

INTERMEDIATE PART-II (12th CLASS)

BIOLOGY PAPER-II (NEW SCHEME) GROUP-I MIN-G1-12-18

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) Mongolism is the other name of:-
(A) Klinefelter's Syndrome (B) Turner's Syndrome (C) Down's Syndrome (D) Jacobs
- (2) The full cell cycle in yeast cells is completed in:-
(A) 24 hours (B) 4.5 hours (C) 30 minutes (D) 90 minutes
- (3) The cytoplasmic process/fibres which carry impulse towards cell body is called:-
(A) Dendron (B) Axons (C) Nissl's granules (D) Neurofibrils
- (4) The human life span is judged to be maximum of:-
(A) 60 – 70 years (B) 70 – 100 years (C) 120 – 125 years (D) 130 – 135 years
- (5) In sickle cell anemia code for glutamic acid is replaced by:-
(A) Leucine (B) Histidine (C) Valine (D) Proline
- (6) Universal recipient blood group is ____ blood group.
(A) A (B) B (C) AB (D) O
- (7) An enzyme α – galactosidase that can be used to treat a human lysosome storage disease, is harvested from:-
(A) Soyabeans (B) Tobacco plants (C) Sugarcane (D) Corn plants
- (8) The first photosynthetic organisms probably used Hydrogen Sulphide as a source of Hydrogen for reducing CO_2 to:-
(A) Sugars (B) H_2CO_3 (C) RUBP (D) Malate
- (9) Primary succession may start in a dry soil or rock is called:-
(A) Hydrosere (B) Xerosere (C) Desert (D) Derosere
- (10) Cacti and Euphorbia are the desert plants which store water in their:-
(A) Fleshy leaves (B) Fleshy buds (C) Fleshy stems (D) Fleshy roots
- (11) A single chlorine atom can react with ultraviolet rays and destroy as many as:-
(A) One million O_3 molecules (B) Three millions O_3 molecules
(C) Four millions O_3 molecules (D) Six millions O_3 molecules
- (12) _____ is not Endotherm.
(A) Bird (B) Amphibian (C) Flying insect (D) Some fishes
- (13) Glomerular filtrate are reabsorbed in:-
(A) Proximal tubule (B) Bowman's capsule (C) Loop of Henle (D) Distal tubule
- (14) The membrane that bounds vacuole is called:-
(A) Primary cell (B) Vascular wall (C) Pelicle (D) Tonoplast
- (15) In birds, the sternum is modified to form:-
(A) Keel (B) Neck (C) Rib (D) Clavicle
- (16) Fruit ripening is often accompanied by a burst of respiratory activity called:-
(A) Biometric (B) Redox (C) Climacteric (D) Photorespiration
- (17) An example of long-day plants is:-
(A) Tomato (B) Cabbage (C) Corn (D) Soyabean

INTERMEDIATE PART-II (12th CLASS)**BIOLOGY PAPER-II (NEW SCHEME) GROUP-I**

MTN-91-12-18

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) What is Lithotripsy?
 - (ii) Why temperature of body increases during fever? Explain.
 - (iii) Differentiate between fibres and sclereides.
 - (iv) What is "All or None response"?
 - (v) Define Vernalisation.
 - (vi) What is meant by "After birth"?
 - (vii) Differentiate between Climate and Weather.
 - (viii) Define Productivity of an Ecosystem.
 - (ix) What are heat-shock Proteins?
 - (x) What is cause and symptoms of Rickets?
 - (xi) How forests act as environmental buffers?
 - (xii) Define Demography.
3. **Attempt any eight parts.** 8 × 2 = 16
- (i) Define Nissl's granules.
 - (ii) What are Neurotransmitters? Give examples.
 - (iii) Write two functions of Parathyroid gland.
 - (iv) Differentiate between gene and allele.
 - (v) What is Epistasis? Differentiate it from dominance.
 - (vi) Define Crossing Over. Give its importance.
 - (vii) Write three methods to get gene of interest.
 - (viii) What is Probe? How is it traced?
 - (ix) What do you know about the Particle Gun?
 - (x) Compare Autecology with Synecology.
 - (xi) Differentiate between Primary and Secondary Succession.
 - (xii) What are Lichens? Write its significance.
4. **Attempt any six parts.** 6 × 2 = 12
- (i) Write practical applications of Apical dominance.
 - (ii) Write about cleavage and discoidal cleavage.
 - (iii) Write the functions of DNA polymerase III.
 - (iv) Differentiate between Pyrimidines and Purines.
 - (v) Define Phenylketonuria.
 - (vi) Write symptoms of Turner's Syndrome.
 - (vii) Define cell cycle. Write its phases.
 - (viii) Define Hardy-Weinberg Theorem and also write its formula.
 - (ix) What is Endosymbiont hypothesis?

SECTION-II

NOTE: - Attempt any three questions.

