



## **BIOLOGY**

# **BOOKS - OSWAL PUBLICATION**

# REPRODUCTION

Stand Alone Mcqs

**1.** Reproduction is essential for living organisms to order to

A. keep the individual organism alive.

B. fulfill their energy requirement.

C. maintain growth.

D. continue the species generation after

generation.

Answer: D

2. A feature of reproduction that is common to

Amoeba, Spirogyra and Yeast are that

A. they reproduce asexually.

B. they are all unicellular.

C. they reproduce only sexually.

D. they are all multicellular.

Answer: A

**3.** In Spirogyra, asexual reproduction takes place by

A. breaking up of filaments into smaller bits.

B. division of a cell into two cells.

C. division of a cell into many cells.

D. formation of young cells from older cells.

Answer: A

**4.** The ability of a cell to divide into several cells during reproduction in Plasmodium is called

A. budding

B. reduction division

C. binary fission

D. multiple fission

Answer: D

5. Factors responsible for the rapid spread of

bread mould on slices of bread are

(i) large number of spores

(ii) availability of moisture and nutrients in bread

(iii) presence of tubular branched hyphae(iv) formation of round shaped sporangia

A. (i) and (iii)

B. (ii) and (iv)

C. (i) and (ii)

D. (iii) and (iv)

Answer: C

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6. In the list of organisms given below, those that reproduce by the asexual method are(i) banana (ii) dog

(iii) yeast (iv) Amoeba

A. (ii) and (iv)

B. (i), (iii) and (iv)

C. (i) and (iv)

D. (ii), (iii) and (iv)

### Answer: B

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**7.** Offspring formed by asexual method of reproduction have greater similarity among themselves because

(i) Asexual reproduction involves only one

parent

(ii) Asexual reproduction does not involve gametes

(iii) Asexual reproduction occurs before sexual

reproduction

(iv) Asexual reproduction occurs after sexual reproduction

A. (i) and (ii)

B. (i) and (iii)

C. (ii) and (iv)

D. (iii) and (iv)





**8.** Vegetative propagation refers to formation of new plants from

A. stem, roots and flowers.

B. stem, roots and leaves.

C. stem, flowers and fruits.

D. stem, leaves and flowers.





**9.** Asexual reproduction takes place through budding in

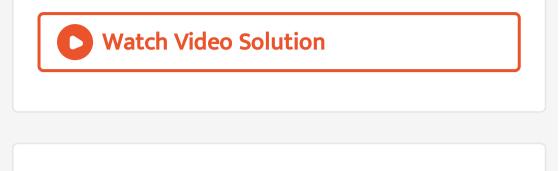
A. Amoeba

B. Yeast

C. Plasmodium

D. Leishmania

#### Answer: B

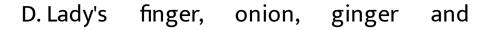


**10.** Which of the following are examples of vegetative reproduction in plants?

A. Tomato, lady's finger, onion and cauliflower

B. Potato, ginger, onion and sugarcane

C. Cauliflower, onion, potato and tomato



sugarcane

#### Answer: B



11. In a flower, the parts that produce male and

female gametes (germ cells) are

A. stamen and anther

B. filament and stigma

C. anther and ovary

D. stamen and style

#### Answer: C



# **12.** Which of the following is the correct sequence of events of sexual reproduction in a flower?

A. Pollination,	fertilisation,	seedling,
embryo		
B. Seedling,	embryo,	fertilisation,
pollination		
C. Pollination,	fertilisation,	embryo,
seedling		
D. Embryo,	seedling,	pollination,
fertilisation		

### Answer: C

**13.** The correct sequence of reproductive stages seen in flowering plants is

A. gametes, zygote, embryo, seedling

B. zygote, gametes, embryo, seedling

C. seedling, embryo, zygote, gametes

D. gametes, embryo, zygote, seedling

Answer: A

14. Which of the following statements are true

for flowers?

(i) Flowers are always bisexual.

(ii) They are the sexual reproductive organs.

(iii) They are produced in all groups of plants.

(iv) After fertilisation they give rise to fruits.

A. (i) and (iv)

B. (ii) and (iii)

C. (i) and (iii)

D. (ii) and (iv)

#### Answer: D



15. A student while observing an embryo of a gram seed listed various parts of the embryo as listed below: Testa, Micropyle, Cotyledon, Tegmen, Plumule, Radicle.
On examining the list the teacher commented that only three parts are correct. Select these three correct parts:

- A. Cotyledon, Testa, Plumule
- B. Cotyledon, Plumule, Radicle
- C. Cotyledon, Tegmen, Radicle
- D. Cotyledon, Micropyle, Plumule

Answer: B

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**16.** Characters that are transmitted from parents to offspring during reproduction

show

A. only similarities with parents

- B. only variations with parents
- C. both similarities and variations with

parents

D. neither similarities nor variations

Answer: C

**17.** Length of pollen tube depends on the distance between

- A. pollen grain and upper surface of stigma
- B. pollen grain on upper surface of stigma

and ovule

C. pollen grain in anther and upper surface

of stigma

D. upper surface of stigma and lower part

of style

#### Answer: B



**18.** The number of chromosomes in parents and offsprings of a particular species remains constant due to

A. doubling of chromosomes after zygote

formation

B. halving of chromosomes during gamete

formation

C. doubling of chromosomes after gamete

formation

D. halving of chromosomes after gamete

formation

Answer: B

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**19.** During adolescence, several changes occur in the human body. Mark one change associated with sexual maturation in boys. A. Loss of milk teeth

B. Increase in height

C. Cracking of voice

D. Weight gain

Answer: C

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**20.** In human females, an event that reflects onset of reproductive phase is

- A. growth of body
- B. changes in hair pattern
- C. change in voice
- D. menstruation

#### Answer: D



**21.** In human males, the testes lie in the scrotum, because it helps in the

A. process of mating.

B. formation of sperm.

C. easy transfer of gametes.

D. all of the above.

Answer: B

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22. Which among the following is not the

function of testes at puberty?

(i) Formation of germ cells

(ii) Secretion of testosterone

(iii) Development of placenta

(iv) Secretion of estrogen

A. (i) and (ii)

B. (ii) and (iii)

C. (iii) and (iv)

D. (i) and (iv)

Answer: C

**23.** Which of these statement is correct about reproduction ?

A. It keeps the individual organism alive

B. It fulfills their energy requirement

C. It maintains the growth

D. It continue the species generation after

generation

Answer: D

24. The correct sequence of organs in the male

reproductive system for transport of sperms is

A. testis  $\rightarrow$  vas deferens  $\rightarrow$  urethra

B. testis  $\rightarrow$  ureter  $\rightarrow$  urethra

C. testis  $\rightarrow$  urethra  $\rightarrow$  ureter

D. testis  $\rightarrow$  vas deferens  $\rightarrow$  ureter

#### Answer: A

25. Which among the following diseases is not

sexually transmitted?

A. Syphilis

B. Hepatitis

C. HIV - AIDS

D. Gonorrhoea

Answer: B

26. Which of the following is not a part of the

female reproductive system in human beings?

A. Ovary

B. Uterus

C. Vas deferens

D. Fallopian tube

Answer: C

**1.** Assertion (A): Amoeba reproduces by binary fission.

Reason ( R): All unicellular organisms reproduce asexually.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: A

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2. Assertion: Many plants are propagated vegetatively even though they bear seeds.
Reason: Potatoes multiply by tubers, apple by cutting etc.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: B

**3.** Assertion (A): Characteristics of parental plants can be preserved through asexual reproduction.

Reason (R): Vegetative reproduction involves only mitosis.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: A

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**4.** Assertion (A): Plasmodium reproduces by multiple fission.

Reason ( R): Multiple fission is a type of asexual reproduction.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: B

**5.** Assertion (A): DNA copying is necessary during reproduction.

Reason ( R): DNA copying leads to the transmission of characters from parents to offspring.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: A

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**6.** Formation of new individual from a fertilized egg is known as:

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: C

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**7.** Assertion (A): Unisexual flowers have separate male and female flowers whereas a typical monocot embryo comprises an

embryonal axis with single cotyledon.

Reason (R): Cucumber, pumpkin and water melon are example of unisexual flowers.

A. Both A and R are true and R is the correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

#### Answer: B



8. Assertion (A): Double fertilisation is unique to angiosperms.
Reason (R): Triple fusion occurs in asexual reproduction.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: C



9. Assertion: Fertilization results in formation

of zygote.

