



**1. Inorganic substances represents..... of plasma:**

- A. 55%
- B. 0.9%
- C. 9.1%
- D. 90%

**2. Regarding plasma proteins all of the following are true except.....**

- A. Total proteins in plasma are about 6-8 g/dl.
- B. Plasma proteins include conjugated proteins as glycoproteins and lipoproteins
- C. All plasma proteins are synthesized in the liver
- D. Albumin is the major human plasma protein

**3. Albumin represents.....of total plasma proteins**

- A. 40%
- B. 50%
- C. 55%
- D. 60%

**4. All of the following are functions of albumin except.....**

- A. Responsible for 70 to 80% of osmotic pressure
- B. Helps in the transport of several substances
- C. Assist in blood coagulation
- D. Is used in treatment of hemorrhagic shock and burns

**5. Which of the following drugs bind to albumin?**

- A. Sulphonamides,
- B. Aspirin,
- C. Penicillin
- D. All of the above

1. B	2. C	3. D	4. C	5. D
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**6. Which of the following is a reliable indicator of acute inflammation?**

- A. Albumin
- B.  $\alpha$ 1-acid glycoprotein
- C. Transferrin
- D.  $\beta$  - Lipoproteins

**7. Which of the following become deficient in emphysema?**

- A. Albumin
- B. Orosomucoid
- C.  $\alpha$ 1-antitrypsin
- D. Haptoglobin

**8. The principal protease inhibitor of human plasma is.....**

- A. Haptoglobin
- B. Transferrin
- C. C-reactive Protein
- D.  $\alpha$ 1-antitrypsin

**9. Which of the following minimizes urinary loss of Hb?**

- A. Albumin
- B. Haptoglobin
- C. Fibrinogen
- D.  $\beta$  - Lipoproteins

**10. Haptoglobin binds.....**

- A. Free hemoglobin
- B. Carboxy-hemoglobin
- C. Meth-hemoglobin
- D. Oxy-hemoglobin

6. B

7. C

8. D

9. B

10. A

**11. Hp-Hb complex is destroyed by .....:**

- A. Hepatocytes
- B. Neutrophils
- C. Lymphocytes
- D. Reticulo-endothelial cells.

**12. Haptoglobin is.....**

- A.  $\alpha$  1-globulins
- B.  $\alpha$  2-globulins
- C.  $\beta$  -globulins
- D.  $\gamma$  globulins

**13. C-reactive Protein is.....**

- A.  $\alpha$  1-globulins
- B.  $\alpha$  2-globulins
- C.  $\beta$  -globulins
- D.  $\gamma$  globulins

**14. Transferrin**

- A. Can bind to T-lymphocytes and can activate complement
- B. Takes part in coagulation of blood
- C. Transport iron between intestine and site of synthesis of Hb
- D. Inhibits trypsin, elastase, and other proteases

**15. Regarding C-reactive Protein which of the following is true?**

- A. It precipitates with group C polysaccharide of pneumococci, in the presence of Ca
- B. It can bind to T-lymphocytes and can activate complement
- C. It is used as a marker of tissue injury & inflammation
- D. All of the above

11.D

12.B

13.C

14.C

15.D

**16. Which of the following are immunoglobulins having antibody activity?**

- A.  $\alpha$  1-globulins
- B.  $\alpha$  2-globulins
- C.  $\beta$  -globulins
- D.  $\gamma$  globulins

**17. Fibrinogen is clotting factor .....**

- A. I
- B. II
- C. V
- D. VIII

**18. Which of the following plasma proteins transport copper?**

- A. Transcobalamin
- B. Transferrin
- C. Ceruloplasmin
- D. Albumin

**19. Transcobalamin bind & transports.....?**

- A. Steroid hormone
- B. Vitamin B12
- C. T3 & T4
- D. Extra-corporeal HB.

**20. The most common method for analysing plasma proteins is .....**

- A. Gas chromatography
- B. High performance liquid chromatography
- C. Electrophoresis
- D. Immunohistochemistry

16.D

17.A

18.C

19.B

20.C



**21. The plasma proteins can be separated into several fractions by .....**

- A. Agarose electrophoresis
- B. Polyacrylamide electrophoresis
- C. Starch electrophoresis
- D. Cellulose acetate electrophoresis

**22. Which of the following increase during acute inflammatory states?**

- A. C-reactive protein
- B. Haptoglobin
- C.  $\alpha$  1 antitrypsin
- D. All of the above

**23. All of the following are acute phase reactants except .....**

- A. Haptoglobin (Hp)
- B.  $\alpha$  1 acid glycoprotein
- C. Transferrin
- D. Fibrinogen

**24. All of the following are causes of hypoalbuminaemia except ?**

- A. Protein losing enteropathy
- B. Infective endocarditis
- C. Severe burns
- D. Nephrotic syndrome

**25. All of the following can lead to hypogammaglobulinemia except.....**

- A. Liver cirrhosis
- B. Pregnancy
- C. Protein losing enteropathy
- D. Cytotoxic therapy

**26. Most important sign of hypoproteinemia is.....**

- A. Loss of muscle mass
- B. Fatigue
- C. Lower limb edema & face swelling
- D. Dry brittle hair

21. D

22. D

23. C

24. B

25. A

26. C