

MRD -10th

BIOLOGY Paper-X (26)

- ۱۔ ہر سوال کے سامنے چار دائرے دیئے گئے ہیں، صرف صحیح جواب والا دائرہ بھر دیں۔
- ۲۔ دائروں کو شیڈ (بھرنے) کے لیے نیلے یا کالے رنگ کا مارکر استعمال کریں۔
- ۳۔ جواب میں ایک سے زائد دائرے بھرنے سے جواب غلط تصور ہوگا۔

Time: 20 Minutes

SECTION-A

Marks: 12

Q1: Choose the correct option i.e, A,B,C or D?

- The primary function of nerve cells in the human body is.
☐ Energy storage ☐ Digestion of food
☒ Conduction of message ☐ Excretion of wastes
- All the following are functions of bone in our body except.
☐ Support ☐ Protection
☐ Shape and structure ☒ Blood filtration
- The specific term used for chemicals known to cause cancer is.
☐ Organic chemical ☒ Carcinogen
☐ Inorganic chemical ☐ Haemoglobin
- In a biomass pyramid, producers occupy the broadest level because they:
☐ Consume maximum energy ☐ Lose least energy
☒ Contain the highest total biomass ☐ Feed on all consumers
- Mesophytes control extra transpiration by:
☐ Opening stomata ☒ Closing stomata
☐ Opening lenticels ☐ Closing lenticels
- Variations that present in wide range of phenotypes from one extreme to another are called.
☒ Continuous variations ☐ Discontinuous variations
☐ Genetic variations ☐ Non genetic variations

7. The organisms mainly used for SCP production include.
☐ Protozoa and worms ☒ Bacteria, algae, fungi
☐ Plants and algae ☐ Animals and bacteria
8. A section of a stem or root that is removed and used to grow a new plant is known as.
☒ Cuttings ☐ Graftings ☐ Cloning ☐ Budding
9. Vaccines protect the body mainly by inducing.
☐ Antibiotics ☒ Antibodies ☐ Hormones ☐ Enzymes
10. Clenched hands, convulsions and frequent biting of tongue are the symptoms of.
☐ Coma ☒ Epilepsy ☐ Paralysis ☐ Heart attack
11. The most severe and fatal sexually transmitted disease is.
☐ Syphilis ☐ Herpes ☐ Gonorrhea ☒ AIDs
12. Members of the same species generally ____ for limited resources.
☐ Cooperate ☒ Compete ☐ Reproduce ☐ Migrate

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Note: Time allowed for Section-B & Section-C is 2:40 hours.

SECTION-B

Marks: 32

Q2: Write short answer to any EIGHT of the following parts. All parts carry equal marks.

1. Briefly describe emphysema as a respiratory disorder. State any two causes of emphysema.
2. Differentiate between guttation and transpiration based on time of occurrence and method of water removal.
3. Briefly describe the terms renal cortex, renal medulla, renal

- pyramids and renal pelvis.
4. Enlist any two hormones of posterior lobe of pituitary gland along with their functions.
 5. What is limbic system? Give any four functions of limbic system.
 6. Illustrate the structure of human skull with reference to its two main parts.
 7. Briefly describe in two steps how a new individual is formed through fragmentation?
 8. Define the term recessive allele. Also give one example.
 9. Justify competition both as an intraspecific and interspecific interaction with the help of one example of each.
 10. Identify any four parts of a fermenter.
 11. State any two causes of drug addiction. Also list any two indicators of drug addiction.

SECTION-C

Marks: 21

Note: Answer any THREE questions. All question carry equal marks.

Q3: (a) Explain the role of calcium oxalate in kidney stones. Also state its percentage occurrence.

(b) Define suspensory ligament. How does the ciliary body help in lens focusing?

Q4: (a) Define joint. State any two types of joints.

(b) What are wind pollinated flowers? Also write any two adaptations of such flowers.

Q5: (a) Describe the genotype of F_1 generation and its importance in a dihybrid cross.

(b) State any six major causes of air pollution.

Q6: (a) Differentiate between the fermentation processes of yogurt and cheese.

(b) Explain how drug addiction affects an individual's self and family life.