



# EDEN EDUCATIONAL SERVICES

## NEET

Class: 12

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60X1=60

### Section 1(BIOLOGY)

1) What is common between vegetative reproduction and apomixis

- A) Both are applicable to dicot plants  
 B) Both bypass the flowering phase  
 C) Both occur round the year  
 D) Both produces progeny identical to the parent

2) The technique of obtaining large number of plantlets by tissue culture method is called

- A) Plantlet culture  
 B) Organ culture  
 C) Micro - propagation  
 D) All of the above

3) A scion is grafted to a stock. The quality of fruits produced will be determined by the genotype of

- A) Scion  
 B) Stock  
 C) Both stock and scion  
 D) Neither scion nor stock

4) Nucellus forms which of the following part of fruit?

- A) Seed coat  
 B) Perisperm  
 C) Seed  
 D) Raphe

5) In a type of apomixis known as adventitive embryony, embryos develop directly from the

- A) Nucellus or integuments  
 B) Synergids or antipodals  
 C) Accessory embryo  
 D) Zygote

6) Perisperm is

- A) Degenarate part of synergids  
 B) Peripheral part of endosperm  
 C) Degenarate part of secondary nucleus  
 D) remnant of nucellus

7) Filiform apparatus is a characteristic feature of

- A) egg  
 B) synergid  
 C) zygote  
 D) suspensor

8) What would be the number of chromosomes of the aleurone cells of a plant with 42 chromosomes in the root tip cells?

- A) 63  
 B) 84  
 C) 21  
 D) 42

9) In a flowering plant, the pollen tube first arrives in

- A) egg  
 B) an antipodal cell  
 C) a synergid  
 D) central cell

10) Which of the following statements is wrong?

- A) 1) Pollen grains remain viable for several onths because their outer covering is made of sporopollenin  
 B) No enzyme can degrade sporopollenin  
 C) Pollen grains are well represented in fossil strata due to sporopollenin  
 D) Pollen walls has cavities containing protiens

11) The egg apparatus of angiosperm comprises:

- A) an egg cell & two antipodals  
 B) an egg cell & two synergids  
 C) an egg cell & two polar nuclei  
 D) an egg cell & the central cell

12) Which two structures show correct combination  
 Study the following table

Structure	Time of formation	Ploidy
I) Eggcell	After fertilization	2 n
II) Nucellus	Before fertilization	n
III) Integumentary cells	After fertilization	3 n
IV) Endosperm of gymnosperms	Before fertilization	n

- A) I and III  
 B) II and IV  
 C) I and IV  
 D) II & IV

13) Study the following table and identify the correct combination

Structure :	Ploidy :	State :
I) Unicellular pollen grain	Haploid	Partly developed male gametophyte
II) Tapetum	Tetraploid	Nutritive tissue in the anther
III) Two celled pollen grain	Haploid	Partly deve loped male gametophyte
IV) Germinate pollen grain	Haploid	Matured male gametophyte with male gametes

- A) I and II  
 B) II and III  
 C) III and IV  
 D) I and IV

14) The two parts showing correct combination are

Part	Ploidy	Origin
I) Integument	n	Female parent
II) Antipodals	n	Female gametophyte
III) Nucellus	2n	Female parent
IV) PEN	3n	Product of syngamy

- A) I&II  
 B) III & IV  
 C) II and III  
 D) II and IV

15) Study the following table

Structure	Ploidy	Function
I. Venterative cell	Diploid	Pollen tube producer
II. Generative cell	Haploid	Producer of male gametes
III. Sporogenous cell	Diploid	Producer of microspores
IV. Tapetum	Diploid nuclei	Nutritive tissue of anther

Which of the above two combinations are correct

- A) I & II      B) II & IV      C) III & IV      D) I & IV

16) Match the following ovular structure with post fertilization structure and select the correct alternative (2007)

(1) Ovule	(1) Endosperm
(2) Funiculus	(2) Aril
(3) Nucellus	(3) Seed
(4) Polar nuclei	(4) Perisperm

- A) A B C D      B) A B C D      C) A B C D      D) A B C D  
 2 3 4 1      3 2 1 4      3 2 4 1      3 2 1 4

17) The sequence of events occurs during the entire lifespan of living organism

- A) Juvenile phase - Mature phase - Old age - Death      B) Mature phase - Juvenile phase - Old age - Death      C) Old age - Mature phase - Juvenile phase - Death      D) Juvenile phase - Old age - Mature phase - Death

18) Find out the correct match

- A) Polycarpic plant- Bamboo      B) Terror of Bengal - Water hyacinth      C) Sporangio spores - Rhizopus      D) Conidia - Penicillium

19) Which of the following produces reproductive spores on specialised sporangioophores?

