

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)

- i. The building materials of protoplasm are:
 - a) **Carbohydrates**
 - b) Fats
 - c) Proteins
 - d) Vitamins
- ii. Plants, which derive their food from dead organic matter are called:
 - a) Parasites
 - b) Saprophytes
 - c) Insectivores
 - d) **Symbionts**
- iii. The tissue which conducts water and salts in plants is:
 - a) **Xylem**
 - b) Phloem
 - c) Cambium
 - d) Pith
- iv. DNA is found in:
 - a) Nucleus
 - b) **Chromosomes**
 - c) Cell
 - d) Nucleoplasm
- v. The egg laying mammal is:
 - a) Kangaroo
 - b) Dolphin
 - c) **Duck bill**
 - d) Bat
- vi. The vitamin which helps in clotting of blood is:
 - a) A
 - b) B
 - c) D
 - d) **K**
- vii. The fourth whorl of a flower is:
 - a) Androecium
 - b) **Gynoecium**
 - c) Calyx
 - d) Corolla
- viii. This disease is caused by Plasmodium:
 - a) **Malaria**

- b) Tuberculosis
c) Cholera
d) Influenza
- ix. Microscope was invented by:
a) **Galileo**
b) Linnaeus
c) Rodi
d) Robert Hooke
- x. Seed develops from:
a) Flower
b) Ovary
c) **Ovule**
d) None of these
- xi. Star fish belongs to Phylum:
a) Cnidaria
b) **Echinodermata**
c) Mollusca
d) Annelida
- xii. Green plants in an ecosystem are:
a) **Producers**
b) Consumers
c) Decomposers
d) None of these
- xiii. The number of chambers in the heart of frog is:
a) Two
b) **Three**
c) Four
d) None of these
- xiv. Agaricus is commonly known as:
a) Bread mould
b) Yeast
c) **Mushroom**
d) All of these
- xv. The melodious voice of many birds come from:
a) **Syrinx**
b) Larynx
c) Pharynx
d) glottis

BIOLOGY**2014****Time: 2½ 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. Plasties

- 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.