Reason: Zygote divides several times to form

an embryo.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: B

**10.** Assertion (A): Sexual reproduction increases genetic diversities and plays a role in origin of new species.

Reason (R): Sexual reproduction involves formation of gametes and fusion of gametes.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: A

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**11.** Assertion (A): In human male, testes are extra abdominal organs which are present inside scrotum.

Reason (R): Scrotum has a relatively lower temperature needed for the production and storage of sperms. A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: A

12. Assertion (A): At puberty, in boys, voice begins to crack and thick hair grows on face.Reason (R): At puberty, there is decreased secretion of testosterone in boys.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

- C. A is true but R is false.
- D. A is false and R is true.

### Answer: C



**13.** Assertion (A): Surgical methods are most effective methods of contraception.Reason (R): Surgical method blocks gametes transport and hence prevent fertilisation.

A. Both A and R are true and R is the

correct explanation of A.

B. Both A and R are true but R is NOT the

correct explanation of A.

C. A is true but R is false.

D. A is false and R is true.

Answer: A

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**Case Based Mcqs** 

**1.** The growing size of the human population is a cause of concern for all people. The rate of birth and death in a given population will determine its size. Reproduction is the process by which organisms increase their population. The process of sexual maturation for reproduction is gradual and takes place while general body growth is still going on. Some degree of sexual maturation does not necessarily mean that the mind or body is ready for sexual acts or for having and bringing up children. Various contraceptive devices are being used by human beings to

control the size of population.

What are common signs of sexual maturation in boys is:

A. Broadening of shoulders

B. Development of mammary glands

C. Broadening of waist

D. High pitch of voice

Answer: A

**2.** The growing size of the human population is a cause of concern for all people. The rate of birth and death in a given population will determine its size. Reproduction is the process by which organisms increase their population. The process of sexual maturation for reproduction is gradual and takes place while general body growth is still going on. Some degree of sexual maturation does not necessarily mean that the mind or body is ready for sexual acts or for having and

bringing up children. Various contraceptive devices are being used by human beings to control the size of population.

Common sign of sexual maturation in girls is:

A. Low pitch voice

B. Appearance moustache and beard

C. Development of mammary gland

D. Broadening of shoulders

Answer: C

**3.** The growing size of the human population is a cause of concern for all people. The rate of birth and death in a given population will determine its size. Reproduction is the process by which organisms increase their population. The process of sexual maturation for reproduction is gradual and takes place while general body growth is still going on. Some degree of sexual maturation does not necessarily mean that the mind or body is ready for sexual acts or for having and

bringing up children. Various contraceptive devices are being used by human beings to control the size of population. Which contraceptive method changes the

hormonal balance of the body?

A. Condoms

B. Diaphragms

C. Oral pills

D. Both (a) and (b)

### Answer: C



**4.** The growing size of the human population is a cause of concern for all people. The rate of birth and death in a given population will determine its size. Reproduction is the process by which organisms increase their population. The process of sexual maturation for reproduction is gradual and takes place while general body growth is still going on. Some degree of sexual maturation does not necessarily mean that the mind or body is

ready for sexual acts or for having and bringing up children. Various contraceptive devices are being used by human beings to control the size of population. Write two factors that determine the size of a

population.



5. The growing size of the human population is a cause of concern for all people. The rate of birth and death in a given population will determine its size. Reproduction is the process by which organisms increase their population. The process of sexual maturation for reproduction is gradual and takes place while general body growth is still going on. Some degree of sexual maturation does not necessarily mean that the mind or body is ready for sexual acts or for having and bringing up children. Various contraceptive devices are being used by human beings to control the size of population. What should be maintained for a healthy

society?

A. rate of birth & death rate

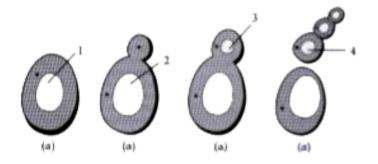
B. male & female sex ratio

C. child sex ratio

D. None of these

Answer: B

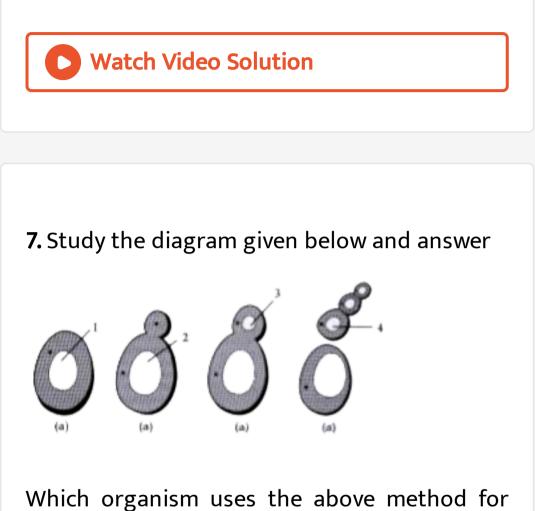
## 6. Study the diagram given below and answer



Identify the above process.

- A. Binary fission
- **B. Budding**
- C. Fragmentation
- D. Regeneration

#### Answer: B



reproduction?

A. Yeast

B. Amoeba

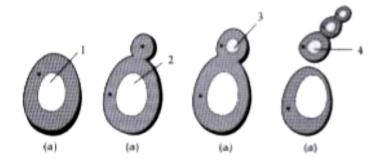
C. Spirogyra

D. Leishmania

Answer: A

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8. Study the diagram given below and answer



An organism capable of reproducing by two asexual reproduction methods one similar to the reproduction in yeast and the other similar to the reproduction in Planaria is:

A. Spirogyra

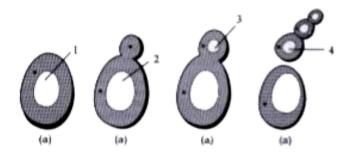
B. Hydra

C. Bryophyllum

D. Paramecium

Answer: B

#### **9.** Study the diagram given below and answer



A Planaria worm is cut horizontally in the middle into two halves P and Q such that the part P contains the whole head of the worm. Another Planaria worm is cut vertically into two halves R and S in such a way that both the cut pieces R and S contain half head each. Which of the cut pieces of the two Planaria worms could regenerate to form the complete

respective worms?

A. Only P

B. Only R and S

C. P, R and S

D. P, Q, R and S

Answer: D

**10.** Which among the following statements are true for sexual reproduction in flowering plants?

(i) It requires two types of gametes.

(ii) Fertilisation is a compulsory event.

(iii) It always results in formation of zygote.

(iv) Offspring formed are clones.

A. (1) and (4)

B. (1), (2) and (3)

C. (1), (2) and (4)

D. (2), (3) and (4)

#### Answer: B

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## 11. Study the process depicted in the picture

### given below



1. Parent cell



3. Cytoplasm divides



2. Nucleus divides



4. Two daughter cells

Which of these organisms divides by the

above process?

A. Amoeba

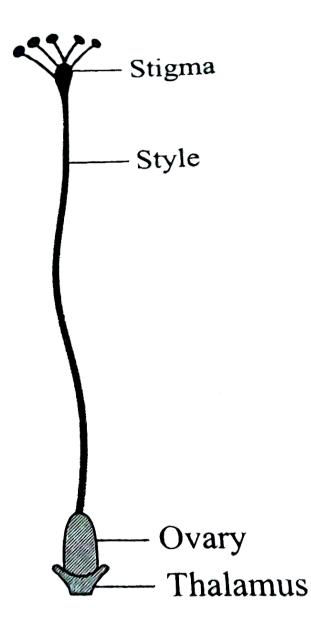
B. Spirogyra

C. Leishmania

D. Yeast

Answer: A

12. The following figure shows the



A. Two daughter cells are produced.

B. Many daughter cells are formed

simultaneously.

C. Two types of gametes fuse together

D. None of these

Answer: B

### 13. Study the process depicted in the picture

### given below





3. Cytoplasm divides



2. Nucleus divides



4. Two daughter cells

Which of the following statement is correct

# about the above type of reproduction?

A. It involves two individuals.

B. It involves a mature parent cell.

C. It involves union of two types of

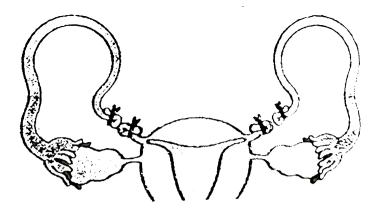
gametes.

