BIOLOGY

BOOKS - MODERN PUBLISHERS

BIOLOGY (HINGLISH)

REPRODUCTION IN ORGANISMS

Practice Problems

1. What is binary fission ?

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2. Why is Amoeba called immortal ?

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3. Which type of cytokinesis occurs in Paramecium ?

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4. State one difference between karyokinesis cytokinesis .

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5. Define multipe fission .

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6. What are gemmules ?

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7. Which type of asexual rerpoduction is found in Hydra ?

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8. Define Binary fission

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9. What is fragmentation?

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10. Give the significance of asexual reproduction.

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11. What is disadvantage of asexual reproduction?

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12. Define regeneration.

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13. Who was first to report regeneration in Hydra?

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14. What is reparative regeneration? Give one example.

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15. Define regeneration

Watch Video Solution

16. Define fragmentation. Which two organisms reproduce by fragmentation?

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17. What is asexual reproduction?

18. How is reprouction in plants accoplised ?

19. Define grafting.

20. Define vegetative propagation.

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21. What is grafting?

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22. Give some examples of vegetative propagation by roots.

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23. When artificial methods of vegetative propagation are utilised?

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24. Define regeneration

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25. Why is there no genetic variability in the individuals produced by asexual reproduction?

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26. What is binary fission ?

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27. Which type of asexual reproduction occurs in Plasmodium?

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28. What are gemmules?

 Watch Video Solution

29. What is sexual reproduction ?

 Watch Video Solution

30. What are hermaphrodite animals?

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31. What is fragmentation?

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32. Name two basic processes of sexual reproduction.

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33. Define vegetatice reproduction

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34. Give one example of fragmentation

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35. Write two advantages of asexual reproduction

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36. Write one disadvantage of asexual reproduction

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37. Who is called Father of Modern Embryology?

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Ncert File Exercise Questions

1. Why is reproduction essential for organisms?

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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 clone?

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4. Offspring formed due to sexual reproduction have better chances of survival. Why ?

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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. Distinguish between asexual and sexual reproduction. Why is vegetative reproduction also considered as a type of asexual repoduction ?

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

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8. Define : (i) Juvenile phase, (ii) Reproductive phase, (iii) Senescent phase.

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

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10. Explain why meiosis and gametogenesis are always interlinked?

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11. Identify each part and write whether it is haploid (n) or diploid (2n), in a flowering plant. (a) Ovary (b) Anthre (c) egg (d) pollen (e) male gamete (f) zygote

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12. Define external fertilization. Mention its disadvantages.

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13. Differentiate between a zoospore and zygote.

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14. Differentiate between Gametogensis and Embryogensis.

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15. Describe the post-fertilization 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 offspring oviparous animals are at a greater risk ?

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Ncert Exemplar Problems 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 terms '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 ot 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. Microscopice organisms

B. Heterotropic organisms

C. Unicellular organims

D. Uninucleat organisms

Answer: C

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4. A few statements with regard to sexual reprodction are given 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 option below.

A. (i) and (iv)

B. (i) and (ii)

C. (ii) and (iii)

D. (i) and (iv)

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 cell and halpoid gametangia .

D. Halpoid 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 seeding 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 exgternal fertilisation. 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 fertilisation.

(iv) Offspring formed as a result of external fertilisation have better chance of survival than thos formed inside an organism.

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 descibe 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.

A. (ii) and (iv)

B. (iv) only

C. (iii)and (iv)

D. (i) and (iv)

Answer: A

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9. Which of the following situations correctly describe the similarity between an angiosperm 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 sttionary.

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

(iv) Syngamy in both results in the option given below.

