

Objective
Paper CodeIntermediate Part Second (New Scheme)
BIOLOGY (Objective) GROUP – II**8462**

Time: 20 Minutes

Marks: 17

Q.No.1

You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill the relevant circle in front of that question number on computerized answer sheet. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero marks in that question. Attempt as many questions as given in objective type question paper and leave other circles blank.

S.#	Questions	A	B	C	D
1	The active uptake of sodium ions in the loop of Henle is provided by the action of hormone:	Insulin	Aldosterone	Oxytocin	Adrenaline
2	Fresh water protozoans pump out excess water by:	Food vacuoles	Cilia	Contractile vacuoles	Pseudopodia
3	The disease which causes immobility and fusion of vertebral joints is called:	Sciatica	Microcephaly	Arthritis	Spondylosis
4	Number of cervical vertebrae in human is:	7	5	12	9
5	Galls are growth on plants that are induced by:	Fungi	Parasites	Insects	Protozoans
6	Oviduct opens into:	Uterus	Cervix	Vagina	Bladder
7	Decrease of FSH and increase of estrogen cause pituitary gland to secrete:	Progesterone	Luteinizing hormone	Lactogen	Oxytocin
8	Which type of light favours elongation of cells in plants?	Yellow	Green	Red	Blue
9	Particular array of chromosomes that an individual possess is called:	Genome	Genotype	Phenotype	Karyotype
10	Programmed and organized process of cell death is called:	Apoptosis	Necrosis	metastasis	Metamorphosis
11	Duplication of chromosomes occur during the phase of cell cycle:	G ₁ -phase	S-phase	G ₂ -phase	G ₀ -phase
12	The cross which is used to find homozygous or heterozygous nature of genotype:	Reciprocal cross	Monohybrid cross	Dihybrid cross	Test cross
13	Adult transgenic tobacco plant glowed when sprayed with substrate:	Luciferin	Luciferol	Luciferase	Luciferous
14	Archaeobacteria can tolerate temperature up to:	50°C	70°C	100°C	120°C
15	Moderate grazing is very helpful to maintain ecosystem:	Grassland	Desert	Tundra	Forest
16	Drifting or floating microscopic organisms are called:	Phytoplanktons	Zooplanktons	Planktons	Photons
17	Establishment of new forests where no forests existed before is called:	Forestation	Reforestation	Deforestation	Afforestation

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SECTION - I

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2. Write short answers to any EIGHT parts.

- (i) Define osmoregulation and thermoregulation.
- (ii) How loss of water is prevented in insects and terrestrial vertebrates?
- (iii) Define heat shock proteins at which temperature they work.
- (iv) Define phototactic and chemotactic movements.
- (v) Write few lines on disease Rickets.
- (vi) Define unguligrades. Write its two examples.
- (vii) Give two uses of biofilters.
- (viii) How gene therapy in Cancer patients be done?
- (ix) How productivity of an aquatic ecosystem can be determined?
- (x) Define Savanna and Prairies.
- (xi) Write two modifications of environment.
- (xii) Define pollution. Write only names of its four kinds.

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3. Write short answers to any EIGHT parts.

- (i) What is habituation? Give an example.
- (ii) Characterize Pacinian Corpuscles.
- (iii) Write two uses of 2,4 dichloro phenoxy acetic acid.
- (iv) What is vernalization? Give an importance.
- (v) What is follicle atresia?
- (vi) Give some disadvantages of cloning.
- (vii) Define crossing over. Give its importance.
- (viii) What are multifactorial traits? Give an example.
- (ix) Differentiate between autosomes and sex chromosomes.
- (x) Differentiate between micronutrients and macronutrients.
- (xi) Define predation. Give its importance.
- (xii) Define primary succession.

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4. Write short answers to any SIX parts.

- (i) Define term gerontology and teratology.
- (ii) What is gray crescent?
- (iii) State "The Chromosomal Theory of Inheritance".
- (iv) What is the difference between heterochromatin and euchromatin?
- (v) Differentiate between template and coding strands.
- (vi) What changes occur in dividing cell during diplotene?
- (vii) How does cell death help in multicellular development?
- (viii) What are vestigial organs? Give an example.
- (ix) What do you mean by endosymbiont hypothesis?

SECTION - II Attempt any THREE questions. Each question carries 08 marks.

5. (a) Describe the structure of nephron of human kidney. 04
(b) Define succession. Discuss succession on land. 04
6. (a) Discuss sliding filament model of muscle contraction. 04
(b) Write a note on transformation. 04
7. (a) Define nerve impulse. How is it initiated? 04
(b) Write a note on importance of forests. 04
8. (a) What are phytochromes? Discuss their role in photoperiodism. 04
(b) Define test cross. Discuss its both cases with example. 04
9. (a) Explain the role of nucleus in development. 04
(b) Explain the evidences of evolution from embryology and molecular biology. 04