



# BIOLOGY

## BOOKS - KUMAR PRAKASHAN KENDRA BIOLOGY (GUJRATI ENGLISH)

### REPRODUCTION IN ORGANISMS

**Section A Exam Oriented Questions Answers From  
Darpan**

1. Explain about life span of organisms ?





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2. Why is reproduction essential for organisms ? Describe its types.



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3. Which is a better mode of reproduction : sexual or asexual ? Why ?



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4. Write a short note on Binary fission.



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5. Describe in detail about asexual reproduction in animals.



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6. Describe fission and its types.



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7. Why is the offspring formed by asexual reproduction referred to as a clone ?



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8. Why vegetative reproduction is also considered as a type of asexual reproduction ?



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**9.** What is vegetative propagation ? Give two suitable examples.



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**10.** Why Amoeba is called immortal ?



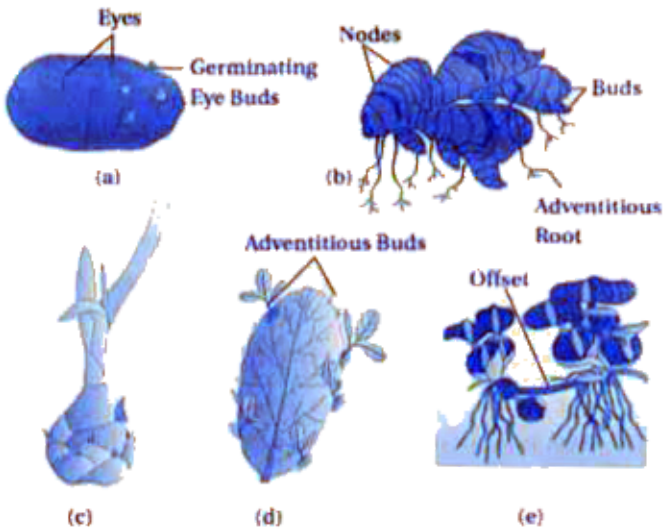
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**11.** Explain asexual reproductive structures.



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12. In the given figure identify, through which structure they propagates ?



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**13.** Is the term clone applicable to the offspring formed by vegetative reproduction ? Site two reasons for this.



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**14.** Justify why the survival rate of offsprings in sexual reproduction is high ?



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**15.** Explain the phase in the life of the organism before it can reproduce sexually.



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**16.** Explain the phase in the life of the organism when it can reproduce sexually.



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17. Name the plant which exhibit unusual flowering phenomenon.



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18. What is oestrous cycle ?



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19. What is menstrual cycle ?



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**20.** Explain senescence phase.



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**21.** How does the progeny formed from asexual reproduction differ from those formed by sexual reproduction ?



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**22.** Higher organisms have resorted to sexual reproduction in spite of their complexity. Why ?



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**23.** What is pre fertilization events ?



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**24.** Explain gametogenesis in detail.



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25. What are meiocytes ?



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26. Write a short note on sexuality in organisms.



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27. Explain the process of gamete transfer.



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**28.** Explain why meiosis and gametogenesis are always interlinked ?



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**29.** Describe process of fertilization.



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**30.** Explain Post Fertilization events.



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**31.** Explain oviparous and viviparous.



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**32.** Describe the post - fertilisation changes in a flower.



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1. Zoospores and Conidia.



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2. External fertilization and Internal fertilization.



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3. Difference between. Asexual reproduction and Sexual reproduction.



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4. Cutting and Grafting.



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5. Explain oviparous and viviparous.



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6. Why Amoeba is called immortal ?





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7. It is very difficult to get rid of Eichhornia from the water body. Give reasons.



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8. Give scientific reason. Grafting is not possible in monocots.



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9. Why is the offspring formed by asexual reproduction referred to as a clone ?



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10. A haploid parent produces gametes by

- (A) meiotic division
- (B) mitotic division
- (C) first mitotic and then meiotic
- (D) first meiotic and then mitotic



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**11.** Give scientific reasons. Variations are expected in sexually reproducing organisms.



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**12.** Explain why meiosis and gametogenesis are always interlinked ?



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**13.** Coconut plant is monoecious while date palm is dioecious. Why are they called so?



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14. Why whiptail lizard is referred as parthenogenetic.



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15. Vegetative reproduction is practised for growing some type of plants ?



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# Section C Objective Questions Answers Match The Columns

| Column - I |                | Column - II |             |
|------------|----------------|-------------|-------------|
| (1)        | Binary fission | (a)         | Penicillium |
| (2)        | Budding        | (b)         | Bryophyllum |
| (3)        | Zoospore       | (c)         | Potato      |
| (4)        | Conidia        | (d)         | Algae       |
| (5)        | Tuber          | (e)         | Yeast       |
| (6)        | Leaf buds      | (f)         | Amoeba      |

1.

|  |     |            |
|--|-----|------------|
|  | (g) | Hydra      |
|  | (h) | Paramecium |

A. Match the following

B.

C.

D.

**Answer:**



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2. Match the following

| Column - I |                | Column - II |           |
|------------|----------------|-------------|-----------|
| (1)        | Bryophyllum    | (a)         | Offset    |
| (2)        | Agave          | (b)         | Eyes      |
| (3)        | Potato         | (c)         | Leaf buds |
| (4)        | Water hyacinth | (d)         | Bulbils   |



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### 3. Match the following columns

| Column - I |            | Column - II |                  |
|------------|------------|-------------|------------------|
| (1)        | Earthworm  | (a)         | Males are absent |
| (2)        | Cockroach  | (b)         | Hermaphrodite    |
| (3)        | Honey bees | (c)         | Dioecious        |
| (4)        | Rotifers   | (d)         | Parthenogenesis  |



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#### 4. Match the following columns

| Column - I |                           | Column - II |                               |
|------------|---------------------------|-------------|-------------------------------|
| (1)        | Uniparental reproduction  | (a)         | Sexual reproduction           |
| (2)        | Budding                   | (b)         | Spongilla                     |
| (3)        | Gemmule                   | (c)         | Plasmodium                    |
| (4)        | Syngamy                   | (d)         | Gametes                       |
| (5)        | Fusion of similar gametes | (e)         | Hydra                         |
| (6)        | Biparental reproduction   | (f)         | Penicillium                   |
| (7)        | Haploid                   | (g)         | Asexual reproduction          |
| (8)        | Conidia                   | (h)         | Isogamy                       |
| (9)        | Multiple fission          | (i)         | Fusion of two haploid gametes |



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# Section C Objective Questions Answers Definitions Explanation

## 1. Reproduction



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2. Difference between. Asexual reproduction and Sexual reproduction.



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3. Difference between. Asexual reproduction and Sexual reproduction.



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4. Fission is observed in



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5. Clones are



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6. The axillary bud later develops into a



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7. Explain about life span of organisms ?



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8. Spores



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**9. Isogametes are**

(A) morphologically similar

(B) physiologically similar

(C) motile and has flagella

(D) all the above



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**10. Explain Anisogametes**



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## 11. Explain Juvenile phase



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## 12. Explain Reproductive phase



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## 13. Explain senescence phase.



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## Section D Textual Exercise

1. Why is reproduction essential for organisms ?

Describe its types.



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2. Which is a better mode of reproduction :

sexual or asexual ? Why ?



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3. Why is the offspring formed by asexual reproduction referred to as a clone ?



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4. Justify why the survival rate of offsprings in sexual reproduction is high ?



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5. How does the progeny formed from asexual reproduction differ from those formed by sexual reproduction ?



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6. Why vegetative reproduction is also considered as a type of asexual reproduction ?



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7. What is vegetative propagation ? Give two suitable examples.



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8. Explain Reproductive phase



[Watch Video Solution](#)

9. Higher organisms have resorted to sexual reproduction in spite of their complexity. Why ?



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10. Explain why meiosis and gametogenesis are always interlinked ?



