BIOLOGY PAPER-II GROUP-II   TIME ALLOWED: 20 Minutes

OBJECTIVE   MAXIMUM 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 bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

(1) Over grazing may lead to the transformation of grassland into a:
  (A) Savanna   (B) Desert   (C) Taiga   (D) Tundra

(2) Limnetic phytoplanktons include:
  (A) Bacteria   (B) Yeast   (C) Cyanobacteria   (D) Mossess

(3) Establishment of new forests where no forest existed is known as:
  (A) Afforestation   (B) Reforestation   (C) Forestation   (D) Deforestation

(4) The incidence of calcium oxalate type stone is:
  (A) 10%   (B) 70%   (C) 25%   (D) 15%

(5) The bone dissolving cells are called:
  (A) Stem cells   (B) Osteoblast   (C) Osteocytes   (D) Osteoclast

(6) The structures which lack secondary wall are:
  (A) Sclerenchyma   (B) Fibers   (C) Collenchyma   (D) Parenchyma

(7) Abscisic acid can be sprayed on tree crops to regulate:
  (A) Fruit drop   (B) Leaf drop   (C) Shoot drop   (D) Flower drop

(8) Reproduction is very important for the survival of:
  (A) Individual   (B) Community   (C) Population   (D) Species

(9) The developmental stage in which germ layers are formed is called:
  (A) Morulla   (B) Gastrulation   (C) Blastulation   (D) Germination

(10) Which colour cytoplasm of an ascidian fertilized egg gives rise to gut?
  (A) Yellow cytoplasm   (B) Grey equatorial cytoplasm
  (C) Grey vegetal cytoplasm   (D) Yellow cytoplasm

(11) The base pairs are planar and stacked 0.34nm apart as a result of:
  (A) Hyperphobic interactions   (B) Hydrophobic interactions
  (C) Hyperphilic interactions   (D) Hydrophilic interaction

(12) To develop cancer, the number of mutations in genes that regulates cell division is from three to as many as: (A) Ten   (B) Thirty   (C) Twenty five   (D) Twenty

(13) The chromosomes may decondense during:
  (A) Metaphase   (B) Telophase   (C) Anaphase   (D) Diplotene

(14) When both the alleles express independently in heterozygote and form their respective products X and Y. Such type of dominance is called.
  (A) Partial dominance   (B) Incomplete dominance   (C) Codominance   (D) Complete dominance

(15) The process by which fragments of DNA can be separated according to their lengths (molecular weight or size) is called:
  (A) Blotting   (B) Mapping   (C) Gel electrophoresis   (D) Restriction digest

(16) During surgery, blood clotting can be prevented by genetically produced:
  (A) Antithrombin III   (B) Growth hormone   (C) Insulin   (D) Antibodies

(17) Flagella may have arisen through the ingestion of prokaryotes similar to spiral shaped bacteria called:
  (A) Rhizobium   (B) Streptococcus   (C) E. Coli   (D) Spirochete

Ans. M.22A.GII:1b,2c,3a,4b,5d,6c,7a,8d,9b,10c,11a,12d,13c,14c,15c,16a,17d

2022 (A)

INTERMEDIATE PART-II (12 CLASS)

BIOLOGY PAPER-II GROUP-II

TIME ALLOWED: 2.40 Hours

MAXIMUM MARKS: 68

OBJECTIVE

NOTE: Write same question number and its part number on answer book, as given in the question paper.

SECTION-I

2. Attempt any eight parts.   8 × 2 = 16

(i) What is pyrexia? Give the role of pyrogens.

(ii) What are heterotherms? Give examples.

(iii) Differentiate between hemodialysis and peritoneal dialysis.

(iv) Differentiate between epinasty and hyponasty.

(v) Write names of paired and unpaired bones of cranium.

(vi) Write about two skeletal deformities having genetic causes.

(vii) Differentiate between short day and long day plants.

(viii) Compare oviparous and viviparous conditions.

(ix) What are coniferous alpine and coniferous boreal forests?

(x) Interpret layering as a characteristic of Grassland.

(xi) What are effects of ozone layer depletion?

(xii) Why forests are considered as environmental buffers?

3. Attempt any eight parts.   8 × 2 = 16

(i) What will happen if the receptor sites on postsynaptic membrane are blocked?

(ii) Which fundamental parts of human are involved in Reflex Arc?

(iii) How coordination in plants is different from animals?

(iv) Which type of genes do not obey law of independent assortment?

(v) How can you protect the ... ?

(vi) Compare codominance with incomplete dominance.

(vii) How Hypercholesterolemia can be cured by gene therapy?

(viii) What are ... ?

(ix) ... transgenic animals are developed?

(x) Why nutrient cycles are called biogeochemical cycles?

(xi) Name different stages of Xerosere.

(xii) How root nodules help in the growth of plants?

4. Attempt any six parts.   6 × 2 = 12

(i) How blastoderm is formed and what is zone of junction?

(ii) Interpret apical dominance as a growth relation.

(iii) Briefly discuss how DNA encodes protein structure.

(iv) Give the conclusions of Erwin Chargaff.

(v) Interpret the molecular bases of sickle cell anemia.

(vi) What are two significant happenings of meiosis?

(vii) Briefly discuss Turner's syndrome, with example.

(viii) Differentiate between divergent and convergent evolutions?

(ix) Define Hardy-Weinberg theorem.

SECTION-II

NOTE: Attempt any three questions.   3 × 8 = 24

5.(a) How is concentration of excretory products maintained? Explain.   4

(b) Describe the energy flow in the food chain of an ecosystem.   4

6.(a) How the skeletal system play a central role among the different function of a body?   4

(b) Explain the semi conservative replication of DNA by Meselson & Stahl Experiment.   4

7.(a) Describe co-relation between Growth hormone and Thyroxine hormones regarding growth of an individual.   4

(b) Write a note on green house effect.   4

8.(a) Discuss causes, control and effects of sexually transmitted diseases.   4

(b) Define and explain Mendel's Law of segregation of genes.   4

9.(a) What is Regeneration? Discuss at least four examples.   4

(b) What is Lamarckism? Differentiate it from Neo-Darwinism.   4