



The Times Secondary School

Dillibazar, Kathmandu

First Terminal Examination – 2076

Grade: - XI

Set – A

Full Marks:-75

Stream: Science

Pass Marks:-30

Subject: - Biology

Time : 3 hrs

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate the full marks

Use separate answer sheets for Group A and Group B

Group A “Botany”

1. Answer in very short.(any seven) [7× 1 =7]
 - a. Define incipient nucleus.
 - b. What is plasmodesmata?
 - c. What is meant by autecology?
 - d. What is the function of subcellular membrane?
 - e. Define ecology.
 - f. Write the specific character of algae.
 - g. State demerits of two kingdom classification.
 - h. What is the function of holdfast?
 - i. Define taproot.
 - j. What do you mean by cruciform corolla?
2. Answer in brief.(any five) [5 × 3=15]
 - a. Write differences between prokaryotic and eukaryotic cell.
 - b. Trace the classification chart of ecological factors.
 - c. Differentiate between primary and secondary wall.
 - d. Describe in brief the modification of adventitious roots.
 - e. Write merits and demerits of five kingdom classification.
 - f. Differentiate between racemose and cymose inflorescence.
 - g. Point out the differences between dicot and monocot plant.

3. Describe the structure and asexual reproduction of *Spirogyra* with well labeled diagrams. [7.5]

Or

Describe the family Cruciferae in semi-technical terms with its floral formula and identifying characters. Also mention any two botanical names of plant belonging to this family .

4. What is ecological factor? Describe the role of light on plants in detail. [8]

Group B “Zoology”

1. Answer in very short.(any seven) [7× 1 =7]
 - a. What is meant by Panspermia?
 - b. Define the terms Ichthyology and Biotechnology.
 - c. What is the significance of inbulging eyes in frog?
 - d. Define pseudocoelom.
 - e. What was the concept of theory of sepecial creation on the origin of life?
 - f. Why is *Paramecium* called slipper animalcule?
 - g. What is meant by polymorphism ?
 - h. Write two important characters of sarcodina.
 - i. Where do you find amplexury pads in frog?
 - j. Name any two life processes.
2. Answer in brief (any five) [5× 3 =15]
 - a. Draw a well labeled diagram of *Paramecium* (no description required)
 - b. Discuss the relationship of Biology with other sciences.
 - c. Explain the experiment conducted by Louis Pasteur. What was his view?
 - d. Write the distinguishing characters class Calcarea with examples.
 - e. Describe the amphibious characters of frog.
 - f. Write down the important characteristics class Scyphozoa with examples.
 - g. Differentiate between aestivation and hibernation.
3. Describe the alimentary canal of frog with a well labeled diagram. [5+2.5= 7.5]

Or

Write down the general characteristics of phylum Platyhelminthes and classify it upto classes with one example from each class.

4. Discuss the theory of Abiogenesis. Explain the experiment which discarded this theory. [8]

The End



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Group A “Botany”

1. Answer in very short.(any seven) [7× 1 =7]
 - a. What are mesosomes?
 - b. Define synecology.
 - c. What do you mean by cellular totipotency?
 - d. Define ecological factor.
 - e. What do you mean by naked DNA?
 - f. Define tetradynamous stamen.
 - g. Name two basic type of inflorescence.
 - h. Define the term herbaceous.
 - i. Write the specific characters of *Spirogyra*.
 - j. State two merits of five kingdom classification.
2. Answer in brief.(any five) [5 × 3=15]
 - a. Define ecological hierarchy. Give a flow chart of level of ecological organisation.
 - b. What is phyllotaxy?write about its types.
 - c. Describe sandwich model of cell membrane structure.
 - d. Differentiate between tap and adventitious root system.
 - e. Describe the steward experiment to proof cellular totipotency.
 - f. Describe the structure of prokaryotic cell (bacterial cell).
 - g. Write merits and demerits of two kingdom classification.
3. Describe sexual reproduction in *Spirogyra* with well labelled diagram.
Or
Write the characters of family Brassicaceae with classification,floral formula and identifying characters. Also write two botanical names of plant belonging to this family.
4. Describe structure and function of cell wall. Also point out the differences between primary and secondary wall.

Group B “Zoology”

1. Answer in very short.(any seven) [7× 1 =7]
 - a. Define Ornithology and Physiology.
 - b. Give the concept of Biogenesis.
 - c. What do you mean by peristaltic movement?
 - d. Name the excretory organs of flat worm.
 - e. “Life is open system with steady state.” Explain.
 - f. What is the function of teeth in frog?
 - g. Define the term hermaphroditism with an example.
 - h. What was the concept of Hypothesis of Panspermia on the origin of life?
 - i. Give the function of cloaca.
 - j. Differentiate between anabolism and catabolism(any two).
2. Answer in brief(any five) [5 × 3=15]
 - a. Explain the theory of special creation for the origin of life on the earth.
 - b. Draw a well labeled diagram of bucco- pharyngeal cavity of frog.(no description required)
 - c. What are life processes? Write about any three of them.
 - d. Name the types of spicules and their composition found in Porifera.
 - e. Discuss the relationship of Biology with Chemistry.
 - f. How does the male frog differ from female frog? Explain.
 - g. Write down the important characteristics of class Phasmda with examples.
3. Write down the general characteristics of phylum Coelenterata. Classify it upto classes with one important character and example of each class. [5+2.5 =7.5]
Or
Give the general characteristics of phylum Aschelminthes and classify it upto classes with one example from each class.
4. Describe theory of spontaneous generation. Explain the experiment which disbelieved or opposed this theory. [8]

The End