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11. Identify each part in a flowering plant and write whether it is haploid ( $n$ ) or diploid ( $2n$ ).

(a) Ovary .....

(b) Anther .....

(c) Egg .....

(d) Pollen .....

(e ) Male gamete .....

(f) Zygote .....



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**12.** Define external fertilisation. Mention its disadvantages.



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**13.** Differentiate between a zoospore and a zygote.



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**14.** Differentiate between gametogenesis from embryogenesis.



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**15.** Describe the post - fertilisation changes in a flower.



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**16.** What is a bisexual flower ? Collect five bisexual flowers from your neighbourhood and with the help of your teacher find out their common and scientific names.



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**17.** Examine a few flowers of any cucurbit plant and try to identify the staminate and pistillate flowers. Do you know any other plant that bears unisexual flowers ?



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**18.** Why are offspring of oviparous animals at a greater risk as compared to offspring of viviparous animals ?



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## Section E Solution Of Ncert Exemplar Multiple Choice Questions

1. A few statements describing certain features of reproduction are given below : (i) Gametic fusion takes place (ii) Transfer of genetic material takes place (iii) Reduction division takes place (iv) Progeny have some resemblance with parents Select the options that are true for both asexual and sexual reproduction from the options given below :

A. i and ii

B. ii and iii

C. ii and iv

D. i and iii

**Answer: C**



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2. The term clone cannot be applied to offspring formed by sexual reproduction because :



- A. Offspring do not possess exact copies of parental DNA
- B. DNA of only one parent is copied and passed on to the offspring
- C. Offspring are formed at different times
- D. DNA of parent and offspring are completely different.

**Answer: A**



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3. Amoeba and Yeast reproduce asexually by fission and budding respectively, because they are

- A. Microscopic organisms
- B. Heterotrophic organisms
- C. Unicellular organisms
- D. Uninucleate organisms

**Answer: C**



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4. A few statements with regard to sexual reproduction are give below :

(i) Sexual reproduction does not always require two individuals.

(ii) Sexual reproduction generally involves gametic fusion.

(iii) Meiosis never occurs during sexual reproduction.

(iv) External fertilisation is a rule during sexual reproduction.

Choose the correct statements from the options below :

A. i and iv

B. i and ii

C. ii and iii

D. i and iii

**Answer: B**



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5. A multicellular, filamentous alga exhibits a type of sexual life cycle in which the meiotic

division occurs after the formation of zygote.

The adult filament of this alga has.

A. Haploid vegetative cells and diploid gametangia

B. Diploid vegetative cells and diploid gametangia

C. Diploid vegetative cells and haploid gametangia

D. Haploid vegetative cells and haploid gametangia.

**Answer: D**



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6. The male gametes of rice plant have 12 chromosomes in their nucleus. The chromosome number in the female gamete, zygote and the cells of the seedling will be, respectively.

A. 12, 24, 12

B. 24, 12, 12

C. 12, 24, 24

D. 24, 12, 24

**Answer: C**



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7. Given below are a few statements related to external fertilization. Choose the correct statements.

(i) The male and female gametes are formed and released simultaneously.

(ii) Only a few gametes are released into the medium.

(iii) Water is the medium in a majority of organisms exhibiting external fertilization.

(iv) Offspring formed as a result of external fertilization have better chance of survival than those formed inside an organism. (A) iii and iv

(B) i and iii (C) ii and iv (D) i and iv

A. iii and iv

B. i and iii

C. ii and iv

D. i and iv



**Answer: B**



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**8.** 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

A. i and ii

B. i and iii

C. ii and iv

D. iii and iv

**Answer: A**



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9. Which of the following situations correctly describe the similarity between an angiospermic egg and a human egg ?

(i) Eggs of both are formed only once in a lifetime.

(ii) Both the angiosperm egg and human egg are stationary.

(iii) Both the angiosperm egg and human egg are motile transported.

(iv) Syngamy in both results in the formation of zygote.

Choose the correct answer from the options

given below : (A) ii and iv (B) iv only (C) iii and iv

(D) i and iv

A. ii and iv

B. iv only

C. iii and iv

D. i and iv

**Answer: B**



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**10.** 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

A. Nodes are shorter than internodes

B. Nodes have meristematic cells

C. Nodes are located near the soil

D. Nodes have non - photosynthetic cells

**Answer: B**



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**11.** Which of the following statements, support the view that elaborate sexual reproductive process appeared much later in the organic evolution ?

(i) Lower groups of organisms have simpler body design.

(ii) Asexual reproduction is common in lower groups.

(iii) Asexual reproduction is common in higher groups of organisms.

(iv) The high incidence of sexual reproduction in angiosperms and vertebrates.

Choose the correct answer from the options given below :

(A) i, ii and iii (B) i, iii and iv (C) i, ii and iv (D) ii, iii and iv

A. i, ii and iii

B. i, iii and iv

C. i, ii and iv

D. ii, iii and iv

**Answer: C**



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**12.** Offspring formed by sexual reproduction exhibit more variation than those formed by Asexual reproduction because.

(A) Sexual reproduction is a lengthy process. (B) Gametes of parents have qualitatively different genetic composition. (C) Genetic material comes from parents of two different species.



(D) Greater amount of DNA is involved in sexual reproduction.

A. Sexual reproduction is a lengthy process.

B. Gametes of parents have qualitatively different genetic composition.

C. Genetic material comes from parents of two different species.

D. Greater amount of DNA is involved in sexual reproduction.

**Answer: B**

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**13.** Choose the correct statement from amongst the following :

(A) Dioecious (hermaphrodite) organisms are seen only in animals. (B) Dioecious organisms are seen only in plants (C) Dioecious organisms are seen in both plants and animals. (D) Dioecious organisms are seen only in vertebrates.

A. Dioecious (hermaphrodite) organisms are seen only in animals.

B. Dioecious organisms are seen only in plants

C. Dioecious organisms are seen in both plants and animals.

D. Dioecious organisms are seen only in vertebrates.

**Answer: C**



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**14.** There is no natural death in single celled organisms like Amoeba and bacteria because :

(A) They cannot reproduce sexually (B) They reproduce by binary fission (C) Parental body is distributed among the offspring (D) They are microscopic

A. They cannot reproduce sexually

B. They reproduce by binary fission

C. Parental body is distributed among the offspring

D. They are microscopic

**Answer: C**



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**15.** There are various types of reproduction. The type of reproduction adopted by an organism depends on.

(A) The habitat and morphology of the organism

(B) Morphology of the organism

(C) Morphology and physiology of the organism

(D) The organism's habitat, physiology and genetic make up.

A. The habitat and morphology of the organism

B. Morphology of the organism

C. Morphology and physiology of the organism

D. The organism's habitat, physiology and genetic make up.

**Answer: D**

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**16.** 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.

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.

**Answer: B**



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17. Which of the following is a post - fertilization event in flowering plants ? (A) Transfer of pollen grains (B) Embryo development (C) Formation of flower (D) Formation of pollen grains

A. Transfer of pollen grains

B. Embryo development

C. Formation of flower

D. Formation of pollen grains

**Answer: B**



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**18.** The number of chromosomes in the shoot tip cells of a maize plant is 20. The number of chromosomes in the microspore mother cells

of the same plant shall be

(A) 20 (B) 10 (C) 40 (D) 15

A. 20

B. 10

C. 40

D. 15

**Answer: A**



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## Section E Solution Of Ncert Exemplar Very Short Answer Type Questions

1. Mention two inherent characteristics of Amoeba and yeast that enable them to reproduce asexually.



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2. Why do we refer to offspring formed by asexual method of reproduction as clones ?



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3. Although potato tuber is an underground part, it is considered as a stem. Give two reasons.



