

2008

ZOOLOGY

(Major)

Paper : 3·1

Full Marks : 100

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer either (a) and (b) or (c) and (d) :

(a) What do you mean by intranuclear organization? Explain your answer with suitable diagram. 15

(b) Write the mechanism of exocytosis in a cell. 5

Or

(c) Describe the structure and function of microtubules. 15

(d) Write about the functional significance of centriole. 5

2. Answer either (a) or (b) :

(a) Write short notes on any five of the following : 5×5=25

- (i) Buffers
- (ii) Amino acids
- (iii) Cholesterol
- (iv) Uric acid
- (v) Isomerisation
- (vi) Monosaccharides

Or.

(b) (i) What is enzyme? Write about the nature and classification of enzymes. 5+10=15

(ii) Explain the mechanism of fatty acids synthesis. 10

3. Answer either (a) and (b) or (c) and (d)

(a) What is transcription? Write in detail about the protein synthesis. 5+15=20

(b) Give a comment on mitochondrial DNA. 5

Or

(c) Give an account on the effect of radiation on living organisation. 20

(d) Write shortly on human karyotype. 5

(3)

4. Write about any *two* of the following :

$7\frac{1}{2} \times 2 = 15$

- (a) Second law of thermodynamics
- (b) Redox-potential
- (c) Ubiquinone (UQ)
- (d) Flavoproteins

5. Write about the different components of immune system.

15

Or

Write short notes on any *three* of the following :

$5 \times 3 = 15$

- (a) Antigen
- (b) Vaccination
- (c) Allergy
- (d) Autoimmunity
