

Std. - 11 (Semester-2)
Biology (056) (E)
Sample Question Paper

Time : 3 Hrs.

Total Marks : 100

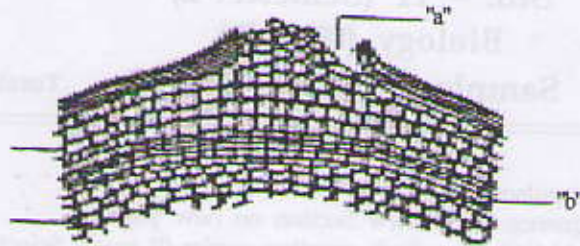
Instructions :

- (1) All questions are compulsory.
- (2) Write answers in sequence. Write new Section on new page.
- (3) Q. No. 1 to 16 are of M.C.Q. type. Each question carries 01 mark. Select correct answer from the given four alternative responses and write its Code (A, B, C or D).
- (4) Q. No. 17 to 32 are of very short answer type questions. Each question carries 01 mark.
- (5) Q. No. 33 to 44 are of Short answer type. Answer them as per instructions. Each question carries 02 marks.
- (6) Q. No. 45 to 52 are of Short answer questions. Answer them as required. Each question carries 03 marks.
- (7) Q. No. 53 to 57 are of Long answer type of questions. Answer them point wise as required. Each question carries 04 marks.
- (8) Internal options are provided in sections C, D and E.

SECTION - A

- (1) It is an example of Food Storing tap root :
(A) Beet root (B) Sweet Potato (C) Asparagus (D) Dahlia
- (2) Which specialized function of leaf is performed by Phyllode ?
(A) Food Storage (B) Climbing (C) Protection (D) Photosynthesis
- (3) Which cell secretes heparin and histamine ?
(A) Neuron (B) Mast cell (C) Macrophage (D) Fibroblast
- (4) Which of the following is mis-matched ?
(A) Helicoid - Hamelia (B) Scorpioid - Heliotropium
(C) Biparous Cymose - Nyctanthus (D) Solitary Cymose - Capitulum
- (5) How does Calotropis and Apple differs from each other ?
(A) Apple develops from thalamus and calotropis develops from monocarpellary gynoecium.
(B) Apple is formed from thalamus and calotropis is produced from polycarpellary gynoecium.
(C) Apple is composite fruit and calotropis is sorosis.
(D) Apple is achene and Calotropis is syconus.
- (6) Which region of the root will be directly affected if root pocket is removed ?
(A) Meristematic region (B) Elongation region
(C) Maturation region (D) Region of lateral root
- (7) Which simple permanent tissue has deposition of pectin ?
(A) Parenchyma (B) Collenchyma
(C) Sclerenchyma (D) Palisade

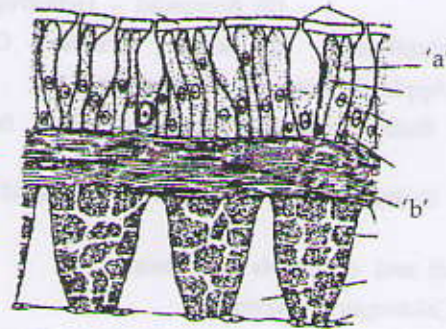
- (8) What does 'a' and "b" represent in the given diagram ?



- (A) a = Cork cambium, b = Lenticel (B) a = Cork, b = Phelloderm
(C) a = Lenticel, b = Cork cambium (D) a = Phelloderm, b = Cork
- (9) Which of the following is correct for the part labelled as 'a' in the given diagram ?



- (A) Tendon-consist of collagen fibres (B) Ligament-consist of yellow elastin fibres
(C) Tendon-consist of yellow elastin fibres (D) Ligament-consist of collagen fibre
- (10) What does 'a' and 'b' indicate in the given diagram ?



