BSEB CAREER.

Guess Question Pdf

Class: 12th **Bihar Board पर आधारित सवाल** **Subject: Biology**

Short Question

1. What do you mean by Global Warming? Explain.
2. Describe the types of bio diversity.
3. Write an account of four benefits of transgenic animals for human welfare.
4. What is binary fission? Giving suitable example show it with the help of diagram.
5. What are initiation codons? Name them.
6. What do you understand by tissue culture? Illustrate its any two advantages.
7. Draw the sketches of a zoospore and a conidium.
8. Mention the advantages of self-pollination.
9. What are communicable diseases in human beings? Describe with suitable examples.
10. Write about poultry farm management in brief.
11. Write expanded form of the followings :-
    A). GMO
    B). STD
    C). AMP
    D). VNTR
12. Distinguish between missing link and connecting link.
13. Differentiate between the following :-
    A. Ovipary and Vivipary
    B. Oestrus cycle & Menstrual cycle
14. Write the scientific name of causal organism of Malaria and Elephantiasis disease of human beings.
15. What do you understand by Noise pollution? Describe its various sources.
16. Mention any two applications of Gel-Electrophoresis in biotechnology.
17. Show diagrammatic representation of clover leaf model of t-RNA molecule and name the four arms.
18. Distinguish between Homothallic and Heterothallic conditions with the help of examples.
19. Show the structure of human ovum with the help of well labelled diagram.
20. Write a brief note on Down's syndrome.
21. What do you understand by DNA finger printing? Explain it.

22. What do you understand by Palaeontology? Give the name of various eras.
23. Describe any four differences between B-DNA and Z-DNA.
24. Describe the steps involved in the process of Recombinant DNA technology.
25. Show pond ecosystem with the help of diagram only.
26. What is Gel electrophoresis? Mention any two applications of it.
27. Describe the causal organism, mode of transmission, symptoms and therapy of Ringworm disease.

28. Define antigens and antibody.
29. Write the short notes on any two of the followings :-
    A. National Park
    B. Sanctuary
    C. Biosphere reserve
    D. Sacred groove
30. Mention any four applications of Biotechnology in medicines and human health.
31. Write in brief on the followings with the help of suitable examples.
    A. Biofertilizer
    B. Antibiotics
32. Explain the various causes of water pollution in brief.
33. Name any two superior varieties, each of sugarcane and cauliflower.
34. Write short notes on any two of the followings in brief :-
    A. Vital index
    B. Reproductive potential
    C. Population-Pathogen relationship
    D. Producer-Consumer relationship
35. Define any two of the followings:
    A. Trophic level
    B. Ecological Pyramid
    C. Tissue culture
    D. Embryo culture
36. Define Buds and Bulbils with the help of suitable examples.
37. Explain Binary Fission and Multiple Fission with examples.
38. How many types of restriction enzymes are there ? Write their names.
39. Define the following :
    A. Cloning site
    B. Microinjection
40. Write comments on practical adaptations in animal.
41. What do you understand by sterilization? Name any two methods.
42. Name any four genetic diseases.
43. Define the followings :
    A. Co-dominance
    B. Incomplete Dominance
    B. Dominant
    D. Recessive
44. Define the operon and name its constituent genes.
45. What do you understand by Gene pool ?
46. Explain the difference between divergent and convergent evolution.
47. What is pest resistant plant ? Give brief description.
48. What do you understand by Food-chain? Name any two types of food-chains.
49. Write the name of the causal organism of the following diseases.
    A. Amoebiasis
    B. Malaria
    C. Ascariasis
    D. Pneumonia
50. How do biofertilizer increase soil fertility?
51. State the source and side-effects of Methane.
52. Define stamens and pistil with the help of diagram.
53. Name the scientific name of two sugar producing plants.
54. What do you mean by Mendelian disorder ? Explain in brief with the help of suitable example.
55. What is the theory of recapitulation?
56. Explain asexual reproduction in an organism with the help of example.
57. Write a note on DNA polymerase.
58. What do you understand by Ex-situ conservation ?
59. What do you mean by Green-farming ?
60. Show the well labelled diagram/sketch of Anaphase stage of Mitotic cell division.
61. What is cocaine ? From which plant it is obtained?
62. What is oncogenesis?