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 plant such as sugarcane and ginger is mainly because

A. Nodes are shortes 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 given below.

A. (i) and (iii)

B. (i) and (iv)

C. (ii) and (iv)

D. (ii) and (iii)

Answer: C

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

A. Sexula reproduction is a length 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 repoduction .

Answer: B

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13. Choose the correct statemenet from amongst the following :

A. Dioecious organisms (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 orgaisms are seen only in vertebrates .

Answer: C

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

A. They cannot repoduce 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 an physiology of the organsim

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

Answer: D

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16. Identify the incorrect statements

A. In asexual reproduction , the offspring produced are morphologically and gentically identical to the parent

B. Zoopores are sexual reproductive structures

C. In asexual production, a singl parent produces offspring witho 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-fertilisation event in flowering plants ?

A. Transfer of pollen grains

B. Embryo development

C. Formation of flower

D. Formation of pollen granis

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

Answer: A

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Ncert Exemplar Problems 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 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 teo examples support of your answer.

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9. In the figure given below the plant bears two different type of flowers marked 'A' and 'B'. Identify the type 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 fertilisation ?

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13. Which of the following 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 in Column B :

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15. What do the following parts of a flower develop into after fertilisation ?

(a) Ovary ..... , (b) Ovules .....

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Ncert Exemplar Problems Short Answer Types 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 by sexual reproduction. Inspite 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? Analse the reason for it.

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5. Is it possible to consider vegetative propagation observed in certain plants like Bryophyllum, water hyacinth, ginger, etc., as a type of asexual reproduction? Give two three resons.

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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 sketch 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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Ncert Exemplar Problems Long Answer Type Questions

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 th 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 resaons for this.

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4. Differentiate between menstrual cycle and estrous cycle.

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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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Higher Order Thinking Skills Brain Twisting Very Short Answer Questions

1. Who discovered regeneration in Hydra ?

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2. Define Insemination.

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3. Name the two essential parts of flower .

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4. Define zygote .

Watch Video Solution

5. What is amphimixis ?

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Higher Order Thinking Skills Brain Twisting Short Answer Questions

1. Define binary fission

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2. Define budding.

Watch Video Solution

3. What is sexual reproduction?

Watch Video Solution

4. What is vegetative propagation ?

Watch Video Solution

5. Name two organisms which undergo asexual reproduction by fragmentation .

Watch Video Solution

6. What is Gametogenesis?

Watch Video Solution

7. Differentiate between self pollination and cross pollination .

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Higher Order Thinking Skills Brain Twisting Long Answer Questions

1. Define fission. What are two types of fission ? Describe multiple fission in Amoeba.

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2. Name an organism that reproduces by regeneration

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3. Describe the advantages of asexual reproduction.

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Quick Memory Test Write True Or False

1. Fusion of gametes produces blastocyst.

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2. Amoeba is called immortal because it does not undergo natural death.

Watch Video Solution

3. What is budding?

Watch Video Solution

4. What is Embryogenesis?

Watch Video Solution

5. The ovary ripens to form fruit .

Watch Video Solution

6. What are oviparous animals?

Watch Video Solution

7. Mention one advantage of sexual reproduction

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8. Rhizopus is also called bread mould.

Watch Video Solution

9. Spirogyra is green unbranched , filamentous alga.

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10. What is budding?

Watch Video Solution

11. Parrot has lifespan of 140 years.

 Watch Video Solution

12. Meiosis is must in asexual reproduction.

 Watch Video Solution

13. Euglena divides by longtiudinal fission .

 Watch Video Solution

14. Papaya plants is dioecious.

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Quick Memory Test Complete The Missing Links

1. Binary fission involves both _____ and _____ .

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2. External budding occurs in _____while internal budding occurs in_____ .

Watch Video Solution

3. _____animal contains both testes and ovaries .

Watch Video Solution

4. Frog is_____while human female is _____ .

Watch Video Solution

5. Testes lie in_____ while ovaries lie in_____ .

Watch Video Solution

6. In Rhizopus, asexual reproduction takes place by_____formation.

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7. Pseudomycelium is formed in

Watch Video Solution

8. _____ in Penicillium are formed on conidiophores.