3 × 8 = 24

- 5.(a) Discuss the nature of excretory products in different habitats. 4
- (b) Define Ecosystem. Describe various components of an ecosystem. 4
- 6.(a) Describe Exoskeleton in arthropods. Write its advantages and disadvantages. 4
- (b) Explain one-gene/one-polypeptide hypothesis. 4
- 7.(a) Define nerve impulse. Explain factors responsible for resting membrane potential. 4
- (b) Write a note on Wild life. 4
- 8.(a) Write notes on:- (i) Seed Dormancy (ii) Fruit set and Fruit ripening 4
- (b) Describe genetic basis of ABO blood group system. 4
- 9.(a) Write a note on abnormal development. 4
- (b) Discuss comparative anatomy as an evidence of Evolution. 4

BIOLOGY PAPER-II (NEW SCHEME) GROUP-II *MIN-42-12-18*

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) The human abdominal cavity lined by a thin epithelium is called:-
 (A) Ectoderm (B) Endoderm (C) Peritoneum (D) Epidermis
- (2) In human beings, the homeostatic thermostat is present in a part of the brain called as:-
 (A) Cerebrum (B) Thalamus (C) Hypothalamus (D) cerebellum
- (3) Rickets is a disease in children with bowed legs and deformed _____.
 (A) Head (B) Pelvis (C) Chest (D) Arms
- (4) The folded leaflets of sensitive Mimosa regain their turgidity after:-
 (A) 2 minutes (B) 5 minutes (C) 10 minutes (D) 15 minutes
- (5) Alpha cells of Pancreas secrete:-
 (A) Insulin (B) Pancreatic juice (C) Glucagon (D) Secretin
- (6) Corpus luteum secretes a hormone called:-
 (A) Progesterone (B) Oxytocin (C) Testosterone (D) Estrogen
- (7) Cucumber, tomato, garden pea, maize, cotton are examples of:-
 (A) Short-day plants (B) Long-day plants (C) Day-neutral plants (D) Night-neutral plants
- (8) The discoidal cap of cells above the blastocoele is called:-
 (A) Ectoderm (B) Mesoderm (C) Endoderm (D) Blastoderm
- (9) A sequence of three nucleotides in mRNA is called:-
 (A) Cistron (B) Codon (C) Anticodon (D) Template
- (10) Meiosis II is just like the:-
 (A) Amitosis (B) Regenerations (C) Mitosis (D) Replacement
- (11) The chances of teenage mother having Down's syndrome child is:-
 (A) One in one hundred (B) One in one thousand
 (C) One in many thousands (D) One in ten thousands
- (12) Protanopia is a:-
 (A) Red blindness (B) Green blindness (C) Blue blindness (D) Brown blindness
- (13) Cystic fibrosis patients lack a gene that codes for trans-membrane carrier of the:-
 (A) Sodium ion (B) Chloride ion (C) Potassium ion (D) Calcium ion
- (14) Acquired characteristics of an individual can not be:-
 (A) Inherited (B) Lost (C) Flourished (D) Migrated
- (15) Lichen is a symbiotic association between a fungus and:-
 (A) Gymnosperm (B) Angiosperm (C) An alga (D) Pteridophyta
- (16) Limnetic phytoplankton include the:-
 (A) Bacteria (B) Cyanobacteria (C) Fishes (D) Mosses
- (17) A chemical which kills the weeds in a crop is known as:-
 (A) Insecticides (B) Pesticides (C) Herbicides (D) Germicides

INTERMEDIATE PART-II (12th CLASS)**BIOLOGY PAPER-II (NEW SCHEME)****GROUP-II****MTN-92-12-18**

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 a concise note on Hemodialysis.
 - (ii) Briefly describe Urea Cycle.
 - (iii) What is Uremia? Give its treatment.
 - (iv) How does tendon differ from Ligament?
 - (v) Differentiate between sapwood and heartwood.
 - (vi) Write down disadvantages of Exoskeleton.
 - (vii) How do photoperiodism and vernalisation resemble with each other?
 - (viii) Write the functions of sertoli cells.
 - (ix) Compare weather with climate.
 - (x) Write down soil conditions of grassland ecosystem.
 - (xi) Differentiate between Pollution and Pollutants.
 - (xii) Write any four ways to Conserve Energy.
- 3. Attempt any eight parts.** **8 × 2 = 16**
- (i) What are Effectors?
 - (ii) Differentiate between Chemoreceptors and Mechanoreceptors.
 - (iii) What is Epilepsy? Write the name of important test in the study of Epilepsy.
 - (iv) Differentiate between Gene and Allele.
 - (v) What is Law of Segregation?
 - (vi) Define Epistasis.
 - (vii) Enlist three possible ways to get the gene of interest.
 - (viii) What is Gene Therapy? Write names of two methods used for gene therapy.
 - (ix) What is Recombinant DNA?
 - (x) Differentiate between Population and Community.
 - (xi) What are biotic components of an Ecosystem?
 - (xii) Differentiate between Autecology and Synecology.
- 4. Attempt any six parts.** **6 × 2 = 12**
- (i) Differentiate between Primary Growth and Secondary Growth.
 - (ii) Define Growth Correlation.
 - (iii) Differentiate between Heterochromatin and Euchromatin.
 - (iv) Define Nucleosome.
 - (v) Write two importance of Mitosis.
 - (vi) Differentiate between Benign tumour and Malignant tumour.
 - (vii) What is Phosphodiester bond?
 - (viii) What is Endosymbiont Hypothesis?
 - (ix) What are Vestigial organs? Give two examples.

SECTION-II**NOTE: - Attempt any three questions.****3 × 8 = 24**

- 5.(a) Write Homeostatic function of Liver. 4
- (b) Describe various stages of succession in Xerosere. 4
- 6.(a) Write a note on paratonic movements in plants. 4
- (b) Write a note on Transcription. 4
- 7.(a) What are Plant Hormones? Give the effects of Gibberellins and Ethene. 4
- (b) What are Renewable and non-renewable resources? Describe water as a renewable resource. 4
- 8.(a) Describe female reproductive system of humans. 4
- (b) Describe the mechanism of incomplete dominance with an example. 4
- 9.(a) Describe the external factors affecting the rate of growth in plants. 4
- (b) Describe the Hardy-Weinberg Theorem. 4