63. Distinguish between continuous and semicontinuous replication.
64. What do you understand by biomagnifications ?
65. Define Species diversity.
66. What is genetic drift?
67. What is DNA fingerprinting ?
68. Show the well labelled diagram/sketch of the T.S. of testis.
69. What is the importance of embryosac in angiospermic plants?
70. What is Gel electrophoresis?
71. Show the structure of plasmid pBR322.
72. Explain tubectomy with the help of diagram/sketch.
73. Define hydrophytic plants with the help of suitable example.
74. Differentiate between Food chain and Food-web.
75. Define chromosomal aberration.
76. Describe spermatogenesis in brief.
77. Show the well labelled diagram of an angiospermic 8-nucleate embryo-sac.
78. Write in brief on natural selection.
79. Define ecological diversity.
80. Write a note on RNA polymerase enzyme.
81. Distinguish between B-DNA and Z-DNA.
82. Define cross-pollination with the help of suitable example.
83. Differentiate between external and internal fertilization.
84. What do you mean by selectable marker ?
85. Name the causal organism of the following diseases.
    (A) Tuberculosis
    (B) Filaria
    (C) AIDS
    (D) Ring worm
86. What do you understand by parthenogenesis? Explain with example.
87. What do you understand by Pedigree analysis ? How is it useful?
88. Describe about the hazards of transgenic animals.
89. Name the primary and secondary lymphoid organs.
90. Name any four national park of India.
91. What is the significance of vegetative propagation?
92. What is Endosperm ? What are its types ?
93. What are the roles of Sertoli cells and Leydig cells?
94. How IUDs (Intrauterine Contraceptive Devices) prevent pregnancy?
95. What is Codominance ? Explain with the help of example, briefly.
96. What is Chromosomal theory of inheritance ?
97. Write a brief note on Haemophilia.
98. Explain the structure of Nucleosome.
99. What is founder effect?
100. Write down the name of infective form of Plasmodium and name of its vector and the toxic substance released after rupture of RBCs.
101. What is Metastasis ?
102. Define explants and totipotency.
103. Write a brief note on Mycorrhiza.
104. Why is restriction endonuclease called as 'molecular scissors'? Explain.
105. What are advantages of GM-crops (Genetically Modified Crops)?
106. What is the name of genes and proteins which control cotton ballworm?
107. Define diapause and hibernation.
108. Write a brief note on decomposition.
109. What is an endemic species ?
110. What is Polyblend? Who developed it?
111. What is DNA probe ? Explain its usefulness in biotechnology.
112. Write comments on adaptations of desert plants and animals.
113. Explain Food-web with example.
114. Write the names of any four sexually transmitted diseases.
115. Explain about DNA ligase and Chitinase.

116. What do you understand by pollination ? Write the names of the pollination methods.
117. Explain budding with examples.
118. Differentiate between Karyogamy and Karyokinesis.
119. What do you understand by phenotype and genotype? Give an example of each.
120. Write a note on functioning of Lac-operon.
121. What do you understand by DNA polymorphism –
122. Make a list of human vestigial organs.
123. Write the names of any three parts of biodiversity.
124. What do you understand by Recapitulation theory?
125. Write the names of four national parks of India.
126. Name the bacterium which produces B.T. toxin-f
127. Why are bacteria and fungi called decomposers ?
128. Explain biological nitrogen fixation.
129. Define Eutrophication and Algal blooms.
130. What do you mean by ovulation ? Explain.
131. Distinguish between smoke and hydrocarbon.
132. Define sequential evolution.
133. Explain sexual reproduction in an organism with the help of example.
134. What do you understand by in-situ conservation?
135. Name any two biofertilizers.
136. Show the well-labelled diagram/sketch of human oocyte.
137. Mention scientific name of pathogens of the following diseases :
(i) Typhoid
(ii): Tuberculosis
(iii) Amoebiasis
(iv) Tetanus.
138. What is primary response?
139. Differentiate between codon and anticodon.
140. Write a note on organic farming.
141. Define genetic diversity.
142. Define mutation.
143. What is the role of termination codon in protein synthesis?
144. Show the well labelled diagram/sketch of Telophase stage of mitotic cell division.
145. What do you understand by Parthenogenesis?
146. Distinguish between true fruit and false fruit.
147. Name any two restriction enzymes.
148. Define megasporogenesis.
149. Differentiate between Exonuclease and Endonuclease.
150. What do you mean by sequential evolution ? Define.
151. Name any two biofertilizers.
152. Write a note on organic farming.
153. What do you understand by point mutation ?
154. Show the well-labelled diagram of Telophase stage of Mitotic cell division.
155. What do you mean by loss of biodiversity ?
156. Describe about tuberculosis disease.
157. Differentiate between somatic hybrid and somaclone.
158. Define test cross and reciprocal cross.
159. What do you mean by double fertilization? Who discovered it?
160. Explain about protoplast culture.
161. Describe the homologous and analogous organs with the help of suitable examples.
162. Write a note on global warming.
163. Define xerosere and hydrosere.
164. What are the advantages of using biofertilizers in agriculture? Explain.
165. Define genetic engineering.

