atrium and left ventricle septa :
Bicuspid valve : : Right atrium and right
ventricle septa :



[View Text Solution](#)

4. Fishes : single circulation : : man :..... .



[View Text Solution](#)

Body Fluids And Circulation True Or False

1. Lymph is a colourless fluid.



[View Text Solution](#)

2. Pericardium is double wall membranous bag.



[View Text Solution](#)

3. Reduction in platelets can cause clotting disorder.



[View Text Solution](#)

4. A healthy individual has 12-16 gms of hemoglobin in every 100 ml of blood.



[View Text Solution](#)

5. Cardiac cycle is of 0.7 sec duration



[View Text Solution](#)

6. AVN is called as pacemaker of heart.



[View Text Solution](#)

7. Heart sounds are of clinical diagnostic significance.



[View Text Solution](#)

Body Fluids And Circulation Pick Up The Correct Option

1. AV node / SA node is pacemaker of heart.



[View Text Solution](#)

2. Crocodile heart is 3 / 4 chambered



[View Text Solution](#)

3. P-Wave represents depolarisation/repolarisation of atria.

 [View Text Solution](#)

4. T-wave marks initiation / end of systole.

 [View Text Solution](#)

5. Parasympathetic neural signals increases / decreases the rate of heart beat.



[View Text Solution](#)

6. Serum is plasma with/without clotting factors.



[View Text Solution](#)

7. Eosinophils promote/resist infections.



[View Text Solution](#)

8. Cardiac output of athlete is lower / higher than an ordinary man.



View Text Solution

9. The atrium & ventricle of the same are separated by thick / thin fibrous tissue.



View Text Solution

10. During each cardiac cycle one / two prominent sounds are produced.



[View Text Solution](#)

Body Fluids And Circulation Fill In The Blanks

1. ions play a very important role in clotting.



[View Text Solution](#)

2. Person with AB blood group are called as

.....



[View Text Solution](#)

3. and lymphocytes are responsible for immune responses of the body.



[View Text Solution](#)

4. are formed by conversion of inactive fibrinogen by enzyme thrombin



[View Text Solution](#)

5. The valves in heart allows the flow of blood only direction.



[View Text Solution](#)

6. By counting number of QRS complexes, one can determine of individual.



[View Text Solution](#)

7. Adrenal medullary hormones can also increase output.



[View Text Solution](#)

8. High blood pressure leads to heart diseases and also affects vital organs like and



[View Text Solution](#)

9. CAD is often referred to as heart failure.



[View Text Solution](#)

10. is when heart stops beating.



[View Text Solution](#)