☆☆☆☆ P

Inter (Part-II)-A-2022

Roll No._____ (To be filled in by candidate)

(For all sessions)

Paper Code	8	4	6	7

Biology (Objective Type)

RwP-22

Time: 20 Minutes **Marks: 17**

NOTE: Write answers to the questions on the objective answer sheet provided. Four possible answers A,B,C and D to circle A,B,C or D given in front of each each question are given. Which answer you consider correct, fill the corresponding question with Marker or pen ink on the answer sheet provided.

1.1. The vernolic acid and ricinolic acid can be used as hardness in:
(A) paints (B) plastics (C) Paints and plastics (D) Rubber

2. Darwin's "Origin of species" was published in:
(A) 1840 (B) 1859 (C) 1865 (D) 1890

3. Study of relationship of different communities to environment is called:
(A) Synecology (B) Autecology (C) Embryology (D) Zoology

4. Which one is not a desert?
(A) Thal (B) Thar (C) Sahara (D) Taiga

5. The steady internal state of homeostasis is known as:
(A) Disorder (B) Disease (C) Normal health (D) Abnormal health

6. Pressure filtration is associated with the:
(A) Glomerular Part (B) Collecting tubule
(C) Distal convulated tabule (D) Collecting duct

7. The diameter of thick filament in muscle is:
(A) 7-8 nm (B) 4 nm (C) 16 nm (D) 10 nm

8. At the place of attachment of leaf with the shoot a swollen part is called:
(A) Pitch (B) Pit (C) Cortex (D) Pulvinus

9. Intelligence is under the control of:
(A) Cerebrum (B) Cerebellum (C) Thalamus (D) Hypothalamus

10. Diploid parthenogenesis may occur in:
(A) Bees (B) Aphid (C) Wasp (D) Honey Bee

11. The hypoblast is mainly presumptive:
(A) Endoderm (B) Epiderm (C) Mesoder (D) Blastoderm

12. It is one of the prominent structure in the chick embryo of 18 hours:
(A) Primitive streak (B) Neurocoel
(C) Notochord (D) Coelom

13. Initiation codes for every protein coding gene is AUG which encodes for:
(A) Leucine (B) Serine (C) Alanine (D) Methionine

14. The term Bivalent means:
(A) One chromosome (B) Two chromosomes (C) Two chromatids (D) Four Chromosomes

15. Mongolism is phenotypically:
(A) Male (B) Female (C) Male or Female (D) None

16. How many possible alleles of ABO blood group are present in an individual?
(A) 1 (B) 2 (C) 3 (D) 300

17. Dopamine praducing cells can be grafted in the brain in order to curve:
(A) Haemophilia (B) Epilepsy (C) Parkinson's disease (D) Alzheimer's

Roll No._____(to be filled in by the candidate)

R

Biology (Essay Type)

Time: 2:40 Hours **Section - I** Rwp-22 **Marks: 6**

2. Write short answers of any eight parts from the following. **2x8=16**

i. Why do marine fishes retain trimethylamine oxide in their body?
ii. Give the significance of tubular secretion in filterate.
iii. How do aldosterone and ADH help in concentration of urine?
iv. Differentiate betweeen heart wood and sap wood:
v. What is Nutation?
vi. Name the bones of pectoral girdle.
vii. Give the role of foetus during the timing of delivery.
viii. What is the cause and symptoms of Syphilis?
ix. Differentiate between climate and weather:
x. What is Taiga? Give conditions in Taiga.
xi. Define soil. Give its composition.
xii. What are the effects of global warming?

3. Write short answers of any eight parts from the following. **2x8=16**

i. Discuss the effect of age and emotions on epilepsy.
ii. Why the Hypothalamus is a main Coordination center?
iii. What type of behaviour is Kinesis?
iv. What is Product Rule?
v. Discuss Dominance relation. Give one example.
vi. What is Rh-factor?
vii. What is Gene Pharming?
viii. What is cystic fibrosis?
ix. Discuss importance of Tissue-culture.
x. What are decomposers?
xi. What is Food Chain?
xii. What type of trophic level exists in Food Chain?

4. Write short answers of any six parts from the following. **2x6=1**

i. How increase in length of plant body occurs? Discuss it.
ii. Can aging be slowed down in human? Comment on it.
iii. Differentiate between Template and coding strands of DNA during transcription.
iv. Give role of promoter in transcription.
v. Why DNA replication cannot complete without DNA Helicase
vi. Distinguish Convergent Evolution from Divergent Evolution.
vii. Differentiate between Endangered species and Extinct species. Give examples.
viii. Differentiate between Karyokinesis and cytokinesis.
ix. What is crossing over? Give its significance.

Section - II

NOTE: Answer any three questions from the following. **8x3=24**

5. (a) How osmoregulation takes place in terristrial environment? 4
   (b) Write a note on synecology and autecology. 4
6. (a) Demonstrate the antagonistic working of hinge joint of elbow. 4
   (b) Describe the process of transcription emphasizing initiation, elongation and termination steps. (Post transcriptional modificatios are not required) 4
7. (a) Describe the mechanism of synaptic transmission. 4
   (b) How acid rain is produced? What are the causes and effects of acid rain? 4
8. (a) Describe huaman menstrual cycle's primary steps. 4
   (b) Write a note on Sex determination in plants 4
9. (a) Define regeneration with two examples. Discuss the mechanism of regeneration in planaria and salamender: 4
   (b) Do the anatomical similarities between species bring any evidence in the support of evolution? If yes, explain. 4