

Brain Builders Coaching Center

Worksheet

Circulatory System

1. Human heart is located in the:
 - (a) Abdominal cavity
 - (b) Thoracic cavity
 - (c) Cranial cavity
 - (d) Pelvic cavity
2. The protective covering of the heart is:
 - (a) Pleura
 - (b) Pericardium
 - (c) Peritoneum
 - (d) Diaphragm
3. Which chamber of heart receives blood from the lungs?
 - (a) Right atrium
 - (b) Left atrium
 - (c) Right ventricle
 - (d) Left ventricle
4. Which chamber pumps blood into the lungs?
 - (a) Left ventricle
 - (b) Right atrium
 - (c) Right ventricle
 - (d) Left atrium
5. Which chamber has the thickest wall?
 - (a) Right atrium
 - (b) Left atrium
 - (c) Right ventricle
 - (d) Left ventricle

6. Which blood vessel carries oxygenated blood from lungs to heart?
 - (a) Pulmonary artery
 - (b) Pulmonary vein
 - (c) Aorta
 - (d) Superior vena cava
7. The pulmonary artery arises from:
 - (a) Right atrium
 - (b) Right ventricle
 - (c) Left ventricle
 - (d) Left atrium
8. Which valve prevents backflow of blood from left ventricle to left atrium?
 - (a) Tricuspid valve
 - (b) Bicuspid (mitral) valve
 - (c) Semi-lunar valve
 - (d) Coronary valve
9. Which of these has no nucleus?
 - (a) Platelets
 - (b) Neutrophils
 - (c) RBCs
 - (d) Lymphocytes
10. The heart beat is initiated by:
 - (a) AV node
 - (b) SA node
 - (c) Purkinje fibres
 - (d) Bundle of His
11. Bundle of His is found in:
 - (a) Atrium
 - (b) Ventricle wall
 - (c) Inter-ventricular septum
 - (d) Pericardium

12. Human heart beats about:

- (a) 42/min
- (b) 72/min
- (c) 120/min
- (d) 180/min

13. The 'lubb' sound is due to closure of:

- (a) Tricuspid and bicuspid valves
- (b) Semilunar valves
- (c) Coronary valves
- (d) Pulmonary veins

14. The 'dubb' sound is caused by closure of:

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

15. Which one is the main artery of the body?

- (a) Pulmonary artery
- (b) Aorta
- (c) Coronary artery
- (d) Hepatic artery

16. Which vein carries oxygenated blood?

- (a) Superior vena cava
- (b) Inferior vena cava
- (c) Pulmonary vein
- (d) Coronary vein

17. Which artery carries deoxygenated blood?

- (a) Aorta
- (b) Pulmonary artery
- (c) Hepatic artery
- (d) Coronary artery

18. The blood vessel with valves is:

- (a) Artery
- (b) Vein
- (c) Capillary
- (d) Aorta

19. The smallest blood vessels are:

- (a) Arteries
- (b) Veins
- (c) Capillaries
- (d) Venules

20. The hepatic portal vein connects:

- (a) Liver to heart
- (b) Intestine to liver
- (c) Kidney to liver
- (d) Heart to lungs

21. Normal systolic pressure is:

- (a) 80 mmHg
- (b) 100 mmHg
- (c) 120 mmHg
- (d) 140 mmHg

22. Diastolic pressure is normally:

- (a) 60 mmHg
- (b) 80 mmHg
- (c) 90 mmHg
- (d) 100 mmHg

23. The instrument to measure BP is:

- (a) Manometer
- (b) Thermometer
- (c) Sphygmomanometer
- (d) Stethoscope

24. Pulse is felt in:

- (a) Veins
- (b) Arteries
- (c) Capillaries
- (d) Venules

25. The universal donor blood group is:

- (a) AB
- (b) A
- (c) O
- (d) B

26. The universal recipient blood group is:

- (a) O
- (b) A
- (c) B
- (d) AB

27. The life span of RBC is about:

- (a) 30 days
- (b) 60 days
- (c) 120 days
- (d) 200 days

28. Which organ destroys worn-out RBCs?

- (a) Heart
- (b) Spleen
- (c) Liver
- (d) Kidney

29. Which protein helps in blood clotting?

- (a) Hemoglobin
- (b) Fibrinogen
- (c) Albumin
- (d) Globulin

30. Platelets are also called:

- (a) Erythrocytes
- (b) Leucocytes
- (c) Thrombocytes
- (d) Lymphocytes

31. Which type of WBC produces antibodies?

- (a) Neutrophils
- (b) Eosinophils
- (c) Lymphocytes
- (d) Monocytes

32. Which WBC engulfs bacteria?

- (a) Lymphocyte
- (b) Monocyte
- (c) Neutrophil
- (d) Both b & c

33. Double circulation means blood passes through heart:

- (a) Once in a cycle
- (b) Twice in a cycle
- (c) Thrice in a cycle
- (d) Not at all

