CH. CHHABIL DASS PUBLIC SCHOOL

SESSION 2021-22

BIOLOGY WORKSHEET

CLASS-XII

1. What would be the impact on the environment around a thermal power plant if its electrostatic precipitator stops functioning ? Give reason.

2. Thermoregulation is achieved more effectively in larger animals than in smaller ones. Why ?

3. Which one out of the eurythermal or stenothermal species is likely to survive increased global temperature ? Give one reason for your answer.

4. Explain why ecological succession will be faster in a forest devastated by fire than on a bare rock ? Also compare succession in case of an abandoned land after floods with that on a bare rock ?

5. In the picture provided , what is the relationship between (1) and (2) with respect to population interaction and between (3) and (4) wrt trophic levels .

6. In the given population growth curve ,

   i) What is the status of food and space in the curves (a) and (b)?
   ii) In the absence of the predators , which curve (a) or (b) would appropriately depict the prey population?

7. In the following table the ecological units and its attribute and put a tick in the blanks within the table:

Attribute Ecological Unit	Age	Flow of energy	Natality	Predator-prey relationship
Individual organism				
Population				
Community				
Ecosystem				

8. In pyramid of biomass drawn below , name the two crops : i) one which is supported and ii) the one which supports . In which ecosystem is such a pyramid found?

9. Explain any three measures which will control vehicular air pollution in Indian cities.
10. Particulate and gaseous pollutants along with harmless gases are released from the thermal power plants.
    i) Name any two harmless gases released .
    ii) Name the most widely used device of removing particulate pollutants from the air. Explain how the device is used.

Strategies for enhancement in food production

1. What is animal breeding?
2. What does a fishery include?
3. What does dairy farm management include?
4. Differentiate between inbreeding and out breeding?
5. What is the aim of animal breeding?
6. What is inbreeding ? What breeding strategy is followed in it?
7. What are the advantages and disadvantages of inbreeding?
8. What is inbreeding depression? How can it overcome?
9. Discuss the three types if crosses performed for out breeding. Explain in detail.
10. How can controlled breeding experiments be carried out? Explain in detail.
11. What is MOET? What are its advantages?
12. Give 5 points for successful beekeeping.
13. What are the advantages of apiculture?
14. Other than fishes name five other animals which are edible.
15. Differentiate between blue and green revolution.
16. Name some edible fresh water and marine water fishes.
17. "Fisheries have an important role in Indian economy" .Discuss.
18. Differentiate between aquaculture and pisiculture.
19. What is green revolution? What resulted in green revolution?
20. Define the term plant breeding.
21. What does classical plant breeding involve?
22. What traits or characters would be desirable to incorporate into crop plants by plant breeders?
23. Give the main steps in breeding a new genetic variety of a crop.
24. Name the scientist responsible for the development of the semi dwarf variety of wheat.
25. Name the indigenous varieties of wheat which are high yielding.
26. Name some semidwarf varieties of rice and the place where they were developed.
27. Name the HYV of rice which were developed in India.
28. Discuss the breeding programmes that were held to develop HYV of sygarcane in India .
29. Name the common disease with which the following plants are affected
    a) Wheat b)potato c)crucifers d)sugarcane e)tobacco\turnip

30. Give the sequential steps for conventional breeding of plants.
31. What are the limitations of the conventional breeding programme ?
32. What is mutation breeding ? How is it done ? Give an example.
33. What are the advantages of using wild relatives of cultivated plants to be kept in the gene pool ?
34. Insect resistance to the host crop plants may be due to morphological, biochemical or physiological characteristics . Explain the statement giving relevant examples.