Long Question

1. What do you understand by bio-fertilizer? What are the benefits soil gets from them? Name any two such bio-fertilizers.

2. Show food-chain in a fresh water pond and illustrate with the help of diagram.
3. What do you understand by mutation? What are their main types and mention its significance in brief.
4. What do you mean by Cry-protein? It is obtained from which organism? Describe its various uses.
5. What do you mean by foetal membrane? Mention its types and explain it in brief.
6. Write short notes on any two of the following:
   A. Fisheries
   B. Ribosome
   C. Infertility
   D. Red data book.
7. What do you understand by Chromosomal aberrations?
8. Explain the followings -
   A. Deletion
   B. Duplication
   C. Inversion
9. Answer the following questions :-
   A. Give the name of Initiation codon and Termination codon.
   B. What do you understand by Transcription ?
   C. What is the role of Ribosome in protein synthesis?
10. Distinguish between the followings :-
    A. Insect pollination and Ornithophily.
    B. Lamarckism and Darwinism
11. Describe any two of the followings :-
    A. AIDS
    B. Radiation Pollution
    C. Double fertilization
12. Show the following with the help of diagram only.
    A. Draw well-labelled diagram of T.S. of human ovary showing various follicles.
    B. Draw well-labelled diagram of T.S. of human Testes.
13. Describe any two of the followings :-
    A. Benefits of micropropagation
    B. Sound Pollution
    C. Conservation of biodiversity.
14. What do you understand by operon concept ? Explain the Lacoperon with the help of diagram.
15. Answer the following questions :-
    A. What do you understand by integrated pest management?
    B. What is poultry? Write its benefits.
    C. What do you understand by micropropagation? Write its benefits.
16. Differentiate the following :
    A. Antibiotic and interferon.
    B. Biofertilizer and Biogas.
17. Describe any two of the following :-
    A. Crossing over
    B. Meselson and Stahl's experiment
    C. Processing of tRNA
    D. Lysogenic cycle of Bacteriophage
18. Show any two with the help of labelled diagram/sketch only.
    A. Binary fission in Bacterial cell.
    B. Metaphase stage of mitotic cell division.
    C. Structure of ovule of an Angiospermic plant.
19. Define the followings :-
    A. Genome
    B. Multiple allelism
    C. Lethal gene
    D. Chromosomal aberrations
    E. Colour blindness
20. Answer the following questions:
    (A) Describe the morphological changes that occurred during the course of evolution of Man.
    (B) Write a note on Homo sapiens

