

K**COMMON SECOND MID-TERM TEST - 2019**

Standard XI

Reg.No.:

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BIOLOGY

Marks: 45

Time: 1.30 hours.

Part - I (Bio-Botany) - 23 marks**Section - A****I. Choose the correct answer:**

5 x 1 = 5

- Find the incorrect statement with reference to xylem vessels.
 - Vessels are found in all gymnosperms except ephedra, gnetum and welwitschia.
 - Vessels are absent in winteraceae.
 - Vessels are formed by the fusion of cells, dead syncyte.
 - Vessels are water conducting elements.
- Find the correct order in the secondary growth of cork cambium towards pith.
 - phellogen → phellogen → phellem
 - phellem → phellogen → phellogen
 - phellem → phellogen → phellogen
 - phellogen → phellogen → phellem
- Identify wrongly matched pair.
 - Capillary theory - Xylem vessels
 - Root pressure theory - Sap exudation
 - Relay pump theory - J.C. Bose
 - Cohesion-tension theory - Dixon and Jolly
- Find the correct statement with reference the functions of minerals.
 - Magnesium is activator of enzyme RUBISCO
 - Magnesium is essential for binding of ribosomal subunits
 - Calcium is essential for mitotic spindle formation
 - Zinc is essential for the synthesis of IAA
 - I only
 - II, III, IV
 - III, IV, II
 - I, II, III and IV
- Assertion : Leghaemoglobin act as oxygen scavenger.
Reason : It create anaerobic condition because Nitrogenase enzyme active only in anaerobic condition.
 - Both Assertion and Reason are true, correct explanation
 - Both Assertion and Reason are true, not a correct explanation
 - Assertion is true but Reason if false
 - Assertion and Reason are false

Section - B**II. Answer any 2 questions:**

2 x 2 = 4

- Differentiate Sap wood and Heart wood.
- Draw the ground plan for Dicot root.
- What is aquaporin?
- Write any two Boron deficiency diseases.

Section - C**III. Answer any 3 questions: (Ques.No.13 is compulsory)**

3 x 3 = 9

- How ammonia is converted into amino acid? Explain by any one method?
- Explain apoplast and symplast method of water movement?
- Explain Korper and Kappe theory?
- Draw and label Dicot leaf T.S.
- Explain the stages of Root nodule formation.

Section - D**IV. Answer the following:**

1 x 5 = 5

- Write any five micronutrients and their functions. (or)
What is plasmolysis? Differentiate types of plasmolysis.

(2)

At Biology

Part - II (Bio-Zoology) - 22 marks**Section - A**

5 x 1 = 5

I. Choose the correct answer:

- Match the following and choose the correct answer:

Bones		Numbers
1. Skull	i)	60
2. Forelimb	ii)	1
3. Sternum	iii)	26
4. Vertebral column	iv)	29
a) 1-iv, 2-i, 3-iii, 4-ii		b) 1-iii, 2-iv, 3-i, 4-ii
c) 1-iv, 2-i, 3-ii, 4-iii		d) 1-ii, 2-iii, 3-iv, 4-i

- Actin binding site is located on
 - troponin
 - tropomyosin
 - meromyosin
 - (b) and (c)
- A typical value of resting membrane potential is
 - 100 mV
 - 40 mV
 - 70 mV
 - 60 mV
- The hormone which is not secreted under the influence of pituitary gland.
 - thyroxine
 - oestrogen
 - insulin
 - glucocorticoids
- The abundant intracellular cation is
 - H⁺
 - K⁺
 - Na⁺
 - Ca⁺⁺

Section - B**II. Answer any 3 questions:**

3 x 2 = 6

- State all or None principle.
- List out the joints of bones.
- Differences between Rod cells and Cone cells.
- Name the first five Cranial nerves write this functions.
- Hormones are known as "Chemical messengers" - Justify.

Section - C**III. Answer any 2 questions: (Ques.No.12 is compulsory)**

2 x 3 = 6

- Tabulate the functions of Brain lobes.
- Draw and label the structure of Neuron.
- Describe the structure of contractile proteins.
- Enumerate the role of kidney as an endocrine gland.

Section - D**IV. Answer the following:**

1 x 5 = 5

- Write the schmatic presentation of Muscle contraction.

(or)

Give an account of Errors of refraction.

I. Choose the correct answer:

4. Grafting is successful in dicots but not in monocots because the dicots have _____.

- a) vascular bundles arranged in a ring
- b) cambium for secondary growth
- c) vessels with elements arranged end to end
- d) cork cambium

5. For every CO₂ molecule entering the C₃ cycle, the number of ATP and NADPH required _____.

- a) 2ATP + 2NADPH b) 2ATP + 3NADPH
- c) 3ATP + 2NADPH d) 3ATP + 3NADPH

Section-B

II. 9. Define Fluorescence with graph.

Section-C

III. 10. Draw and label: Bicollateral vascular bundle

14. Explain the Red Drop or Emerson's first effect.

Section-D

IV. 15. Difference between Cyclic and Noncyclic photophosphorylation.

Bio-Zoology

I. Choose the correct answer:

4. The number of cores present in the retina range from _____.

- a) 6-7 million b) 5-6 million c) 5-7 million d) 2-3 million

Section-B

II. 10. What is meant by threshold potential?

Section-C

III. 14. Differentiate sympathetic and parasympathetic neural system (any three points).