

Roll No. of Candidate : _____

BIOLOGY

(Intermediate Part-II, Class 12th) 422 - (II)

Paper II

(Group - II)

Time: 20 Minutes

OBJECTIVE Code: 8464

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 circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank.

422-4222

1. Blood group AB of both parents can have babies of which blood groups?
(A) A (B) B (C) O (D) AB, A, B
2. Primary growth in plants is caused by _____.
(A) apical meristem (B) lateral meristem (C) intercalary meristem (D) open meristem
3. Neurula is the stage in which embryo has _____.
(A) blastocoel (B) germ layers (C) neural tube (D) archenterons
4. The nastic movements are _____.
(A) directional (B) non-directional (C) spontaneous (D) all of these
5. Grass land without trees are called _____.
(A) prairies (B) pampas (C) savanna (D) rainy grassland
6. Which one is not a steroid hormone?
(A) oestrogen (B) cortisone (C) testosterone (D) insulin
7. The paired bones of cranium are parietal and _____.
(A) occipital (B) ethmoid (C) sphenoid (D) temporal
8. For maturation of T and B cells the enzyme required is _____.
(A) GDA (B) TDA (C) ADA (D) CDA
9. All the food chains begin with _____.
(A) primary consumer (B) producer (C) secondary consumer (D) decomposer
10. Each nephridium of earthworm opens to the exterior by _____.
(A) nephrostome (B) nephridiopore (C) anus (D) cloaca
11. Pachytene is characterized by _____.
(A) crossing over (B) condensation (C) maturation (D) differentiation
12. The smallest biological unit that can evolve over time is _____.
(A) cell (B) organism (C) population (D) species
13. The principal source of energy is _____ energy.
(A) nuclear (B) solar (C) geothermal (D) tidal
14. Corpus luteum secretes _____.
(A) FSH (B) progesterone (C) LTH (D) LH
15. G₀ stage lasts for life time in _____.
(A) nerve cells (B) eye lens cells (C) sex cells (D) both (A) & (B)
16. In bacteria the newly synthesized mRNA is released in _____.
(A) nucleus (B) cytoplasm (C) mitochondria (D) both (B) & (C)
17. Which one is incorrectly matched?
(A) protoplast – plant cell engineering (B) DNA polymerase – PCR
(C) RFLPS – DNA finger printing (D) DNA ligase – mapping human chromosomes

318-(II)-422-24000

Time: 2:40 Hours

SUBJECTIVE

Marks: 68

Note: Section I is compulsory. Attempt any THREE (3) questions from Section II.

(SECTION – I)

B-447-422 (2 x 8 = 16)

2. Write short answers to any EIGHT questions.

- How negative feedback mechanism helps body to regulate temperature?
- How do bony fishes excrete extra salt in marine environment?
- Give the adaptations of plants in freezing temperature for thermoregulation.
- Differentiate between phototropism and chemotropism.
- What are synovial joints? Name its types.
- What is the cause of muscle fatigue?
- Highlight the uses of clone cells for investigating use of pharmaceutical products.
- Differentiate between oviparous and viviparous animals.
- What are planktons? Give their types.
- What is layering? Give one example of each layer.
- Differentiate between afforestation and reforestation.
- Define pollution. Write down names of its types.

3. Write short answers to any EIGHT questions.

(2 x 8 = 16)

- Give the difference between chlorosis and etiolation.
- How is it that different nerve fibres transmit different modalities of sensation?
- What is Nissl's granules? Give their relation to Golgi bodies.
- Differentiate between phenotype and genotype.
- Explain gene pool for a single particular trait.
- What is probability?
- How to get a gene of interest?
- What are plasmids? Give their types and functions.
- What are RFLPs? Give their importance.
- Define and explain community ecology.
- Discuss abiotic components of an ecosystem.
- Differentiate between hydrosere and xerosere succession.

4. Write short answers to any SIX questions.

(2 x 6 = 12)

- How thickness of plant body increases?
- How missing organs of an adult animal develop? Discuss it.
- In which direction DNA polymerase synthesizes new strands of DNA. Comment on it.
- What is nucleosome?
- Differentiate between conservative and semi-conservative DNA replication.
- What is metastasis?
- Distinguish apoptosis from necrosis.
- What are vestigial organs? Give examples.
- Differentiate between endangered from threatened species.

(SECTION – II)

- What are different problems associated with kidney? How can they be cured? (4)
 - Explain grazing in detail. Discuss ill effects of over-grazing? (4)
- Demonstrate the ultrastructure of myofilaments. (4)
 - Describe Watson and Crick's model of DNA. (4)
- How action potential is produced in a neuron? Discuss different factors involved in action potential. (4)
 - Explain the phenomenon of eutrophication. (4)
- Write down a note on seed dormancy. (4)
 - Explain epistasis with the help of an example. (4)
- Describe the role of nucleus in development. (4)
 - When did Charles Darwin presented his theory "The origin of species"? Highlight the main points of this theory. How was this theory modified later? (4)