21. What is transgenic plant? Write a note on Bt cotton.
22. Describe the following :-
    (A) Products of biotechnology
    (B) Gene therapy
23. Write short notes on the following:
    (A) Radioactive materials
    (B) Blastocyst formation
24. Answer the following questions:
    A. What are the functions of lymphocytes in immunity?
    B. Write about the symptoms, pathogen and control of cholera disease.
25. Distinguish between the following :
    (A) Parthenogenesis and Apomixis
    (B) Callus culture and embryo culture
26. What do you mean by methanogens ? How do methanogens help in producing biogas ?
27. Describe the following :-
    (A) Importance of plants in pollution control
    (B) Dairy farm management.
28. What do you understand by Biopesticide ? Write a note on BTtoxin.
29. Answer the following questions :
    (A) Distinguish between Down's syndrome and Klinefelter's syndrome.
    (B) Distinguish between the gametogenesis and embryogenesis.
30. Describe sex-linked inheritance with the help of suitable examples.
31. Write short notes on the following :-
    (A) Ovulation
    (B) Hydrosere
32. Define Greenhouse effect. Name Greenhouse gases and write a brief note on Global Warming.
33. Answer the following questions :
    (A) What is energy flow ?
    (B) What is Ori ?
34. Write a brief notes on -
    (A) Plasmid as vector
    (B) Transgenic Cow – Rosie
35. Describe Immune System of Body.
36. What is Operon model ? Describe Lac Operon.
37. Write a brief notes on the following
    (A) Amniocentesis
    (B) Development of male gametophyte in angiospermic plants.
38. Draw a well labelled diagram of monocotyledonous seed.
39. Draw well labelled diagram of Bio-reactor.
40. Explain the case of co-dominance with suitable examples.
41. What is Test-cross ? Mention its significance.
42. Define pathogens. Mention their types.
43. Which is Mutation breeding ? Name any two varieties of any crop which have been developed by this method.
44. What are ex-plants ? Mention their role.
45. What are antibiotics ? Name sources of any two of them.
46. Explain the significance of PCR.
47. What is predation? Mention its role in terrestrial ecosystem.
48. Comment upon Turner's syndrome in brief.
49. Mention the significance of Detrivores in an ecosystem.
50. What are termination codons? Write their names.
51. What are transgenic organisms ? Explain their significance.
52. Explain Pleotropism with suitable examples.
53. Explain the use of micro-injection.
54. Explain palindromic sequence in brief.
55. What is Immunity? Mention its types.
56. What do you mean by double fertilization ? Describe its significance.
57. Describe the evolution of organisms in brief.

58. Define Bio-technology. Describe its role in the field of medicine.
59. What do you mean by Animal husbandary ? Explain its role in organic farming.
60. Depict the water-cycle in nature with well-labelled diagrams.
61. Describe t-RNA with suitable well-labelled diagram.
62. What do you understand by central dogma? Describe transcription in detail.
63. Answer the following questions :
    (a) Define vaccine and immunization.
    (b) Write the names of any three groups of antibodies.
64. Differentiate between the following :
    (a) Inbreeding and cross-breeding.
    (b) Protoplast culture and tissue culture.
65. Describe any two of the following :
    (a) Infectious diseases and transmission-
    (b) Homology and Homologous organs -
    (c) Filariasis
    (d) T-lymphocytes and B-lymphocytes.
66. Show the following with the help of labelled diagram only :
    (a) Structure of AIDS virus
    (b) Clover leaf model of t-RNA
    (c) Human sperm
67. Define the following :
    (a) Biotic components (of an ecosystem)
    (b) Greenhouse effect
    (c) Population growth
    (d) Emasculation -
    (c) Biofertilizer
68. Answer the following questions:
    (a) What do you understand by recombination ? How are the recombinants formed ?
    (b) Write a note on gene migration.
69. Give an account of industrial applications of biotechnology.
70. Describe the following .
    (a) Tools of Genetic Engineering
    (b) Genetically modified organisms.
71. Describe the sources, effects and control of pollution due to radiation in detail.
72. Differentiate between the following :
    (a) Somatic embryogenesis and embryo culture
    (b) Somatic hybrid and somaclone.
73. Write short notes on the following :
    (a) Microbes as biofertilizers
    (b) Placenta formation and foetus nutrition.
74. Write short notes on placenta formation and foetus nutrition.
75. Describe the following :
    (a) Genetically modified organisms
    (b) Tools of genetic engineering.
76. Answer the following questions:
    (a) Distinguish between somatic embryogenesis and embryo culture.
    (b) Write a note on adaptive radiation.
77. Describe the structure of an ecosystem.
78. What do you understand by genetic code ? Describe the properties of genetic code.
79. Write short notes on the following :
    (a) Conservation of endangered species
    (b) Types of biodiversity.