D. All of these

Answer: B

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**14.** What is the figure given below showing in particular ?



- A. Splitting into two cells during division can take place in any plane.
- B. Binary fission occurs in a definite

orientation in relation to the whip like

structure.

C. Both of these

D. None of these

Answer: B

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15. Study the process depicted in the picture

### given below



1. Parent cell



3. Cytoplasm divides



2. Nucleus divides



4. Two daughter cells

Which of these are the characteristics of

vegetative reproduction?

(i) Involves two individuals

(ii) Daughter cells are genetically identical to

the parent.

(iii) The cell division is only mitotic.

A. (i) and (ii) only

B. (i) and (iii) only

C. (ii) and (iii) only

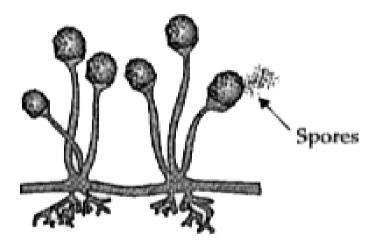
D. All of these

#### Answer: C





# 16. Study the given diagram



The above diagram depicts:

A. Spore formation in Rhizopus

B. Fragmentation in Spirogyra

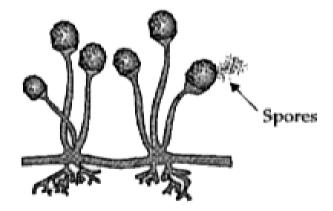
C. Binary fission in Amoeba

D. Spore formation in Yeast

#### Answer: A

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### 17. Study the given diagram



'Blobs' that develop at the tips of the non-

reproductive thread is known as:

A. Hyphae

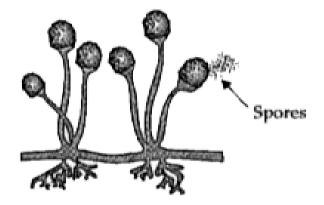
B. Sporangia

C. Spores

D. Pollens

**Answer: B** 

## 18. Study the given diagram



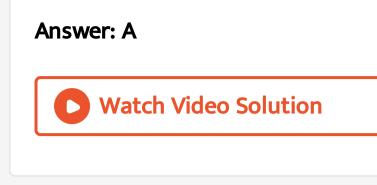
The thread like non-reproductive structures is

A. Hyphae

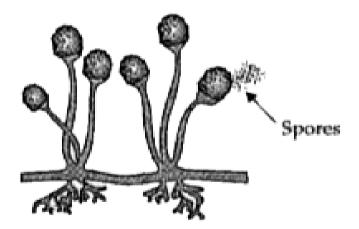
**B.** Rhizoids

C. Sporangium

D. Sporangiophores



# 19. Study the given diagram



On maturation sporangia of given organism bursts and releases:

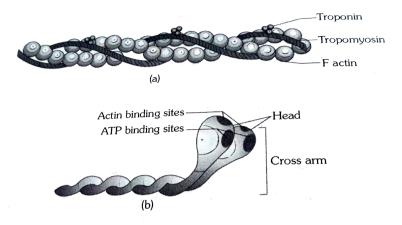
A. Pollens

- **B.** Spores
- C. Seeds
- D. None of these

### Answer: B



## 20. Identify the given diagrams



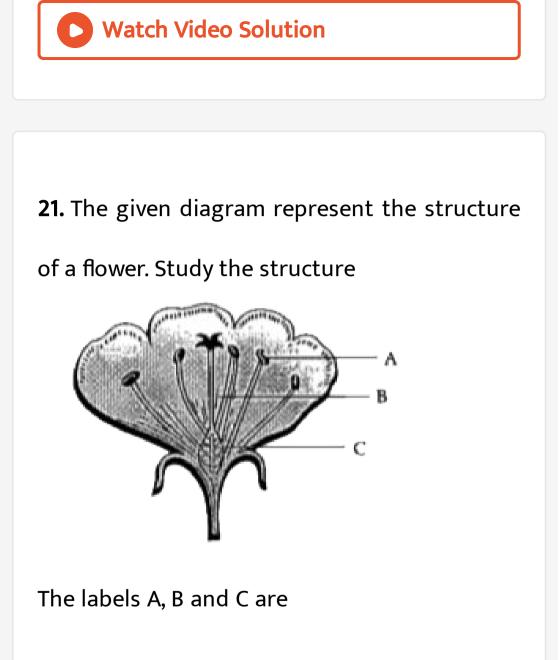
### A. Balsam

#### B. Fern

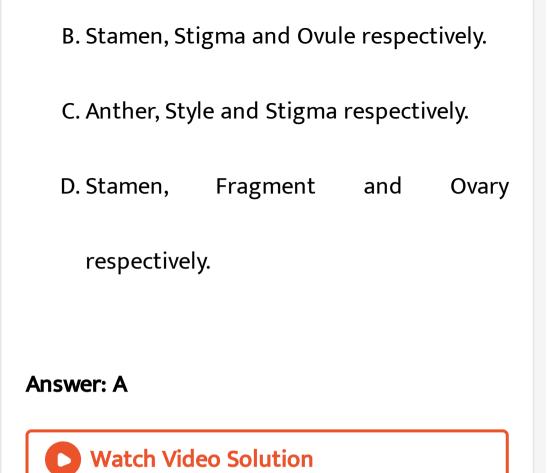
### C. Mango

### D. Hibiscus

Answer: B

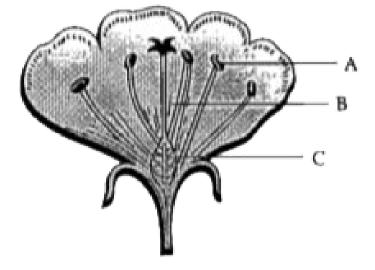


A. Anther, Style and Ovary respectively.



22. The given diagram represent the structure

of a flower. Study the structure



Which of these is the function of part labelled as C?

A. Contains ovules which develop into seeds.

B. Attracts pollinators.

C. Protect rising buds.

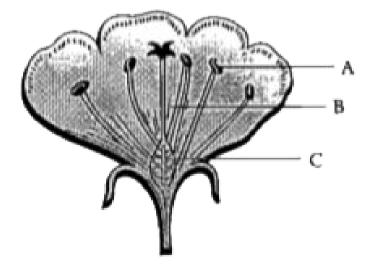
D. Receive pollens

Answer: A

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**23.** The given diagram represent the structure

of a flower. Study the structure



When an insect sits on the flower of a plant then some particles from the little stalks in the flowers sticks to its body and when this insect sits on the flower of another plant, the particles get deposited in that flower. What are these particles?

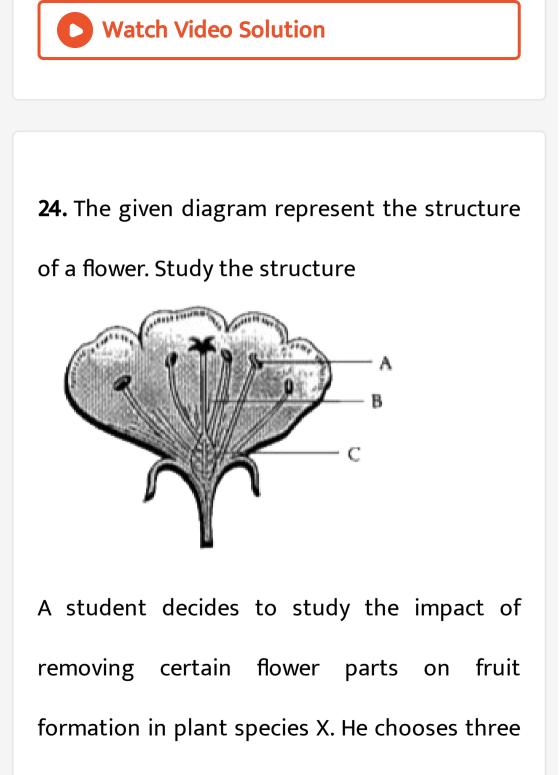
A. Dust

**B.** Pollens

C. Grains

D. Seeds

**Answer: B** 



separate plants that are growing in the same

plot under uniform conditions. The data is

given in the table below.

Plants	Part Removed	Impact on formation
1.	Anther	30% less fruit formed than average plants in the plot
2.	Stigma	No fruit formed
3.	Petal	No significant impact

Which of the following can be inferred from

the above data?

