

C 32351

(Pages : 2)

Name.....

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2017

(CUCSS)

Zoology

ZO 1C T01—BIOCHEMISTRY AND CYTOGENETICS

(2016 Admissions)

Time : Three Hours

Maximum : 36 Weightage

I. Answer the following :

- 1 Covalent bond.
- 2 Optical isomerism.
- 3 β -pleated sheet.
- 4 Sulpholipids.
- 5 Lineweaver-Burk equation.
- 6 Redox potential.
- 7 Deamination.
- 8 β -oxidation.
- 9 Heterochromatin.
- 10 Inulin.
- 11 Complementation test.
- 12 Zwitterions.
- 13 G- protein linked receptor.
- 14 Caspases.

(14 × 1 = 14 weightage)

II. Answer any *seven* of the following :—

- 15 Explain the structure and biological role of hyaluronic acid.
- 16 Write the different hypotheses to explain the mechanism of the formation of enzyme substrate complex.
- 17 Explain de novo synthesis of purine molecules.

Turn over

- 18 Describe the biosynthesis of fatty acids.
- 19 Explain the regulation of glycogen synthesis and break down.
- 20 Describe the classification and functions of vitamins.
- 21 Write an account on the factors affecting enzyme action.
- 22 Explain the biological role of lipids.
- 23 Describe the nucleosome model of chromosome structure.
- 24 Write notes on numerical aberrations.

(7 × 2 = 14 weightage)

III. Answer any *two* of the following :—

- 25 Write an essay on extrachromosomal inheritance.
- 26 Write the classification and biological role of carbohydrates.
- 27 Describe the different levels of structural organization of proteins.
- 28 Discuss the role of different cell adhesion molecules in cell-cell interactions.

(2 × 4 = 8 weightage)