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4. Between an annual and a perennial plant, which one has a shorter juvenile phase ? Give one reason.



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5. Rearrange the following events of sexual reproduction in the sequence in which they occur in a flowering plant embryogenesis, fertilisation, gametogenesis, pollination.



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6. The probability of fruit set in a self-pollinated bisexual flower of a plant is far greater than a dioecious plant. Explain.



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7. Is the presence of large number of chromosomes in an organism a hindrance to sexual reproduction ? Justify your answer by giving suitable reasons.



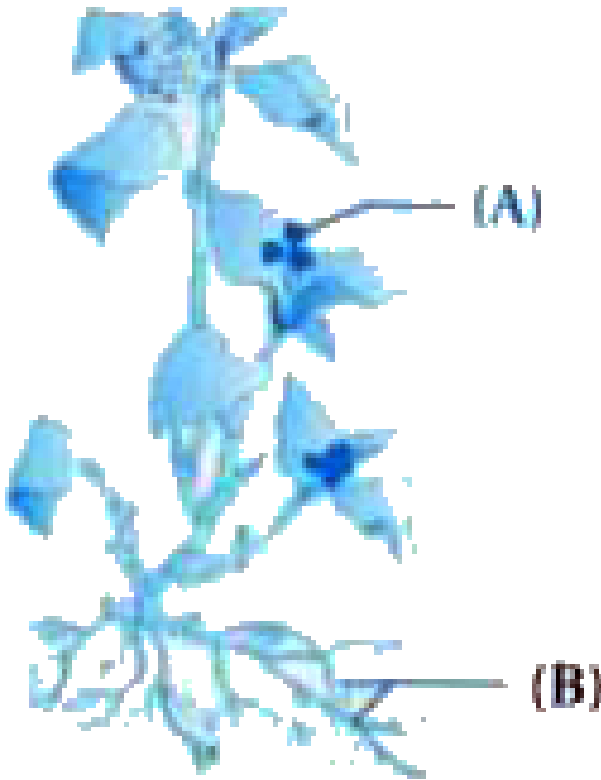
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8. Is there a relationship between the size of an organism and its life span ? Give two examples in support of your answer.



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9. In the figure given below the plant bears two different types of flowers marked .A. and .B.. Identify the types of flowers and state the type of pollination that will occur in them.



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**10.** Give reasons as to why cell division cannot be a type of reproduction in multicellular organisms.



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**11.** In the figure given below, mark the ovule and pericarp.





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**12.** Why do gametes are produced in large numbers in organisms exhibit external fertilization ?



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**13.** Which of the followings are monoecious and dioecious organisms ?

(a) Earthworm .....

(b) Chara .....

(c) Marchantia ..... (d) Cockroach .....



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14. Match the organisms given in Column - A. with the vegetative propagules given in column - B.

| Column - A |                | Column - B |           |
|------------|----------------|------------|-----------|
| (A)        | Bryophyllum    | (1)        | offset    |
| (B)        | Agave          | (2)        | eyes      |
| (C)        | Potato         | (3)        | leaf buds |
| (D)        | Water hyacinth | (4)        | bulbils   |



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15. What do the followings parts of a flower develop into after fertillsation ? (a) Ovary (b) Ovules.



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## Section E Solution Of Ncert Exemplar Short Answer Type Questions

1. In haploid organisms that undergo sexual reproduction, name the stage in the life cycle

when meiosis occurs. Give reasons for your answer.



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2. The number of taxa exhibiting asexual reproduction is drastically reduced in higher plants (angiosperms) and higher animals (vertebrates) as compared with lower groups of plants and animals. Analyse the possible reasons for this situation.



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3. Honeybees produce their young ones only by sexual reproduction. In spite of this, in a colony of bees we find both haploid and diploid individuals. Name the haploid and diploid individuals in the colony and analyse the reasons behind their formation.



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4. With which type of reproduction do we associate the reduction division ? Analyse the

reasons for it.



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5. Why vegetative reproduction is also considered as a type of asexual reproduction ?



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6. Fertilisation is not an obligatory event for fruit production in certain plants. Explain the statement.



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7. In a developing embryo, analyse the consequences if cell divisions are not followed by cell differentiation.



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8. List the changes observed in an angiosperm flower subsequent to pollination and fertilisation.



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**9.** Suggest a possible explanation why the seeds in a pea pod are arranged in a row, whereas those in tomato are scattered in the juicy pulp.



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**10.** Draw the sketches of a zoospore and a conidium. Mention two dissimilarities between

them and atleast one feature common to both structures.



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11. Justify the statement .Vegetative reproduction is also a type of asexual reproduction..



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1. Enumerate the differences between asexual and sexual reproduction. Describe the types of asexual reproduction exhibited by unicellular organisms.



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2. Do all the gametes formed from a parent organism have the same genetic composition (identical DNA copies of the parental genome)? Analyse the situation with the background of

gametogenesis and provide or give suitable explanation.



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3. Although sexual reproduction is a long drawn, energy - intensive complex form of reproduction, many groups of organisms in Kingdom Animalia and Plantae prefer this mode of reproduction. Give atleast three reasons for this.



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4. Differentiate between (a) oesturs and menstrual cycles , (b) ovipary and vivipary. Give an example for each type.



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5. Rose plants produce large, attractive bisexual flowers but they seldom produce fruits. On the other hand a tomato plant produces plenty of fruits though they have small flowers. Analyse

the reasons for failure of fruit formation in rose.



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## Section F Multiple Choice Questions Mcqs

1. Which of the following processes results in the formation of clone of bacteria ?

(A) Transformation (B) Transduction (C) Binary fission (D) Conjugation

A. Transformation

B. Transduction

C. Binary fission

D. Conjugation

**Answer: C**



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**2. Banana is propagated by**

A. Tubers

B. Rhizomes

C. Bulbs

D. Suckers

**Answer: B**



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**3. Example of corm is**

A. Ginger

B. Colocasia

C. Onion



D. Potato

**Answer: B**



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4. Which of the following is a post - fertilization event in flowering plants ? (A) Transfer of pollen grains (B) Embryo development (C) Formation of flower (D) Formation of pollen grains

A. Transfer of pollen grains

B. Embryo development

C. Formation of flower

D. Formation of pollen grain

**Answer: B**



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5. Product of sexual reproduction generally generates

(A) Prolonged dormancy (B) New genetic combination leading to variation (C) Large biomass (D) Longer viability

A. Prolonged dormancy

B. New genetic combination leading to variation

C. Large biomass

D. Longer viability

**Answer: B**



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6. When seeds are attached to parent plant, the type of germination is called as

(A) Ovipary (B) Epigeal (C) Vivipary (D) Hypogeal

A. Ovipary

B. Epigeal

C. Vivipary

D. Hypogeal

**Answer: C**



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7. Which of the following is hermaphrodite ?

(A) Ant (B) Aphid (C) Earthworm (D) Cockroach

A. Ant

B. Aphid

C. Earthworm

D. Cockroach

**Answer: C**



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8. There is no natural death in single celled organisms like Amoeba and bacteria because :

(A) They cannot reproduce sexually (B) They reproduce by binary fission (C) Parental body is distributed among the offspring (D) They are microscopic

A. They cannot reproduce sexually

B. They reproduce by binary fission

C. Parental body is distributed among the offspring

D. They are microscopic

**Answer: C**



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9. The male gamete of rice plant have 12 chromosomes in their nucleus. The chromosome number in the female gamete, zygote and the cells of seedling will be

- (A) 12, 24, 12 (B) 24, 12, 12 (C) 12, 24, 24 (D)  
24, 12, 12

A. 12, 24, 12

B. 24, 12, 12

C. 12, 24, 24

D. 24, 12, 12

**Answer: C**



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**10.** The number of chromosomes in the shoot tip cells of a maize plant is 20. The number of chromosomes in the microspore mother cells



of the same plant shall be

(A) 20 (B) 10 (C) 40 (D) 15

A. 20

B. 10

C. 40

D. 15

**Answer: A**



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11. Vegetative propagation in pistia occurs by

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

A. Stolon

B. Offset

C. Runner

D. Sucker

**Answer: B**



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12. The mode of asexual reproduction in bacteria

(A) Formation of gametes (B) Endospore formation (C) Conjugation (D) Zoospore formation

A. Formation of gametes

B. Endospore formation

C. Conjugation

D. Zoospore formation

**Answer: B**

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13. A few plants exhibit unusual flowering phenomenon, in which of them flower only once in their life time generally after 50 - 100 years, produce large numbers of fruits.

