

<b>Biology</b>	<b>10th Lahore Board 2017</b>	<b>Paper: II</b>
<b>Time: 15 min.</b>	<b>OBJECTIVE</b>	<b>Marks: 12</b>

**(Group - I)**

**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 circle in front of that question

number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

Example of co-dominance is:

- (A) Blood group A                      (B) Blood group B  
(C) Blood group O                      (D) Blood group AB

The alternate forms of a gene are called:

- (A) Genotype                              (B) Phenotype  
(C) Alleles                                (D) Replication

A sexual reproduction in yeast takes place by:

- (A) Budding                                (B) Binary fission  
(C) Multiple fission                      (D) Spore formation

The total amount of living matter in an ecosystem at any time is called:

- (A) Biomass                                (B) Energy  
(C) Food chain                              (D) Food web

Gaseous exchange occur in human:

- (A) Pharynx                                (B) Trachea  
(C) Bronchi                                (D) Alveoli

E-coli bacterium was made in:

- (A) 1970 A.D                                (B) 1977 A.D  
(C) 1975 A.D                                (D) 1980 A.D

Example of hydrophyte plants is:

- (A) Water lily                                (B) Cactus  
(C) Sea grass                                (D) Grass

The cell results by combining sperm and ovum:

- (A) Nucleus                                (B) Zygote  
(C) Genes                                    (D) Chromosomes

Pair of spinal nerves are:

- (A) 12                                        (B) 21



- (C) 13 (D) 31
10. The myelin sheath is secreted by:  
 (A) Nodes of Ranvier (B) Axon  
 (C) Dendrites (D) Schwann cells
11. Penicillin is discovered by:  
 (A) Joseph Lister (B) Edward Jenner  
 (C) Alexander Flemming (D) Bu-Ali Sina
12. Number of bones in both feet are:  
 (A) 22 (B) 12  
 (C) 56 (D) 108

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<b>Time: 1:45 Hrs.</b>	<b>SUBJECTIVE</b>	<b>Marks: 48</b>

**(SECTION - I) (Group - I)**

- 2** Write short answers to any FIVE questions: (2×5=10)
- Differentiate between acute and chronic bronchitis.
  - What is nicotine?
  - Define hydrophytes with an example.
  - Name two major parts of a nephron.
  - What is lithotripsy?
  - Define co-ordinators with examples.
  - Differentiate between sensory and motor neurons.
  - What is nerve impulse?
- 3** Write short answers to any FIVE questions: (2×5=10)
- Differentiate between hyaline and fibrous cartilage.
  - How lower jaw is different in mammals from other lower vertebrates? Also give its advantage.
  - How budding occurs in corals?
  - How plants reproduce by suckers? Give example.
  - What is cloning?



- vi. Describe two major processes of organic evolution.
- vii. What is "theory of special creation"?
- viii. Name nitrogenous bases found in DNA molecule.
- Write short answers to any FIVE questions: (2×5=10)
- i. Differentiate between intra-specific interaction.
- ii. What is meant by predation? Give an example.
- iii. What is recombinant DNA?
- iv. Define pharmacology.
- v. How biotechnology has helped us in improving the environment?
- vi. What are tetracyclines? Give an example.
- vii. What are sedatives? Give an example.
- viii. What are synthetic drugs?

### (SECTION-II)

**Note:** Attempt any TWO questions:

- (a) What is nephron? Describe its structure and also draw labelled diagram. (5)
- (b) Write the name and functions of lobes of cerebrum. (4)
- (a) Define joint. Describe its different types. (5)
- (b) Describe four different ways of natural vegetative propagation. (4)
- (a) What is global warming? Describe its causes. (4)
- (b) Describe basic steps in genetic engineering. (5)

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(Group - II)

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question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

**1.1.** The respiratory centre is present in:

- (A) Lungs (B) Brain  
(C) Nose (D) Muscles

2. Plays role in maintaining body temperature:

- (A) Lungs (B) Skin  
(C) Kidneys (D) Ear

3. The number of spinal nerves is:

- (A) 31 pair (B) 12 pair  
(C) 41 pair (D) 21 pair

4. Iodopsin is present in:

- (A) Rods (B) Cones  
(C) Choroid (D) Cornea

5. The end of skeletal muscle attached with immovable bone is:

- (A) Origin (B) insertion  
(C) Belly (D) Static end

6. Seed absorbs water through:

- (A) Testa (B) Hilum  
(C) Micropyle (D) Integument

7. The outermost whorl of flower is called:

- (A) Corolla (B) Petals  
(C) Calyx (D) Androecium

8. The genotype of "O" blood group is:

- (A)  $I^A I^A$  (B)  $I^B I^B$   
(C)  $ii$  (D)  $I^B i$



9. phenotypes ratio in incomplete dominance is:
- (A) 1 : 3 : 3 (B) 3 : 1  
(C) 1 : 3 (D) 1 : 2 : 1
10. R-2 means:
- (A) Reduce (B) Recycle  
(C) Renewable (D) Reuse
11. Single cell protein can be obtained from:
- (A) Insect (B) Cow  
(C) Algae (D) Bird
12. Diazepam is:
- (A) Vaccine (B) Narcotics  
(C) Hallucinogens (D) Sedative

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**(SECTION-I) (Group-II)**

2. Write short answers to any FIVE questions: (2×5=10)
- What are lenticels? Describe their function.
  - Differentiate between acute and chronic bronchitis.
  - Define osmoregulation.
  - What is meant by guttation?
  - Describe any two causes of kidney failure.
  - What is blind spot?
  - Owl is unable to see during day time. Give reason.
  - How ears maintain the balance of body?
3. Write short answers to any FIVE questions: (2×5=10)
- Differentiate between compact bone and spongy bone.
  - What is rheumatoid arthritis?
  - Define oogenesis.



- iv. Give two disadvantages of vegetative propagation.
  - v. Differentiate between epigeal germination and hypogeal germination.
  - vi. State the law of segregation.
  - vii. What is inheritance?
  - viii. What are nucleosomes?
- Write short answers to any FIVE questions: (2×5=10)
- i. Define food chain and food web.
  - ii. What is meant by nitrogen fixation?
  - iii. What is genetic engineering?
  - iv. Write any two characteristics of transgenic animals.
  - v. How the micro-organisms produce single cell protein.
  - vi. Define pharmacology.
  - vii. What are hallucinogens?
  - viii. Write about some drugs obtained from plants.

### (SECTION - II)

**Note:** Attempt any TWO questions:

- 1 (a) Name the organs which work for homeostasis in humans. Describe in detail the work of two organs only. (5)
- 2 (b) Write a note on forebrain. (4)
- 3 (a) What is skeletal system? Write the role of skeletal system. (5)
- 4 (b) Write a note on the development and structure of seed. (4)
- 5 (a) Write a note on carbon cycle. (5)
- 6 (b) Describe the advantages of using fermenters. (4)