A. Anthers and stigmas are crucial in sexual

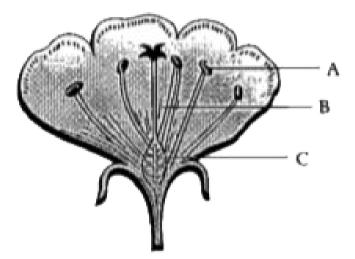
reproduction in species X.

B. Pollen grains are probably unable to germinate if they land on other parts of the carpel besides the stigma. C. Species X is likely to be wind-pollinated. D. Species X relies completely on crosspollination.

Answer: C

### 25. The given diagram represent the structure

of a flower. Study the structure



Which of these events does not take place after fertilisation ?

A. Formation of zygote.

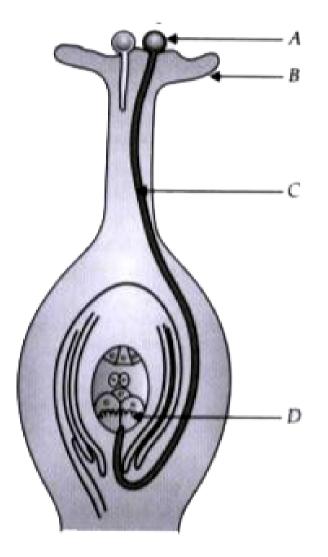
B. Development of thick coat around ovule.

C. Ovary ripens to form fruit.

D. Transfer of pollen from anther to stigma

of a flower.

Answer: D



The part labelled as A in the diagram is:

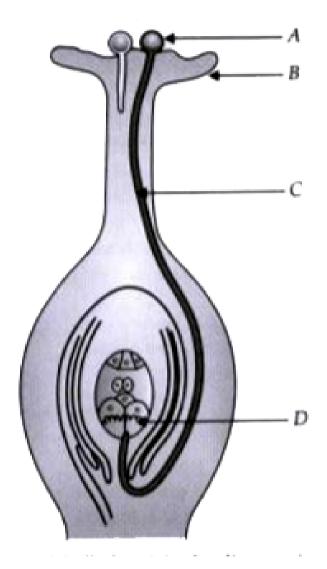
A. Dust

B. Germs

C. Pollen

**D.** Pollinators

Answer: C



Which of the following statement is incorrect

about pollination?

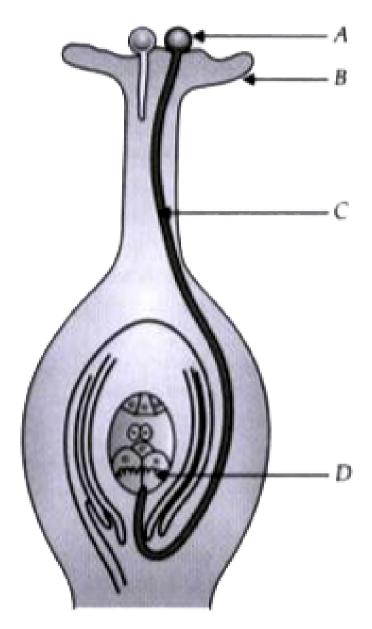
A. It proceeds fertilization.

B. It follows fertilization.

C. It brings male and female gametes closer.

D. It introduces variations in plants.

Answer: B



The importance of the part "C" is :

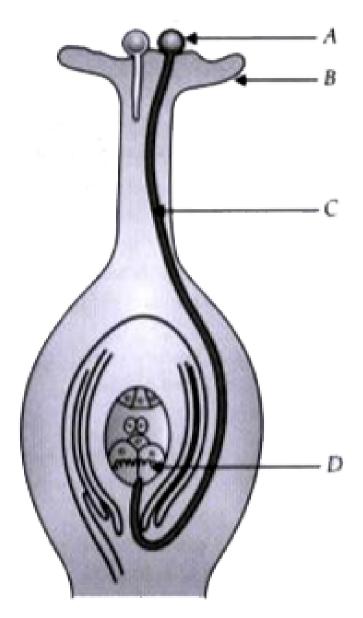
A. It carries female gametes.

B. It carries male gametes.

C. It carries food for the seeds.

D. None of these

Answer: B



What happens to the part marked 'D' after

fertilization is over?

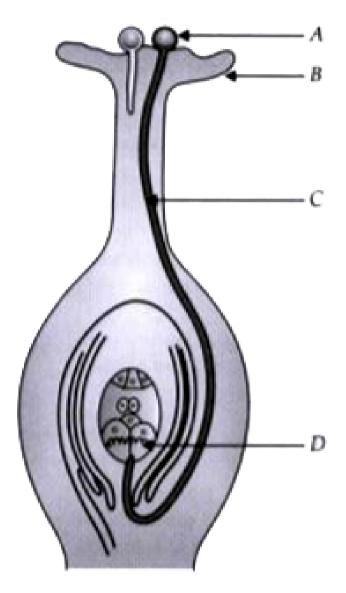
A. Converted into seed.

B. Converted into fruit

C. Converted into embryo

D. Converted into flower.

Answer: C



Choose the incorrect statements about the

reproductive system of a plant?

A. The male organs are the stamens.

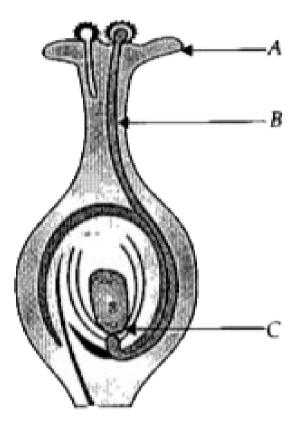
B. The anthers produce female gametes.

C. The male gametes are present in the pollen grains.

D.A male gamete from a pollen grain

fertilize a female gamete in an ovule.

## Answer: B



The part labelled as A is:

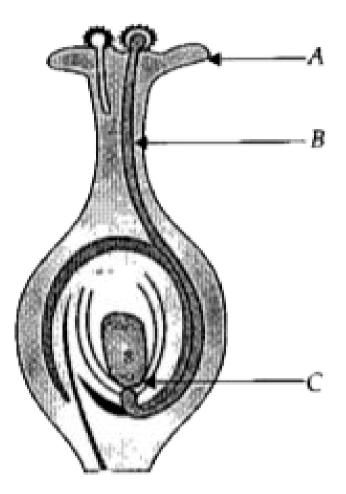
### A. Dust

B. Germs

C. Pollen

D. Pollinators

Answer: C



The role of part labelled as B is:

A. Transport of male gametes to the ovary.

B. Transport of female gametes to the

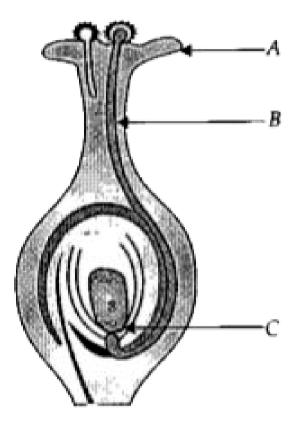
ovary

C. Contains ovules which develop into

seeds.

D. All of these

Answer: A



How many male gametes are produced by each pollen grain?

A. One

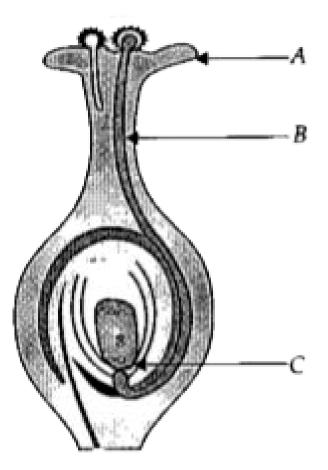
B. Two

C. Three

D. Four

Answer: B

34. Study the diagram given below



What happens to the label A which falls on a suitable stigma?

A. Pollen grain gradually disintegrates.

B. Pollen grain directly reaches the embryo sac.

C. Pollen grain starts germinating and

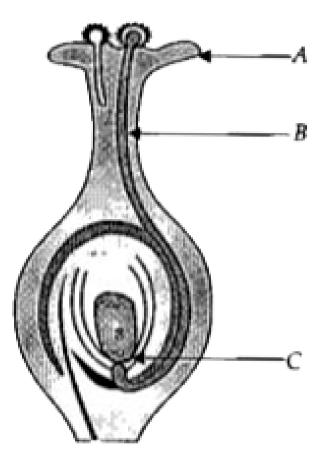
forms a pollen tube.

D. Pollen grain changes into ovules and

then to fruit.

