

BIOLOGY PAPER-II (NEW SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

- 1) ADH affects which part of nephron? (A) Walls of collecting duct
(B) Glomerulus (C) Walls of loop of Henle (D) Proximal convoluted tubule
- 2) Hag fishes are:
(A) Osmoregulators (B) Isotonic (C) Hypertonic (D) Hypotonic
- 3) All of the following are associated with coxal bone except:
(A) Ilium (B) Ischium (C) Pubis (D) Clavicle
- 4) The angular thickening in primary wall of cell is present in:
(A) Parenchyma (B) Collenchyma (C) Sclerenchyma (D) Sieve tubes
- 5) Which type of light promote germination of Fern spores?
(A) Green (B) Red (C) Blue (D) White
- 6) Temperature around 4°C stimulates the production of:
(A) Florigen (B) Vernalin (C) Auxins (D) Ethene
- 7) The stage that lasts for days, weeks or even years:
(A) Leptotene (B) Zygotene (C) Pachytene (D) Diplotene
- 8) Cell death due to tissue damage is called:
(A) Apoptosis (B) Metastasis (C) Necrosis (D) Suicide
- 9) The simplest form of learning behaviour is:
(A) Imprinting (B) Habituation (C) Insight learning (D) Latent learning
- 10) In which developmental stage, germ layers are formed?
(A) Cleavage (B) Blastula (C) Gastrula (D) Organogenesis
- 11) Which strand of DNA is transcribed?
(A) Coding (B) Sense (C) Template (D) Both strands
- 12) The type of inheritance with same phenotypic and genotypic ratio, in F₂:
(A) Dominance (B) Epistasis (C) Incomplete dominance (D) Co-dominance
- 13) The children with "SCID" lack an enzyme: (A) α - galactosidase
(B) Phenylalanine hydroxylase (C) Adenosine deaminase (D) Succinic dehydrogenase
- 14) Homologous structures represent:
(A) Convergent evolution (B) Analogy (C) Divergent evolution (D) Functional similarity
- 15) Limnetic phytoplankton includes:
(A) Bacteria (B) Algae (C) Mosses (D) Cyanobacteria
- 16) Study of single population's relationship to environment is:
(A) Autecology (B) Synecology (C) Ecology (D) Community ecology
- 17) The cause of Kwashiorkor disease is:
(A) Pathogen (B) Metabolic disorder (C) Nutritional deficiency (D) Aging

INTERMEDIATE PART-II (12th CLASS)

BIOLOGY PAPER-II (NEW SCHEME) GROUP-II

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

NOTE: - Write same question number and its part number on answer book,
as given in the question paper.

SECTION-I

2. Attempt any eight parts.

8 × 2 = 16

- (i) Write at least two important characters of Hydrophytes.
- (ii) Differentiate between Osmoconformer and Osmoregulators.
- (iii) What is Pyrogen? Give its role.
- (iv) How exercise effect the muscle?
- (v) What is secondary growth? How it occurs?
- (vi) Define Bone. Write the names of cells associated with the bone.
- (vii) What are Restriction Endonucleases?
- (viii) Define Taq Polymerase. Give its source.
- (ix) Differentiate between alpine and boreal forest.
- (x) Give the characteristics of profundal zone.
- (xi) What is ozone layer?
- (xii) Write two disadvantages of Nuclear energy.

3. Attempt any eight parts.

8 × 2 = 16

- (i) Write any two commercial applications of Gibberellins.
- (ii) Describe action of Nicotine on coordination in animals.
- (iii) Discuss the role of progesterone in reproductive cycle of human females.
- (iv) What is "Fruit set" in plants? Discuss the role of pollen grain in it.
- (v) Describe Spermatogenesis-the formation of sperms in human males.
- (vi) What is Menopause?
- (vii) Write down any four contrasting traits of garden pea studied by G. Mendel.
- (viii) What is Over-Dominance?
- (ix) Describe XO - XX type of sex determination.
- (x) What do you know about Commensalism?
- (xi) Define Predation. Explain it with at least two examples.
- (xii) Define Plant Succession.

4. Attempt any six parts.

6 × 2 = 12

- (i) What is embryonic induction?
- (ii) What is Neuvolution?
- (iii) What is crossing over?
- (iv) Differentiate between Karyokinesis and Cytokinesis.
- (v) What is a gene frequency?
- (vi) State Hardy-Weinberg theorem.
- (vii) Differentiate between Euchromatin and Heterochromatin.
- (viii) What is Transcription?
- (ix) What is nucleotide and nucleoside?

SECTION-II

NOTE: - Attempt any three questions.

3 × 8 = 24

- 5.(a) Give a detailed account on excretory system in earthworm. 4
- (b) Describe the N_2 - cycle. 4
- 6.(a) What are Joints? Describe their different types. 4
- (b) Describe how Hershey and chase prove that DNA is the heredity material? 4
- 7.(a) Describe the functions of thyroid gland. 4
- (b) What is acid rain? State its cause and effects on environment. 4
- 8.(a) What are different physiological changes occur during the process of birth in human female? 4
- (b) Define incomplete dominance. Explain it with an example. 4
- 9.(a) Describe role of nucleus in development. 4
- (b) Describe comparative anatomy and comparative embryology as an evidence of evolution. 4