(A) *Strobilanthus kunthiana* (B) Bamboo (C) *Callistemon linearis* (D) *Cymbopogon reptoeus*

A. *Strobilanthus kunthiana*

B. Bamboo

C. *Callistemon linearis*

D. *Cymbopogon reptoeus*

**Answer: B**



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**14.** Reproduction without gametic union is called as.

(A) Apomixis      (B) Parthenogenesis      (C)

Plasmogamy (D) Apospory

A. Apomixis

B. Parthenogenesis

C. Plasmogamy

D. Apospory

**Answer: B**



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**15.** Which organ does not show vegetative reproduction ? (A) Flower (B) Root (C) Stem (D) Leaf

A. Flower

B. Root

C. Stem

D. Leaf

**Answer: B**



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**16.** Plants identical to mother plant can be obtained through. (A) Seed (B) Stem cutting (C) Both (A) and (B) (D) None of these

A. Seed

B. Stem cutting

C. Both (A) and (B)

D. None of these

**Answer: B**



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17. Underground stem of ginger & turmeric is called as

(A) Tuber (B) Rhizome (C) Corm (D) Bulb



A. Tuber

B. Rhizome

C. Corn

D. Bulb

**Answer: B**



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**18.** Which part would be most suitable for raising virus free plants for micropropagation ?

(A) Bark (B) Vascular tissue (D) Meristem (D)

Node

A. Bark

B. Vascular tissue

C. Meristem

D. Node

**Answer: C**



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**19.** Choose the correct statement from amongst the following :

(A) Dioecious (hermaphrodite) organisms are seen only in animals. (B) Dioecious organisms are seen only in plants (C) Dioecious organisms are seen in both plants and animals. (D) Dioecious organisms are seen only in vertebrates.

A. Dioecious organisms are seen only in animals.

B. Dioecious organisms are seen only in plants

C. Dioecious organisms are seen in both plants and animals.

D. Dioecious organisms are seen only in vertebrates.

**Answer: C**



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20. External fertilization occurs in majority of

A. Algae

B. Fungi

C. Liverworts

D. Mosses

**Answer: A**



**Watch Video Solution**

21. Reproduction in Amoeba takes place by

A. Binary fission

B. Budding

C. Zoospore formation

D. Fragmentation

**Answer: A**



**Watch Video Solution**

**22. What is flagellate motile spore called ?**

A. Conidia

B. Zoospores

C. Homospores

D. Heterospores

**Answer: B**



**Watch Video Solution**

**23.** Non - flagellate spores known as conidia are found in

A. Penicillium

B. Hydra

C. Amoeba

D. Chlamydomonas

**Answer: A**



**Watch Video Solution**

**24.** Which animal reproduce by exogenous budding ?

A. Hydra



B. Spongilla

C. Plasmodium

D. Amoeba

**Answer: A**



**Watch Video Solution**

**25. Which animal reproduce by multiple fission**

**?**

A. Hydra

B. Plasmodium

C. Spongilla

D. Amoeba

**Answer: B**



**Watch Video Solution**

**26.** Which animals have a well developed capacity of regeneration ?

A. Hydra, Starfish

B. Plasmodium

C. Earthworm

D. Spongilla

**Answer: A**



**Watch Video Solution**

**27. Sporulation occurs in**

A. Plasmodium

B. Hydra

C. Starfish

D. Spongilla

**Answer: A**



**Watch Video Solution**

**28.** Which plant carries out vegetative reproduction with the help of root ?

A. Oxalis

B. Bryophyllum

C. Onion

D. Dahlia

**Answer: D**



**Watch Video Solution**

**29.** Which plant carries out vegetative reproduction with the help of floral buds ?

(A) Oxalis (B) Bryophyllum (C) Ginger (D)

Asparagus

A. Oxalis

B. Bryophyllum

C. Ginger

D. Asperagus

**Answer: A**



**Watch Video Solution**

**30.** Which part in the plant Bryophyllum takes place in vegetative reproduction ?

(A) Stem (B) Floral buds (C) Underground roots

(D) Buds in leaf margin

A. Stem

B. Floral buds

C. Underground roots

D. Buds in leaf margin

**Answer: D**



**Watch Video Solution**

**31.** Which special method of vegetative reproduction occurs in *Nephrolepis* ?

(A) Offsets (B) Stolons (C) Runners (D) Suckers

A. Offsets

B. Stolons

C. Runners

D. Suckers

**Answer: B**



**Watch Video Solution**

**32.** Which one of the following is not the natural method of vegetative reproduction ?

(A) Suckers (B) Cutting (C) Runner (D) Offsets



A. Suckers

B. Cutting

C. Runner

D. Offsets

**Answer: B**



**Watch Video Solution**

**33.** Chromosome number in meiocyte of Apple  
is .....

(A) 17 (B) 34 (C) 20 (D) 10

A. 17

B. 34

C. 20

D. 10

**Answer: B**



**Watch Video Solution**

**34.** Conjugation as a sexual reproduction occurs in which animals ?

(A) Birds (B) Hydra (C) Paramecium (D)

Spirogyra

A. Birds

B. Hydra

C. Paramecium

D. Spirogyra

**Answer: C**



**Watch Video Solution**

**35.** Development of zygote which takes place outside the body is called

A. Viviparous

B. Oviparous

C. Ovoviviparous

D. None of these

**Answer: B**



**Watch Video Solution**

**36.** Which of the following is true for asexual reproduction ? (A) Single parent participate in reproduction. (B) Two parent participate in reproduction. (C) Involve fusion of gametes. (D)

Both (A) and (B)

A. Single parent participate in reproduction.

B. Two parent participate in reproduction.

C. Involve fusion of gametes.

D. Both (A) and (B)

**Answer: A**

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37. Which of the following statements are false for asexual reproduction ?

(I) Single parent is capable of producing offspring.

(II) Offsprings are exact copies of their parent.

(III) Zygote formation occur.

(IV) It is slow and complex process.

(A) I and II are false (B) I and III are false (C) III and IV are false (D) I and IV are false

A. I and II are false

B. I and III and false

C. III and IV are false

D. I and IV are false

**Answer: C**



**Watch Video Solution**

**38.** Which of the following statement is related to sexual reproduction in animals ?

(A) Single parent is involved (B) Gamete

formation occur (C) Offspring are exact copies of their parent (D) Common among single celled organisms.

