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Roll No. 76291 (To be filled in by candidate)

Inter (Part-II)-A 2019

RWP-12-19

(For all sessions)

Paper Code	8	4	6	1

Biology (Objective Type)

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 each question are given. Which answer you consider correct, fill the corresponding circle A,B,C or D given in front of each question with Marker or pen ink on the answer sheet provided.

1.1. The leaves with very small surface area, are found in:
(A) Hydrophytes (B) Mesophytes (C) Xerophytes (D) Sciophytes

2. The compound which take part in urea cycle is:
(A) Adenine (B) Guanine (C) Citrulline (D) Thymine

3. Osteomalacia includes a number of disorders in which bones receive inadequate:
(A) Water (B) Oxygen (C) Blood (D) Minerals

4. Each A-band has a lighter stripe in its mid section called:
(A) A-Zone (B) H-Zone (C) M-Line (D) Z-Line

5. The receptor cells of planaria are sensitive to:
(A) Light and pressure (B) Light, pressure and touch
(C) Touch pressure and chemicals (D) Light, pressure, touch and chemicals

6. In nature P_{730} to P_{680} Conversion occurs in:
(A) Dark (B) Light (C) Morning (D) Evening

7. Lutenizing hormone in human female induces:
(A) Menstruation (B) Menopause (C) Oogenesis (D) Ovulation

8. The branch of biology which deals with the study of abnormal development is:
(A) Morphology (B) Embryology (C) Teratology (D) Peratology

9. The genetic code for glycine is:
(A) UAG (B) GAU (C) GUA (D) GGU

10. In turner syndrome the affected person have set of chromosomes:
(A) XO (B) XXY (C) XYY (D) XXO

11. The leptotene and zygotene lasts for:
(A) few hours (B) few days (C) few weeks (D) few years

12. The maturity on set diabetes of the young is:
(A) An autosomal recessive trait (B) An autosomal dominant trait
(C) A sex linked trait (D) A sex influenced trait

13. The organisms used as biofilters is:
(A) Transgenic plant (B) Transgenic animal (C) Transgenic bacteria (D) Transgenic virus

14. The floral parts of a flowering plant are:
(A) Homologous (B) Analogous (C) Similar (D) Different

15. Mutualism is a type of
(A) Symbiosis (B) Commensalism (C) Parasitism (D) Predation

16. The average rainfall in temperate deciduous forest is between:
(A) 700-2500 m.m (B) 700-800 m.m (C) 700-1000 m.m (D) 700-1500 m.m

17. The two main causes of air pollution are industrialization and:
(A) Automobiles (B) Urbanization (C) Deforestation (D) Overgrazing

Roll No. _____ (to be filled in by the candidate) **(For all sessions)** RWP- 12 - 19

Biology (Essay Type)

Time: 2:40 Hours **Section - I** **Marks: 68**

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

i. Differentiate between pyrexia and pyrogens.

ii. What are behavioural adoptations to regulate heat exchange between animals and environment?

iii. What are excretophores? Give an example

iv. Define turgor pressure. Give its two functions.

v. What are collenchyma cells? Discuss.

vi. Define nastic movement. What is Thermonasty?

vii. Differentiate between Menstrual cycle and Oestrous cycle.

viii. What are test tube babies? Discuss.

ix. Differentiate between climate and weather

x. Discuss productivity of aquatic ecosystem.

xi. Differentiate between herbicides and fungicides.

xii. What is the Ozone layer depletion?

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

i. Write commercial application of cytokinns.

ii. What are the functions of oxytocin hormons?

iii. Give the role of insuline and glucagon.

iv. Define linkage and give its one disadvantage

v. What do you know about gene and locus?

vi. Define Law of segregation.

vii. Write down the treatment of cancer through gene therapy.

viii. What are bioreactors?

ix. Write two uses of PCR.

x. What are root nodules? Give their impotance.

xi. Compare population and community and give their example.

xii. Define ammonification and assimilation

4. Write short answers of any six parts from the following. **2x6=12**

i. How aging can be slowed down?

ii. What are metabolic defects? Give one example.

iii. Give the role of mRNA and tRNA in translation.

iv. How do histone and DNA interact with each other in nucleosome.

v. Give two limitations of DNA polymerase III in DNA replication

vi. How does cell death help in development of multicellular organism.

vii. What happens during diplotene stage.

viii. Define genetic drift and give its effect.

ix. Write down the measures for the preservation of endangered species.

Section - II

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

5. **(a)** Describe the structure and function of Nephron **4**

   (b) Compare food chain with food web. **4**

6. **(a)** Discuss the machanism of repair of broken bones. **4**

   (b) How did meselson and Stahl show that DNA replication is semiconservative **4**

7. **(a)** Describe any four functions of Gibberellins. **4**

   (b) Define pollution. Write a note on Air or Atomospheric pollution. **4**

8. **(a)** Compare sexual reproduction with asexual reproduction **4**

   (b) Describe the process of sex determination in plants and yeast **4**

9. **(a)** Write a note on the development of chick upto gastrulation stage **4**

   (b) Discuss natural selection and artifical selection. **4**