

Biology (New)

10th (Fresh/Reappear)

- ۱۔ ہر سوال کے سامنے چار دائرے دیئے گئے ہیں، صرف صحیح جواب والا دائرہ بھریں۔
- 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 basic structural and functional unit of ecology is
 - ☐ Specie
 - ☐ Population
 - ☒ Ecosystem
 - ☐ Community
- The pyramid of numbers represents
 - ☐ Energy content at each trophic level
 - ☐ Biomass of organisms
 - ☒ Number of organisms at each trophic level
 - ☐ Size of organisms
- The main purpose of SCP production is to
 - ☐ Reduce microbes
 - ☒ Solve food shortage
 - ☐ Increase pollution
 - ☐ Control diseases
- The disease that cannot be prevented through vaccination is
 - ☒ Cancer
 - ☐ Polio
 - ☐ Tetanus
 - ☐ Measles
- New blood cells are primarily produced in.
 - ☒ Bone marrow
 - ☐ Bone matrix
 - ☐ Spongy bone
 - ☐ Compact bone
- Sweet potatoes and blackberries are most effectively propagated through.
 - ☐ Stem cuttings
 - ☒ Root cuttings
 - ☐ Grafting
 - ☐ Cloning
- The causative agent of AIDS is
 - ☐ HAV-955
 - ☐ HBV
 - ☒ HIV
 - ☐ HCV
- An individual possessing a higher number of "dark genes" will exhibit
 - ☐ White skin color
 - ☐ Light skin color
 - ☐ Fair skin color
 - ☒ Darker skin color
- Increased heart rate, blood pressure and platelets stickiness in smokers are the effects of
 - ☐ Benzene
 - ☐ Carbon monoxide

- ☒ Nicotine ☐ Tar
 10. Hydrophytes remove extra water from their body because of.
☐ Broad leaves ☐ Numerous stomata
☒ Both broad leaves and numerous stomata
☐ Narrow leaves
 11. The short, branching processes that arise from the cell body of a neuron are
☒ Dendrites ☐ Axon terminals
☐ Axon ☐ Schwann cells
 12. All the given are recognized causes of epilepsy except:
☐ Head injuries ☐ Genetic reasons
☐ Brain infections ☒ Constipation

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

SECTION-B

Marks: 32

Q2: Attempt any EIGHT parts. Each part carries FOUR marks.

- Describe asthma as a respiratory disorder. Also state any four symptoms of asthma.
- Justify why transpiration does not occur at night. Also state the alternative process some plants use to remove excess water during this time.
- Define renal tubule? Also describe its three parts.
- Enlist two hormones of adrenal medulla along with their functions.
- State one function of cerebrum, cerebellum, thalamus and medulla oblongata.
- What are pelvic vertebrae? Illustrate the composition of sacral and coccygeal vertebrae.
- Define parthenogenesis. Also state one example of organism reproducing asexually through parthenogenesis.
- Briefly describe the terms P_1 , F_1 and F_2 generations. Also state how are alleles represented?
- Give an outline of predator plants. Also give any two examples of predator plants.
- State any two differences between continuous and discontinuous fermentation.
- Briefly describe marijuana as a widely used hallucinogen in Pakistan. Also state any four side effects of taking marijuana.

SECTION-C

Marks: 21

Note: Attempt any THREE questions. All questions carry equal marks.

- Q3: (a) List any four causes and any four symptoms of kidney stones.
(b) Define night blindness. State the role of vitamin A in night blindness.
- Q4: (a) Differentiate between immovable joints and freely movable joints in terms of definition and examples.
(b) Describe any three structural features of insect-pollinated flowers that facilitate pollination.
- Q5: (a) Identify the genotype of an F_1 plant that undergoes self-pollination. Explain why is this genotype essential for independent assortment.
(b) State how domestic sewage water cause water pollution? Also write any four waterborne diseases.
- Q6: (a) Describe the production of soy sauce through fermentation by naming the raw material and the microorganism involved.
(b) List any three changes in the physical appearance of a drug addict when compare with non-addict.