- (A) a = Mucous Cell, b = Basal Cell (B) a = Supporting Cell, b = circular Muscle
(C) a = Longitudinal Muscle, b = Basal Cell (D) a = Cuticle, b = Mucous Cell
- (11) In which Segments, blood glands are present in earth-worm ?
(A) 4, 5 and 6 (B) 7, 8 and 9
(C) 1, 2 and 3 (D) 9, 10 and 11
- (12) Which secretion stimulates intestine to secrete intestinal Juice ?
(A) Pancreozymin (B) Enterocrinin (C) Amylase (D) Trypsin

- (13) Which stage follows external gill stage in embryonic development of frog ?
 (A) Hind limb stage (B) Four limb stage (C) Adult Frog (D) Internal gill stage
- (14) This artery supply blood to alimentary canal.
 (A) Carotid artery (B) Coeliac Mesenteric artery
 (C) External jugular artery (D) Femoral artery
- (15) It is correct for the fertilization in Frog :
 (A) Self and on land (B) Cross and on Land
 (C) Self and in water (D) Cross and in water
- (16) To which of the following urinary bladder is associated ?
 (A) Cloaca (B) Spleen (C) Rectum (D) Ileum

SECTION - B

- (17) Write any two characteristics of cells of meristematic region.
- (18) Distinguish : Epiphytic root and Parasitic root
- (19) Mention the special function of leaf of gloriosa and smilax and state the name of part modified for it.
- (20) Write scientific name of pigeon pea.
- (21) What is placentation ?
- (22) Distinguish : Primary Growth and Secondary Growth
- (23) State any two Substances stored in Phloem parenchyma.
- (24) Mention segments of walking leg of cockroach.
- (25) What is typhlosolar region ?
- (26) What is Clitellum ?
- (27) Mention any two locations of cuboidal epithelial tissue.
- (28) What is Sarcomere ?
- (29) What is Portal Vein ?
- (30) Write location and function of brow spot.
- (31) Write location and function of pyloric valve.
- (32) What is Malpighian body ?

SECTION - C

- (33) Write functions of connective Tissue.
- (34) Describe composition of Plasma.

OR

Describe Smooth muscle tissue.

- (35) Describe Nephridia of earth-worm.
- (36) Describe Blood Vascular System of *Periplaneta americana*.
- (37) Explain Symbiotic Root.

- (38) Explain Modifications of stem for protection.
- (39) Explain : Capitulum.
- (40) Describe : Aggregate Fruit.
- (41) Write characteristics of Sclerenchyma.

OR

Write any four points of differences between Internal Structure of Sunflower Root and Internal Structure of maize root.

- (42) Explain Vascular tissue system of dicotyledon Stem.
- (43) Describe cutaneous respiration in frog.
- (44) Explain autonomous nervous System of Rana tigrina.

SECTION - D

- (45) Write two distinct differences between dehiscent and indehiscent fruit and explain caryopsis, nuts and samara fruits.
- (46) Write comparative reports on digestive system of cockroach and earth-worm (Diagrams are not required)
- (47) Write any two differences between dichotomous branching and lateral branching; and explain uniparous cymose branching with diagram.
- (48) Explain nervous system of Cockroach. (Diagram is not required)
- (49) Explain "Formation of Secondary tissues."
- (50) Explain skeletal muscle (Diagram is not required)

OR

Explain nervous tissue. (Diagram is not required)

- (51) Explain reproductive organs of the typical flower. (Diagram is not required)

OR

Explain aestivation (Any three) (Diagram is required)

- (52) Explain arterial system of frog. (Diagram is not required)

OR

Explain internal structure of skin of frog. (Diagram is not required)

SECTION - E

- (53) Explain structure of Monocotyledonous seed with labelled diagram.
- (54) Describe leucocytes. (Diagram is not required)
- (55) Describe reproductive system of frog. (Draw diagram of male reproductive system of frog)

OR

Describe the structure of eye of frog. (Diagram is necessary)

- (56) Explain Modifications of leaves for special functions. (Diagram is not required)

OR

Explain Simple and Compound Leaves. (Diagram is not required)

- (57) Describe types of Vascular Bundle. (Diagram is necessary)

OR

Distinguish : Maize Leaf and Sunflower Leaf. (Four points)