Reproduction in Plants

Q.1 Fill in the blanks:

(a) Production of new individual from the vegetative parts of parent is called_____

(b) A flower may have either male or female reproductive parts. Such flower is called_____

(c) The transfer of pollen grains from the anther to stigma of the same or of another flower of the same kind is known as _____.

(d) The fusion of male and female gametes is termed as_____.

(e) Seed dispersal takes place by means of_____ and_____.

Sol: Fill in the blanks:

(a) Production of new individual from the vegetative parts of parent is called vegetative propagation.

(b) A flower may have either male or female reproductive parts. Such flower is called unisexual flowers.

(c) The transfer of pollen grains from the anther to stigma of the same or of another flower of the same kind is known as pollination.

(d) The fusion of male and female gametes is termed as fertilization.

(e) Seed dispersal takes place by means of wind, insect and water.

Q.2 Describe the different methods of asexual reproduction. Give examples.

Sol: The different methods of asexual reproduction:

(a) Vegetative propagation: In this method new plants are produced from the vegetative parts like- root, stem or leaf of plant. Eg: Potato, Ginger.

(b) Budding: In this method small bulb-like projection coming out from the parent's body, gradually grows and gets detached to form new organism. Ex- hydra, yeast.

(c) Fragmentation: In this process, plant body breaks into two or more fragments which grow into independent plants. Ex: Algae

(d) Spore formation: Spores are tiny unicellular structures protected by thick wall and store in hard outer covering called sporangium. When this hard cover breaks under favorable condition, spores spred for germination. Ex: fungi and Bread mould

Q.3 Explain what you understand by sexual reproduction.

Sol: In sexual reproduction, both male and female are required. The Sexual reproduction is the mode of reproduction where male and female gametes fuse together and forms a zygote. After this zygote develops into a new organism.

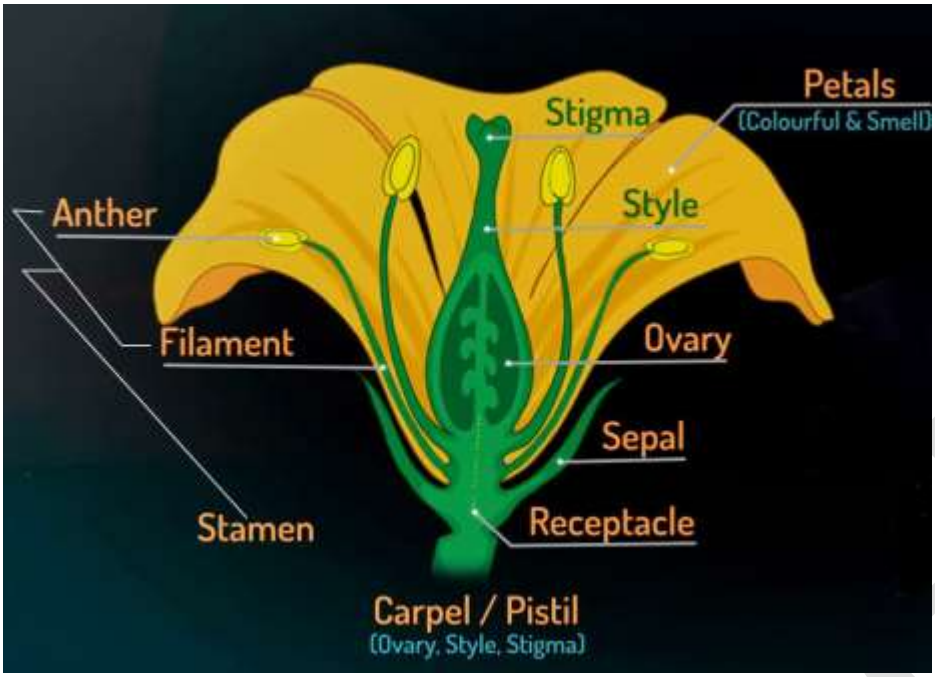
Q.4 State the main difference between asexual and sexual reproduction.

Sol: The main difference between asexual and sexual reproduction:

Asexual Reproduction	Sexual Reproduction
1. In this method, only one parent is involved	1. In this method, Both male and female are involved
2. It generally occurs in unicellular organisms.	2. It generally occurs in multicellular organisms.
3. In this method, no gamete formation.	3. Gametes are formed.
4. New organisms is similar to the parents.	4. New organisms are different from the parents.

Q.5 Sketch the reproductive parts of flower.

Sol:



Q.6 Explain the difference between self-pollination and cross- pollination.

Sol: The difference between self-pollination and cross- pollination:

self-pollination	cross- pollination
1.Self pollination occurs in bisexual plants having anther and stigma maturing at the same time	1. Cross pollination occurs in bisexual flowers having anther and stigma maturing at different times.
2. In this process, Pollen grains transfer to stigma of the same flower.	2. In this process, pollen grains are carried away by the agents of pollination and transferred to stigma of the other flower.

Q.7 How does the process of fertilization take place in flowers?

Sol: When pollen grain transfers on the stigma of the flower, the pollen tubes generate and runs down the style to ovary. There pollen grain fertilizes the ovary (female gamete) and form a zygote. This zygote develops in to seed and this seed is sown in the soil for germination.

Q.8 Describe the various ways by which seeds are dispersed.

Sol: Seeds are dispersed by the various ways which are as follows:

(a) Lighter and smaller seeds are dispersed by wind.

(b) Floating seeds are dispersed by water.

(c) Spiney seeds are dispersed by animals.

So can say that the seeds are dispersed by the agents wind, water, insects, animals and birds.

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Q.9 Match items in Column I with those in Column II:

Column I	Column II
(a) Bud	(i) Maple
(b) Eyes	(ii) Spirogyra
(c) Fragmentation	(iii) Yeast
(d) Wings	(iv) Bread mould
(e) Spores	(v) Potato
	(vi) Rose

Sol: Match items in Column I with those in Column II:

Column I	Column II
(a) Bud	(iii) Yeast
(b) Eyes	(v) Potato
(c) Fragmentation	(ii) Spirogyra
(d) Wings	(i) Maple
(e) Spores	(iv) Bread mould

Q.10 Tick (✓) the correct answer:

(a) The reproductive part of a plant is the

(i) Leaf (ii) Stem (iii) Root (iv) Flower

Sol: (iv) Flower

(b) The process of fusion of the male and female gametes is called

(i) Fertilisation (ii) Pollination (iii) Reproduction (iv) Seed formation

Sol: (i) Fertilisation

(c) Mature ovary forms the

(i) Seed (ii) Stamen (iii) Pistil (iv) Fruit

Sol: (iv) Fruit

(d) A spore producing plant is

(i) Rose (ii) Bread mould (iii) Potato (iv) Ginger

Sol: (ii) Bread mould

(e) Bryophyllum can reproduce by its

(i) Stem (ii) Leaves (iii) Roots (iv) Flower

Sol: (ii) Leaves

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