35. What do you understand by the term biofortification ?
36. What are the objectives fir breeding for improved nutritional quality ?
37. Give examples of some of the crop plants produced as aresult of biofortification.
38. Explain the concept of scp and its role in improving the future food problems of India.
39. Define –

a) Somaclones b) Explants
c) Somatic hybridization d) Totipotency

40 Give the advantages of tissue culture.

Human Health and Diseases

1. What is immunity ?

2. Name the two types of immunity.

3. Name the physical barrier which provides us non specific immunity.

4. Give the full form of PMNL.

5. What are the physiological barriers which prevent microbial growth in our body ?

6. What are interferon ? How do they form the cytokine barrier in our body ?

7. Differentiate between primary and secondary response.

8. Differentiate between B cells and T cells.

9. Draw a labeled diagram of the structure of an antibody.

10. Pick the odd ones out: IgB, IgA, igG, IgE, IgL, Lgm

11. Explain why any graft or transplant from other mammal or human being is usually not successful and if it is immunosuppressant have to be taken by the patient all his/her life.

12. Differentiate between active and passive immunity.

13. Why mother's milk is considered essential for the new born infants ?

14. What is the principle of vaccination or immunization is given to the patients.

15. Give example where Rdna technology is used to produce vaccines for immunization.

16. Give examples where passive immunization is given to the patients.

17. What is allergy ? Give examples of some common forms of allergy.

18. Name the types of antibodies produced during allergy.

19. What are the symptoms of allergic reactions ? What are the reasons for these symptoms to occur ? Name the drugs that can be used against allergic reactions.

20. Why small children are suffering from a large number of allergic reactions.

21. Name an autoimmune disease which affects human beings.

22. What does the immune system in our body consist of ?

23. What are the three Rs unique to the immune system ?

24. What are lymphoid organs ? Name the primary and secondary lymphoid organs of our body ? What is the difference between them ?

25. Name the two organs which provide the microenvironments for the the development and maturation of T-lymphocytes.

26. What is spleen ? Discuss its function .

27. What is the function of lymph nodes ?

28. What is MALT ?

29. What is the full form of HIV and AIDS ? How is AIDS transmitted ?

30. Who are the individuals which have high risk of developing AIDS ?

31. Explain through a diagram how AIDS virus affects the body of a person after entering into it.

32. Give the full form of ELSA. What is it used for ?

33. Give the full form of NACO.

34. How can AIDS be prevented ? What is WHO doing to prevent it ?

35. What is contact inhibition ?

36. Differentiate between benign and malignant tumours.

37. Define metastasis ?

38. What are oncogenes ?

39. Give the cause of cancer.

40. Give the various techniques by which cancer van be detected.

41. What are the common approaches by which cancer can be treated .

42. Give any two side effects of chemotherapy .

43. What are carcinogens ?

44. Discuss the different barriers of our immunity.

45. Name the category of drugs which are commonly abused. What is the source of these drugs ?

46. How do opioids affect our body ?

47. What are physical properties of heroin ? What is it commonly known as ?

48. Chemically what is heroun and how is it extracted and processed ?

49. What affect does heroin have on our body ? How is it taken ?

50. Give the source and forms of cannabinoids . How do they affect our body ?

51. Which parts of plants are used for making cannbinoids ?

52. Give the source cocaine. What is it commonly called and how is it taken ? what effects it has on our body ?

53. Name any two plants having hallucinogenic properties.

54. Give the full form of LSD.

55. What is the reason of giving morphine to the patients by the doctors ?

56. Define drug abuse. Name some common drugs which are abused .

57. What are the effects of smoking ?

59. What are withdrawal symptoms ? How are they shown by a person ?

60. Give some of the measures useful for prevention and control of alcohol and drug abuse.

61. What is cirrhosis ?

62. What are the adverse effects of taking drugs ?

63. What is addiction ? Why adolescence fall prey to drug addiction ?

64. What are the side effects of using anabolic steroids in females and males respectively ?

REPRODUCTION ORGANISM –(1)

CLASS XII

Q.1 What do you understand by the term life span?

Q.2 Life span of an organism is correlated to their size. Is it true? Why?

Q.3 Why do we say that there is no natural death in single celled organisms?

Q.4 How can we define reproduction ?

Q.5 Give a labeled diagram to show budding in yeast and binary fission in amoeba?

Q.6 What is a clone?

