EXEMPLAR PROBLEMS IN BIOLOGY - CLASS XI
(Corrections in the questions)

Chapter 1
The Living World
Multiple Choice Questions
3. The term ‘systematics’ refer to:
   a. Identification and study of organ systems
   b. Identification and preservation of plants and animals
   c. Diversity of kinds of organisms and their relationship
   d. Study of habitats of organisms and their classification

Chapter 2
Biological Classification
Multiple Choice Questions
8. Associations between Mycobiont and Phycobiont are found in

Chapter 3
Plant Kingdom
Multiple Choice Questions
2. Fusion of two motile gametes which are dissimilar in size is termed as

Chapter 4
Animal Kingdom
Multiple Choice Questions
1. In some animal groups, the body is found divided into compartments with serial repetition of
   at least some organs. This characteristic feature is called

2. Given below are types of cells present in some animals. Which of the following cells can
   differentiate to perform different functions?

5.
   b. Pneumatic bones
   d. Warm blooded

7.
   b. Asterias exhibits radial symmetry

13. Column B
   i. Canal system
   ii. Water-vascular system
   iii. Muscular pharynx
   iv. Jointed appendages
   v. Metameres
Chapter 5
Morphology of Flowering Plants

Multiple Choice Questions

6. a. Coconut

Chapter 6
Anatomy of Flowering Plants

Multiple Choice Questions

4. Identify the simple tissue from among the following -

14. In conifers, fibres are likely to be absent in

Chapter 7
Structural Organisation in Animals

Multiple Choice Questions

4. Delete the question

5. Setae help in locomotion in earthworm but are not uniformly present in all the segments. They are present in

Chapter 8
Cell: The Unit of Life

Multiple Choice Questions

4. Which of the following stains is not used for staining chromosomes?
   a. Basic Fuchsin
   b. Safranin
   c. Methylene green
   d. Carmine

Ans:- b. Safranin

5. Options:
   a. i, iv, iii, ii
   b. i, iii, iv, ii
   c. ii, i, iii, iv
   d. iii, ii, i, iv

6. Which of the following features is common to prokaryotes and many eukaryotes?
   a. Chromatin material present
   b. Cell wall present
   c. Nuclear membrane present
   d. Membrane-bound sub-cellular organelles present

10. a. Cell wall is made up of peptidoglycans
12. c. Presence of thylakoids

Chapter 9
Biomolecules
Multiple Choice Questions
3. Amino acids have both an amino group and a carboxyl group in their structure. Which amongst
the following is an amino acid?
   a. Formic acid
   b. Glycerol
   c. Glycolic acid
   d. Glycine

4. An amino acid under certain conditions have both positive and negative charges simultaneously
   in the same molecule. Such a form of amino acid is called
   a. Acidic form
   b. Basic form
   c. Aromatic form
   d. Zwitterionic form

5. Which os the following sugars have the same number of carbon as present in glucose?

6. An acid soluble compound formed by phosphorylation of nucleoside is called

9. A homopolymer has only one type of building block called monomer repeated ‘n’ number of
times. A heteropolymer has more than one type of monomer. Proteins are heteropolymers usually
made of
   c. 30 types of monomers

13. The primary structure of a protein molecule has

14. Which of the following reactions is not enzyme-mediated in biological system?

Chapter 10
Cell Cycle and Cell Division
Multiple Choice Questions
1. Meiosis in diploid organisms results in
   5.
   d. Pairing of homologous chromosomes

Chapter 11
Transport in Plants
Multiple Choice Questions
7.
   a. accumulated
   b. bound to cell wall
11. Options:
   a. A-ii, B-iv, C-v, D-i, E-iii
   b. A-iii, B-ii, C-iv, D-i, E-v
   c. A-i, B-ii, C-iii, D-ii, E-v
   d. A-v, B-iv, C-iii, D-ii, E-i

12. Mark the mismatched pair.
   a. Amyloplast : store protein granule
   b. Elaioplast : store oils or fats
   c. Chloroplasts : contain chlorophyll pigments
   d. Chromoplasts : contain coloured pigments other than chlorophyll

Chapter 12
Mineral Nutrition
Multiple Choice Questions
2. b. essential element concentration below which plant growth becomes enhanced.

Chapter 13
Photosynthesis in Higher Plants
Multiple Choice Questions
4. Which light range is least effective in photosynthesis?