A. Single parent is involved

B. Gamete formation occur

C. Offspring are exact copies of their parent

D. Common among single called organisms.

**Answer: B**



**Watch Video Solution**



**39.** Fission is observed in

- A. only protists
- B. only monerans
- C. protists and monerans
- D. none of the above

**Answer: C**



**Watch Video Solution**

**40.** Simple binary fission is seen in

A. paramoecium

B. planaria

C. amoeba

D. euglena

**Answer: C**



**Watch Video Solution**

**41. Binary fission involves**

A. mitosis only

B. meiosis only

C. mitosis and meiosis only

D. Amitosis

**Answer: A**



**Watch Video Solution**

**42.** When conditions become favourable the nucleus of encysted amoeba undergoes multiple division and large number of Amoeba are formed. These are called

A. pseudocytospores

B. pseudospores

C. pseudopodiospores

D. pseudopodia

**Answer: C**



**Watch Video Solution**

**43.** Sporulation occurs during unfavorable condition in .....

(A) Amoeba (B) Euglena (C) Penicillium (D)

Plasmodium

A. amoeba

B. euglena

C. penicillium

D. plasmodium

**Answer: A**



**Watch Video Solution**

44. Which type of reproduction is seen in Amoeba and Paramecium ?

A. Fragmentation

B. Budding

C. Sporulation

D. fission

**Answer: C**



**Watch Video Solution**

**45.** Which option is correct for statement X and Y?

Statement - X : In spongilla and sycon, gemmules give rise to new animals.

Statement - Y : Gemmules are also called as internal bud and this type of reproduction is called endogenous budding.

(A) X and Y both are correct and Y is correct reason of X (B) Y is correct and X is wrong (C) X is correct and Y is wrong (D) X and Y both are correct and Y is not correct reason of X

- A. X and Y both are correct and Y is correct reason of X
- B. Y is correct and X is wrong
- C. X is correct and Y is wrong
- D. X and Y both are correct and Y is not correct reason of X.

**Answer: A**



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**46.** Which option shows all correct statements about fragmentation ?

(I) Fragmentation is observed in spongilla, Sycon and Hydra

(II) The body become fragmented in to several distinct parts.

(III) Each part develops the remaining body parts and becomes a complete animals.

(A) (I) (B) (I), (II) and (III) (C) (II) and (III) (D) (III)

A. (I)

B. (I), (II) and (III)

C. (II) and (III)

D. (III)

**Answer: C**



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**47.** Amoeba withdraw their pseudopodia and becomes round in shape and create (A) around themselves, this process is called (B).

(A) A = protective three layered cyst, B = Encystations

(B) A = protective two layered cyst, B =  
Encystations

(C) A = protective membrane B = sporulation

(D) A = Bilayer lipid membrane B =  
pseudopodiospores.

A. A = protective three layered cyst,

B = Encystations

B. A = protective two layered cyst,

B = Encystations

C. A = protective membrane

B = sporulation

D. A = Bilayer lipid membrane

B = pseudopodiospores.

**Answer: A**



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**48.** Which algae produce adventitious branches for reproduction ?

(A) Dictyota (B) Fucus (C) Protosiphon (D) Both

(A) and (B)

**A. Dictyota**

B. Fucus

C. Protosiphon

D. Both (A) and (B)

**Answer: D**



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**49.** Which of the following algae does not reproduce by fragmentation ? (A) Oedogonium (B) Protosiphon (C) Spirogyra (D) Ulothrix

A. Oedogonium

B. Protosiphon

C. Spirogyra

D. Ulothrix

**Answer: B**



**Watch Video Solution**

50. In Mucor and saprolegnia asexual reproduction occur by

(A) fission (B) Budding (C) Fragmentation (D)

Spore formation

A. fission

B. Budding

C. fragmentation

D. spore formation

**Answer: C**



**Watch Video Solution**

**51.** Which option is correct for statement X and Y ?

Statement - X : Conidia are light dry and provided with a tough coat.

Statement - Y : Conidia are dispersed by wind.

(A) X and Y both are correct and Y is correct reason of X

(B) X is correct and Y is wrong

(C) Y is correct and X is wrong

(D) X and Y both are correct and Y is not correct reason of X.



- A. X and Y both are correct and Y is correct reason of X
- B. X is correct and Y is wrong
- C. Y is correct and X is wrong
- D. X and Y both are correct and Y is not correct reason of X.

**Answer: A**



**Watch Video Solution**

52. Non - flagellate and non - motile spore are produced by

(A) Ulothrix (B) Penicillium (C) Spirogyra (D)

Zygnema

A. ulothrix

B. penicillium

C. Spirogyra

D. zygnema

**Answer: B**



**Watch Video Solution**

**53.** Which option shows all correct statement about spore formation in plants ?

Statements :

- (i) True spores are always borne by sporophyte
- (ii) The sporophyte of mass reproduces asexually by spores.
- (iii) Ferns are heterosporous
- (iv) Selaginella is a homosporous

(A) (i)

(B) (i), (ii)

(C) (i), (ii) and (iii)

(D) (i) and (iv)

A. (i)

B. (i), (ii)

C. (i), (ii) and (iii)

D. (i) and (iv)

**Answer: B**



**Watch Video Solution**

54. Which of the following is propagated by means of cutting ?

(A) Sugarcane (B) Coffee (C) Citrus (D) All of these

A. Sugarcane

B. Coffee

C. Citrus

D. All of these

**Answer: D**



**Watch Video Solution**

55. Clones are

A. plants raised from a single parent

B. population of plants produced  
vegetatively

C. genetically similar to the parent plant

D. all of the above

**Answer: D**



**Watch Video Solution**

56. Vegetative reproduction occurs through roots in

A. amorphophalus

B. asparagus

C. bryophyllum

D. turmeric

**Answer: B**



**Watch Video Solution**

57. Example of vegetative reproduction through stem are

A. ginger

B. turmeric

C. potato

D. all the above

**Answer: D**



**Watch Video Solution**



**58.** Which of the following does not reproduce vegetatively through stem ?

A. Onion

B. Potato

C. Sweet potato

D. Amorphophalus

**Answer: C**



**Watch Video Solution**

**59.** In dioscorea vegetative reproduction occurs through

- A. axillary buds
- B. Floral buds
- C. margins of leaves
- D. root

**Answer: A**



**Watch Video Solution**

60. In which plants, the cut pieces of root are planted in moist soil and development of roots is artificially induced ?

A. Lemon and Tamarid

B. Rose, Hibiscus, chrysanthemum and sugarcane

C. Pistia

D. Mint

**Answer: A**



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**61.** Multiple fission is

- A. a phenomenon in which nucleus undergoes several amitotic division to produce several nuclei, which then are surrounded by cytoplasm to produce several unicellular uninucleate organisms.
- B. multiple division of nucleus in encysted amoeba and production of large number

of amoeba under favourable condition.

C. formation of cell mass on body surface  
due to repeated cell division.

D. body of animal will divide into several  
fragments, which in turn will develop the  
missing parts.

**Answer: B**



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**62.** Which option is correct for statement - X and statement - Y ?

Statement - X : Sexual reproduction is slow and complex process.

Statement - Y : Sexual reproduction results in offsprings that are not identical to the parents or amongst themselves.

A. X and Y both are correct and Y is correct

reason of X

B. X is correct and Y is wrong

C. Y is correct and X is wrong

D. X and Y both are correct and Y is not correct reason of X.

**Answer: D**



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**63.** Juvenile phase is

A. stage of growth in plants

B. stage of embryonic development

C. stage of growth and maturity in animal life before they can reproduce sexually.

D. stage of growth and maturity in plant life before they can reproduce sexually.

**Answer: C**



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**64.** Stage of growth and maturity in plant life before they can reproduce sexually is



A. juvenile phase

B. vegetative phase

C. somatic phase

D. none of these

**Answer: B**



**Watch Video Solution**

**65.** Which option is correct for statement - X and Statement - Y ?

Statement - X : The sexual reproduction is

characterized by the fusion of the male and female gametes of the species.

Statement - Y : All sexually reproducing organisms show events and process which have fundamental similarity.

- A. X and Y both are correct and Y is correct reason of X
- B. X is correct and Y is wrong
- C. Y is correct and X is wrong
- D. X and Y both are correct and Y is not correct reason of X.