Q.7 Cell division is a mode of reproduction in which type of organisms? Why?

Q.8 Name the organism where the following reproductive structure can be seen:

A) Zoospores B) conidia C) Gemmules

Q.9 Differentiate between asexual reproduction and vegetative propagation.

Q.10 What are vegetative propagules / Give four examples of them.

Q.11 What is scourge? Why water hyacinth is known as it?

Q.12 What do you understand by the term oestrous and menstrual cycle?

Q.13 What is meant by the term juvenile phase?

Q.14 Name the plants which flowers:

a) Once in its lifetime. b) Once in twelve years

Q.15 Why is reproduction essential for organisms? (NCERT)

Q.16 Which is better mode of reproduction – Sexual or Asexual? Why.

Q.17 Why is the offspring formed by asexual reproduction referred to as a clone?

Q.18 Offspring formed due to sexual reproduction have better chances of survival. Why ? Is the statement always true?

Q.19 How does the progeny formed from asexual reproduction differ from those formed by sexual reproduction ?

Q.20 Distinguish between asexual and sexual reproduction. Why vegetative propagation is also considered as a type of asexual reproduction?

Q.21 What is vegetative propagation? Give two suitable examples.

Q.22 Define:

A) Juvenile phase B) Reproduction phase C) Senescent phase

REPRODUCTION IN ORGANISM – (II)

ASSIGNMENT CLASS – XII

Q.1 What are the two main fertilization event?

Q.2 What is the difference between homogametes and heterogametes?

Q.3 When is a flowering part statement and when is it pistillate?

Q.4 What is the term given to bisexual organisms in animals?

Q.5 Name any two unisexual plants and two bisexual plants.

Q.6 Why are the male gametes produced in large number whereas the female gametes in lesser number?

Q.7 In fishes and frogs, male and female gametes are produced in large numbers. Why?

Q.8 What is parthenogenesis? Name two animals where parthenogenesis takes place.

Q.9 Higher organisms have resorted to sexual reproduction in spite of its complexity. Why?

Q.10 Explain why meiosis and gametogenesis always inter linked?

Q.11 identify each part in a flowering plant write whether it is haploid (n) or diploid (2n) :

a) Ovary b)Anther c) Egg d)Pollen e)male gamete f)Zygote

Q.12 Define external fertilization. Mention its disadvantages.

Q.13 Differentiate between a zoospore and a zygote.

Q.14 Difference between gametogenesis and embryogenesis.

Q.15 Describe the post fertilization changes in a flower?

Q.16 What is a bisexual flower? Collect five bisexual flowers from your neighborhood and find out their common and scientific names.

Q.17 Examine a few flowers of any cucurbit plant ant try identify the staminate and pistillate flowers. Do you know any other plant that bears unisexual flowers.

Q.18 Why are offspring of oviparous animal at a greater risk as compared to offspring of viviparous animals?

Q.19 Meiosis cell division is an important part of sexual reproduction both in haploids and diploids. Explain.

STRATEGIES FOR ENHANCEMENT IN FOOD PRODUCTION

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64. What are the side effects of using anabolic steroids in females and males respectively?

HUMAN REPRODUCTION I

Class XII

1. Explain male reproductive system with diagram.
2. What is the function of scrotum?
3. What is the function of sertoli cell?
4. Give the function of leydig cell? By what other names they are called?
5. What is urethral meatus?
6. Name the male accessory gland. What are the secretions given by them?
7. Draw a labeled diagram of female reproductive system.
8. Explain the structure of mammary gland with labeled diagram.
9. How is spermatogenesis different from oogenesis?
10. What is spermatogenesis?
11. What will happen if the GURH conc. in the body falls down?
12. What is spermiation?
13. Draw a sectional view of seminiferous tubule.
14. What is the function of following hormone if human male?
    a. GnRH
    b. LH
    c. FSH
15. Give a labeled diagram to show structure of sperm.
16. Give the function of acrosome, mitochondria in human sperm.
17. What is semen? What does it consists of?
18. Explain with diagram stages of development corpus luteum from the primary follicle stage.
19. What is zona pellucid?
20. What is menarche? How is it different from menopause?
21. Draw a diagram to show the various events during menstrual cycle.
22. What happens to the Graafian follicle after ovulation? Why is the structure so formed important?

