

# Plus Two Botany Model Exam Answer Key

## BOTANY

1. Rhizome
2. Pericarp
3. False fruit
4. Honey and Bee Wax
5. E. Coli
6. DNA Ligase
7. Epiphytic Orchid
8. Parthenogenesis. Eg: Honey Bee
9. a. 24. b. 16. c. 17. d. 10
10. Oestrous Cycle-Horse, Dog, Cat  
Menstrual Cycle-Human
11. Most resistant organic matter known



12. Autogamy-Transfer of pollen grains from anther to stigma of same flower.  
Xenogamy-Transfer of pollen grain from anther to the stigma of a different plant of the same species
13. a. Removal of anther from a bisexual flower before it releases pollen grain.  
b. Without emasculation in Bisexual flower fertilisation will take place.
14. Endosperm provides nutrition needed for the embryo to develop.
15. a. Cross breeding  
b. Bikaneri ewes and Merino rams
16. a. Polymerase Chain Reaction(PCR)  
b. 1. Denaturation

2. Annealing

3. Extension

17.a. Bioreactor

.b. Large scale production of desired proteins can be achieved by using bioreactors.

18. Made crops more tolerant to abiotic stresses

Reduced reliance on chemical pesticides

19. GEAC-Genetic engineering Approval Committee

Function-

20. Special type of parasitism found in birds. The parasitic birds lay its eggs in the nest of its host and let the host incubate them. The egg of the host is very similar with the egg of the parasite. Eg. Cuckoo lays eggs in the nest of crow.

21.a. Rocks b. Producers

22. When energy flows from a particular trophic level to the next trophic level, some energy is always lost as heat at each step.

23. The gradual and fairly predictable change in the species composition of a given area is called ecological succession.

Hydrarch Succession-takes place in wet areas and the successional series progress from hydric to the mesic conditions.

Xerarch Succession-takes place in dry areas and the series progress from xeric to mesic conditions.

24. Farmers cut down the trees of the forest and burn the plant remains. The ash is used as fertilizer and the land is then used for farming and cattle grazing.

25. Reduce the use of fossil fuel

Improving efficiency of energy usage

Reducing deforestation

Planting trees

26.a. JFM-Joint forest Management

b. In 1980 the Government of India introduced this to work closely with the local communities for protecting and managing forest / trees.



27. Light and non-sticky pollen grains

Well exposed stamens

Large and feathery stigma

Single ovule in each ovary

28.a.Evaluation and selection of parents.

b.Cross hybridization among the selected parents.

c.Selection and testing of superior recombinants.

29.a.Gel Electrophoresis

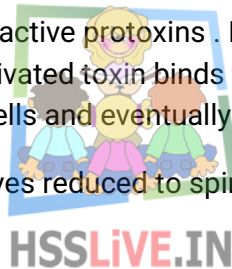
b.Separation of DNA Bands

c.ethidium bromide

30.a.Bacillus thuringiensis

b.The Bt toxin protein exists as inactive protoxins . It is converted into an active form in the alkaline pH of the insect's gut.The activated toxin binds to the surface of midgut epithelial cells and create pores that cause lysis of cells and eventually cause death of the insect.

31.Thick cuticle,sunken Stomata, Leaves reduced to spines.CAM pathway.



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