**Answer: A**



**Watch Video Solution**

**66.** Gametogenesis is the process of

- (A) transfer of gametes
- (B) formation of gametes
- (C) distribution of gametes
- (D) organization of gametes

A. transfer of gametes

B. formation of gametes

C. distribution of gametes

D. organization of gametes

**Answer: B**



**Watch Video Solution**

**67.** Two gametes are similar in appearance they are called

(A) isogametes (B) homogametes (C)

isogametes or homogametes (D) none of the

above

A. isogametes

B. homogametes

C. isogametes or homogametes

D. none of the above

**Answer: C**



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**68.** Isogametes are

(A) morphologically similar

(B) physiologically similar

(C) motile and has flagella

(D) all the above

A. morphologically similar

B. physiologically similar

C. motile and has flagella

D. all the above

**Answer: D**



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**69.** Isogametes are found in

(A) cladophora and ulothrix

(B) cladophora and fucus

(C) fucus and ulothrix

(D) oedogonium, fucus and ulothrix

A. cladophora and ulothrix

B. cladophora and fucus

C. fucus and ultothrix

D. oedogonium, fucus and ulothrix

**Answer: A**

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70. Which of the following is true for anisogametes ?

(I) Morphologically and physiologically distinct.

(II) Similar in appearance

(III) Male gametes are smaller and active.

(IV) Female gametes are large and sluggish

(A) (I), (II)

(B) (II), (III), (IV)

(C) (I), (IV)

(D) (I), (III), (IV)



A. (I), (II)

B. (II), (III), (IV)

C. (I), (IV)

D. (I), (III), (IV)

**Answer: D**



**Watch Video Solution**

**71.** A haploid parent produces gametes by

(A) meiotic division

(B) mitotic division

(C) first mitotic and then meiotic

(D) first meiotic and then mitotic

A. meiotic division

B. mitotic division

C. first mitotic and then meiotic

D. first meiotic and then mitotic

**Answer: B**



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72. (A) have haploid plant body.

(A) A = Monera, fungi, gymnosperm and angiosperms

(B) A = Algae, bryophyta, pteridophyta and gymnosperm

(C) A = Monera, fungi, algae and bryophyta

(D) A = Pteridophyta, gymnosperm and angiosperms.

A. A = Monera, fungi, gymnosperm and angiosperms

B. A = Algae, bryophyta, pteridophyta and gymnosperm

C. A = Monera, fungi, algae and bryophyta

D. A = Pteridophyta, gymnosperm and angiosperms.

**Answer: C**



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**73.** Gamete transfer take place through water in  
(A) monera, fungi, algae

(B) algae, bryophytes, pteridophytes

(C) bryophytes, pteridophytes, gymnosperm

(D) pteridophyte, gymnosperms, angiosperms.

A. monera, fungi, algae

B. algae, bryophytes, pteriophytes

C. bryophytes, pteridophytes, gymnosperm

D. pteridophyte, gymnosperms,  
angiosperms.

**Answer: B**



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74. Which option is correct for statements - X and Y?

Statement - X : A large number of male gametes fail to reach the female gametes.

Statement - Y : The number of male gametes produced is several thousand times the number of female gametes produced.

(A) X and Y both are correct and Y is correct reason of X

(B) X is correct and Y is wrong

(C) Y is correct and X is wrong

(D) X and Y both are correct and Y is not correct  
reason of X.

A. X and Y both are correct and Y is correct  
reason of X

B. X is correct and Y is wrong

C. Y is correct and X is wrong

D. X and Y both are correct and Y is not  
correct reason of X.

**Answer: A**



**Watch Video Solution**

75. Which option is correct for the given statement X, Y and Z ?

X : Pollen grains are the carriers of male gametes.

Y : Pollen grain are produced in stigma.

Z : Pollen grain are transferred to anthers.

(A) X is wrong, Y and Z are correct

(B) X, Y and Z are correct

(C) X and Y are correct and Z is wrong

(D) X is correct, Y and Z are wrong.

A. X is wrong, Y and Z are correct



B. X, Y and Z are correct

C. X and Y are correct and Z is wrong

D. X is correct, Y and Z are wrong.

**Answer: D**



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**76.** How many male gametes are released by pollen tube near the egg cell in angiosperms ?

(A) One

(B) Two

(C) Three

(D) Four

A. one

B. two

C. three

D. four

**Answer: B**



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77. The fusion of two similar or dissimilar gametes is called (A) and its result (B).

A. A = fertilization, B = haploid zygote

B. A = fertilization, B = triploid embryo

C. A = syngamy, B = haploid zygote

D. A = syngamy, B = diploid zygote

**Answer: D**



**Watch Video Solution**

**78.** The process of fusion of two similar or dissimilar gametes is called

A. fertilization

B. syngamy

C. autogamy

D. Both (A) and (B)

**Answer: D**



**Watch Video Solution**

**79.** In which of the following syngamy does not occur in external medium ?

(A) Fishes

(B) Amphibians

(C) Reptiles

(D) Both (A) and (B)

A. Fishes

B. Amphibians

C. Reptiles

D. Both (A) and (B)

**Answer: C**



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**80.** External fertilization is seen in

(A) bony fishes

(B) frogs

(C) Both (A) and (B)

(D) none of the above

A. bony fishes

B. frogs

C. Both (A) and (B)

D. none of the above

**Answer: C**



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**81.** Which of the following statement is false for external fertilization ?

(A) Syngamy occurs in the external medium.

(B) Fertilization occur inside the body of the organism.

(C) Large number of offspring are produced

(D) The offspring are extremely vulnerable to predators

A. Syngamy occurs in the external medium.

B. Fertilization occur inside the body of the organism.

C. Large number of offspring are produced

D. The offspring are extremely vulnerable to predators

**Answer: B**







82. Which group of plant exhibit internal fertilization ?

(A) Algae, fungi, bryophytes.

(B) Fungi, bryophytes, pteridophytes

(C) bryophytes, pteridophytes, gymnosperm

(D) Bacteria, algae, fungi

A. Algae, fungi, brophytes.

B. Fungi, bryophytes, pteridophytes

C. bryophytes, pteridophytes, gymnosperm

D. Bacteria, algae, fungi

**Answer: B**



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**83.** Which of the following is not a post - fertilization event ?

(A) Pollination

(B) Formation of zygote

(C) Embryogenesis

(D) None of the above

A. Pollination

B. Formation of zygote

C. Embryogenesis

D. none of the above

**Answer: A**



**Watch Video Solution**

**84.** Which option is correct for statement X and Y ?

Statement - X : Formation of zygote is common

in all sexually reproducing organisms.

Statement - Y : Zygote is formed inside the body of organisms.

(A) X and Y both are correct and Y is correct reason of X

(B) Y is correct and X is wrong

(C) X is correct and Y is wrong

(D) X and Y both are correct and Y is not correct reason of X.

A. X and Y both are correct and Y is correct reason of X

B. Y is correct and X is wrong

C. X is correct and Y is wrong

D. X and Y both are correct and Y is not correct reason of X.

**Answer: D**



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**85.** In ..... zygote develops a thick wall that is resistant to desiccation and damage.

(A) protist

(B) moneras and fungi

(C) algae and fungi

(D) Both (A) and (B)

A. protist

B. monerans and fungi

C. algae and fungi

D. Both (A) and (B)

**Answer: C**



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**86.** A method of sexual reproduction where gamete are exchange through temporary cytoplasmic bridge.

(A) Runner

(B) Binary fission

(C) Sporulation

(D) Conjugation

A. Runner

B. Binary fission

C. Sporulation

D. Conjugation

**Answer: D**



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**87.** Which of the following is an example of conjugation ?

(A) Amoeba

(B) Paramecium

(C) Hydra

(D) Euglena

A. Amoeba



B. Paramecium

C. Hydra

D. Euglena

**Answer: B**



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**88.** A mode of sexual reproduction.