Watch Video Solution

9. In sweet potato, vegetative propagation takes place through_____.

Watch Video Solution

10. In Bryophyllum vegetative propagation takes place through_____.

Watch Video Solution

11. In vegetative propagation, characters of parent plants are_____ .

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12. Male sex organ in a flower is represented by_____ .

Watch Video Solution

13. Stalk of ovule is called _____ .

Watch Video Solution

14. The exine of pollen grain is made up of a complex substance called_____ .

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Quick Memory Test Complete The Missing Links

1. Urethra of human male carries both_____ and _____ .

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Quick Memory Test Choose The Correct Alternative

1. The creation of product/life from a similar life form is called reproduction.

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2. Water hyacinth makes water oxygen/carbon dioxide deficient.

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3. Clone is a group of genetically similar cells or organisms produced by asexual/sexual

methods from same parent.

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4. Units of sexual reproduction are haploid/diploid gametes.

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5. Mitosis/meiosis and fertilization are two important processes involved in sexual reproduction in angiosperms which

collectively maintain the chromosome number constant from generation to generation.

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Revision Exercises Multiple Choice Questions Mcqs Choose The Correct Answer

1. Menstrual cycle is completed in:

A. 30 days

B. 31 days

C. 28 days

D. 27 days

Answer: C

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2. Period of pregnancy is called :

A. Gestation period

B. Incubation period

C. Pre-patent period

D. Blastulation

Answer: A

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3. The process of release of the egg from the ovary is called

A. Reproduction

B. Ovulation

C. Menstruation

D. Insemination

Answer: C

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4. Man is

A. Unisexual

B. Bisexual

C. Hermaphroditic

D. Protogynous

Answer: A

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5. The DNA in the cell..... is the information source for making proteins:

A. Nucleus

B. Ribosome

C. Cell wall

D. Plasma membrane

Answer: A

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6. Rhizopus reproduces asexually by :

A. Conidia

B. Spores

C. Gemma

D. Bulbil

Answer: B

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7. Bryophyllum can be propagated vegetatively by:

A. Stem

B. Root

C. Leaf

D. Flower

Answer: C

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Watch Video Solution

8. In potato, vegetative propagation takes place by

A. Root

B. Leaf

C. Grafting

D. Stem tuber

Answer: D

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9. Vegetatively propagated plants are:

A. Genetically similar

B. Genetically dissimilar

C. Do not bear roots

D. Do not form buds

Answer: A

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10. Embryo sac is found in :

A. Endosperm

B. Embryo

C. Ovule

D. Seed

Answer: C

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11. Syngamy means

A. Fusion of similar spores

B. Fusion of dissimilar spores

C. Fusion of cytoplasm

D. Fusion of gametes

Answer: D

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12. During favourable conditions, Amoeba reproduces by:

A. Binary fission

B. Multiple fission

C. Both of these

D. None of these

Answer: A

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13. Internal buds of Spongilla are :

A. Spores

B. Gemmules

C. Planula

D. Blastula

Answer: B

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14. Microstomum reproduced by:

A. Binary fission

B. Multiple fission

C. Fragmentation

D. Budding

Answer: C

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Revision Exercises Very Short Answer Type Questions Questions From State Board Examinations

1. Why is reproduction essential for organisms?

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2. Offsprings derived by asexual reproduction are called clones. Justify giving two reasons.

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3. What is the function of petals in a flower?

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4. What is parthenocarpy?

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5. What is totipotency?

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6. Development of fruite without fertilisation is

A. Polyembryony

B. Apomixis

C. Parthenocarpy

D. Parthenogenesis

Answer: D

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7. The technique of transplanting a part of one plant on the another is called:

A. Cutting

B. Layering

C. Grafting

D. Gooter

Answer: C

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8. Which of the following is having maximum life span?

A. Parrot

B. Crow

C. Crocodile

D. Butterfly

Answer: A

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9. When a gamete without any fusion develops into a new organism the phenomenon is called:

A. Syngamy

B. External fertilization

C. Parthenogenesis

D. Parthenocarpy

Answer: C

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10. Name the stage in organisms before they reproduce sexually.