34. The blood vessel that brings blood from intestine to liver is:

- (a) Hepatic artery
- (b) Hepatic vein
- (c) Hepatic portal vein
- (d) Coronary vein

35. Coronary arteries supply blood to:

- (a) Lungs
- (b) Brain
- (c) Heart
- (d) Liver

36. Which is called “River of life”?

- (a) Lymph
- (b) Blood
- (c) Plasma
- (d) Serum

37. Serum is plasma without:

- (a) RBC
- (b) WBC
- (c) Platelets
- (d) Fibrinogen

38. Lymph lacks:

- (a) WBC
- (b) Platelets
- (c) RBC
- (d) Plasma

39. Lacteals are lymph vessels found in:

- (a) Lungs
- (b) Villi of small intestine
- (c) Liver
- (d) Kidney

40. The normal human blood volume is about:

- (a) 2 L
- (b) 3 L
- (c) 4–5 L
- (d) 7–8 L

41. Which chamber pumps blood into aorta?

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

42. Which valve is located at the opening of aorta?

- (a) Bicuspid valve
- (b) Tricuspid valve
- (c) Semilunar valve
- (d) Coronary valve

43. Which vein carries blood from kidneys?

- (a) Renal vein
- (b) Renal artery
- (c) Hepatic vein
- (d) Coronary vein

44. The pulmonary circulation starts from:

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

45. The systemic circulation starts from:

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

46. Which chamber receives blood from vena cava?

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

47. Which one is not a function of blood?

- (a) Transport
- (b) Defence
- (c) Conduction of impulse
- (d) Regulation

48. Which blood vessel is thick and elastic?

- (a) Vein
- (b) Artery
- (c) Capillary
- (d) Venule

49. Which blood vessel has the largest lumen?

- (a) Artery
- (b) Vein
- (c) Capillary
- (d) Arteriole

50. Which one helps in fat absorption?

- (a) Arteries
- (b) Capillaries
- (c) Lymph
- (d) Platelets

Give answer in one word

1. The natural pacemaker of the heart.
2. The double-walled covering of the heart.
3. The blood vessel that carries oxygenated blood from lungs to heart.
4. The blood vessel that carries deoxygenated blood from heart to lungs.
5. The main artery of the body.
6. The sound produced when atrioventricular valves close.
7. The sound produced when semilunar valves close.
8. The instrument used to measure blood pressure.
9. The fluid connective tissue of the body.
10. The respiratory pigment present in RBC.
11. The chamber of the heart with the thickest wall.
12. The blood vessel supplying oxygen to heart muscles.
13. The type of circulation between heart and lungs.
14. The type of circulation between heart and body tissues.

15. The circulation connecting intestine and liver.
16. The normal systolic pressure in adults.
17. The normal diastolic pressure in adults.
18. The cells responsible for clotting.
19. The protein responsible for clotting.
20. The lymphatic vessels present in intestinal villi.
21. The blood cells that lack nucleus.
22. The colourless cells that fight infection.
23. The largest blood vessel in the human body.
24. The fluid that bathes tissue cells.
25. The percentage of plasma in blood.
26. The life span of RBC in days.
27. The organ where old RBCs are destroyed.
28. The type of WBC that produces antibodies.
29. The type of WBC that engulfs pathogens.
30. The blood component that transports digested food.
31. The blood component that transports carbon dioxide.
32. The blood group known as universal donor.
33. The blood group known as universal recipient.
34. The chamber of the heart that pumps blood into aorta.
35. The valve between left atrium and left ventricle.
36. The valve between right atrium and right ventricle.
37. The valves present at the opening of aorta and pulmonary artery.
38. The average heartbeat per minute in adults.
39. The process by which WBC squeeze out of capillaries.
40. The clear fluid derived from blood that lacks RBC.
41. The watery component of blood.
42. The percentage of RBC in human blood.
43. The term for low platelet count.
44. The term for high blood pressure.
45. The term for low blood pressure.

46. The network of smallest blood vessels.
47. The organ that forms lymph.
48. The average volume of blood in an adult human.
49. The artery that supplies blood to the kidneys.
50. The vein that carries blood from kidneys to vena cava.