(A) Conjugation

(B) Binary fission

(C) Multiple fission

(D) Fragmentation

A. Conjugation

B. Binary fission

C. Multiple fission

D. Fragmentation

**Answer: A**



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**89.** ..... is the vital link that ensures continuity of species between organism of one generation and next generation.

(A) Pollen grains

(B) Zygote

(C) Egg cell

(D) Male gamete

A. Pollen grains

B. Zygote

C. Egg cell

D. Male gamete

**Answer: B**



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**90.** During embryogenesis (A) undergoes (B).

(A) A = zygote, B = only mitosis

(B) A = zygote, B = mitosis and meiosis

(C) A = zygote, B = mitosis and cell differentiation

(D) A = zygote, B = only cell differentiation

A. A = zygote, B = only mitosis

B. A = zygote, B = mitosis and meiosis

C. A = zygote, B = mitosis and cell differentiation

D. A = zygote, B = only cell differentiation

**Answer: C**



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**91.** Which of the following statements is false for oviparous animals ?

(A) Zygote development occur inside the female

body

(B) Fertilization egg are covered by hard calcareous shell

(C) Eggs are laid in a safe place in the environment.

(D) After a period of incubation young one hatch out.

A. Zygote development occur inside the female body

B. Fertilization egg are covered by hard calcareous shell

C. Eggs are laid in a safe place in the environment.

D. After a period of incubation young one hatch out.

**Answer: A**



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**92.** Which of the following statement are true for viviparous animals ?

(I) Zygote develop into a young one inside the

body of female parent.

(II) Young one are delivered out of the body of the female parent.

(III) Proper embryonic care and protection is given to young one.

(IV) The chances of the survival of young ones is lesser in viviparous organism.

(A) I is true

(B) I, II are true

(C) I, II and III are true

(D) I, II and IV are true

A. I is true



B. I, II are true

C. I, II and III are true

D. I, II and IV are true

**Answer: C**



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**93.** In angiosperms, after fertilization (A) remains attached to the plant

(A) Pistil

(B) Stamen

(C) Petal

(D) Sepals

A. A = pistil

B. A = stamen

C. A = petal

D. A = sepals

**Answer: A**



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94. In angiosperms ovary develop into

A. embryo

B. seed

C. fruit

D. none of these

**Answer: C**



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95. Match the following :

| Column - I           | Column - II   |
|----------------------|---|
| (a) Gamete           | (1) Division of nucleus followed by division of cytoplasm which give rise to many daughter cells. |
| (b) Zygote           | (2) Formation of gemmule  |
| (c) Fission          | (3) Organisms that produced by germ cells   |
| (d) Budding          | (4) Result of the fusion of male and female gamete  |
| (e) Multiple fission | (5) Division of body into two parts by mitosis  |
| (f) Gemmulation      | (6) An unequal division of organism in which individual arises as an out growth from the parent.  |

A. a-4, b-2, c-3, d-1, e-6, f-5

B. a-6, b-3, c-2, d-4, e-5, f-1

C. a-2, b-1, c-6, d-5, e-4, f-3

D. a-3, b-4, c-5, d-6, e-1, f-2

**Answer: D**



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96. The plants which bears only one kind of spores during Sporophytic stage are known as .....

- A. spores
- B. heterosporous
- C. homosporous
- D. gametes

**Answer: C**



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97. The plants which bears two types of spores during Sporophytic stage are known as .....

A. spores

B. heterosporous

C. homosporous

D. gametes

**Answer: B**



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**98.** Which type of spores are produced by some pteridophytes and gymnosperms?

- A. Spores
- B. Somatic spores
- C. Heterospores
- D. Homospores

**Answer: C**



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**99.** Morphologically and physiologically distinct gametes are called as

- A. isogametes
- B. heterogametes
- C. gametes
- D. iso - spores

**Answer: B**



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100. Match the following :

| Column - I |        | Column - II |    | Column - III |    |
|------------|--------|-------------|----|--------------|----|
| (P)        | Malze  | (I)         | 48 | (i)          | 10 |
| (Q)        | Onion  | (II)        | 16 | (ii)         | 12 |
| (R)        | Potato | (III)       | 24 | (iii)        | 8  |
| (S)        | Rice   | (IV)        | 20 | (iv)         | 24 |

A. (P - IV - i) (Q - II - iii) (R - I - iv) (S - III - ii)

B. (P - I - i) (Q - II - ii) (R - III - iii) (S - IV - iv)

C. (P - II - i) (Q - III - ii) (R - IV - iii) (S - I - iv)

D. (P - III - iv) (Q - IV - iii) (R - I - ii) (S - II - i)

**Answer: A**



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101. By which medium gametes of algae, bryophytes and pteridophytes move ?

A. Air

B. Water

C. Lipids

D. Tissue

**Answer: B**



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**102.** Which structure provides surface for the settlement of pollen grains in angiosperm plants ?

A. Anther

B. Style

C. Stigma

D. Pollen tube

**Answer: C**



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**103.** Where do pollen grains germinate ?

A. Anther

B. Style

C. Stigma

D. Pollen tube

**Answer: C**



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**104.** Which structure is produced on germination of pollen grain ?

A. Pollen tube

B. Style

C. Tube

D. Vessels

**Answer: A**



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**105.** In which organ the growth of pollen tube is observed, till it reaches the ovary?

A. Pollen cells

B. Style

C. Ovary

D. Stigma

**Answer: B**



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**106.** Development of zygote results in formation of .....

A. seed

B. fruit

C. embryo

D. seed coat

**Answer: C**



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**107.** The process of organ formation starts .....

- A. due to growth
- B. due to development
- C. due to differentiation
- D. due to division

**Answer: C**



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**108.** The fertilized eggs of reptile and birds are covered with calcareous shell. Due to this the zygote passes from which phase ?

- (A) Growth phase
- (B) Vegetative phase
- (C) Development phase
- (D) Incubation phase

- A. Growth phase
- B. Vegetative phase
- C. Development phase
- D. Incubation phase

**Answer: D**



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**109.** In angiosperms, which parts of the flowers wither and fall off ?

A. Sepals

B. Petals

C. Stamens

D. All the three

**Answer: D**



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**110.** In angiosperms, which part of the flower remains attached to the plants ?

(A) Calyx

(B) Corolla

(C) Pistil

(D) Androecium

A. Calyx

B. Corolla

C. Pistill

D. Androecium

**Answer: C**



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**111.** Which of the following processes ensures the continuity of life on earth ?

(A) Reproduction

(B) Respiration

(C) Digestion

(D) Growth and development

A. Reproduction

B. Respiration

C. Digestion

D. Growth and development

**Answer: A**



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**112.** Match the items of Column - I with Column - II and choose the correct option :

| Column - I |                | Column - II |             |
|------------|----------------|-------------|-------------|
| (a)        | Binary fission | (1)         | Algae       |
| (b)        | Zoospore       | (2)         | Amoeba      |
| (c)        | Conidium       | (3)         | Hydra       |
| (d)        | Budding        | (4)         | Penicillium |
| (e)        | Gemmules       | (5)         | Sponges     |

- A. a-1, b-4, c-5, 4-3, e-2
- B. a-2, b-1, c-4, d-3, e-5
- C. a-2, b-4, c-3, d-5, e-1
- D. a-1, b-4, c-3, d-2, e-5

**Answer: B**



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**113.** Production of new plants without fertilization is called

- (A) Vegetative propagation
- (B) Transplantation
- (C) Grafting
- (D) Layering

A. vegetative propagation

B. transplantation

C. grafting

D. layering

**Answer: A**



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**114.** Which plant propagates through leaves ?