- A) *Rhizopus*      B) *Penicillium*      C) *Chlamydomonas*      D) *Euglena*

20) Specialised structures for reproduction via fragmentation in bryophytes are

- A) Suckers      B) Offsets      C) Gemmae      D) Spores

21) Haploid, diploid and triploid status are successively observed in this cell

- A) Egg cell      B) Antipodal cell      C) Synergid      D) Central cell

22) Commonly the number of genomes in pollinating pollen of angiosperms

- A) 1      B) 2      C) 3      D) 4

23) Which of the following processes involves the transfer of male gametes?

- A) Syngamy      B) Pollination      C) Embryogenesis      D) Parthenogenesis

24) Which of the following is a post - fertilisation event in flowering plants?

- A) Transfer of pollen grains      B) Embryo development      C) Formation of flower      D) Formation of pollen grains

25) The Dominant phase in the life cycle of Angiosperms is

- A) sporophyte      B) gametophyte      C) in dicots sporophyte & gametophyte      D) in monocots gametophyte

26) Find out the incorrect statement

- A) Pollen grains, after dispersal from the anthers, are carried to the stigma of a pistil      B) After dispersal, seeds germinate under favourable conditions to produce new plants.      C) In both gymnosperms and angiosperms, the seeds are enclosed by fruits      D) The polar nuclei eventually fuse to produce secondary nucleus in the central cell

27) Appearance of vegetative propagules from the nodes of plants such as sugarcane and ginger is mainly because

- A) Nodes are shorter than internodes      B) Nodes have meristematic cells      C) Nodes are located near the soil      D) Nodes have non- photosynthetic cells

28) Identify the incorrect statement

- A) In asexual reproduction, the offspring produced are morphologically and genetically identical to the parent      B) Zoospores are sexual reproductive structures      C) In asexual reproduction, a single parent produces offspring with or without the formation of gametes      D) Conidia are asexual structures in *Penicillium*

29) The endosperm nucleus is

- A) Haploid      B) Diploid      C) Triploid      D) Tetraploid

30) Pollen tube contains

- A) one male nucleus      B) two male nuclei      C) three male nuclei      D) four male nuclei

31) Pollen grains are produced by

- A) 2 cells      B) 1 cell      C) 1 cell      D) 4 cells

32) The type of vegetative propagation seen in chrysanthemum is

- A) Runner      B) Sucker      C) Stolon      D) Offset

33) Sugarcane is normally grown by

- A) Cutting      B) Grafting      C) Layering      D) Seeds

34) Spores are produced inside the sporangium in

- A) Yeast                      B) *Penicillium*                      C) *Rhizopus*                      D) *Plasmodium*

35) Pollen sacs are present in

- A) Thalamus                      B) Anther                      C) Ovary                      D) Corolla

36) The ratio between pollen mother cells and pollen tetrads is

- A) 1 : 1                      B) 1 : 4                      C) 3 : 4                      D) 1 : 2

37) During parthenogenesis as the egg develops without meiosis

- A) the offsprings are identical in all inherited characters respect to the mother                      B) the offsprings are differ in all inherited characters respect to the mother                      C) there is no relation between mother and offsprings genetically                      D) none of the above

38) Study the following lists

- |                      |                                        |
|----------------------|----------------------------------------|
| <b>List - I</b>      | <b>List - II</b>                       |
| 1) Spore haplophase  | I) Last cell of                        |
| 2) Gamete            | II) First cell of diplophase           |
| 3) Spore mother cell | III) First and last cell of sporophyte |
| 4) Zygote            | IV) First cell of haplophase           |
|                      | V) Last cell of diplophase             |

The correct match is

- |             |             |            |             |
|-------------|-------------|------------|-------------|
| A) A B C D  | B) A B C D  | C) A B C D | D) A B C D  |
| IV V II III | II III IV V | IV I V II  | I II III IV |

39) The statements given below describe certain features that are observed in the pistil of flowers.

- i) Pistil may have many carpels
  - ii) Each carpel may have more than one ovule
  - iii) Each carpel has only one ovule
  - iv) Pistil have only one carpel
- Choose the statements that are true from the options below:

- A) i and ii                      B) i and iii                      C) ii and iv                      D) iii and iv

40) In the following plants the pollen tube enters into embryo sac from micropylar side

- I) *Ottelia*                      II) *Casuarina*
- III) *Cucurbita*                      IV) *Hibiscus*

- A) IV only                      B) 1,11, III and IV                      C) II and III only                      D) III only

41) Gametophytes of angiosperms are Ltd.,

- I. Dimorphic                      II. Independent
  - III. Free living                      IV. Reduced
- Choose the correct options

