How do Organisms Reproduce?
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) (ii) and (iv)

(b) (i), (iii) and (iv)

(c) (i) and (iv)

(d) (ii), (iii) and (iv)

Ans: (b) (i), (iii) and (iv)

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

Ans: (c) anther and ovary

3. 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, fertilization

Ans: (c) pollination, fertilisation, embryo, seedling

Pollination leads to fertilization after which embryo is formed. Seedling comes out from embryo.

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) (ii) and (iv)

(d) (iii) and (iv)

Ans: (a) (i) and (ii)

Explanation:

Asexual reproduction involves single parent and there is no fusion of gametes hence offspring looks similar to their parent.

5. Characters transmitted from parents to offspring are present in

(a) cytoplasm

(b) ribosome

(c) Golgi bodies

(d) genes

Ans: (d) genes

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

Ans: (c) both similarities and variations with parents

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

Ans: (a) they reproduce asexually

Explanation:

Amoeba reproduce by binary fission, Spirogyra reproduce by fragmentation, yeast reproduce by budding.

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.

Ans: (a) breaking up of filaments into smaller bits

Explanation:

Spirogyra reproduces by fragmentation. Spirogyra simply breaks up into smaller pieces upon maturation. These pieces or fragments grow into new individuals

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

Ans: (d) multiple fission

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

Ans: (a) gametes, zygote, embryo, seedling

Explanation:

Gametes fuse to form a zygote during fertilization. Zygote becomes embryo which develops into a seedling.

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

Ans: (b) halving of chromosomes during gamete formation

12. In Rhizopus, tubular thread-like structures bearing sporangia at their tips are called

(a) filaments

(b) hyphae

(c) rhizoids

(d) roots

Ans: (b) hyphae

13. Vegetative propagation refers to the 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

Ans: (b) stem, roots and leaves

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)

Ans: (c) (i) and (ii)

15. Length of pollen tube depends on the distance between

(a) pollen grain and the upper surface of the stigma

(b) pollen grain on the 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

Ans: (d) upper surface of stigma and lower part of style

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)

Ans: (d) (ii) and (iv)

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) (ii), (iii) and (iv)

(c) (iii) and (iv)

(d) (i), (iii) and (iv)

Ans: (b) (ii), (iii) and (iv)

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 the formation of zygote

(iv) Offspring formed are clones

(a) (i) and (iv)

(b) (i), (ii) and (iv)

(c) (i), (ii) and (iii)

(d) (i), (ii) and (iv)

Ans: (c) (i), (ii) and (iii)

Explanation: Off-springs formed by sexual reproduction are not clones, hence statement (iv) is wrong.

19. In Figure 8.1, the parts A, B and C are sequentially

(a) cotyledon, plumule and radicle

(b) plumule, radicle and cotyledon

(c) plumule, cotyledon and radicle

(d) radicle, cotyledon and plumule

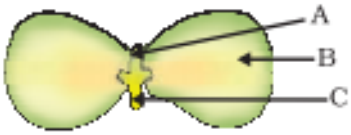

Fig. 8.1

Ans: (c) plumule, cotyledon and radicle

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

(a) sexual reproduction is a lengthy process

(b) genetic material comes from two parents of the same species

(c) genetic material comes from two parents of different species

(d) genetic material comes from many parents

Ans: (b) genetic material comes from two parents of the same species

21. Reproduction is essential for living organisms in order to

(a) keep the individual organism alive

(b) fulfil their energy requirement

(c) maintain growth

(d) continue the species generation after generation

Ans: (d) continue the species generation after generation

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

Ans: (c) cracking of voice

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

(a) growth of body

(b) changes in hair pattern

(c) change in voice

(d) menstruation

Ans: (d) menstruation

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

Ans: (b) formation of sperm

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)

Ans: (c) (iii) and (iv)

26. The correct sequence of organs in the male reproductive system for transport of sperms is

(a) testis → vasdeferens → urethra

(b) testis → ureter → urethra

(c) testis → urethra → ureter

(d) testis → vasdeferens → ureter

Ans: (a) testis → vasdeferens → urethra

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

(a) Syphillis

(b) Hepatitis

(c) HIV – AIDS

(d) Gonorrhoea

Ans: (b) Hepatitis

Explanation: Hepatitis spreads through contaminated food and water.

Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

(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 but R is true.

1. **Assertion(A)** : Asexual reproduction is a primitive type of reproduction.
   Reason (R) : Asexual reproduction involves only mitotic cell division.

   Answer (a) Both A and R are true and R is the correct explanation of A.

2. **Assertion(A)** : Spores are unicellular bodies.
   Reason (R) : The parent body simply breaks up into smaller pieces on maturation.

   Answer (c) A is true but R is false.

3. **Assertion(A)** : Clones are offspring of an organism formed by asexual reproduction.
   Reason (R) : Clones have exact copies of DNA as their parent.

   Answer (b) Both A and R are true but R is not the correct explanation of A.

4. **Assertion(A)** : Colonies of yeast multiply in sugar solution.
   Reason (R) : Sugar is made of sucrose which provides energy for sustaining all life activities.

   Answer (a) Both A and R are true and R is the correct explanation of A.

5. **Assertion(A)** : Pollen grains from the carpel stick to the stigma of stamen.
   Reason (R) : The fertilised egg cells grow inside the ovules and become seeds.

   Answer (d) A is false but R is true.

6. **Assertion(A)** : The offspring produced by sexual reproduction is likely to adjust better in environmental fluctuation.

Reason (R) : During the fusion of gametes there is mixing of genetic material from two parents.

Answer (a) Both A and R are true and R is the correct explanation of A.

7. **Assertion(A)** : Growth hormone stimulates the growth of different body parts.
   Reason (R) : Gonadotropins stimulate the production of sex hormones.

Answer (b) Both A and R are true but R is not the correct explanation of A.

8. **Assertion(A)** : Testes lie in penis outside the body.
   Reason (R) : Sperms require temperature lower than the body temperature for Development.

Answer (d) A is false but R is true.

****