

BIOLOGY

2014

Time: 30 Minutes

Max. Marks: 15

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

1. Choose the correct answer for each from the given options: (15)

- (1) The building materials of protoplasm are:
(a) carbohydrates (b) fats (c) proteins (d) vitamins
- (2) Plants, which derive their food from dead organic matter, are called:
(a) Parasites (b) Saprophytes
(c) Insectivores (d) symbionts
- (3) The tissue which conducts water and salts in plants is:
(a) Xylem (b) Phloem (c) Cambium (d) Pith
- (4) DNA is found in:
(a) Nucleus (b) Chromosomes (c) Cell (d) Nucleoplasm
- (5) The egg laying mammal is:
(a) Kangaroo (b) Dolphin (c) Duck bill (d) Bat
- (6) The vitamin which helps in clotting of blood is:
(a) A (b) B (c) D (d) K
- (7) The fourth whorl of a flower is:
(a) Androecium (b) Gynoecium (c) Calyx (d) Corolla
- (8) This disease is caused by plasmodium:
(a) Malaria (b) Tuberculosis (c) Cholera (d) Influenza
- (9) Microscope was invented by:
(a) Galileo (b) Linnaeus (c) Rodi (d) Robert Hooke
- (10) Seed develops from:
(a) Flower (b) Ovary (c) Ovule (d) None of these
- (11) Star fish belongs to Phylum:
(a) Cnidaria (b) Echinodermata (c) Mollusca (d) Annelida
- (12) Green plants in an ecosystem are:
(a) Producers (b) Consumers
(c) decomposers (d) None of these
- (13) The number of chambers in the heart of frog is:
(a) Two (b) three (c) Four (d) None of these
- (14) Agaricus is commonly known as:
(a) Bread mould (b) Yeast (c) Mushroom (d) All of these
- (15) The melodious voice of many birds come from:
(a) syrinx (b) larynx (c) pharynx (d) glottis

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2014

Time: 2 ½ Hours

Max. Marks: 68

SECTION "B" (SHORT-ANSWER QUESTIONS)

ZOOLOGY

(MARKS 21)

NOTE: Answer 7 questions from this section.

- (2) Write three salient features of the Cell Theory.
- (3) Draw a neat and labeled diagram of the Urinogenital system of a male frog.
- (4) Define the following:
(i) Mitosis (ii) Species (iii) Physiology
- (5) Write three differences between Arteries and Veins.
- (6) Write three functions of Skeleton in man.
- (7) Write three characteristics of class Aves.
- (8) Write notes on any two of the following:
(i) Appendicitis (ii) Enzymes
(iii) Bronchitis (iv) Cholera
- (9) What is Metamorphosis? Define two types of Metamorphosis.
- (10) Write names of three Endocrine glands. Also name the hormones secreted by these glands.
- (11) Define Portal System. Name two types of Portal System found in frog.

(SHORT-ANSWER QUESTIONS)

BOTANY

(MARKS 21)

NOTE: Answer 7 questions from this section.

- (12) Draw a neat and labeled diagram of L.S. of flower of Brassica.
- (13) Write three differences between Dicot plants and Monocot Plants.
- (14) Define the following:
(i) Osmosis (ii) Symbionts (iii) Phototropism
- (15) Define germination of seed. Describe two kinds of germination.
- (16) Define Photosynthesis. Write chemical equation to express photosynthesis.
- (17) Write three points of importance of Fungi.
- (18) Define simple tissue and complex tissue in plants. Write two examples of each.
- (19) Write three advantages of transpiration in plants.
- (20) Write short notes on any two of the following:
(i) Plastids (ii) Pollination
(iii) Mitochondria (iv) Heterotrophic plants
- (21) Write three differences between Photosynthesis and Respiration.

SECTION 'C' (DETAILED-ANSWER QUESTIONS)

ZOOLOGY

(MARKS 14)

NOTE: Attempt 2 questions from this section.

22. Draw a neat and labeled diagram of Arterial system of frog.
23. Describe Darwin's theory of evolution and explain four important points of this theory.
24. Write different types of teeth in man and describe their functions.

(DETAILED-ANSWER QUESTIONS)

BOTANY

(MARKS 14)

NOTE: Attempt Two questions from this section. Each question carries 7 marks.

25. Describe an experiment to prove that carbon dioxide is necessary for photosynthesis. Draw its labeled diagram also.
26. What is meant by Dispersal of Seeds and Fruits? Describe any two methods of dispersal in detail.
27. Draw a neat & labeled diagram of T.S. of Brassica Stem.