

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

(Academic Sessions 2017 – 2019 to 2019 – 2021)

BIOLOGY

221-(INTER PART – II)

Time Allowed : 20 Minutes

Q.PAPER – II (Objective Type)

GROUP – I

Maximum Marks : 17

PAPER CODE = 8463

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1	Nissl's granules are group of : (A) Mesosomes (B) Lysosomes (C) Ribosomes (D) Chromosomes
2	Morphological characteristics of chromosomes are collectively called : (A) Karyotype (B) Neotype (C) Holotype (D) Phenotype
3	According to endosymbiont hypothesis, the aerobic bacteria developed into : (A) Ribosome (B) Lysosome (C) Mitochondria (D) Plastids
4	Establishment of new forests, where no forests existed before is called : (A) Reforestation (B) Afforestation (C) Deforestation (D) Desertification
5	Contractile vacuoles are found in : (A) Plants (B) Fresh water protozoa (C) Land animals (D) Land plants
6	Locus is : (A) Part of DNA (B) Position of gene (C) Partner of gene (D) Part of gene
7	The process of moulting is controlled by enzyme called : (A) Ecdysone (B) Aldosterone (C) Oxytocin (D) Androgen
8	Full cell cycle in yeast cells has length of : (A) 30 minutes (B) 60 minutes (C) 90 minutes (D) 120 minutes
9	The abiotic component of an ecosystem is : (A) Temperature (B) Producer (C) Consumer (D) Decomposer
10	Immediately after fertilization, the egg under goes some series of mitotic divisions called : (A) Morulla (B) Blastula (C) Gastrulation (D) Cleavage
11	In 1 gm of ammonia nitrogen requires how much water for excretion : (A) 50 ml (B) 100 ml (C) 200 ml (D) 500 ml
12	Hatching period of chick is : (A) 15 days (B) 20 days (C) 21 days (D) 25 days
13	Which one is the type of asexual reproduction : (A) Apomixes (B) Vernalization (C) Fertilization (D) Phototropism
14	DNA synthesis and chromosomal doubling occurs in : (A) G ₁ - phase (B) G ₂ - phase (C) G ₀ - phase (D) S - phase
15	Mature bone cells are called : (A) Osteoblast (B) Osteocytes (C) Osteoclasts (D) Chondrocytes
16	The enzyme which joins the two pieces of DNA is : (A) DNA ligase (B) DNA polymerase (C) Endo nuclease (D) Lipase
17	Which of the following is vestigial organ of whole : (A) Gills (B) Leg bones (C) Lungs (D) Pelvis and leg bones

192-221-I-(Objective Type)- 6250 (8463)

SECTION – I

2. Write short answers to any EIGHT (8) questions :

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- (i) Differentiate between hydrophytes and mesophytes.
- (ii) What are osmoconformers and osmoregulators animals?
- (iii) How vasodilation differ from vasoconstriction?
- (iv) Define ecdysis or moulting, give its two stages.
- (v) Differentiate between troponin and tropomyosin.
- (vi) Give two functions of skeletal system.
- (vii) Define seed dormancy. Write its two significance.
- (viii) Define oviparous and viviparous animals.
- (ix) What is profundal zone?
- (x) How many biomes are present in the World, name any four of them.
- (xi) Differentiate between deforestation and reforestation.
- (xii) Define eutrophication, give its one effect upon animal life.

3. Write short answers to any EIGHT (8) questions :

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- (i) Differentiate between kinesis and taxes.
- (ii) Write the role of progesterone.
- (iii) What is Addison's disease?
- (iv) What is gene and its locus?
- (v) What is dihybrid cross?
- (vi) Write dominant and recessive trait.
- (vii) What are three possible ways to get a gene?
- (viii) Write the role of Lambda phage as a vector.
- (ix) Write any two uses of PCR.
- (x) What is Niche, explain according to Charles Elton?
- (xi) What are decomposers?
- (xii) Write crustose lichens in xerosere.

4. Write short answers to any SIX (6) questions :

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- (i) Define growth and development.
- (ii) Define teratogens. Give two examples.
- (iii) Draw structural formula of nucleotide.
- (iv) Differentiate between leading strand and lagging strand.
- (v) Define transformation. In which bacterium it was discovered?
- (vi) What are cancer cells? How cancer cells can be distinguished from normal cells?
- (vii) What is meant by non-disjunction? Write its consequences.
- (viii) Differentiate between homologous and analogous organs.
- (ix) How the oxygen accumulation liberated during photosynthesis changed the environment of earth?

SECTION – II

Note : Attempt any THREE questions.

5. (a) Give the homeostatic roles of liver in the form of a table. 4
- (b) Define ecosystem. Discuss its components and their interaction. 4
6. (a) Write down four phases in the repair process of a fracture. 4
- (b) Write a note on genetic code. 4
7. (a) Explain structure and function of forebrain in man. 4
- (b) Write a note on algal bloom or eutrophication. 4
8. (a) Write a note on identical twins and fraternal twins. 4
- (b) Write a note on diabetes mellitus. 4
9. (a) Describe the types of meristems. 4
- (b) Explain the evidences of evolution by fossil record and comparative anatomy. 4