

(3)

Warning:- Please, do not write anything on this question paper except your Roll No.

1221 (Inter Part-II)

(Session 2017-19 to 2019-21)

Biology (Subjective)

Time Allowed: 2.40 hours

590-21

Paper (II)

Maximum Marks: 68

Section ----- I

2. Answer briefly any Eight parts from the followings:-

8 × 2 = 16

- (i) Compare physical control system with living control system. (ii) Compare hydrophytes with mesophytes. (iii) Describe thermostat function and feed back mechanism in human. (iv) How hematoma is formed? (v) Differentiate between fibers and sclerides. (vi) Differentiate between hyaline cartilage and fibrocartilage. (vii) How seedless fruits are formed? (viii) Define fruit set in plants. (ix) Differentiate between phytoplanktons and zooplanktons. (x) Write human impact on coniferous alpine and boreal forests. (xi) Differentiate between renewable and non renewable resources. (xii) What are green house and green house gasses?

3. Answer briefly any Eight parts from the followings:-

8 × 2 = 16

- (i) Differentiate between stimulus and respons. (ii) What is epilepsy? (iii) Define Kinesis with an example. (iv) Differentiate between complete dominance and co-dominance. (v) Define population and gene pool. (vi) Define linkage and crossing over. (vii) Give two possible ways to get gene of interest. (viii) What is gene therapy? (ix) Differentiate between transgenic plants and transgenic animals. (x) What is symbiosis name its types. (xi) Differentiate between ecosystem and biosphere. (xii) Define nitrification and denitrification.

4. Answer briefly any Six parts from the followings:-

6 × 2 = 12

- (i) What are apical meristems? (ii) Explain the compensatory effect in growth. (iii) What are Purines and Pyrimidines? (iv) What is Anti-Sense strand? (v) How the Genetic code is universal? (vi) Differentiate between interphase and mitotic phase. (vii) What is metastasis? (viii) What is membrane Invagination Hypothesis? (ix) Write a note on the Vestigial organs.

Section ----- II

Note: Attempt any three questions.

(8 × 3 = 24)

- 5. (a) Discuss osmoregulation in plants.
(b) Explain different stages of nitrogen cycle with the help of a diagram.
- 6. (a) Give an account of bones of Skull (cranial and facial)
(b) Define chromosomes. Give their chemical composition in detail.
- 7. (a) Differentiate between axons and dendrites.
(b) What is acid rain?
- 8. (a) Define parthenogenesis. Explain different types of parthenogenesis.
(b) Describe the genetics of colour-blindness in humans.
- 9. (a) Discuss role of Nucleus in development through an experiment.
(b) Explain main points developed by Darwin in his book "The Origin of Species".

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1221 Warning:- Please write your Roll No. in the space provided and sign. Roll No. _____
(Inter Part - II) (Session: 2017-19 to 2019-21) Sig. of Student _____

Biology (Objective)

SGO-21

Time Allowed:- 20 minutes

PAPER CODE 4465

Paper (II)

Maximum Marks:- 17

Notes:- You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Crossing or filling two or more circles will result in zero mark in that question. Write PAPER CODE, which is printed on this question paper, on the both sides of the Answer Sheet and fill bubbles accordingly, otherwise the student will be responsible for the situation. Use of Ink Remover or white correcting fluid is not allowed.

Q.1

1. Coniferous forests located at high altitude are called
(A) Alpine (B) Boreal (C) Taiga (D) Prairies
2. CFCs are produced by
(A) Fans (B) Industrial machines (C) Air conditioners and Refrigerators (D) Aeroplanes
3. Which organ is the central station of metabolism.
(A) Kidney (B) Liver (C) Spleen (D) Heart
4. Most invertebrates, fish, amphibians and reptiles are included in
(A) Ectotherm (B) Endotherm (C) Heterotherm (D) Homeotherm
5. The end of muscle which remains fixed when muscle contracts.
(A) Insertion (B) Belly (C) Origin (D) Tendon
6. Muscle is connected to bone by
(A) Ligament (B) Belly (C) Z-line (D) Tendon
7. The processes conducting impulses away from the cell body are called
(A) Dendron (B) Dendrites (C) Nissl granules (D) Axon
8. Human sperms are formed in
(A) Seminiferous tubules (B) Epididymis (C) Vas deferens (D) Ureter
9. Discharge of egg from the ovary is called
(A) Oogenesis (B) Menstruation (C) Ovulation (D) Menopause
10. The unspecialized cells present in Flatworms and planaria are
(A) Neoblast (B) Osteoblast (C) Epiblast (D) Hypoblast
11. Which one of the following is Initiation Codon.
(A) GUA (B) UGA (C) AUG (D) GAC
12. Synapsis takes place in
(A) Leptotene (B) Zygotene (C) Pachytene (D) Diakinesis
13. Failure of separation of chromosomes is called
(A) Disjunction (B) Separation (C) Non-disjunction (D) Metastasis
14. Secretors have dominant Secretor gene "Se" on chromosome:
(A) 19 (B) 9 (C) 7 (D) 21
15. Urine is a preferable vehicle for Biotechnology product than
(A) Blood (B) Milk (C) Plasma (D) Serum
16. The change in frequency of alleles at a locus that occurs by chance
(A) Crossing over (B) Mutation (C) Migration (D) Genetic Drift
17. The relationship between insects and flowering plants is an example of
(A) Parasitism (B) Predation (C) Mutualism (D) Commensalism