

लोक सेवा आयोग
स्वास्थ्य सेवा

नमुना प्रश्नोत्तर

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BLOOD

1. The blood cells are of _____ kinds.

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

Answer: d

Explanation: The blood cells are of 3 types. They are red cells erythrocytes, Colorless cells – Leucocytes and blood platelets.

2. Blood is stained with ____ stain.

- a) Methylene blue
- b) Safranin
- c) Leishman stain
- d) Carbol fuchsine

Answer: c

Explanation: Leishman stain is used in microscopy for staining blood smears. It is generally used to differentiate and identify leucocytes malaria parasites and trypanosomas.

3. Process of formation of blood cells is called _____

- a) Haemolysis
- b) Haemozoin
- c) Haemopoesis
- d) Haemoter

Answer: c

Explanation: The Process of formation of blood cells is called Haemopoesis. It occurs in the bone marrow.

4. Graveyard of RBC is _____

- a) Spleen
- b) Liver
- c) Kidney
- d) Thymus

Answer: a

Explanation: Old red blood cells are recycled in the spleen. Platelets and white blood cells are stored there. Spleen also helps fight certain kinds of bacteria that cause pneumonia and meningitis.

5. Which leucocytes release heparin and histamine in blood?

- a) Neutrophil
- b) Basophil
- c) Eosinophil
- d) Monocytes

Answer: b

Explanation: Basophil contains heparin which is an anticoagulant. It is a type of white blood cell.

6. Which blood cells secrete antibody?

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

Answer: c

Explanation: A Lymphocyte is a type of white blood cell that is a part of the immune system. There are 2 main types of Lymphocyte: B cells and T cells. The B cells produce antibodies that are used to attack invading bacteria, viruses and toxins.

7. Vitamin essential for blood clotting is _____

- a) Vitamin K
- b) Vitamin A
- c) Vitamin B
- d) Vitamin C

Answer: a

Explanation: Vitamin K is used by the body to help blood clot. Warfarin is used to slow blood clotting. By helping the blood clot vitamin k might decrease the effectiveness of warfarin.

8. Haemoglobin is a _____

- a) Reproductive pigment
- b) Respiratory pigment
- c) Carbohydrate
- d) Fat

Answer: b

Explanation: Haemoglobin is a protein in RBC that carries oxygen throughout the body. Lower Haemoglobin counts indicate anaemia.

9. Absence of which clotting factor leads to Haemophilia-A? a) Factor VII
b) Factor VIII
c) Factor IX
d) Factor X

Answer: b

Explanation: Haemophilia-A is also called factor VIII deficiency or classic haemophilia. It is genetic disorder caused by missing or defective factor VIII a clotting protein.

10. What prevents clotting of blood inside blood vessels?
a) Heparin
b) Serotonin
c) Fibrinogen
d) Fibrin

Answer: a

Explanation: Heparin is an anticoagulant that prevents the formation of blood clots. It is used to treat blood clots in veins arteries or lung.

11. Red cell count is carried out by _____
a) Electrogram
b) Sphygmomanometer
c) Haemoglobinometer
d) Haemocytometer

Answer: d

Explanation: Haemocytometer is a device designed and used for counting blood cells. It was invented by Louis Charles Malassez.

12. Blood is five times more viscous than distilled water.

- a) True
- b) False

Answer: a

Explanation: When hematocrit raised to 60% or 70% the blood viscosity can become as great as 5 to 6 times that of water and its flow through blood vessels is greatly retarded because of increased resistance to flow.

13. Which of the following components cause coagulation if introduced to the blood stream?
- a) Fibrinogen
 - b) Prothrombin
 - c) Heparin
 - d) Thromboplastin

Answer: d

Explanation: Thromboplastin is a plasma protein aiding blood coagulation. It catalyzes the conversion of prothrombin to thrombin.

14. Process of formation of blood cells is called _____
- a) haemolysis
 - b) haemopoiesis
 - c) haemozoin
 - d) haemolytic

Answer: b

Explanation: Haemopoiesis is the production of blood cells and platelets. It occurs in bone marrow.

15. The normal blood pressure of an adult is

- a) 100/80 mm Hg
- b) 100/60 mm Hg

- c) 120/80 mm Hg
- d) 80/120 mm Hg

Answer: c

Explanation: Blood pressure is the pressure of circulating blood on the walls of blood vessels. The normal blood pressure of an adult is 120/80 mm Hg.

16. What is Pernicious anemia?

- a) Low RBC count
- b) Destruction of RBC maturation
- c) Death of WBC
- d) Low WBC count

Answer: b

Explanation: Pernicious anaemia is decreased in red blood cells when body can't absorb enough vitamin B12.

17. Graveyard of RBC is _____

- a) spleen
- b) liver
- c) stomach
- d) pancreas

Answer: a

Explanation: Spleen is known as Graveyard of RBC. For every 120 days new RBCs are formed. Old blood cells are recycled in spleen.

18. Which leucocytes release heparin and histamine into the blood?

- a) Basophils
- b) Neutrophils
- c) Monocytes
- d) Lymphocytes

Answer: a

Explanation: Basophils contain heparin. This is the naturally occurring blood thinning substance. It is seen in WBCs.

