MODEL PAPER BIOLOGY CLASS 10

NOTE: Attempt all questions of Section-A by filling the corresponding bubble on the **MCQs RESPONSE SHEET.** It is mandatory to return the attempted MCQs sheet to the Superintended within given time

SECTION –A

Time: 20 Minutes **Marks:** 12

1. During respiration plants release carbon dioxide which is used in:

A. Photosynthesis

B. Transpiration

C. Homeostasis

D. Guttation

2. The major cause of kidney stones is:

A. Drink plenty of water

B. Use of olive oil in food

C. Taking more calcium oxalate in food

D. Drink plenty of citrus juices

3. A neuron which takes impulses away from the central nervous system to effectors is:

A. Associative neuron

B. Sensory neuron

C. Motor neuron

D. Interneuron

4. When glucose level in the blood comes back to normal and pancreas stop the secretion of insulin, this is an example of:

A. Blood glucose concentration

B. Positive Feedback

C. Thermoregulation

D. Negative feedback

5. Pectoral girdle and pelvic girdle help in

A. movement.

B. brain protection.

C. muscles development.

D. breathing.

6. The national AIDS control programme of Pakistan is currently working to control:

A. HIV epidemic

B. Covid 19 epidemic

C. Polio cases

D. Hepatitis

7. Colocasia and garlic reproduce through:

A. Stolon

B. Rhizome

C. Corm

D. Tuber

8. Which of the following is an example of discontinues variation?

A. Skin colour

B. Height

C. Weight

D. Ear lobe

9. The structure and chemical makeup of soil in an area affect the types of plants that grow there. Little grasses often dominates area with:

A. Wet soil

B. Dry soil

C. Sandy soil

D. Loamy soil

10. Major causes of air pollution are:

A. Oxides of nitrogen and oil spills

B. Industrial effluent and oil spills

C. Oxides of sulphur and oil spills

D. Oxides of nitrogen and particulates

11. In continuous fermentation the exponential growth of microbes is maintained in the fermenter for:

A. Prolonged periods of time

B. Short periods of time

C. Separation of products

D. Suitable environment

12. Which of the following drug is obtained from animals?

A. Tincture of iodine

B. Fish liver oil

C. Streptomycin

D. Neomycin

SECTION-B

Time: 2 Hours 40 Minutes **Marks:** 32

1. Attempt any **EIGHT** of the following short questions. Each question carries 4 marks.

i. Write **ONE** cause of each given disease.

Disease	Cause
Bronchitis	
Emphysema	
Asthma	
Lung cancer	

ii. Find out the location of renal tubule in nephron. Also write names of its **THREE** parts.
iii. Briefly explain skin as thermostatic organ with reference to its role in cold conditions.
iv. Briefly explain **TWO** types of coordination in living organisms.
v. Differentiate between nervous coordination and chemical coordination with reference to their modes of coordination, coordinators, effectors and carrier of message.
vi. Briefly explain the location and movement of hinge joints. Also draw its diagram.
vii. Write **ONE** function of the following seed parts.
a. Seed coat b. Hilum c. Plumule d. Micropyle
viii. Briefly describe the composition of chromatin material in eukaryotes.
ix. Differentiate mutualism and commensalism with one example of each.
x. Define biotechnology and also write its THREE importance.
xi. List any FOUR behavioural symptoms of drug addiction.

SECTION-C

Marks: 21

NOTE: Attempt any **THREE** of the following questions. Each question carries 7 marks.

2. i. Write down the contributions of Abul-Qasim and Al-Farabi in introducing the method of removing stone from the urinary bladder. 4
ii. Define hormone and where they are synthesized in animals? 3

3. i. Differentiate between bone and cartilage with reference to structure and function. 4
ii. Write environmental conditions necessary for germination of seed. 3

4. i. When two Japanese 4 O' clock plants crossed with each other. One of them has red colour flower (R) and other has white flower (r). What will be their F_1 and F_2 generation result? 4
ii. With the help of pyramid diagram shows the number of organisms at each trophic level in an ecosystem. 3

5. i. Discuss **FOUR** most significant uses of single-cell protein. 4
ii. Define hallucinogen. Also give **ONE** example of hallucinogen. 3