- A) I&IV                      B) II & III                      C) III & IV                      D) II & IV

42) Match the List - I with List - II and find the correct match

List-I	List-II
A) Root tubers	1) <i>Curcuma</i> (Turmeric)
B) Sucker	2) <i>Chrysanthemum</i>
C) Rhizome	3) Sweet potato
D) Corm	4) <i>Colocasia</i>

- |            |            |            |            |
|------------|------------|------------|------------|
| A) A B C D | B) A B C D | C) A B C D | D) A B C D |
| 2 2 4 1    | 3 1 2 4    | 3 2 1 4    | 1 3 4 2    |

43) Axis of inflorescence is

- A) inflorescence                      B) Peduncle                      C) Placentation                      D) Corymb

44) Apomixis was discovered by

- A) Leeuwenhoek                      B) Winkler                      C) Juel & murbeck                      D) Navaschin & guignar

45) Ubisch bodies are produced in

- A) Embryosac                      B) Endothecium                      C) Pollen grain                      D) Tapetum

46) Go through the following statements -

- I. Flowers are bisexual and homogamous maturing anther and stigma of a flower at the same time.
- II. Mechanical devices bringing anthers and stigma close together in a bisexual chasmogamous flower.
- III. Cleistogamy (bisexual flowers remain closed)
- IV. Anther and stigma of an intersexual flower mature, in bud condition. The above contrivances favour

- A) allogamy                      B) Autogamy                      C) Xenogamy                      D) Cross pollination

47) Which of the following statements is false?

- I. *Vallisneria* and *Hydrilla* are fresh water plants while sea-grasses (e.g. *Zostera*) are marine plant.
- II. *Vallisneria* is epiphydrophilous while *Zostera* is hypohydrophilous
- III. Pollination in water lily / *Lotus* (*Nymphaea*) and *Eichhornia* (water hyacinth) takes place by insects ~ v
- IV. In majority of aquatic plants flowers emerge above the level of water and are pollinated by insects or wind
- V. In most of the water pollinated species, pollen grains are protected from wetting due to absence of mucilaginous covering
- VI. In hydrophilous plants pollen grains are spherical

- A) All                      B) None                      C) VI                      D) IV

48) The sexual reproduction in *Spirogyra* is-

- A) Oogamous                      B) Physiological Anisogamous                      C) Cleistogamous                      D) None

49) Study the following table

Cell	Ploidy	Generation
I) Microspore	Haploid	Sporophyte
II) Megaspore mother cell	Diploid	Sporophyte
III) Generative cell	Triploid	Gametophyte
IV) Root cell	Diploid	Sporophyte

- A) I and II      B) II and III      C) III and IV      D) II and IV.

50) Match the following

List-I	List-II
1) Asexually reproduced off spring	I) Zoospores
2) Reproductive structures that is adapted for dispersal	II) Gamete
3) Swarmspores	III) Clone
4) Plant material used for vegetative propagation	IV) Propagule
	V) Spore

- A) A B C D      B) A B C D      C) A B C D      D) A B C D  
 I II III IV      III IV II I      II III I IV      III V I IV

51) Funiculus takes complete turn around the body of ovule in

- A) Piper      B) Opuntia      C) Brassica      D) Ranunculus

52) Individuals obtained through Asexual reproduction are

- A) Phenotypically similar      B) Genotypically similar      C) Both Phenotypically and genotypically differ      D) Both Phenotypically and genotypically similar

53) Find out the in correct match

- A) Polycarpic plant- Bamboo      B) Terror of Bengal - Water hyacinth      C) Sporangio spores - Rhizopus      D) Conidia - Penicillium

54) Potatoes are vegetatively propagated from

- A) Stem tubers      B) Offsets      C) Bulbils      D) Rhizomes

55) Unequal daughter cells are produced in

- A) fragmentation      B) Sporulation      C) Fission      D) Budding

56) Vegetative propagation in sweet potato is by

- A) Stem      B) Root      C) Leaf      D) Flower

57) The diagrams below represent various process associated with reproduction. Asexual reproduction is represented by



58) The parts of the flower in labelled diagram are



- A) X = sepal, Y = carpel      B) X = petal, Y = stalk      C) X = petal, Y = anther      D) X = sepal, Y = anther

59) X and Y in the diagram are



- A) X = style, Y = pollen      B) X = style, Y = ovule      C) X = ovary, Y = pollen      D) X = pollen, Y = style

60) Study the following table

Structure	Cell	Division
I) Nucellus	Archisporial cell	Mitosis
II) II. Megaspore-mother cell	Parietal cell	Meiosis
III) III. Pollen tube	mother cell	Meiosis
IV) IV. Anther	Sporogenous cell	Mitosis

The correct combination is

- A) I & III      B) I & IV      C) II & III      D) II & IV

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