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# NEET-UG Biology MCQ Practice Series



## ***Chapter 15: Body Fluids and Circulation***

*(50 Most Important MCQs with Answer Key & Explanations)*

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**For: NEET-UG 2026 Aspirants**

## Chapter 15 – Body Fluids and Circulation (NEET MCQs – 50 Questions)

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### ❖ Plasma and Blood Composition

1. Which plasma protein is involved in osmotic balance?
  - a) Globulin
  - b) Albumin
  - c) Fibrinogen
  - d) Prothrombin
2. Which plasma protein plays a major role in immunity?
  - a) Albumin
  - b) Fibrinogen
  - c) Globulin
  - d) Thrombin
3. Plasma without clotting factors is called:
  - a) Serum
  - b) Lymph
  - c) Tissue fluid
  - d) Interstitial fluid
4. Which mineral is abundant in plasma?
  - a) Zinc
  - b) Sodium
  - c) Iron
  - d) Iodine
5. Which vitamin is essential for blood clotting?
  - a) Vitamin A
  - b) Vitamin B12
  - c) Vitamin K
  - d) Vitamin D

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### ❖ Formed Elements (RBC, WBC, Platelets)

6. Average RBC count in healthy adult male is:
  - a) 1–2 million/mm<sup>3</sup>
  - b) 3–4 million/mm<sup>3</sup>
  - c) 5–5.5 million/mm<sup>3</sup>
  - d) 8–10 million/mm<sup>3</sup>
7. Haemoglobin content in normal adult blood is:
  - a) 5–7 g/100 mL
  - b) 8–10 g/100 mL
  - c) 12–16 g/100 mL
  - d) 18–20 g/100 mL

8. Life span of human RBCs is:
- a) 60 days
  - b) 90 days
  - c) 120 days
  - d) 150 days
9. Graveyard of RBCs is:
- a) Liver
  - b) Spleen
  - c) Kidney
  - d) Bone marrow
10. Basophils secrete:
- a) Antibodies
  - b) Histamine, serotonin, heparin
  - c) Digestive enzymes
  - d) Interferons
11. Which WBC shows phagocytic activity?
- a) Lymphocytes
  - b) Monocytes & Neutrophils
  - c) Basophils
  - d) Eosinophils
12. Percentage of neutrophils in total WBC count:
- a) 10–15%
  - b) 25–30%
  - c) 60–65%
  - d) 80–85%
13. Which WBC is associated with allergic reactions?
- a) Monocytes
  - b) Neutrophils
  - c) Eosinophils
  - d) Lymphocytes
14. Platelets are produced from:
- a) Monocytes
  - b) Megakaryocytes
  - c) Stem cells
  - d) Lymphoid tissue
15. Normal platelet count is:
- a) 1,000–5,000/mm<sup>3</sup>
  - b) 15,000–30,000/mm<sup>3</sup>
  - c) 1.5–3.5 lakhs/mm<sup>3</sup>
  - d) 10–15 lakhs/mm<sup>3</sup>
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### ❖ Blood Groups and Rh Factor

16. Universal donor is:
- a) AB
  - b) A
  - c) B
  - d) O
17. Universal recipient is:
- a) A
  - b) B
  - c) AB
  - d) O
18. Which antibodies are found in blood group A?
- a) Anti-A
  - b) Anti-B
  - c) Anti-A, Anti-B
  - d) None
19. A person with blood group AB has:
- a) Antigen A only
  - b) Antigen B only
  - c) Antigens A and B
  - d) No antigen
20. Rh factor is present in about what % of humans?
- a) 50%
  - b) 60%
  - c) 70%
  - d) 80%
21. Erythroblastosis foetalis occurs in:
- a) Rh+ mother and Rh- foetus
  - b) Rh- mother and Rh+ foetus
  - c) Both Rh+
  - d) Both Rh-
22. Which treatment prevents erythroblastosis foetalis?
- a) Vitamin K
  - b) Anti-Rh antibodies injection
  - c) Platelet transfusion
  - d) Plasma therapy

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### ❖ Circulation Types and Human Heart

23. Insects have:
- a) Open circulation

- b) Closed circulation
- c) Double circulation
- d) Lymphatic circulation

24. Crocodiles have how many chambers in heart?

- a) 2
- b) 3
- c) 4
- d) 5

25. Human heart is enclosed in:

- a) Pleura
- b) Pericardium
- c) Peritoneum
- d) Epicardium

26. Which valve is between left atrium and ventricle?

- a) Tricuspid
- b) Mitral (Bicuspid)
- c) Semilunar
- d) Pulmonary

27. Which valve prevents backflow from aorta?

- a) Tricuspid
- b) Bicuspid
- c) Semilunar
- d) None

28. Which part of heart initiates heartbeat?

- a) AVN
- b) SAN
- c) Bundle of His
- d) Purkinje fibres

29. Heart sounds "Lub-Dub" are due to:

- a) Opening of valves
- b) Closure of valves
- c) Contraction of atria
- d) Flow of blood