HUMAN REPRODUCTION II

Class XII

1. Not all copulation leads to fertilization and pregnancy. Why?
2. Draw a labeled diagram of an ovum at the time of fertilization.
3. Discuss the changes that ovum and sperm under goes during fertilization.
4. What is morula?
5. Give the function of trophoblast and inner cell mass.
6. What is implantation?
7. What are chorionic villi? What is its function?
8. Placenta acts as an endocrine tissue. Discuss.
9. What hormonal changes are seen in blood sample of a woman which confirms pregnancy?
10. What changes inner cell mass undergo immediately after implantation?
11. What are stem cells? Where are they present in embryo?
12. Give the changes that occur in the human fetus after:
    a. 1st month
    b. 2^{nd} month
    c. 3^{rd} month
    d. 5th month
    e. 6^{th} month
13. What is gestation?
14. What is parturition? How does it take place?
15. Why is it advised to breast feed the child and especially the milk produced in initial few days?
16. Draw a labeled diagram to show:
    a. Human fetus in the uterus.
    b. Transport of ovum, fertilization and passage and of growing embryo through the fallopian tube.

Molecular basis of inheritance

Assignment –I

Class XII

1. Eplain in detail experiment done by the following
    a. Griffith
    b. Messelson and Stahl
2. Give the salient feature of DNA double helix.
3. How is long DNA polymer packaged into the nucleus? Explain.
4. Differentiate between echromatin and heterochromatin .
5. What criteria must be fulfilled by a molecule that has to act as a genetic material?
6. Why is DNA more stable than RNA?
7. For storage of genetic information DNA is preferred but for transmission it is the RNA. Why?
8. RNA was the first genetic material. Why?
9. Explain the process of DNA replication.
10. What is transcription unit? Draw a labeled diagram of it.
11. Define a cistron.
12. Name the three types of RNA and the function they have to perform.
13. Show differentiation of transcription in Eukaryotes and bacteria through well labeled diagram.
14. What is hnRNA? How is it converted into mRNA?
15. Give the salient feature of genetic code.
16. Explain the process of translation.
17. What is DNA fingerprinting? Explain its steps.
18. What are the application of DNA fingerprinting?
19. What is the salient feature of human genome?
20. What methodologies were used for human genome project? Why was it called mega project?

Molecular basis of inheritance

Assignment –II

Class XII

1. Define
    a. Transformation b. Okazaki fragments c. VNTRS
2. Differentiate between
    a. Codon and anti codon
    b. Intron and exon
    c. Virulent and non- virulent
    d. BAC's and YAC's
    e. Initiation and termination code
    f. Leading and lagging strands
3. Given below is the transcribing strand of DNA duplex:

    3' – TAC CGA TCC GAG CTG -5'

    a. Draw the complimentary DNA polynucleotide chain
    b. Construct the RNA molecule that will be transcribed.
4. From the following DNA sequence representing a part of gene, derive,
    a. The RNA transcript
    b. The processed mRNA(assuming that all the codons contain a C represent the intron DNA
    c. The number of amino acid it can code for.
    TACCCCCACGAGTTATATACGGGGGCATCATATGAA
5. Given below is a sequence of processed mRNA ready for translation:

    5 AUGCUAUACCUCCUUUAUCUGUGA – 3

    a. How many amino acid residue will make up the polypeptide corresponding to this mRNA?
    b. How many different tRNA molecules would be necessary to translate this mRNA?
6. How did Hershey and Chase prove that DNA is genetic material?
7. Explain the Lac Operon with diagram.
8. What is central dogma of molecular biology?
9. Why RNA viruses are able to mutate faster than DNA viruses?
10. What is promoter in transcription unit? Where is it located in DNA with reference to structural gene?
11. What is terminator? What is its significance in transcription ?
12. How is nucleosome formed? Draw the diagram of nucleosome.
13. What do you understand by UTR? Mention its role in translation.
14. Three codon in mRNA are not recognized by transfer RNA. What are they? What is the general term used for them? What is their significance in protein synthesis?