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11. Name the vegetative propagule in Bryophyllum.

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12. In which of the following organism, asexual reproduction occurs by buds?

A. Chlamydomonas

B. Hydra

C. Penicillium

D. Sponge

Answer: B

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13. Asexual reproductive structure of Hydra is :

A. Gemmule

B. Bud

C. Conidia

D. None of these

Answer: B

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14. Introduces variations in number of offsprings pertains:

A. Asexual

B. Sexual Reproduction

C. Parthenogeneses

D. Sporulation

Answer: B

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15. The plant in which adventitious buds along the margin of leaves give rise to new plants is :

A. Water Hyacinth

B. Agade

C. Bryophyllum

D. Dahlia

Answer: C

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16. In which of the following organism, asexual reproduction occurs by gemmules .

A. Paramecium

B. Sponge

C. Hydra

D. Penicillium

Answer: B

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17. In which of the following organism, asexual reprodution occurs by zoospores?

A. Yeast

B. Chlamydomonas

C. Penicillium

D. Hydra

Answer: B

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18. In which of the following plant vegetative propagation occur by bulbils:

A. Bryophyllum

B. Agave

C. Chara

D. Water hyacinth

Answer: B

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19. Why grafting is not possible in monocot plants?

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20. Vegetative propagation by bulbils found in:

A. Begonia

B. Diosocrea

C. Rose

D. Bryophyllum

Answer: D

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Revision Exercises Question From Cbse Examinations

1. Who do internodal segments of sugarcane fail to propagate vegetatively even when they are in contact with damp soil ?

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2. What is the major difference you observe in the offsprings produced by asexual reproduction and in the progeny produced by sexual reproduction ?

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3. Mention the unique flowering phenomenon exhibited by Strobilanthus kunthiana (neel kuranajt).

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4. Why is banana considered a good example of parthenocarpy?

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5. Name an organsim where cell division in itself is a mode of reproduction.

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6. Name an alga that reproduces asexually through zoospores. Why are these reproductive units so called?

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7. Name the biological process that enables continuity of species.

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8. Why The vegetative propagules in the following :

(a) Agave (b) Bryophyllum

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9. Identify the picture and mention the vegetative part that helps it to propagate.

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Revision Exercises Short Answer Types Questions

1. Differentiate between reparative regeneration and restorative regeneration.

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2. Both meiosis (gametogenesis) and fertilization are essential to maintain chromosome number constant. Why?

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3. What is fission? What is basic difference between Fission in Amoeba and Paramaecium?

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4. What is apomixis. Give example also.

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5. Differentiate between oviparous and viviparous animals.

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6. Define grafting. What are stock and scion?

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7. What are parthenocarpic fruits? Give example.

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8. Describe the significance of sexual reproduction of plants.

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9. What are bulbils? Give one example.

Watch Video Solution

10. What are vegetative propagules? Name various propagules.

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11. Define parthenogenesis. Give one example.

Watch Video Solution

12. Mention any two disadvantages of vegetative propagation.

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13. Define

(a) Juvenile phase,

(b) Reproductive phase,

(c) Senescent phase

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14. What do you mean by grafting?

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15. Define grafting

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16. How does vegetative propagation take place in potato ?

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17. Why Amoeba is called immortal ?

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18. How do primary sex organs, and secondary sex organs differ from each other ?

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19. In Yeast and Amoeba, the parent cell divides to give rise to new individual cells . How does the cell division differ in these two organisms ?

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20. What is fragmentation?

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21. Potato is a stem and sweet potato is a root'. Justify the statement.

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22. Discuss the significance of vegetative propagation.

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23. Define totipotency

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24. What is layering?

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25. What is tissue culture? Write the advantages of tissue culture.

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26. What are stock and scion in grafting?

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27. (i) Mention the property that enables the explants to regenerate into a new plant.

(ii) A banana herb is virus-infected. Describe the method that will help in obtaining healthy banana plants from this diseased plant.

