

Q.P. CODE: 103016

Reg. No:

First Year B.Sc Perfusion Technology Degree Examinations, November 2013

Biochemistry

Time: 3 Hrs

Max. Marks:80

- Answer all questions
- Draw diagram wherever necessary

Essays:

(2×10=20)

1. Describe briefly the methods of blood sample collection, pre-analytical variables and vacuum tubes (or vacutainers) in blood sample collection. Add a note on anticoagulants.
(2½ + 2½ + 2½ + 2½ = 10)
2. Describe the principle and parts of pH meter with the help of a diagram. Mention the precautions taken before measurement of pH
(8 + 2 = 10)

Short notes:

(6×5=30)

3. Common disturbances in acid-base balance.
4. Bohr's Model of atomic structure.
5. Describe the principle of inter conversion of 90 mg/100 ml of blood glucose to millimoles/litre. Develop the multiplication factor for the inter conversion.
6. Different indicators of pH and its uses.
7. Bands formed in serum electrophoresis.
8. Define nitrogen balance and mention the different types with examples.

Answer briefly:

(10×3=30)

9. Colorimeter
10. Principle and calculation of accuracy in clinical laboratory
11. Centrifuge
12. What is serum sodium concentration and how is measured
13. Mention six abnormal constituents of urine and how are they qualitatively detected.
14. Nutritional importance of lipids.
15. Preparation of 100 ml Normal Saline
16. Calibration of Pipettes
17. Basal metabolic rate and the diseases in which it is altered.
18. Name the vitamins.