CHAPTER ORGANISM AND POPULATION

ASSIGNMENT

CLASS – XII

1. Night blooming flowers are generally white. Why?
2. Name a few habitats where the average temperatures exceed 100° C.
3. What is the significance of temperature to living beings?
4. Difference between eurythermal and stenothermal organisms giving examples of each.
5. Organism living in water bodies also face water related problems. How?
6. Differentiate between euryhaline and stenohaline organisms.
7. What determines the percolation and water hooding capacity of the soil?
8. What term is given to maintain the constancy of the internal body environment as compared to the outside conditions ?
9. How do human beings maintain a constant body temperature in very hot and extremely cold conditions?
10. Very small animals are rarely found in polar areas. Why?
11. Define the term adaptation.
12. In the absence of external source of water, how does the Kangaroo rat of North American deserts able to survive?
13. How do the desert plants cope up with the hot and dry desert conditions?
14. Define :
    Natality; Mortality; Immigration; Emigration;
15. Define the term Adaptation.
16. What is Verhulst – Pearl Logistic growth.
17. Is it possible to have a J shaped population growth curve? Give reasons for your answer.
18. What is the role of predators in the ecosystem?
19. Give reasons for the following statements:
    a) Carnivores are not the only predators present on the earth.
    b) Thermoregulation is more effectively achieved in larger animals as compared to smaller ones.
20. Name and explain the type of interaction between fig trees and certain species of wasps.
21. What do you understand by age pyramid? Give the integral form of equation of exponential growth of population.
22. What is the cause of altitude sickness at high altitudes?
23. How do herbs and shrubs survive under the shadow of big canopied trees in forests?
24. Which of the following is a conformer wrt homeostasis and how:
    Tiger; Dog; Shark; Whale
25. Which of the following is a regulator wrt homeostasis? Also state why you call it so:
    Earthworm, Fish, Frog, Cat
26. Give an example where:
    a. Percentage cover is a more meaningful measure of the population size.
    b. Population estimation is done directly without actually counting the organism.
27. List any two physiological responses that help you to gradually get acclimatized to high altitudes when you go from plains.

SEXUAL REPRODUCTION IN FLOWERING

PLANTS –1

CLASS – XII

1. Name the male and female reproductive structure in a flower.
2. Name the two part of a stamen.
3. Draw the T.S of an anther.
4. What is the function of the tapetum.
5. Explain the structure of the microsporangium.
6. What will happen if the outer three layers of the anther are not present?
7. How do tapetal differ from the other cells
8. From which tissue the pollen grains develop?
9. What are microspore tetrads? What is their ploidy level/
10. Draw a labeled diagram to show a dehisced anther.
11. Differentiate between exine and intine.
12. What is sporopollenin? Where is it present? Why is it important?
13. Explain the function of a germpore in a pollen grain.
14. Differentiate between vegetative and generative cell.
15. Explain through diagram only, the development of pollen grains.
16. What are the harmful effects of pollen grains? Cite an examples to explain.
17. What is a two celled and three celled pollen grain?
18. What is the usages of pollen grains which is being done now a days?
19. Viability of pollen grains is affected by what factors? How is it possible to retain their viability for a long period of time/
20. Explain the following terms wrt the gynoecium:
    A) Monocarpellary
    B) Syncarpous
    C) Apocarpous
21. Name any two plants where number of ovules is one per flower and many per flower respectively.
22. Draw a labeled diagrams of an anatropous ovule.
23. Which structure represent the junction between the ovule and the funicle?
24. Name the cells of the ovule which have abundant food material.
25. Explain the formation of the female gametophyte through diagrams.
26. Explain monosporic type of embryo development.
27. What is the ploidy of the cells of the nucellus, MMC, the functional megaspore and of gametophyte?
28. A typical angiosperm embryo sac, at maturity, though eight nucleate is seven celled. Explain
29. What is autogamy? Explain
30. Differentiate between cleistogamous and chasmogamous flowers with relevant examples.
31. What is geitonogamy?
32. Explain xenogamy.
33. What are the characteristic features of flowers which are wind pollinate.