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28. Why are the plants raised through micropropagation termed somaclones ?

(b) Mention two advantage of this technique .

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29. a) List the three stages the annuals and biennial angiosperms have to pass through during their life cycle.

b) List and describe any two vegetative propagules in flowering plants.

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30. Parthenocarpy nd apomixis have been observed in some plants. Give an example of each. State a similarity and a difference oberved between the two processes.

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31. Differentiate between an annual and a biennial plant. Provide one exmaple of each.

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Revision Exercises Vgaseeased Short Answer Type Questions

1. What are the four stages of life?

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2. Write two advantages of sexual reproduction

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3. Describle the artifical methods propagation.

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4. (a) Which mode of reproduction is better and why ?

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5. What is vegatative propagation ? Give various natural methods of vegetative

propagations in plants .

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6. Differentiate between asexual and sexual reproduction .

 Watch Video Solution

7. Define fragmentation

 Watch Video Solution

8. Write briefly about :

(i) Fission (ii) Budding (iii) Fragmentation (iv) Regeneration (v) Spore formation .

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Competition File Objective Type Questions Multiple Choice Questions Mcqs

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

A. Stock

B. Scion

C. Both stock and scion

D. Neither stock nor scion

Answer: B

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2. The living organisms can be undexceptionally distinguished from the non - living things on the basis of their ability for

A. Interaction with environment and progressive evolution

B. Reproduction

C. Growth and movement

D. Responsive to touch

Answer: B

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3. Many scientists consider viruses as living entitles because these :

A. Respire

B. Can cause diseases

C. Reproduce inside host

D. Respond to tough environment

Answer: C

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4. The mode of asexual reproduction in bacteria are :

A. Formation of gametes

B. Endospore formation

C. Conjugation

D. Zoospore formation

Answer: B

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5. Vegetative propagation by leaf takes place in:

A. Ginger

B. Bryophyllum

C. Rose

D. Duranta

Answer: B

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6. Vivipary is observed in

A. Banyan

B. Bryophyllum

C. Ipomea

D. Rhizophora

Answer: D

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7. Somaclonal variation appears in plants

A. Growing in polluted soil or water

B. Exposed to gamma rays

C. Raised in tissue culture

D. Transformed by tecombinant DNA technology

Answer: C

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8. Development of fruit without fertilization is called :

A. Cell division

B. Cell culture

C. Parthenocarpy

D. Parthenogenesis

Answer: C

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9. Vegetative propagation in mint occurs by

A. Runner

B. Offset

C. Rhizome

D. Sucker

Answer: D

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10. Nuclear membrane is absent in

A. Monera

B. Protista

C. Fungi

D. Plantae

Answer: A

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11. One of the followings is not the characteristic feature of cyanobacteria

A. They are multicellular

B. They form colonies

C. They form blooms in polluted water bodies

D. They can fix atmospheric nitrogen

Answer: A

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12. Micropropagation is a technique

A. For production of true plants

B. For production of haploid plant

C. For production of somatic hybrids

D. For production of somaclonal plants

Answer: A

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13. Vegetative propagation in Pistia occurs by

A. Stolon

B. Offset

C. Runner

D. Sucker

Answer: B

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14. What is common between vegetative reproduction and Apomixis

A. Both occur round the year

B. Both produce progeny identical to the parent

C. Both are applicable to only dicot plants

D. Both bypass the flowering plant

Answer: B

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15. Which one of the following pairs is wrongly matched, while the remaining three are correct?

A. Bryophyllum-Leaf buds

B. Agade-Bulbils

C. Penicillium-Conidia

D. Water hyacinth- runner

Answer: D

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16. The 'eyes' of the potato tuber are

A. Root buds

B. Flower buds

C. Shoot buds

D. Axillary buds

Answer: D

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17. In grafting, the portion to be grafted on the main part is called :

A. Adventitious bud

B. Stem

C. Stock

D. scion

Answer: D

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18. Banana is vegetatively propagated by

A. Tubers

B. Rhizome

C. Bulbs

D. Suckers

Answer: B

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19. Find out correct order of vegetative propagules of plants like potato, ginger Agave, Bryophyllum and water hyacinth.