Answer: C

## **35.** Study the diagram given below



In the given diagram showing the carpel of an insect pollinated flower, the most likely reason

## for the non-germination of pollen grain Z is:



A. Pollen grains X and V were brought to the stigma earlier, therefore, their germination inhibited the germination of pollen grain Z. B. Pollen grain Z was brought to the flower by wind, while pollen grains X and Y were brought to the flower by insects. C. Pollen grain Z lacks protrusions that allow it to adhere properly onto the stigma surface.

D. Pollen grain Z comes from a flower of an

incompatible species.

Answer: D

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### Self Assessment 1 Multiple Choice Questions

1. Which of these life processes of an organism

helps in the growth of its population?

### A. Nutrition

- **B.** Respiration
- C. Reproduction
- D. Excretion

### **Answer:**

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**2.** Hydra reproduces I by II

A. I-Sexually, II- budding

B. I-Sexually, II- Regeneration

### C. I- Asexually, II- Budding

D. I- Asexually, II- Regeneration

### Answer:

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**3.** Which of these is a disadvantage of vegetative reproduction?

A. Offspring are genetically identical.

B. It is rapid and economical method of

reproduction

C. It produces seedless fruits.

D. Disease of parent plant gets transferred

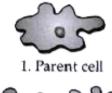
to the offsprings.

**Answer:** 

> Watch Video Solution

Self Assessment 1 Passage Diagram Based Questions 1. Identify the process depicted in the picture

given below:









A. Name the organism that divides by the

above process.

B. How the above process is different from

multiple fission.

C. State the type of reproduction in the

above process and define it.

D. Differentiate between fission in above

organism and Leishmania.

Answer:

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Self Assessment 1 Assertion And Reason Type Questions **1.** Assertion (A): Plasmodium reproduces by multiple fission.

Reason (R) : Multiple fission is a type of asexual reproduction.

A. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A). B. Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).

C. Assertion (A) is true but reason (R) is

false.

D. Assertion (A) is false but reason (R) is

true

#### Answer:

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**2.** Assertion: Many plants are propagated vegetatively even though they bear seeds.

Reason: Potatoes multiply by tubers, apple by

cutting etc.

A. Both assertion (A) and reason (R) are

true and reason (R) is the correct

explanation of assertion (A).

B. Both assertion (A) and reason (R) are

true but reason (R) is not the correct

explanation of assertion (A).

C. Assertion (A) is true but reason (R) is

false.

D. Assertion (A) is false but reason (R) is

true

### **Answer:**

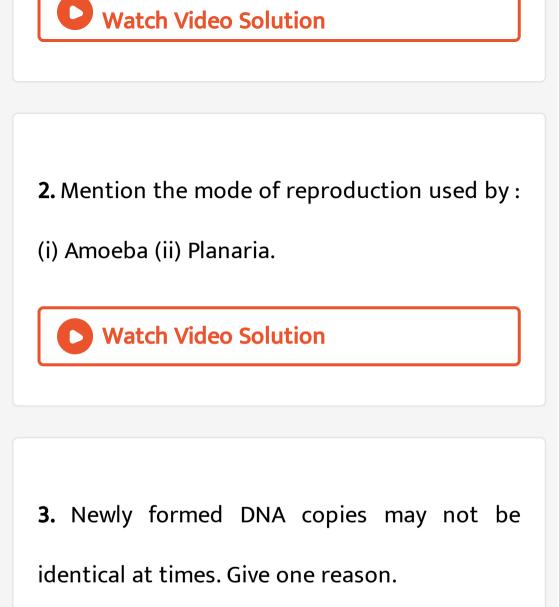
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# Self Assessment 1 Very Short Answer Type Questions

1. What happens when accidently, Planaria gets

cut into many pieces ?







**1.** Describe the various steps involved in the process of binary fission with the help of a diagram.

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2. Why do multicellular organisms use complex

way of reproduction?

 The process of development of seedling from an embryo under suitable condition is called

A. Regeneration

**B.** Pollination

C. Germination

D. Dormancy

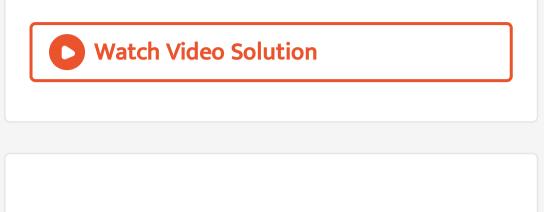
### Answer:



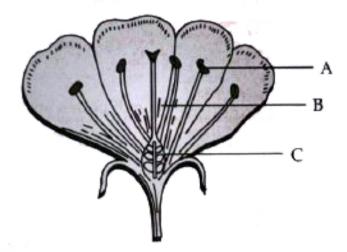
- **2.** Which of the following statement is incorrect about pollination?
  - A. It precedes fertilization.
  - B. It follows fertilization.
  - C. It brings male and female gametes closer.
  - D. It introduces variations in plants.

### Answer:

r<sup>a</sup>



3. What is the function of part labelled as A?



A. It produces pollen grains.

B. It is the passage of pollen tube

C. It contains ovules

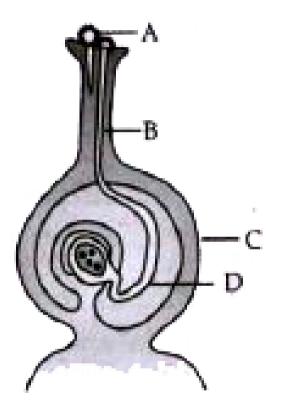
D. It acts as food store.

Answer: A

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Self Assessment 2 Passage Diagram Based Questions 1. Study the diagram given below and answer

the following questions.



A. Name the part labeled as A.

B. What is the role of part labeled as B?

C. How many male gametes are produced

by each pollen grain

D. What happens to the label A which falls

on a suitable stigma.

#### **Answer:**

Watch Video Solution

Self Assessment 2 Assertion And Reason Type Questions **1.** Assertion (A) : Double fertilization is unique to angiosperms.

Reason (R): Triple fusion occurs in both fertilization.

A. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A). B. Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).

C. Assertion (A) is true but reason (R) is

false.

D. Assertion (A) is false but reason (R) is

true

#### Answer:

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2. Assertion (A): An embryo is formed from

fertilized egg

Reason (R): A monocot embryo comprises embryonal axis with two cotyledons.

A. Both assertion (A) and reason (R) are

true and reason (R) is the correct

explanation of assertion (A).

B. Both assertion (A) and reason (R) are

true but reason (R) is not the correct

explanation of assertion (A).

C. Assertion (A) is true but reason (R) is

false.

D. Assertion (A) is false but reason (R) is

true

### **Answer:**

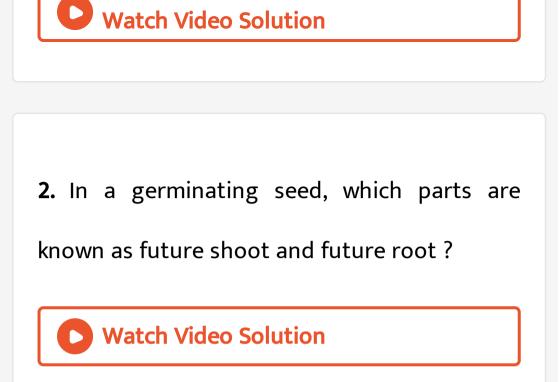
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## Self Assessment 2 Very Short Answer Type Questions

1. Give an example of a flower which contains

both stamens and carpels.





3. In a flowering plant, summarize the events

that take place after fertilization.

**1.** Which of these is not a part of male reproductive system?

A. Scrotum

B. Oviduct

C. Vas-deferens

D. Prostate gland

### **Answer:**

2. Name the hormone responsible for bringing about changes in appearance seen in boys at the time of puberty?

A. Estrogen

B. Adrenaline

C. Testosterone

D. Progesterone

Answer:



**3.** The common duct for the passage of both urine and semen in human male is

A. Ureter

B. Urethra

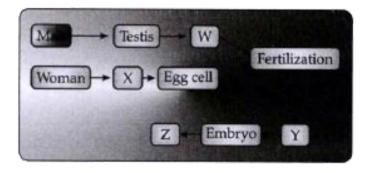
C. Epididymis

D. Vas-deferens

Answer:

## Self Assessment 3 Passage Diagram Based Questions

- 1. Understand the given flow chart and answer
- the following questions.