(A) Agave

(B) Kalanchoe



(C) Gladiolus

(D) Potato

A. Agave

B. Kalanchoe

C. Gladiolus

D. Potato

**Answer: B**



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**115.** Grafting is not possible in monocot because of

- (A) scattered vascular bundles
- (B) lack of cambium
- (C) collateral open vascular bundles
- (D) radial vascular bundles

A. scattered vascular bundles

B. lack of cambium

C. collateral open vascular bundles

D. radial vascular bundles

**Answer: B**



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**116.** If the vegetative growth is vigorous but flowering is not occurring it is because of

- (A) hormonal imbalance
- (B) photoperiodism
- (C) water sugar imbalance
- (D) irregular solute translocation

A. hormonal imbalance

B. photoperiodism

C. water sugar imbalance

D. irregular solute translocation

**Answer: B**



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**117.** Which of the following propagates through leaf - tip ?

(A) Walking fern

(B) Sprout leaf plant

(C) Marchantia

(D) Moss

A. Walking fern

B. Sprout leaf plant

C. Marchantia

D. Moss

**Answer: A**



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**118.** In which pair both the plants can be vegetatively propagated by leaf pieces ?

(A) Bryophyllum and Kalanchoe

(B) Chrysanthemum and Agave

(C) Agave and Kalanchoe

(D) Asparagus and bryophyllum

A. Bryophyllum and Kalanchoe

B. Chrysanthemum and Agave

C. Agave and Kalanchoe

D. Asparagus and bryophyllum

**Answer: A**



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**119.** Animals who give birth to young one are

(A) Oviparous

(B) Viviparous

(C) Ovoviviparous

(D) None of the above

A. oviparous

B. viviparous

C. ovoviviparous

D. none above

**Answer: B**



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**120.** The example of sexual reproduction is

(A) Fragmentation

(B) Production of androgenic haploid

(C) Heterospory

(D) None of the above



A. fragmentation

B. production of androgenic haploid

C. heterospory

D. none of above

**Answer: B**



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**121.** Leaves are used for vegetative propagation

in

(A) solanum sp.

(B) brassica sp.

(C) kalanchoe sp.

(D) opuntia sp.

A. solanum sp.

B. brassica sp.

C. kalanchoe sp.

D. opuntia sp.

**Answer: C**



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**122.** Identify the wrong statements regarding post fertilization development.

(A) The ovary wall develops into pericarp

(B) The outer integument of the ovule develops into tegmen

(C) The fission nucleus (triple nucleus) develops into endosperm.

(D) The ovule develops into seed

A. The ovary wall develops into pericarp

B. The outer integument of the ovule develops into tegmen

C. The fission nucleus (triple nucleus)

develops into endosperm.

D. The ovule develops into seed

**Answer: B**



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**123.** When the plant sporophyte develops to undergo maturation it produces

(A) Gemmae

(B) Protonema

(C) Sporophyll

(D) Egg

A. gemmae

B. protonema

C. sporophyll

D. egg

**Answer: C**



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**124.** Process of fusion of haploid cells is

(A) Cell cycle

(B) Meiosis

(C) Mitosis

(D) Syngamy

A. cell cycle

B. meiosis

C. mitosis

D. syngamy

**Answer: D**

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**125.** Vegetative fertilization is also called

- (A) triple fusion
- (B) true fertilization
- (C) syngamy
- (D) generative fertilization

A. triple fusion

B. true fertilization

C. syngamy

D. generative fertilization

**Answer: A**



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**126.** Mango and guava plants are propagated through

- (A) Stem cutting
- (B) Layering
- (C) Grafting
- (D) Tissue culture

**A. stem cutting**



B. layering

C. grafting

D. tissue culture

**Answer: C**



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**127.** The internal buds of fresh water sponges are otherwise called

(A) Choanocyte

(B) Gemmule

(C) Osculum

(D) Blastula

A. choanocyte

B. gemmule

C. osculum

D. blastula

**Answer: B**



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**128.** Gemmule formation in sponges are useful  
in

(A) asexual reproduction

(B) sexual reproduction

(C) parthenogenesis

(D) parthenocarpy

A. asexual reproduction

B. sexual reproduction

C. parthenogenesis

D. parthenocarpy

**Answer: A**



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**129.** Budding is found in

(A) Sycon

(B) Hydra

(C) Fasciola

(D) Obelia

A. sycon

B. hydra

C. fasciola

D. obelia

**Answer: B**



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**130.** Hydra reproduces by budding. This is an example of

(A) regeneration

(B) abnormal development

(C) asexual reproduction

(D) sexual reproduction

A. regeneration

B. abnormal development

C. asexual reproduction

D. sexual reproduction

**Answer: C**



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**131.** In these plant artificial vegetative reproduction is possible through cutting of root

(A) Rose and hibiscus

(B) Tamarind and chrysanthemum

(C) Lemon and rose

(D) Lemon and tamarind

A. rose and hibiscus

B. tamarid and chrysanthemum

C. lemon and rose

D. lemon and tamarid

**Answer: D**



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**132.** In which plants motile ciliated spores are produced during spore formation ?

- (A) Chlamydomonas
- (B) Spirogyra
- (C) Dictyota
- (D) Fucus

**A. Chlamydomonas**



B. Spirogyra

C. Dictyota

D. Fucus

**Answer: A**



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**133.** Product of sexual reproduction generally generates

(A) longer viability of seeds

(B) prolonged dormancy

(C) new genetic combination leading to variation

(D) large biomass

A. longer viability of seeds

B. prolonged dormancy

C. new genetic combination leading to variation

D. large biomass

**Answer: C**



**Watch Video Solution**

**134.** Select the wrong statement.

A. Isogametes are similar in structure, function and behaviour

B. Anisogametes differ either in structure, function and behaviour

C. In oomycetes female gamete is smaller and motile, while male gamete is larger and non-motile

D. *Chlamydomonas* exhibits both isogamy and anisogamy and *Fucus* shows oogamy

**Answer: C**



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**135.** Which of the following pairs is not correctly match ?

- |     | Mode of reproduction | — | Example        |
|-----|----------------------|---|----------------|
| (A) | Offset               | — | Water hyacinth |
| (B) | Rhizome              | — | Banana         |
| (C) | Binary fission       | — | Sargassum      |
| (D) | Conidia              | — | Pencillium     |

**136.** Match column - I with column - II and select the correct using the codes gives below

| Column - I |                               | Column - II |               |
|------------|-------------------------------|-------------|---------------|
| (A)        | Pistils fused together        | (1)         | Gametogenesis |
| (B)        | Formation of gametes          | (2)         | Pistillate    |
| (C)        | Hyphae of higher ascomycetes. | (3)         | Syncarpous    |
| (D)        | Unisexual female flower       | (4)         | Dikaryotic    |

A. A-4, B-3, C-2, D-1

B. A-2, B-1, C-4, D-3

C. A-1, B-2, C-4, D-3

D. A-3, B-1, C-4, D-2

**Answer: D**



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**137.** Which one of the following generates new genetic combinations leading to variation ?

A. Vegetative reproduction

B. Parthenogenesis

C. Sexual reproduction

D. Nucellar polyembryony

**Answer: C**



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**138.** Which one of the following statements is not correct ?

A. Offspring produced by the asexual reproduction are called clone

B. Microscopic, motile asexual reproductive structures are called zoospores

C. In potato, banana and ginger, the plantlets arise from the internodes present in the modified stem

D. Water hyacinth, growing in the standing water, drains oxygen from water that leads to the death of fishes

**Answer: C**



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**139.** Which of the following statements is incorrect ?

A. Morels and truffles are edible delicacies.

B. *Claviceps* is a source of many alkaloids and LSD.

C. Conidia are produced exogenously and ascospores endogenously.

D. Yeasts have filamentous bodies with long thread - like hyphae.

**Answer: D**



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