

XIth 2023-24

Date : 17/10/2023

Botany Theory Round -01

 Max.Marks :- 35
Time 90 Minutes.

(Only Bio)
General Instructions : The question paper is divided into four sections.

- (1) **Section A :** Q.No.1 contains Five Multiple choice type of question carrying **One** mark each.
Q.No.2 contains Five very short answer type of questions carrying **One** mark each.
- (2) **Section B :** Q.No.3 to Q.9 are short answer type of question carrying **Two** marks each.
- (3) **Section C :** Q.No.10 to Q. No.14 are short answer type of questions carrying **Three** marks each
- (4) **Section D :** Q.No.15 to Q.No.18 are long answer type of questions carrying **Four** marks each.
- (5) Figures to the right indicate full marks

Section -A

[05]
Q.1 Select and write the correct answer.

- i) During double fertilization second male gamete fuses with _____.
- (a) Antipodal Cell
(b) Egg cell
(c) Secondary nucleus
(d) Synergids
- ii) Which of the following is the first step in water absorption?
- (a) Imbibition
(b) Active Absorption
(c) Passive absorption
(d) Osmosis
- iii) The correct sequence of different phases of growth is
- (a) Elongation, Formation, Maturation
(b) Formation, Elongation, Maturation
(c) Differentiation, Elongation, Maturation
(d) Maturation, Formation, Elongation
- iv) During fertilization, male gametes are carried by pollen tube. This is called
- (a) Syngamy
(b) Mesogamy
(c) Polygamy
(d) Siphonogamy
- v) The base of an upright ecological pyramid represents
- (a) Primary consumers
(b) Producers
(c) Secondary consumers
(d) Tertiary consumers

Q.2 Answer the following

[05]

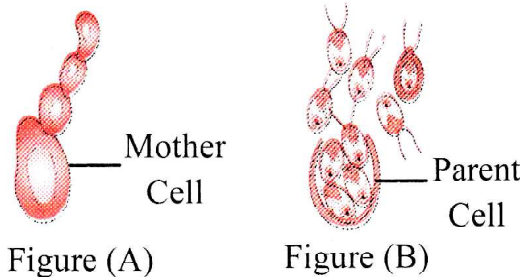
- (i) Define clones.
- (ii) If in a fully turgid cell, T.P = O.P, then what will be its DPD?
- (iii) Define embryogenesis.
- (iv) Can you tell?
Which plant organ does show both arithmetic and geometric growth?
- (v) Define chemical potential.

Section -B : Attempt any -4 (Q.3 to 9)

[08]

Answer the following questions :

- Q.3 Identify the type of asexual reproduction given in the figures.



- Q.4 Differentiate between Apoplast pathway and Symplast pathway.
 Q.5 Write a short note on toxicity of micronutrients.
 Q.6 Describe the structure of monocot embryo.
 Q.7 Define Stratification
 Q.8 Enlist the types of Pyramids. **THINK NEET | THINK IIB**
 Q.9 Define the following terms :
 (i) Chasmogamy
 (ii) Cleistogamy
 (iii) Homogamy

Section -C : Attempt any 3 (Q.10 to 14)

[09]

- Q.10 Explain the term root pressure, Name the instrument used to measure root pressure.
 Q.11 Give a diagrammatic representation of nitrogen cycle.
 Q.12 Define the following terms :
 (i) Testa (ii) Tegmen (iii) Perisperm
 Q.13 What is Productivity? Explain their types.
 Q.14 Draw neat and labelled diagram of anatropous ovule and explain its structure in detail.

Section -D : Attempt any 2 (Q.15 to 18)

[08]

- Q.15 Write a short note on entomophily.
 Q.16 What is transpiration? Describe mechanism of opening and closing of stomata.
 Q.17 Incompatibility is a natural barrier in the fusion of gametes. How will you explain this statement?
 Q.18 What is decomposition? Enlist the steps of decomposition.