

AIRPORT SCHOOL, AHMEDABAD
HOLIDAY HOMEWORK 2018 – 19
CLASS: XII
SUBJECT: Biology

Answer the following questions:

1. Draw L.S maize grain.
2. Define the following :
Parthenogenesis, parthenogamy, Apospory, Apogamy, Diplospory
3. Trace the development of megaspore mother cell of a flower into mature ovule. Give a labeled diagram of the final stage.
4. How does development of male gametophytes in pollen take place?
5. Describe the various methods of vegetative propagation in plants.
6. The cell division involved in gamete formation is not of the same type in different organism justify.
7. Prepare a flow chart in the formation of recombinant DNA by the action of restriction endonuclease enzyme EcorR1
8. Explain giving reasons why an alien piece of DNA needs to be integrated to a specific sequence of host DNA for its cloning.
9. How are the following used in the Biotechnology
 - (a) Plasmid DNA
 - (b) Recognition sequence
 - (c) Gel electrophoresis
10. Describe three potential applications of genetically modified plant.
11. Write the function of adenosine deaminase enzyme. State the cause of ADA deficiency in human. Mention a permanent cure.
12. Describe the responsibility of GEAC, setup by the Indian Government
13. How have transgenic animals proved to be beneficial in
 - (a) Production of biological product
 - (b) Chemical safety testing
14. Write the role of 'Ori' and 'restriction site' in cloning vector Pbr322.
15. How is insertional inactivation of enzyme used as a selectable marker to differentiate recombination from non-combination?