19. Which among the following is true regarding leucocytes?

- a) They are enucleated
- b) Produced in thymus
- c) Sudden fall in number indicate cancer
- d) They can squeeze through capillary walls

Answer: d

Explanation: Leucocytes are involved in protecting body against infectious disease. They are produced in bone marrow. Leucocytes can squeeze through capillary walls and this is called as diapedesis.

20. Largest sized RBC is seen in _____

- a) elephant
- b) whale
- c) man
- d) amphiuma

Answer: d

Explanation: Largest RBC is seen in amphiuma. RBCs are an important part of blood. They help in the transportation of oxygen throughout the body.

21 Irregular nuclei are seen in _____

- a) basophiles
- b) eosinphil
- c) monocytes

d) neutrophil

Answer: d

Explanation: Neutrophil is a type of immune cell. They fight infection by ingesting microorganisms and releasing the enzymes that kill the microorganisms.

22. Hemoglobin is a _____

- a) respiratory pigment
- b) reproductive pigment
- c) fat
- d) carbohydrate

Answer: a

Explanation: Hemoglobin is the iron containing oxygen transport metalloprotein in RBCs. It is abbreviated as Hb.

23. Hemophilia is due to absence of _____

- a) factor VI
- b) factor VII
- c) factor VIII
- d) factor X

Answer: c

Explanation: Hemophilia is a disorder in which blood doesn't clot normally. There are different types of Hemophilia. It is due to the absence of Factor VIII.

24. Which of the following is not the cellular element of blood?

- a) T cells
- b) B cells
- c) Plasma

d) Monocytes

Answer: c

Explanation: Plasma is not the cellular elements of blood. Blood plasma is yellowish colored liquid. It makes up 55% of the body's total blood volume. It contains water and dissolved proteins.

25. Red cell count is carried out using

-
- a) electrocardiogram
 - b) sphygmomanometer
 - c) haemocytometer
 - d) haemoglobinometer

Answer: c

Explanation: Haemocytometer is a specialized slide that has counting chamber with a known volume of liquid. It is used to count RBC.

26. How many types of blood groups are present?

- a) 1
- b) 2
- c) 3
- d) 4

Answer: d

Explanation: There are four types of blood group present. They are A, B, O and AB type.

27. Which of the following blood group is considered a universal donor?

- a) A
- b) B
- c) AB

d) O

Answer: d

Explanation: Blood group O is considered are universal donor. The Rh negative blood is given to Rh negative patients and Rh positive blood or Rh negative blood are given to Rh positive patients. O negative is considered as universal donor.

28. The antigens for ABO and Rh blood groups are present on _____ a)
plasma

b) white blood cells

c) red blood cells

d) platelets

Answer: c

Explanation: Red blood cells are the most common type of blood cells and principle means of delivering oxygen. The antigens for blood groups are present on RBCs.

29. Which of the following blood group is referred as a universal recipient? a) A

b) B

c) AB

d) O

Answer: c

Explanation: Blood group AB is referred as a universal recipient. They can receive donated blood of any ABO blood group.

30. What are the two blood tests?

a) Rh and ABB

b) ABO and Rh

c) ABO and Rn

d) ABC and Rh

Answer: b

Explanation: The two blood tests are ABO and Rh type. ABO test determines the blood group. Rh test determines if it is positive or negative.

31. What is the process of transfer of human blood known as?

- a) Transfusion
- b) Processing
- c) Transporting
- d) Transferring

Answer: a

Explanation: Blood transfusion is the process of receiving blood or blood products into one's circulation intravenously. It is used in various medical conditions to replace the lost component of blood.

32. Which is the rarest blood group?

- a) AB negative
- b) AB positive
- c) O negative
- d) O positive

Answer: a

Explanation: AB negative is the rarest blood group. It is seen only in 1% of US population.

33. Who discovered blood groups?

- a) Thomas Cooley
- b) Karl Landsteiner
- c) Camillo Golgi
- d) Ernst Haecker

Answer: b

Explanation: Karl Landsteiner discovered ABO blood group system. He is an Austrian scientist. It was discovered in 1900.

34 Rh group was discovered in _____

- a) 1930s
- b) 1940s
- c) 1950s
- d) 1960s

Answer: b

Explanation: The Rh factor was discovered in 1940 by Karl Landsteiner and A.S. Wiener. It is known as the rhesus factor.

35. If the blood group of an individual is A then the antibody present is _____

- a) Anti B antibodies
- b) Anti A antibodies
- c) Anti O antibodies
- d) Anti OA antibodies

Answer: a

Explanation: If the blood group of an individual is A then the antibody present is Anti B antibodies. It is present on RBCs.

36. Which blood type can be transfused to the individual whose blood type is unknown?

- a) AB positive
- b) AB negative
- c) O positive
- d) O negative

Answer: d

Explanation: O negative blood type can be transfused to individual whose blood type is unknown since it is a universal donor blood group. Only 6.6% of population has O negative blood group.

37. In determining phenotype of ABO system

-
- a) O is dominant over A
 - b) B is dominant over A
 - c) O is recessive
 - d) A is dominant over O

Answer: c

Explanation: In determining phenotype of ABO system O is recessive. A and B are dominant over