

Question bank 2022-2023

1. Describe methods available for measurement of calcium in biological fluids.
2. Outline the principles of quality management for a clinical biochemistry laboratory.
3. An apparently healthy 45 year old woman is found to have a serum calcium concentration of 25 mg/dL, when tested as part of a routine health check. Discuss the possible causes and suggest a logical scheme for any further investigations required.
4. Describe the measurement of total cholesterol
5. Describe the regulation of the calcium concentration in plasma, and the abnormalities in this that may develop in adults.
6. Describe the investigation of hypertension in a 30-year old man.
7. Describe the role of bone markers in the investigation of metabolic bone disease
8. Using examples as appropriate, describe the use of enzymes as reagents in clinical biochemistry, including the advantages and disadvantages of their use.
9. Write a detailed description of spectrophotometric analysis
10. Write a critical discussion of the methods available for measurement of Bilirubin in serum.
11. Describe the differential diagnosis, investigation and management of a 45-year old woman with hypercalcaemia
12. Which one of the following abnormal conditions can be tested by monitoring prealbumin levels?
A. Prostate cancer B. Malnutrition. C. Appendicitis. D. Fungal infection.
E. Skin cancer
13. Which is found in obstructive jaundice?
A. High serum unconjugated bilirubin B. High serum conjugated bilirubin
C. Dark stools due to increased bilirubin metabolites D. Low serum unconjugated bilirubin
14. Low serum unconjugated bilirubin
A. LDL B. HDL C. VLDL D. TG
15. Which of the following is true of type II diabetes mellitus?
A. Is the least common form of the disease. B. Is mostly diagnosed in juveniles, age 9-to-14.
C. Is mostly diagnosed in those over the age of 40yrs. D. Has an absolute requirement for insulin replacement to preserve life
16. Discuss the significance of plasma albumin levels in health and disease.
17. Brief description of proteins present in plasma and what the predominant proteins are
18. The principal immunoglobulin that crosses the placental barrier is
A. IgA B. IgE C. IgG1 D. IgM
19. What is a possible interpretation of a patient with an elevated ionized calcium with a normal total calcium level?
20. Decreased cholesterol and LDL with normal triglycerides suggest (which disease)
21. Define the following terms
22. Describe the following disease
23. Write (T) true and (F) false for the following
24. Explain the Liver function tests
25. Parts of spectrophotometric device