SEXUAL REPRODUCTION IN FLOWERING

PLANTS –II

CLASS – XII

1. Endosperm development precedes embryo development. Why?
2. How does the most common type of endosperm formation takes place?
3. What do we actually eat when we are taking the:
    a. White kernel
    b. Coconut water in a coconut
4. Name the seeds which are endospermous and non-endospermous (any 3 each)
5. Explain with the help of a diagram the embryo development.
6. Differentiate between epicotyle and hypocotyle.
7. The root is said to be sub-terminal. Why?
8. What does the epicotyle and the hypcotyle part of the seed develop into respectively?
9. By what name is the cotyledon called in the grass family?
10. Draw a labeled diagram to show the L.S. of maize seed.
11. Differentiate between true and false fruits.
12. Give three examples of false fruits?
13. What is perisperm? Where it is found?
14. What do the following parts in a seed represent within the ovule;
    a. Embryo
    b. Endosperm
    c. Integuments
15. A small pore is present on the seed. What does it represent? What is its function?
16. Give examples of any two fruits which are fleshy and two which are dry.
17. What are parthenocarpic fruits? Give examples as to how it can be produced. Give advantage and disadvantage of it?
18. What is the importance of dehydration and dormancy of seeds?
19. What do you understand by the viability of seeds. What is its range? Explain giving examples.
20. What is apomixes? How does it occur? Explain giving example.
21. What is polyemryony?
22. What is the importance of epomixis in hybrid seed industry? Explain.
23. Name any three water pollinated flowers.
24. Give characteristics features of insect pollinated flowers.
25. Insect/animal pollinated flowers get a reward for pollination. Explain any three such rewards with examples.
26. What are the advantages of outbreeding over in breeding? Explain any four out breeding device in plants with example.
27. Through diagram explain the post pollination events in a flower.
28. Why is pollen pistil interaction important?
29. Explain the process of artificial hybridization in plants.
30. Differentiate between syngamy and triple fusion.
31. Draw a labeled diagram to show the development of embryo.
32. Give the ploidy level of:
    a. Zygot
    b. Endosperm
    c. Nuclear cells

Class XII
ECOLOGY

1) What is meant by ecology?
2) List down major biomes of India.
3) What are the major biotic and abiotic components of a habitat?
4) How does average temperature varies with latitude and height?
5) What is meant by eurythermal and stenothermal organisms?
6) What is meant by euryhaline and stenohaline organisms?
7) How is water quality important for aquatic organisms?
8) How is spectral quality of solar radiation important for life?
9) What are the characteristics and parameters of soil?
10) What is homeostasis?
11) What are the mechanisms used by most mammals for thermoregulation?
12) What is meant by regulators and conformers?
13) Why very small animals are rarely found in Polar Regions?
14) What are the factors influencing populations density under normal and special conditions?
15) Define the following: migration, suspension, hibernation, aestivation, diapauses, adaptation.
16) Give examples of genetically fixed adaptations in organisms from deserts and colder climate.
17) What are physiological adaptations? Give examples.
18) What is altitude sickness? How does body overcomes it?
19) What is population? List and define population attributes.
20) What is age pyramid? What does its shape reflects?
21) List cases in which total number is not the appropriate measure of population density.
22) List for basic processes influencing population density in a habitat and define them.
23) What is a population growth curve? Explain exponential and logistics growth with equations.
24) Define 'r' and 'K' in population growth kinetics.
25) Define Darwinian fitness.
26) What are interspecific interactions? List different population interactions with the effect on each species.
27) What are advantages of predation?
28) State the defenses evolved by prey species to lessen the impact of predation.
29) Define competition, competition release, competitive exclusion principle, resource partitioning.
30) 'Competition occurs between closely related species for same resources that the limiting'. Elaborate.
31) Define ectoparasites, endoparasites, brood parasitism with examples.
32) Define commensalism with examples.
33) Define mutualism with examples.
34) What is pseudo copulation? Give examples.

