43543 **(Pages 2)** **Name**.....

Reg. No.....

FIRST SEMESTER B.Sc. (GENETICS) DEGREE EXAMINATION, JULY 2013

(CCSS)

Biochemistry

BC 1C 01—ELEMENTARY BIOCHEMISTRY

ime : Three Hours Maximum : 30 Weightage

I. Answer *all* twelve questions :

1 Chlorination of methane is an example of _____ reaction.

2 Which of the following is an amphoteric substance ?

(a) Water. (b) Glucose.

(c) Acetic acid.

3 Negative log of H ion concentration is _____

4 What is buffer action ?

(a) resisting change in pH. (b) Increasing the pH.

(c) decreasing the pH.

5 A molecule with no plane of symmetry is called

6 When an atom, group or molecule is added to the substrate molecule, the reaction is called _____

7 Which is decarboxylation ?

(a) oxalosuccinic acid to keto glutaric acid.

(b) succinic acid to fumaric acid.

8 Which of the following is an ingredient of saliva.

(a) Renin. (b) Trypsin.

(c) Mucin. (d) Insulin.

9 _____ is the chief sugar of milk.

10 _____ is the mineral ion essential for blood clotting.

11 The pH of pure water at ordinary temperature is _____

12 Sodium acetate and acetic acid are constituents of _____ buffer.

(12 x = 3 weightage)

Turn over

II. Answer *all* nine questions :

13 What is Tyndall effect ?

14 What is substitution reaction ?

15 What is pOH ?

16 What is pH meter ?

17 What is an elimination reaction ?

18 What is a lyophobic colloid ?

19 What is Rf value ?

20 What is optical activity ?

21 What is a geometrical isomer ?

(9 x 1 = 9 weightagl

III. Answer any *five* questions :

22 Describe the principle of electrophoresis.

23 Give the principle involved in ultracentrifugation.

24 Write the composition of lymph.

25 Describe the different function of blood.

26 Discuss the Lewis theory of acids and bases.

27 Mention the applications of radio-immune assay.

28 Give an account of dissociation of water.

(5 x 2 = 10 weight

IV. Answer any *two* questions :

29 Describe the biochemical aspects of blood clotting.

30 What is buffer solution ? Explain Henderson-Hasselbalch equation.

31 What is chromatography ? Explain the principle and types.

(2 x 4 = 8 weigh