

FIRST TERMINAL EXAMINATION, OCTOBER 2013

TIME : 8.30 a.m. to 10.30 a.m.

F.Y.J.C.

DAY : Monday

MARKS: 50

BIOLOGY

DATE : 28.10.2013

- N.B.: 1. Answers to the two section should be written in two separate answer papers.
2. Draw neat proportionate and well labelled diagrams wherever necessary.
3. Figures to the right indicate full marks.
4. All questions are compulsory.

SECTION I

Q.1 A. Select the appropriate answer from given options and rewrite the sentence. (5)

- A group of closely related families is
 - species
 - order
 - genus
 - class
- Inner layer of algal cell wall is made up of
 - Cellulose
 - lipid
 - pectin
 - protein
- A tallest living gymnosperm is
 - Cycas revoluta*
 - Sequoia sempervirens*
 - Taxodium mucronatum*
 - zamia pigmaea*
- Simple lipids are esters of
 - proteins
 - phosphorus
 - fatty acid with glycerol
 - Amino acid
- Genetic recombination occurs during
 - Diakinesis
 - Diplotene
 - leptotene
 - pachytene

Q.2 A. Answer the following in one sentence. (5)

- Define the term 'Taxonomy'.
- Enlist two divisions of phanerogamae.
- What is "Synapsis"?
- Give the types of RNA.
- Give any two examples of steroids.

B. Draw a neat and labelled diagram of 'Spirogyra'. (2)

C. Answer any one of the following : (2)

- Write the objectives of systematics?
- With the help of labelled diagram, describe Anaphase of mitosis.

1. Give characteristics of kingdom - Protista.
2. Give the significance of 'Meiosis'.
3. Define the following terms:
 - a. apogamy
 - b. species.

B. Draw a neat and labelled diagram of 'cell cycle'. (2)

Q.4 Attempt any one of the following: (5)

1. What are viruses? Enlist and explain the types with examples.
2. What are enzymes? State the general properties of enzymes.

SECTION II

Q.1 A. Select and write the most appropriate answer from the given options and rewrite the sentence. (5)

1. In cockroach, excretion takes place by
 - a. Book gills
 - b. Book lungs
 - c. Green glands
 - d. Malpighian tubules
2. Find the odd group from the following:
 - a. Pituitary gland, Thyroid gland, Pineal gland
 - b. Adrenal gland, pineal gland, salivary gland
 - c. Thyroid gland, liver, sebaceous gland
 - d. Adrenal gland, sweat gland, parathyroid gland.
3. In the larva of urochordate, notochord is situated in the region.
 - a. abdomen
 - b. head
 - c. tail
 - d. trunk
4. Which animal shows locomotion by setae?
 - a. Earthworm
 - b. Roundworm
 - c. Tapeworm
 - d. Tongue worm
5. Epiglottis is supported by cartilage.
 - a. calcified cartilage
 - b. elastic cartilage
 - c. hyaline cartilage
 - d. fibrocartilage

Q.2 A. Answer the following questions in one sentence (Any five) (5)

1. What is metamerism?
2. Give scientific name of cockroach.
3. Enlist the various types of cells occurring in the *sycon*.
4. Name the contractile proteins present in the muscle fibres.
5. Define the term - radial symmetry.
6. Name any two hermaphrodite animals.

B. Sketch and label - *Balanoglossus*. (2)

C. Answer the following. (Any one) (2)

1. Give location and functions of ciliated epithelium.
2. Differentiate between striated and cardiac muscle fibres.

Q.3 A. Answer the following (Any two) (4)

1. Write a note on pseudocoelomates.
2. Describe the characters of super class pisces.
3. Differentiate between male and female cockroach.

B. Sketch and label - Areolar connective tissue. (2)

Q.4 Answer the following (Any one) (5)

1. Describe the structure and functions of mammalian bone.
2. Describe the distinguishing characters of phylum - Mollusca.