Which of the following represents W, X, Y and

	W	x	Y	Z
(i)	Gamete	Ovary	Foetus	Zygote
(ii)	Sperm	Ovary	Zygote	Foetus
(iii)	Sperm	Uterus	Foetus	Baby
(iv)	Gamete	Fallopian tube	Zygote	Baby

Where the process of fertilization does takes

place in female body?

What is menstruation?



Self Assessment 3 Assertion And Reason Type Questions **1.** Assertion (A): In human male, testes are extra abdominal which are present inside scrotum.

Reason (R) : Scrotum has a relatively lower temperature needed for the production and storage of sperms.

A. Both assertion (A) and reason (R) are

true and reason (R) is the correct

explanation of assertion (A).

B. Both assertion (A) and reason (R) are

true but reason (R) is not the correct

explanation of assertion (A).

C. Assertion (A) is true but reason (R) is

false.

D. Assertion (A) is false but reason (R) is

true

Answer:

2. Assertion (A): Surgical methods are most effective methods of contraception. Reason (R) : Surgical method blocks gametes transport and hence prevent fertilization. A. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A). B. Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).

C. Assertion (A) is true but reason (R) is

false.

D. Assertion (A) is false but reason (R) is

true

#### Answer:

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# Self Assessment 3 Very Short Answer Type Questions

1. Name the organs producing sperms and ova

respectively in humans.

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2. In the human female reproductive system

where does fertilization occur?

3. If a woman is using a copper-T, place will it

help in protecting her from sexually

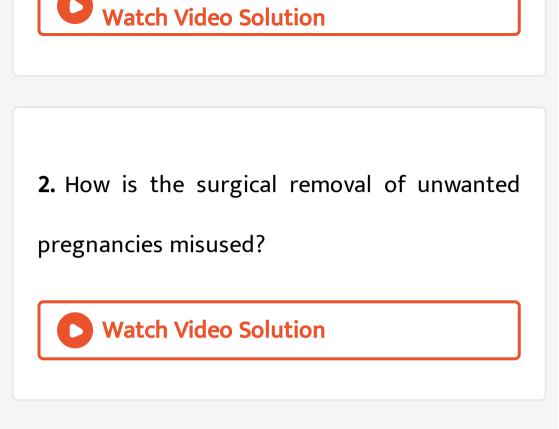
transmitted diseases?

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### Self Assessment 3 Long Answer Type Questions

**1.** Describe the role of prostate gland, seminal vesicle and testes in the human male reproductive system.





3. Explain the role of oral contraceptive pills in

preventing conception.

4. Draw the diagram of female reproductive

system and match and mark the part(s) :

(i) Where block is created surgically to prevent

fertilization

Where Copper - Tis inserted?

(iii) Inside which condom can be placed.

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5. Why do more and more people prefer to use

condoms? What is the principle behind use of

condoms?



# **Ncert Corner Intext Question**

1. What is the importance of DNA copying in

reproduction?

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2. Why is variation beneficial to the species but

not necessarily for the individual?





3. How does binary fission differ from multiple

fission?

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4. How will an organism be benefited if it

reproduces through spores?

5. Can you think of reasons why more complex organisms cannot give rise to new individuals through regeneration?
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6. Why is vegetative propagation practiced for

growing some types of plants?

7. Why is DNA copying an essential part of the

process of reproduction?

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8. How is the process of pollination of

different from fertilisation?

9. What is the role of seminal vesicles and prostate gland?
Watch Video Solution

10. What are the changes seen in girls at the

time of puberty?

11. How does the embryo get nourishment

inside the mother's body?

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**12.** If a woman is using a copper-T, place will it help in protecting her from sexually transmitted diseases?

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**Exercise Question** 

**1.** Asexual reproduction takes place through budding in:

A. Amoeba

B. Plasmodium

C. Yeast

D. Leishmania

Answer: B

2. Which of the following is not a part of the

female reproductive system in human beings?

A. Ovary

B. Uterus

C. Vas-deferens

D. Fallopian tube

#### Answer: C

**3.** The anther contains:

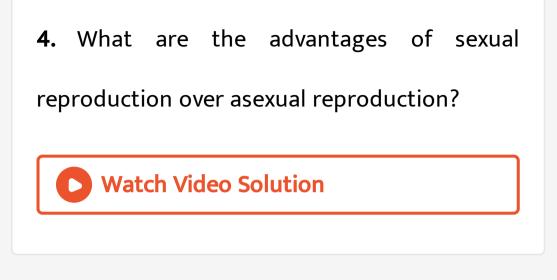
A. sepals

B. ovules

C. pistil

D. pollen-grains

Answer: D

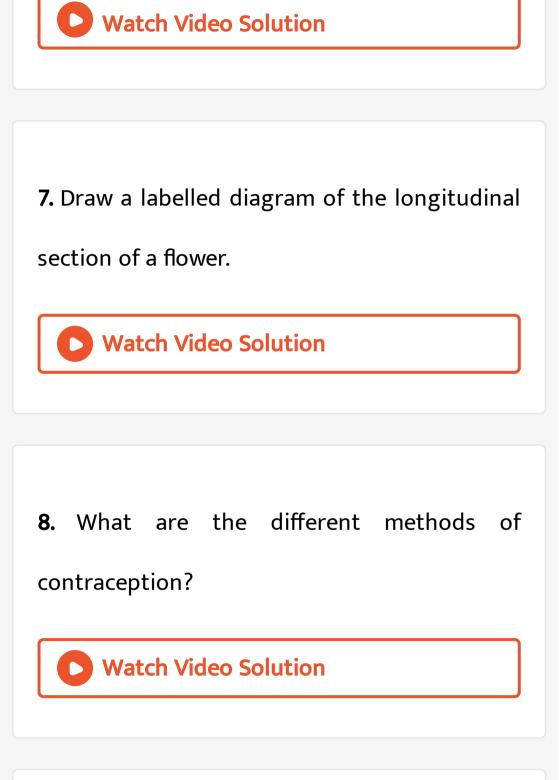


5. What are the functions performed by testes

in human beings?



6. Why does mensuration occur?



9. How are the modes of reprdoction different

in unicellular and multicellular organisms?



10. How does reproduction help in providing

stability to populations of species?

11. What could be the reasons for adopting

contraceptive methods?

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## Ncert Exemplar Multiple Choice Questions

1. In the list of organisms given below, those

that reproduce by the asexual method are

(i) banana (ii) dog

(iii) yeast (iv) Amoeba

A. banana

B. dog

C. yeast

D. Amoeba

Answer: B



2. In a flower, the parts that produce male and

female gametes (germ cells) are

- A. stamen and anther
- B. filament and stigma
- C. anther and ovary
- D. stamen and style

#### Answer: C



**3.** Which of the following is the correct sequence of events of sexual reproduction in a

flower?

A. Pollination,	fertilization,	seedling,
embryo		
B. Seedling,	embryo,	fertilization,
pollination		
C. Pollination,	fertilization,	embryo,
seedling		
D. Embryo,	seedling,	pollination,
fertilization		

### Answer: C

**4.** Offspring formed by asexual method of reproduction have greater similarity among themselves because

(i) Asexual reproduction involves only one parent

(ii) Asexual reproduction does not involve gametes

(iii) Asexual reproduction occurs before sexual reproduction(iv) Asexual reproduction occurs after sexual

reproduction

A. (i) and (ii)

B. (i) and (iii)

C. (i) and (iv)

D. (iii) and (iv)

Answer: A

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5. Characters transmitted from parents to

offspring are present in

# A. cytoplasm

- B. ribosome
- C. golgi bodies
- D. genes

#### Answer: D

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# **6.** Characters that are transmitted from parents to offspring during reproduction

