

## Class - X

## Assignment (with Answers)

## Reproduction

1. Why simply copying of DNA in a dividing cells not enough to maintain continuity of life?
2. How does plasmodium undergo fission?
3. How spirogyra reproduces by fragmentation?
4. Which cells are responsible for budding in hydra?
5. Where are the testes located in human beings?
6. For what specific region have the testes specific location?
7. Where does the zygote get implanted?
8. How change in hormonal balance prevents pregnancy?
9. Expand AIDS.
10. Name the female reproductive part in centre of the flower.
11. In which structures of flower are ovules present?
12. Why reproduction is not referred as a life process?
13. What is the role of DNA in reproduction?
14. Why is reproduction vital?
15. What is a niche?
16. What is the function of mechanical barrier methods of contraception?
17. Why do the gametes have half the number of chromosomes than any the other cell of the body?
18. Define contraception.
19. Write two advantages of plants raised by vegetative propagation over those raised from seeds?
20. Distinguish between asexual & sexual mode of reproduction.
21. Why is greater degree of accuracy of DNA copying mechanism vital for survival?
22. Compare unisexual flower with bisexual flower.
23. Write the two important functions of testosterone.
24. Describe the changes in lining of uterus in case the egg is not fertilized.
25. Name two bacterial & two viral STD.



26. Write the disadvantage of vegetative propagation.
27. Sketch the diagram of Rhizopus showing pores.
28. Name any two unisexual & any two bisexual flowers.
29. Compare self pollination & cross pollination.
30. Distinguish fragmentation from regeneration.
31. Differentiate between binary fission & multiple fission.
32. How budding different from spore formation?
33. Distinguish male urethra from female urethra in humans.
34. How does the binary fission in Amoeba differ from that occurring in Leishmania?
35. How do the germ cells differ from each other in complex living organisms?
36. Onset of puberty involves certain common changes in boys & girls. Enlist them.
37. Describe the role of variation for survival of species over period of time.
38. Differentiate between the germ cells of simple organisms & more complex organisms.
39. Describe the reproduction through spore formation in Rhizopus.
40. Enlist the body changes taking place during the early adolescence in boys & girls respectively.
41. Draw a longitudinal section of a bisexual flower.
42. The consistency of DNA copying facilities stability of population of any species. Elaborate.
43. Describe the process of zygote formation in angiosperms with the help of a well-labeled diagram.
44. Explain the male reproductive structure in human beings with the help of a well-labeled diagram.
45. Describe the female reproductive system in human beings with the help of a well-labeled diagram.
46. Define the following terms:
  - (a) Fragmentation
  - (b) Binary fission
  - (c) Asexual reproduction
  - (d) Fertilization
  - (e) Sexual reproduction



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Class IX-X: Math & Science

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*Dont Worry, Mein Hoon Na" .....*



All  
the Best

## Class - X

## Assignment

## Heredity & Evolution

1. Why all the variants don't have equal chances of surviving?
2. What is heredity?
3. Give the name of planet studied by Mendel.
4. Name the acid which is information source for making proteins in cells.
5. What is the chemical nature of enzymes?
6. Define gene.
7. Which one of the two is shorter in length 'X' or 'Y'?
8. Determine the sex of progeny inheriting 'X' chromosome from its father.
9. Give an example of artificial selection from plants.
10. Dead remains of two organisms A & B were buried. Later, only B's fossils were found, but not A's. Give reasons.
11. What is the possible range of pH of DNA?
12. Give the term for the following: "it is simply generation of diversity & shaping of diversity by environmental selection."
13. Name any one fish fossil.
14. Write the location of genes.
15. What is a natural selection?
16. Name any two factors which lead to the rise of a new species.
17. Are human beings the pinnacle of evolution?
18. Is evolution still occurring process?
19. Write the basic characteristics of cell design in which cells differ from each other.
20. Which method is extensively used to define evolutionary relationship?
21. Name any four methods used for studying human evolution.
22. Differentiate between dominant & recessive traits.
23. Define a chromosome. What is the total no. of chromosomes in sperm cells of human males?
24. Define acquired traits. Give examples.
25. Describe the two ways for determining the age of fossils.
26. XY & XX are sex chromosomes. Write the contribution of father & mother in each of these cells.
27. How can we say that bacteria have superior body design than a fish?
28. What is the half way character? Give example.
29. Under which molecular conditions any trait is considered as recessive?
30. Describe how the no. of chromosomes is conserved in progenies?
31. Explain how genes control traits?



32. Enlist any three contrasting visible characteristics studied by Mendel in pea plant.
33. In Mendel's experiment,  $F_1$  progeny had no halfway of intermediate features. Explain this statement by giving suitable example.
34. "A trait might be inherited but not expressed." Elaborate citing an example from Mendel's experiments?
35. Explain possible way of evolution of eye.
36. Give one example each of genetic drift & gene flow.
37. After their death, one of the insect was buried in hot mud & the other in usually found mud. Which of the two is more likely to be preserved better & why?
38. What is the evolutionary relationship between human beings & chimpanzee?
39. Explain speciation.
40. Trace the path Y chromosomes received by a progeny since gamete formation in the parent.
41. Design an experiment to show the traits are independently inherited.
42. Differentiate between homologous & analogous organs. Give examples. Briefly describe possible evolution of feathers.
43. Write short notes on the following:
  - (i) Evolution
  - (ii) Fossils
44. Define the following terms:
  - (a) Gene flow
  - (b) Hierarchy
  - (c) Characteristic
  - (d) Recessive traits
  - (e) Genetic drift
45. With the help of a diagram explain the mode of sex determination in human beings. Write the two inherited traits in human beings.
46. Elaborate with an example how hierarchy of classification is related to characteristics?
47. Two tall plants are crossed by a gardener. Tallness & dwarfness are dominant & recessive traits respectively. Is it possible for him to obtain both tall as well as dwarf plant in  $F_1$  &  $F_2$  generation? Show with the help of the diagram of the cross(es).