A. Offset, bulbil, leaf bud, rhizome and eyes

B. Leaf bud, bulbil, offset, rhizome and eyes

C. Eyes, rhizome, bulbil, leaf bud and offset

D. Rhizome, bulbil, leaf bud, eyes and offset

Answer: C

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20. Both, autogamy and geitonogamy are prevented in

A. Papaya

B. Cucumber

C. Castor

D. Maize

Answer: A

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21. In general, pollen tube enter the ovule through

A. Micropyle

B. Chalaza

C. Hilum

D. Funicle

Answer: A

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22. Transfer of pollen grains from anther to the stigma of another flower on the same plant is called

A. Geitonogamy

B. Xenogamy

C. Cleistogamy

D. Chasmogamy

Answer: A

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23. The endosperm cells in angiosperms are

A. Haploid

B. Diploid

C. Triploid

D. Tetraploid

Answer: C

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24. The fleshy edible part of an apple is

A. Thalamus

B. Nucellus

C. Ovary

D. Endosperm

Answer: A

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25. Why asexual reproduction is sometimes disadvantageous ?

A. It allows animals that do not move around to produce offspring without

finding mates

B. It allows an animal to produce many offspring quickly

C. It saves the time and energy of gamete production

D. It produces genetically uniform populations.

Answer: D

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26. Product of sexual reproduction generally generates

A. Prolonged dormancy

B. New genetic combination leading to variation

C. Large biomass

D. Longer viability of seeds

Answer: B

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27. An unorganised mass of cells is called

A. Totipotent

B. Explant

C. Callus

D. Corax

Answer: C

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28. A few plants exhibit unusual flowering phenomenon, which of them flower only once in their life time, generally after 50 - 100 years and produce lagre number of fruits ?

A. Strobilanthus kunthiana

B. Bamboo

C. Calistemon linearis

D. Cymbopogon reptoeus

Answer: A

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

A. The habitat and morphology of organism

B. Morphology of organism

C. Morphology and physiology of organism

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

Answer: D

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30. Which one of the following is not a natural method of vegetative propagation

A. Runner

B. Foliar buds

C. Stem Tuber

D. Grafting

Answer: D

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31. Which one of the following plants does not help in vegetative propagation by leaves ?

A. Begonia

B. Kalanchoe

C. Bryophyllum

D. Oxalis

Answer: D

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32. Which of the following pairs is not correctly matched?

A.

Mode of reproduction	Exampe
(a) Binary fission	Saragssum

B.

Mode of reproduction	Exampe
(b) Conidia	Penicillium

C.

Mode of reproduction	Exampe
(c) Offset	Water hyacinth

D.

Mode of reproduction	Exampe
(d) Rhizome	Banana

Answer: A

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33. Flowers are unisexual in

A. China rose

B. Onion

C. Pea

D. Cucumber

Answer: D

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34. Which of the following statements is not correct?

A. Offspring produced by asexual reproduction are called clone.

B. Microscopic, motile, asexual reproducive structures are called zoospores.

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

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

Answer: C

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35. Which of the following flowers only once in its life-time

A. Jackfruit

B. Mango

C. Bamboo species

D. Papaya

Answer: C

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36. Vegetative reproduction in onion occurs by:

A. Offset

B. Bulb

C. Sucker

D. Rhizome

Answer: B

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37. Select the incorrect statement.

A. Male fruit fly is heterogametic.

B. In male grasshoppers, 50% of sperms have no sex-chromosome.

C. In domesticated fowls sex of progeny depends on the type of sperm rather than egg.

D. Human males have one of their sex-chromosome much shorter than the

other.