Chapter 14
Respiration in Plants
Multiple Choice Questions
6. Delete the question

Chapter 15
Plant Growth and Development
Multiple Choice Questions
2. Coconut water contains

8. b. Plant development is dependent on the environment

Chapter 16
Digestion and Absorption
Multiple Choice Questions
9. d. Secretion of hormone called gastrin

10. c. Enterokinase is secreted by pancreas
**Chapter 17**

**Breathing and Exchange of Gases**

**Multiple Choice Questions**

1. Respiration in insects is called direct because
   a. The cells exchange $O_2/CO_2$ directly with the air in the tubes

2. Which of the following does not occur during breathing?
   b. Brings the air to body temperature

4. d. It increases $O_2$ transport

8. d. Diaphragm and intercostal muscles

13. From the following relationships between respiratory volume and capacities, mark the correct option

**Chapter 18**

**Body Fluids and Circulation**

**Multiple Choice Questions**

1. Which of the following cells does not exhibit phagocytic activity?

7. Which one of the following types of cells lack nucleus in humans?
   d. Erythrocytes

10. Agranulocytes responsible for immune response of the body are

**Chapter 19**

**Excretory Products and their Elimination**

**Multiple Choice Questions**

3. Which of the following statements is correct?

6. a. D-i, C-ii, B-iii, A-iv
   b. B-i, D-ii, A-iii, C-iv
   c. D-i, C-ii, A-iii, B-iv
   d. B-i, C-ii, A-iii, D-iv

**Chapter 20**

**Locomotion and Movement**

**Multiple Choice Questions**

7. Which one of the following pairs is incorrect?
   a. Hinge joint : between humerus and pectoral girdle
   b. Pivot joint : between atlas and axis
   c. Gliding joint : between the carpals
   d. Saddle joint : between carpals metacarpals of thumb
Chapter 22
Chemical Coordination and Integration
Multiple Choice Questions

2. Which of the following hormones is not secreted by anterior pituitary?
   a. Oxytocin
   b. Antidiuretic hormone
   c. Differentiation of T lymphocytes

5. ______________

11. Hormones are called chemical signals that stimulate specific target tissues. Which is the correct location of these receptors in case of protein hormones?
   a. On the surface of the target cell
   b. In the blood
   c. Inside the target cell
   d. None of the above

12. Choose the correct option among the following

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Epinephrine</td>
<td>i. Stimulates muscle growth</td>
</tr>
<tr>
<td>B. Testosterone</td>
<td>ii. Decrease in blood pressure</td>
</tr>
<tr>
<td>C. Glucagon</td>
<td>iii. Breakdown of liver glycogen</td>
</tr>
<tr>
<td>D. Atrial natriuretic Factor</td>
<td>iv. Increases heart beat</td>
</tr>
</tbody>
</table>

Options:
   a. A-ii, B-i, C-iii, C-iv
   b. A-iv, B-i, C-iii, D-ii
   c. A-i, B-ii, C-iii, D-iv
   d. A-i, B-iv, C-ii, D-iii

13. Which of the following do not play any role in calcium balance in the human body?
   a. Parathyroid hormone
   b. Calcitonin
   c. 1,25-Dihydroxyvitamin D3
   d. Vitamin C

14. Which of the following organs in mammals does not consist of a central ‘medullary' region surrounded by a cortical region?
   a. Kidney
   b. Pancreas
   c. Liver
   d. Adrenal gland

15. Which of the following conditions is not linked to deficiency of thyroid hormone?
   a. Hypothyroidism
   b. Myxedema
   c. Goiter
   d. Exophthalmia

Chapter 23
Answers to Multiple Choice Questions
(Corrections in the answers)

Chapter 1: The Living World
8-b

Chapter 3: Plant Kingdom
1-c

Chapter 4: Animal Kingdom
4-b; 7-c

Chapter 5: Morphology of Flowering Plants
8-b
Chapter 6: Anatomy in Flowering Plants
8-c; 14-b; 17-c

Chapter 8: Cell: The Unit of Life
1-d; 4-b

Chapter 9: Biomolecules
3-d; 14-a

Chapter 10: Cell Cycle and Cell Division
2-b; 5-b

Chapter 11: Transport in Plants
1-d; 7-c 11-a

Chapter 12: Mineral Nutrition
2-b 4-d; 8-d

Chapter 13: Photosynthesis in Higher Plants
4-d

Chapter 14: Respiration in Plants
4-c

Chapter 17: Breathing and Exchange of Gases
1-a; 2-c; 4-b; 6-c; 7-a; 8-c; 14-a

Chapter 18: Body Fluid and Circulation
2-c; 10-d; 16-d

Chapter 19: Excretory Products and their Elimination
3-b; 14-b; 15-c

Chapter 20: Locomotion and Movement
4-c

Chapter 21: Neural Control and Co-ordination
11-d

Chapter 22: Chemical Coordination and Integration
14-c