SELF ASSESSMENT TEST SOLUTIONS

1. (a) Mode of asexual reproduction in Amoeba and Leishmania is Binary Fission.

   In Amoeba, during division splitting of the two cells can take place in any plane.

   In Leishmania, binary fission occurs in a definite orientation in relation to the whip like structures present at one end of the cell.

   (b) Regeneration is a process in which an organism is broken or cut into pieces and these pieces may grow into separate individuals.

   (c) Spores are formed in Sporangia.

   Spores grow into a new individual under moist conditions.

2. (a) (i) Involvement of two different individuals.

   (ii) Creation of new combination of variants.

   (b) (i) pollen/pollen grain

   (ii) by pollination/ agents of pollination

   (iii) pollen tube helps male gamete to reach egg (ovule)

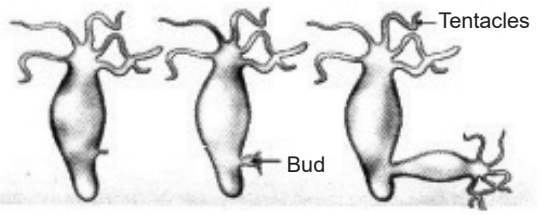
   (iv) Converts into embryo

3. (a) Reproduction through vegetative parts of a plant like Roots, stem, leaves, Layering, Grafting etc., is called vegetative propagation.

   (b) (i) Because, in some plants they produce non viable seeds.

   (ii) It consumes less time / fast method.

   (c)



4. • Prevention of unwanted pregnancy is called contraception.

   • Method :

   (i) mechanical barrier – condom

   (ii) surgical method – tubectomy / vasectomy

   (iii) chemical – Oral and vaginal pills

   (iv) IUCD / copper - T

   • Reasons :

   (i) Gap between children

(ii) mother's health

(iii) better living standard

(iv) population under control

5. • Pollination – Transfer of pollen from anther / stamen to stigma of the flower.

• Type of Pollination –

(a) Self pollination – Transfer of pollen from anther / stamen to stigma occurs in the same flower.

(b) Cross pollination – Pollen is transferred from anther / stamen of one flower to stigma of another flower.

• Agents of pollination – Wind, Water, Insects and Animals.

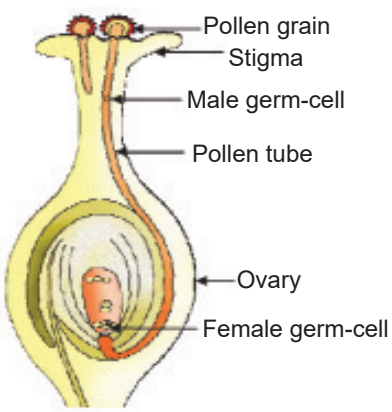
• A tube grows out of the pollen grain and travels through the style, to reach the female germ cell in the ovary to cause fertilization.

6. (a)

Cross Pollination	Self Pollination
Pollen is transferred from anther/stamen of one flower to the stigma of another flower.	Transfer of pollen from anther/ stamen to the stigma of the same flower.

• Site of fertilization – Ovary • Product of fertilization – Zygote

(b)



7. (a)• Female reproductive system

• Name of parts –

1 : Fallopian tube/Oviduct

2 : Ovary 3 : Uterus 4 : Cervix 5 : Vagina

(b) • Method to avoid pregnancy

• Advantages

1.Proper gap between two pregnancies

2.Avoiding unwanted pregnancy

3. Keeping population under control

8. Pistil : Female reproductive part of a flower.

Three parts :

Name	Function
Stigma	Pollen grains land on it and germinate.
Style	Pollen tube grows through it and provide nutrients.
Ovary	Contains ovules with each ovule having an egg cell/ Fusion of male germ cell with the egg cell takes place.

After the pollen lands on the stigma , a tube called pollen tube carrying male germ cell grows out of the pollen grains, travels the style and reaches the ovary. Fertilisation takes place to form a zygote which divides many times to form an embryo within the ovule. The ovule develops a tough coat and becomes a seed and the ovary grows rapidly to form a fruit.

9. Role of :

(i) Testis: To produce male gamete (sperms) and also male sex hormone – testosterone.

(ii) Seminal Vesicle: To secrete seminal fluid and help in mobility of sperms.

(iii) Vas deferens: To transport sperms formed in testis to urethra.

(iv) Urethra: Provides common passage to both sperms and urine.

(v) Prostate Gland: Its secretion provides nutrition to sperms.

10. • A process of transfer of pollen grains from anther to stigma of the same flower or of the different flower of the same species is called pollination.

• By wind, water or animals.

• When pollen lands on a suitable stigma, a pollen tube carrying the male gamete, grows out of the pollen grains, travels through the style and reaches the female germ cells in the ovaries. The male gamete fuses with the female gamete to give rise to a zygote.