Answer: C

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38. In Antirrhinum (Snapdragon), a red flower was crossed with a-white flower and in F_1 generation pink flowers were obtained. When pink flower were selfed, the F_2 generation showed white,red and pink flowers. Choose the incorrect statemes from the following :

A. This experiment does not follow the Principle of Dominance.

B. Pink colour in F, is due to incomplete dominance.

C. Ratio of F, is (Red) (Pink): 1 (White).

D. Law of Segregation does not apply in this experiment.

Answer: D

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39. Which of the following statements is incorrect ?

A. Viroids lack a protein coat

B. Viruses are obligate parasites

C. Infective constituent in virues is the protein coat

D. Prions consist of abnormally folded proteins

Answer: D

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Competition File Objective Type Questions Matching Type Quesitons

1. Match the items in column A with suitable terms in column B :

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Competition File Objective Type Questions Assertion Reason Type Questions

1. Assertion : Continued self pollination generation after generation results in pure line formation .

Reason : By continued self - pollination plant becomes pure or homozygous for its characters.

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: A

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2. Assertion : In wheat and sugarcane , pollination takes place by water .

Reason : Water is required for irrigation of wheat and sugarcane .

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: D

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3. Assertion : Stigma of pistil receives the pollen during pollination .

Reason : Pollen grains are produced in ovary of gynoecium .

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: B

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4. Assertion : Cross pollination in true genetic sense within species is called xenogamy .

Reason : When there is cross pollination , resultant hybrids is a combination of characters of two plants.

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: C

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5. Assertion : Grafting is attempted in those plants which show secondary growth.

Reason : Cambium during secondary growth show cell division in both stock and scion.

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: A

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6. Assertion : Plants have wider ranger of distribution which are distributed by spores.

Reason : Spores are easily dissiminated by water .

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: A

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7. Assertion : Seeded plants are highly evolved.

Reason : In spermatophyta, seeds are formed .

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: D

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8. Assertion : Air layerings is commonly done in woody shrubs and trees.

Reason : They do not bear the bending branches near the ground .

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: B

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9. Assertion : Individuals produced by asexual reproduction are genetically similar to parents .

Reason : Asexual reproduction involves only mitotic divisons.

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: A

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10. Assertion : Amoeba shows multiple fission during unfavourable conditions.

Reason : Chances of survival are less during unfavourable conditions .

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason are true but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: B

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11. Assertion : Sexual reproduction is advantage than asexual reproduction .

Reason : It is rapid mode of reproduction while asexual reproduction while asexual reproduction is slow mode of reproductions.

A. If both Assertion and Reason are the true and Reason is correct explanation of Assertion .

B. If both Assertion and Reason ar ture but Reason is not correct explanation of Assertion .

C. If Assertion is true but Reason is false .

D. If both Assertion and Reason are false .

Answer: C

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Chapter Practice Test Section A

1. In testes , the sperms are formed by :

A. Interstitial cells

B. Graafian follicles

C. Seminiferous tubules

D. Nephrons

Answer:

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2. In which one 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

Answer:

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3. During oogenesis, each diploid oocyte produces :

A. Four functional ova

B. Two functional eggs and two polar boides

C. Four functional polar bodies

D. One functional egga and three polar bodies .

Answer:

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4. Corm is a modification of

A. Root

B. Leaf

C. Stem

D. Bud

Answer:

Watch Video Solution

5. The part where fertilization of ovum takes place in rabbit , human and other placental mammals is :

A. Ovary

B. Uterus

C. Vagina

D. Fallopian tube

Answer:

Watch Video Solution

6. Largest bird is :

A. Emu

B. Penguim

C. Kiwi

D. Ostrich

Answer:

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Chapter Practice Test Section B

1. What is a zoospore ?

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2. What are the advantages of sexual reproduction?

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3. What are viviparous animals ?

 Watch Video Solution

4. What is fragmentation?

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Chapter Practice Test Section C

1. What is asexual reproduction?

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2. What is budding?

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3. Explain the process of budding with sutiable diagram

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