#### show

A. only similarities with parents

- B. only variations with parents
- C. both similarities and variations with

parents

D. neither similarities nor variations

Answer: C

7. A feature of reproduction that is common to

Amoeba, Spirogyra and yeast is that

A. they reproduce asexually.

B. they are all unicellular.

C. they reproduce only sexually.

D. they are all multicellular

Answer: A

**8.** In Spirogyra, asexual reproduction takes place by

A. breaking up of filaments into smaller bits.

B. division of a cell into two cells.

C. division of a cell into many cells.

D. formation of young cells from older cells.

Answer: A

**9.** The ability of a cell to divide into several cells during reproduction in Plasmodium is called

A. budding

B. reduction division

C. binary fission

D. multiple fission

Answer: D

**10.** The correct sequence of reproductive stages seen in flowering plants is

A. gametes, zygote, embryo, seedling

B. zygote, gametes, embryo, seedling

C. seedling, embryo, zygote, gametes

D. gametes, embryo, zygote, seedling

Answer: A

**11.** The number of chromosomes in parents and offsprings of a particular species remains constant. due to

A. doubling of chromosomes after zygote

formation

B. halving of chromosomes during gamete

formation

C. doubling of chromosomes after gamete

formation

D. halving of chromosomes after gamete

formation

Answer: B



12. In Rhizopus, tubular thread-like structures

bearing sporangia at their tips are called

A. filaments

B. hyphae

C. rhizoids

D. roots

Answer: B



13. Vegetative propagation refers to formation

of new plants from

A. stem, roots and flowers

B. stem, roots and leaves

C. stem, flowers and fruits

D. stem, leaves and flowers

Answer: B



14. Factors responsible for the rapid spread of

bread mould on slices of bread are

(i) large number of spores

(ii) availability of moisture and nutrients in

bread

(iii) presence of tubular branched hyphae

(iv) formation of round shaped sporangia

A. (i) and (iii)

B. (ii) and (iv)

C. (i) and (ii)

D. (iii) and (iv)

Answer: C



**15.** Length of pollen tube depends on the distance between

- A. pollen grain and upper surface of stigma
- B. pollen grain on upper surface of stigma

and ovule

C. pollen grain in anther and upper surface

of stigma

D. upper surface of stigma and lower part

of style

#### Answer: B



- **16.** Which of the following statements are true for flowers?
- (i) Flowers are always bisexual
- (ii) They are the sexual reproductive organs
- (iii) They are produced in all groups of plants
- (iv) After fertilisation they give rise to fruits

A. (i) and (iv)

B. (ii) and (iii)

C. (i) and (iii)

D. (ii) and (iv)

Answer: D

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17. Which among the following statements are

true for unisexual flowers?

(i) They possess both stamen and pistil.

(ii) They possess either stamen or pistil.

(iii) They exhibit cross pollination.

(iv) Unisexual flowers possessing only stamens

cannot produce fruits.

A. (i) and (iv)

B. (iii) and (iv)

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

D. (i), (iii) and (iv)

#### Answer: B

**18.** Which among the following statements are true for sexual reproduction in flowering plants?

(i) It requires two types of gametes.

(ii) Fertilisation is a compulsory event.

(iii) It always results in formation of zygote.

(iv) Offspring formed are clones.

A. (a) (i) and (iv)

B. (i), (ii) and (iv)

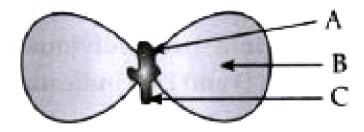
C. (i), (ii) and (iii)

D. (i), (ii) and (iv)

#### Answer: B



**19.** In the given figure the parts A, B and Care sequentially



A. cotyledon, plumule and radicle

B. plumule, radicle and cotyledon

C. plumule, cotyledon and radicle

D. radicle, cotyledon and plumule

Answer: C

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**20.** Offspring formed as a result of sexual reproduction exhibit more variations because

A. sexual reproduction is a lengthy process

Answer: B

**21.** Reproduction is essential for living organisms in order to

A. keep the individual organism alive

B. fulfill their energy requirement

C. maintain growth

D. continue the species generation after

generation

Answer: D

**22.** During adolescence, several changes occur in the human body. Mark one change associated with sexual maturation in boys

A. Loss of milk teeth

B. Increase in height

C. Cracking of voice

D. Weight gain

#### Answer: C

**23.** In human females, an event that reflects onset of reproductive phase is

A. growth of body

B. changes in hair pattern

C. change in voice

D. menstruation

Answer: D

**24.** In human males, the testes lie in the scrotum, because it helps in the

A. process of mating

B. formation of sperm

C. easy transfer of gametes

D. all the above

Answer: B

**25.** Which among the following is not the

function of testes at puberty?

(i) Formation of germ cells (ii) Secretion of

testosterone

(iii) Development of placenta (iv) Secretion of estrogen

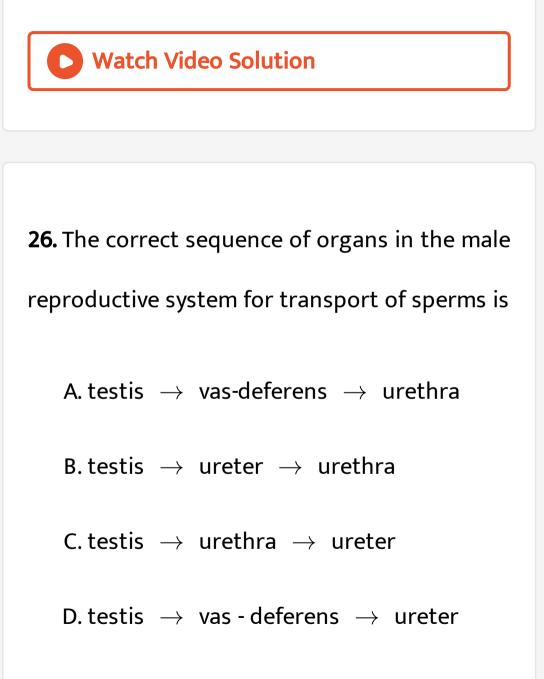
A. (i) and (ii)

B. (ii) and (iii)

C. (iii) and (iv)

D. (i) and (iv)

#### Answer: C







# **27.** Which among the following diseases is not sexually transmitted?

A. Syphilis

B. Hepatitis

C. HIV-AIDS

D. Gonorrhoea





## Ncert Exemplar Short Answer Questions

**1.** In a bisexual flower inspite of the young stamens being removed artificially, the flower produces fruit. Provide a suitable explanation for the above situation.



**2.** Can you consider cell division as a type of reproduction in unicellular organism? Give one reason.



3. What is a clone? Why do offsprings formed

by asexual reproduction exhibit remarkable

similarity?

**4.** Explain how, offspring and parents of organisms reproducing sexually have the same number of chromosomes?

**5.** Colonies of yeast fail to multiply in water, but multiply in sugar solution. Give one reason for this.

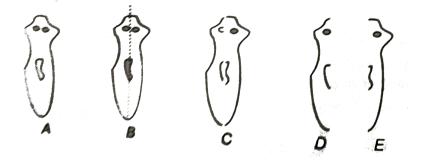
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6. Why does bread mould grow profusely on a moist slice of bread rather than on a dry slice of bread?

**7.** Give two reasons for the appearance of variations among the progeny formed by sexual reproduction.

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8. Would a Planaria cut vertically into two halves regenerate into two individuals? Complete the given figure D and E by indicating the regenerated regions.



**9.** From the internet, gather information about the chromosome numbers of five animals and five plants. Correlate the number with the size of organism and answer the following questions :

Do larger organisms have more number of chromosomes/cells?

**10.** From the internet, gather information about the chromosome numbers of five animals and five plants. Correlate the number with the size of organism and answer the following questions.

(a) Do larger organisms have more number of chromosomes/cells?

(b) Can organism with fewer chromosomesreproduce more easil than orgamsms withmore number of chromosomes?(c) More the number of chromosomes/cells

greater is the DNA content. Justify.

**11.** From the internet, gather information about the chromosome numbers of five animals and five plants. Correlate the number with the size of organism and answer the following questions.

(a) Do larger organisms have more number of chromosomes/cells?

(b) Can organism with fewer chromosomes reproduce more easil than orgamsms with more number of chromosomes? (c) More the number of chromosomes/cells

greater is the DNA content. Justify.



12. In tobacco plant, the male gametes have twenty four chromosomes. What is the number of chromosomes in the female gamete? What is the number of chromosomes in the zygote?

13. Why cannot fertilisation take place in flowers if pollination does not occur?
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**14.** Is the chromosome number of zygote, embryonal cells and adult of a particular organism always constant? How is the constancy maintained in these three stages?

15. Where is the zygote located in the flower

after fertilisation?



16. Reproduction is linked to stability of

population of a species. Justify the statement.

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**17.** How are general growth and sexual maturation different from each other?



**18.** Trace the path of sperm during ejaculation and mention the gland and their functions associated with the male reproductive system.



19. What changes are observed in the uterus if

fertilisation does not occur?

20. What changes are observed in the uterus

subsequent to implantation of young embryo?