Fill in the blanks

1. The human heart is enclosed in a double-walled sac called _____.
2. The heart is divided into _____ chambers.
3. The upper chambers of the heart are called _____ while the lower chambers are called _____.
4. The wall separating the two ventricles is called the _____.
5. The pacemaker of the heart is the _____ node.
6. The valve between right atrium and right ventricle is called _____.
7. The valve between left atrium and left ventricle is called _____.
8. The valves at the opening of aorta and pulmonary artery are called _____.
9. The right ventricle pumps blood into the _____ artery.
10. The left ventricle pumps blood into the _____.
11. The right atrium receives blood from _____ and _____.
12. The left atrium receives blood from the _____.
13. The first heart sound 'lubb' is produced by closure of _____ and _____ valves.
14. The second heart sound 'dubb' is produced by closure of _____ valves.
15. The circulation of blood between heart and lungs is called _____ circulation.
16. The circulation of blood between heart and rest of body is called _____ circulation.
17. Blood passes through the heart _____ times in one complete circulation.
18. The hepatic portal vein carries blood from the _____ to the _____.
19. The coronary arteries supply blood to the _____.
20. Normal blood pressure is _____ / _____ mmHg.
21. The pressure exerted during ventricular contraction is called _____ pressure.

22. The pressure exerted during ventricular relaxation is called _____ pressure.
23. The instrument used to measure blood pressure is the _____.
24. The throbbing felt in the arteries is called _____.
25. Pulse rate is almost equal to the rate of _____.
26. The average human heart beats _____ times per minute.
27. The average volume of blood in an adult human is _____ litres.
28. Blood is a _____ connective tissue.
29. About _____% of human blood is plasma.
30. RBCs contain the pigment _____.
31. The life span of RBC is about _____ days.
32. Old RBCs are destroyed in the _____.
33. The number of WBC in 1 mm³ of blood is about _____.
34. The number of platelets in 1 mm³ of blood is about _____.
35. The blood protein responsible for clotting is _____.
36. The deficiency of platelets causes _____ disease.
37. The liquid left after clotting is called _____.
38. Plasma without clotting factors is called _____.
39. The lymphatic vessels present in intestinal villi are called _____.
40. The clear fluid that bathes body tissues is called _____.
41. Lymph lacks _____ but contains WBC.
42. The universal donor blood group is _____.
43. The universal recipient blood group is _____.
44. The vena cava opens into the _____ atrium.
45. The pulmonary vein opens into the _____ atrium.
46. The hepatic vein drains blood from the _____ into vena cava.
47. The renal artery carries blood to the _____.
48. The renal vein carries blood away from the _____.
49. The wall of _____ ventricle is thickest.
50. Capillaries join _____ and _____.

State true or false

1. The human heart has four chambers.
2. The right side of the heart pumps oxygenated blood.
3. The left ventricle has thicker walls than the right ventricle.
4. The tricuspid valve is present between left atrium and left ventricle.
5. The bicuspid (mitral) valve is present between left atrium and left ventricle.
6. The pulmonary artery carries oxygenated blood.
7. The pulmonary vein carries deoxygenated blood.
8. The aorta arises from the right ventricle.
9. The vena cava opens into the right atrium.
10. The heart is enclosed in a pericardium.
11. The pacemaker of the heart is the SA node.
12. The AV node is also called the natural pacemaker.
13. Bundle of His and Purkinje fibres conduct impulses in ventricles.
14. Normal human heart beat is about 72/min.
15. Pulse is felt in veins.
16. Pulse rate is the same as heart rate.
17. Normal human blood pressure is 120/80 mmHg.
18. Systolic pressure is recorded during ventricular contraction.
19. Diastolic pressure is recorded during ventricular relaxation.
20. High blood pressure is called hypertension.
21. Low blood pressure is called hypotension.
22. RBCs contain hemoglobin which transports oxygen.
23. The life span of RBC is about 120 days.
24. Platelets are responsible for blood clotting.
25. Fibrinogen is essential for clotting.
26. WBCs help in defense against infection.
27. Lymph is a yellowish fluid that lacks RBC.
28. Lymph carries absorbed fats from intestine.

29. The coronary arteries supply blood to the heart muscles.
30. Double circulation means blood passes once through the heart in one cycle.
31. In systemic circulation, blood goes from heart to body tissues and back.
32. In pulmonary circulation, blood goes from heart to lungs and back.
33. Capillaries have thin walls made of a single cell layer.
34. Arteries have valves to prevent backflow.
35. Veins carry blood at high pressure.
36. Veins generally carry deoxygenated blood.
37. Pulmonary vein is an exception as it carries oxygenated blood.
38. Pulmonary artery is an exception as it carries deoxygenated blood.
39. Serum is plasma minus fibrinogen.
40. Plasma makes up about 55% of blood.
41. The average human has 5–6 litres of blood.
42. The “lubb” sound is due to closure of semilunar valves.
43. The “dubb” sound is due to closure of AV valves.
44. The hepatic portal vein connects intestine and liver.
45. The renal vein carries blood from kidneys to inferior vena cava.
46. Arteries have thick elastic walls.
47. Veins have thin walls and wider lumen.
48. Capillaries connect arterioles and venules.
49. Blood is a connective tissue.
50. The circulatory system also helps in regulation of body temperature.