30. Stroke volume in healthy adult:

- a) 50 mL
- b) 70 mL
- c) 100 mL
- d) 120 mL

31. Cardiac output in healthy adult:

- a) 3 L/min
- b) 5 L/min

- c) 7 L/min
- d) 10 L/min

32. Duration of one cardiac cycle is:

- a) 0.6 sec
- b) 0.8 sec
- c) 1.0 sec
- d) 1.2 sec

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❖ **ECG and Double Circulation**

33. P-wave in ECG represents:

- a) Atrial depolarisation
- b) Ventricular depolarisation
- c) Ventricular repolarisation
- d) Joint diastole

34. QRS complex represents:

- a) Atrial contraction
- b) Ventricular depolarisation
- c) Ventricular diastole
- d) Atrial relaxation

35. T-wave represents:

- a) Atrial systole
- b) Ventricular systole
- c) Ventricular repolarisation
- d) Atrial repolarisation

36. End of T-wave marks:

- a) Start of atrial systole
- b) End of ventricular systole
- c) Start of ventricular depolarisation
- d) End of diastole

37. Pulmonary circulation begins from:

- a) Left ventricle
- b) Right atrium
- c) Right ventricle
- d) Left atrium

38. Systemic circulation begins from:

- a) Right atrium
- b) Right ventricle
- c) Left atrium
- d) Left ventricle

39. Hepatic portal vein carries blood from:

- a) Liver to kidney
- b) Intestine to liver
- c) Heart to liver
- d) Kidney to liver

40. Coronary circulation supplies blood to:

- a) Kidneys
  - b) Brain
  - c) Heart muscles
  - d) Lungs
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### ❖ Regulation and Disorders

41. Heart is called myogenic because:

- a) Controlled by nerves
- b) Controlled by hormones
- c) Initiates contraction itself
- d) Regulated by brain only

42. Which part of brain controls heart?

- a) Cerebellum
- b) Medulla oblongata
- c) Hypothalamus
- d) Cerebrum

43. Sympathetic stimulation of heart:

- a) Slows down heartbeat
- b) Increases heartbeat and contraction
- c) Stops heartbeat
- d) Has no effect

44. Parasympathetic stimulation causes:

- a) Increase in heartbeat
- b) Decrease in heartbeat
- c) No effect
- d) Fibrillation

45. Hypertension is diagnosed when BP is:

- a) 100/70
- b) 120/80
- c) 140/90 or above
- d) 90/60

46. Coronary artery disease is caused by:

- a) Bacterial infection
- b) Deposition of fat & cholesterol

- c) Low platelet count
- d) High WBC count

47. Angina pectoris is:

- a) Valve defect
- b) Chest pain due to less oxygen to heart
- c) Lung disorder
- d) Kidney disorder

48. Heart failure is also called:

- a) Heart attack
- b) Cardiac arrest
- c) Congestive heart failure
- d) Stroke

49. Normal blood pressure is:

- a) 100/70
- b) 120/80
- c) 130/100
- d) 90/60

50. Which ion deficiency causes clotting disorders?

- a) Na<sup>+</sup>
- b) K<sup>+</sup>
- c) Ca<sup>2+</sup>
- d) Cl<sup>-</sup>

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### **Answer Key**

<b>1-b</b>	<b>11-b</b>	<b>21-b</b>	<b>31-b</b>	<b>41-c</b>
<b>2-c</b>	<b>12-c</b>	<b>22-b</b>	<b>32-b</b>	<b>42-b</b>
<b>3-a</b>	<b>13-c</b>	<b>23-a</b>	<b>33-a</b>	<b>43-b</b>
<b>4-b</b>	<b>14-b</b>	<b>24-c</b>	<b>34-b</b>	<b>44-b</b>
<b>5-c</b>	<b>15-c</b>	<b>25-b</b>	<b>35-c</b>	<b>45-c</b>
<b>6-c</b>	<b>16-d</b>	<b>26-b</b>	<b>36-b</b>	<b>46-b</b>
<b>7-c</b>	<b>17-c</b>	<b>27-c</b>	<b>37-c</b>	<b>47-b</b>
<b>8-c</b>	<b>18-b</b>	<b>28-b</b>	<b>38-d</b>	<b>48-c</b>
<b>9-b</b>	<b>19-c</b>	<b>29-b</b>	<b>39-b</b>	<b>49-b</b>
<b>10-b</b>	<b>20-d</b>	<b>30-b</b>	<b>40-c</b>	<b>50-c.</b>

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## **Explanations**

- **Q3:** Serum = plasma minus clotting factors.
- **Q5:** Vitamin K is essential for synthesis of clotting factors.
- **Q9:** RBCs destroyed in spleen → “graveyard of RBCs”.
- **Q13:** Eosinophils help resist infections & allergies.
- **Q21/22:** Rh- mother with Rh+ foetus → erythroblastosis foetalis; prevented by anti-Rh antibody injection.
- **Q28:** SA node generates impulses → pacemaker.
- **Q33-35:** P-wave = atrial depolarisation, QRS = ventricular depolarisation, T-wave = ventricular repolarisation.
- **Q36:** End of T-wave = end of ventricular systole.
- **Q43/44:** Sympathetic ↑ heartbeat; Parasympathetic ↓ heartbeat.
- **Q46:** CAD caused by fat/cholesterol deposits narrowing arteries.
- **Q48:** Heart failure = congestive → lung congestion.