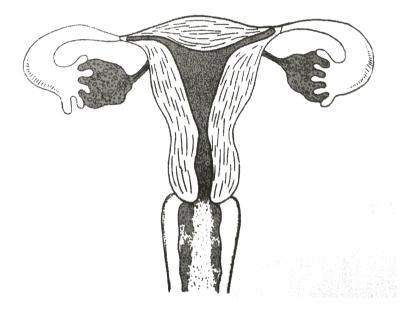
## 21. What are the benefits of using mechanical

barriers during sexual act?

**22.** In the given figure label the parts and mention their functions

## (a)Production of egg (b) Site of fertilisation

(c)Site of implantation (d) Entry of the sperms



**23.** What would be the ratio of chromosome number between an egg and its zygote? How is the sperm genetically different from the egg?



**24.** Why are budding, fragmentation and regeneration all considered as asexual types of reproduction? With neat diagrams explain the process of regeneration in Planaria.



25. Write two points of difference between asexual and sexual types of reproduction. Describe why variations are observed in the offspring formed by sexual reproduction.

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**26.** Distinguish between pollination and fertilisation. Mention the site and product, of fertilisation in a flower. Draw a neat, labelled

diagram of a pistil showing pollen tube growth and its entry into the ovule.



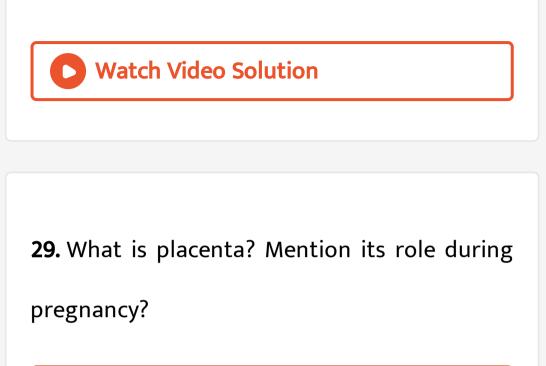
27. Distinguish between a gamete and zygote.

Explain their roles in sexual reproduction.

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**28.** Draw the diagram of a flower and label the four whorls. Write the names of gamete

producing organs in the flower.

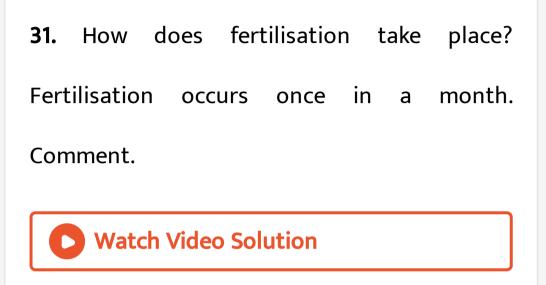


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**30.** What are various ways to avoid pregnancy?

Elaborate any one method.





## 32. Reproduction is essentially a phenomenon

that is not for survival of an individual but for

the stability of a species. Justify.

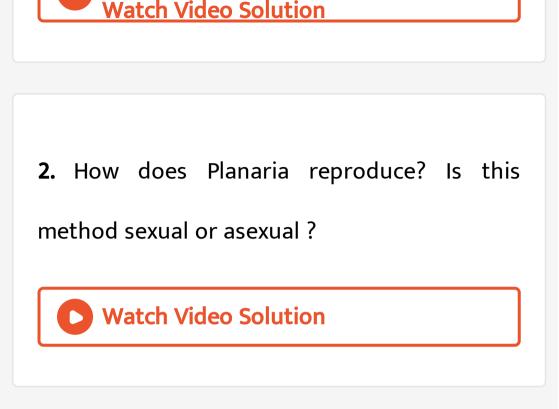
33. Describe sexually transmitted diseases and

mention the ways to prevent them.

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### **Board Corner Very Short Answer Type Question**

**1.** Name the method by which Spirogyra reproduces under favourable conditions. Is this method sexual or asexual ?



3. How does Plasmodium reproduce. Is this

method sexual or asexual?

1. What is carpel ? Write the function of its

various parts.

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**2.** Distinguish between pollination and fertilization. Mention the site and the product of fertilization in a flower.

**3.** Why are budding, fragmentation and regeneration, all considered to be asexual type of reproduction?



4. With the help of neat diagrams, explain the

process of regeneration in Planaria.



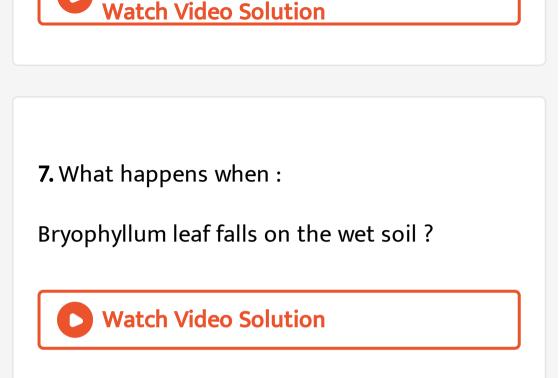
5. Write one main difference between asexual and sexual mode of reproduction. Which species is likely to have comparactively better chances of survival - the one reproducing asexually or the one reproducing sexually ? Give reason to justify your answer.

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6. What happens when :

Accidently, Planaria gets cut into many pieces?





8. What happens when :

On maturation sporangia of Rhizopus bursts?

**9.** State the basic requirement for sexual reproduction ? Write the importance of such reproduction in nature.

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**10.** State the changes that take place in the uterus when :

(i) Implantation of embryo has occurred.

(ii) Female gamete/egg is not fertilized.

11. List any four steps involved in sexual reproduction and write its two advantages.
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**12.** Reproduction is one of the most important characteristics of living beings. Give three reasons in support of the statement.

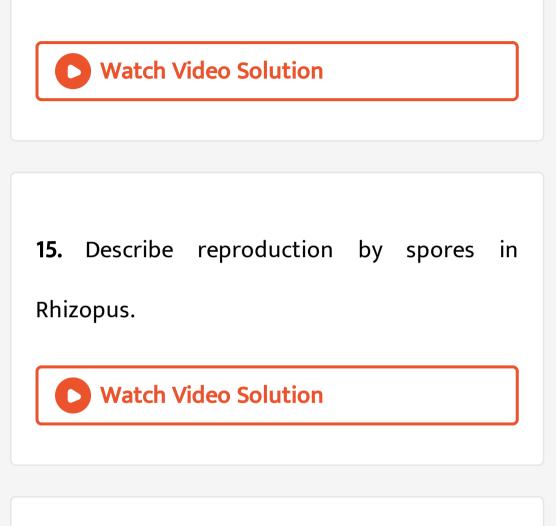
**13.** What is vegetative propagation ? State two advantages and two disadvantages of this method.



**14.** List three techniques that have been developed to prevent pregnancy. Which one of these techniques is not meant for males? How does the use of these techniques have a direct

impact on the health and prosperity of a

family?



**16.** List the two types of reproduction. Which one of the two is responsible for bringing in

more variations in its progeny and how?

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## Board Corner Long Answer Type Question

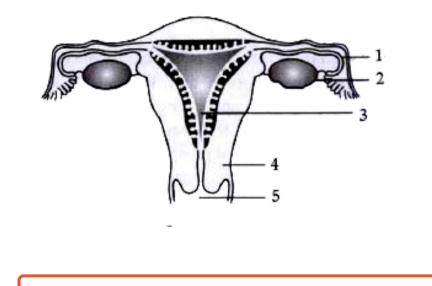
**1.** Define pollination. Explain the different types of pollination. List two agents of pollination. How does suitable pollination lead

to fertilization?



## 2. Identify the given diagram. Name the parts 1

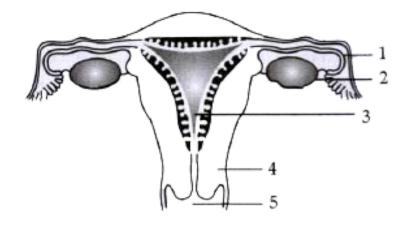
to 5.





3. What is contraception ? List there advatages

of adopting contraceptive measures.





**4.** Explain how sexual reproduction gives rise to more viable variations than asexual reproduction. How does this affect the evolution of those organisms that reproduce sexually?





**5.** Write the function of following parts in human female reproduction system :

(i) Ovary, (ii) Oviduct, (iii) Uterus.

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6. Describe in brief the structure and function

of placenta.

7. Name the organ that produces sperms as well as secretes a hormone in human males. Name the hormone it secretes and write its functions.

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8. Name the parts of the human female

reproductive system where fertilization occurs.

9. Explain how the developing embryo gets

nourishment inside the mother's body.