Chapter 14

1. Define ecosystem. What are its two basic categories?
2. Define stratification.
3. Define primary production, productivity, GPP, NPP and secondary productivity. What are their units?
4. On what factors primary productivity depends.
5. Define decomposition, humification, mineralization, fragmentation, detritus, humus, detrivores.
6. What factors regulate decomposition ?
7. Define food chain and food web.
8. What is meant by trophic level? State different trophic levels in an ecosystem.
9. What is 'standing crop' ? in what form is it measured?
10. Define '10 percent law' .
11. What can you infer from ecology pyramids?
12. State exceptions where ecology pyramid is inverted?
13. What is ecological succession ?
14. Define climax community, sere, seral stages, primary and secondary succession, hydrarch and xerarch succession.
15. Define standing stage. What is nutrient cycling? Give its another name. what are its two type?
16. What regulates amount of Carbon dioxide in the atmosphere?
17. Name natural reservoir of phosphorus.
18. Differentiate between Carbon and Phosphorus cycle.
19. Define ecosystem services.

Chapter 15

1. Define biodiversity, diversity at generic, species and ecological level with examples.
2. Name most species-rich taxonomic group.
3. Why has it not been possible to estimate prokaryotes.
4. What makes India one of the mega- diversity countries?
5. Why do tropics have greater biological diversity?
6. Show species- area relationship.
7. What are attributes of a stable community?
8. List down effects of biodiversity loss in a region.
9. List down causes of biodiversity losses with examples.
10. Reasons for conserving biodiversity have been categorized into which three groups. Explain.
11. What is in- situ and ex- situ conservation?
12. What is endemism ? list three hotspot of exceptionally high biodiversity regions.
13. List sacred groves in India.
14. How is ex- situ conservation carried out?
15. What was main feature of historic convention held on biodiversity? When and where was it held?

Chapter 16

1. Define pollution and pollutants.
2. Name the act passed by Indian government to protect environment.
3. Which is the most widely used way of removing particulate matter from smoke stacks?
4. What do CPCB and BOD stand for?
5. What is the use of Catalytic converter? How does it work?
6. List down advantages and limitations of using CNG.
7. What is noise? It was included as air pollutant in 1987 in which act?
8. List down effects of noise pollution.
9. What is BOD? How does it relate to the quality of water?
10. What is algal bloom?
11. What does the term 'Terror of Bengal' stand for?
12. Define biomagnifications with example.
13. Define eutrofication.
14. How does thermal wastewater causes damage to indigenous flora and fauna.
15. Give an example of initiative to treat wastewater in an integrated manner.
16. What is ecological sanitation?
17. What are sanitary landfills? What are their limitations?
18. Solid waste can be categorized into which three groups?
19. What is polyblend? How can it be used to overcome problem of plastic waste/
20. What is e-waste? How can it be treated
21. What is meant by integrated organic farming?
22. What are the problems associated with use of nuclear energy?
23. How is nuclear waste a potent pollutant?
24. What are greenhouse gases? How are they responsible for greenhouse effect?
25. What is meant by greenhouse gases and global warming?
26. What is 'good' ozone? How is it 'good' for living organisms?
27. What are Dobson units?
28. What does CFC stand for? What effect they exert on ozone levels in stratosphere? And how?
29. List harmful effect of UV-B radiation.
30. What was significance of Montreal protocol?
31. How does degradation of natural resources occur?
32. What is desertification?
33. How does deforestation occur? What are its consequences?
34. Define reforestation.
35. What is significance of Chipko movement and JFM?