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|--|---|---------------------------|-----------|----------------|-----------------|-----------------------|--------------------------|-----------------|-------------------------|-------------------|-----------------|---|
| <b>DAV PUBLIC SCHOOL, POKHARIPUT. BHUBANESWAR-20</b><br><b>POST SUMMER VACATION TEST</b><br><b>CLASS - XI</b><br><b>SUB : BIOLOGY</b>  |   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| <b>Time : 1.5 Hours</b>  |   | <b>Maximum Marks : 35</b> |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| <b>General instruction:</b>  |   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| i. All questions are compulsory.   |   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| ii. The question paper consists of four sections A, B, C, D and E. Section A contains 8 questions of 1 mark each(MCQ and A/R type), Section B contains 1 question of 2 marks (case based), Section C contains 4 questions(SA-I type) of 2 marks each ,Section D contains 3 questions(LA-I) of 3 marks each and Section –E contains 1 question of 5 marks . |   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| iii. There is no overall choice. Wherever necessary, the diagrams drawn should be neat and properly labeled.   |   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| <b>SECTION-A</b>   |   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| 1  | Which of the following is against the rules of ICBN?<br>a) Hand written scientific names should be underlined.<br>b) Every species should have a generic name and a specific epithet.<br>c) Scientific names are in Latin and should be italicized.<br>d) Generic and specific names should be written starting with small letters  | 1                         |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| 2  | Match the organisms in column-I with habitats in column-II<br><table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Column-I</td> <td style="width: 50%;">Column-II</td> </tr> <tr> <td>(a) Halophiles</td> <td>(i) Hot springs</td> </tr> <tr> <td>(b) Thermoacidophiles</td> <td>(ii) Aquatic environment</td> </tr> <tr> <td>(c) Methanogens</td> <td>(iii) Guts of ruminants</td> </tr> <tr> <td>(d) Cyanobacteria</td> <td>(iv) Salty area</td> </tr> </table> Select the correct answer from the options given below :-<br>a) (a)-(iv), (b)-(i), (c)-(iii), (d)-(ii)<br>b) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)<br>c) (a)-(iii), (b)-(iv), (c)-(ii), (d)-(i)<br>d) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i) | Column-I                  | Column-II | (a) Halophiles | (i) Hot springs | (b) Thermoacidophiles | (ii) Aquatic environment | (c) Methanogens | (iii) Guts of ruminants | (d) Cyanobacteria | (iv) Salty area | 1 |
| Column-I   | Column-II   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| (a) Halophiles   | (i) Hot springs   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| (b) Thermoacidophiles  | (ii) Aquatic environment  |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| (c) Methanogens  | (iii) Guts of ruminants   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| (d) Cyanobacteria  | (iv) Salty area   |                           |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| 3  | Which of the following statement is correct?<br>a) Lichens do not grow in polluted areas<br>b) Algal component of lichens is called mycobiont.<br>c) Fungal component of lichens is called phycobiont<br>d) Lichens are not good pollution indicators.  | 1                         |           |                |                 |                       |                          |                 |                         |                   |                 |   |
| 4  | Mad cow disease in cattle is caused by an organism which has:<br>a) Inert crystalline structure.<br>b) Abnormally folded protein<br>c) Free RNA without protein coat<br>d) Free DNA without protein coat.   | 1                         |           |                |                 |                       |                          |                 |                         |                   |                 |   |

|                  |  |   |
|------------------|--|---|
| 5                | The contrasting characteristics generally in a pair used for identification of animals in Taxonomic Key are referred to as :<br>a) Lead<br>b) Couplet<br>c) Doublet<br>d) Alternate.   | 1 |
| 6                | In the following question, a statement of assertion is followed by a statement of reason.<br>Mark the correct choice as:<br>(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.<br>(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.<br>(c) If Assertion is true but Reason is false.<br>(d) If both Assertion and Reason are false.<br><b>Assertion:</b> TMV is a virus which causes mosaic disease.<br><b>Reason:</b> TMV has RNA as genetic material.   | 1 |
| 7                | <b>Assertion:</b> Symbiosis is furnished by mycorrhiza.<br><b>Reason:</b> In mycorrhiza, symbiosis is established between fungus and alga.   | 1 |
| 8                | <b>Assertion:</b> "Fungi imperfecti" does not show alternation of generation.<br><b>Reason:</b> The diploid phase is present in only zygote.   | 1 |
| <b>SECTION-B</b> |  |   |
| 9.               | Bacteria are the most abundant micro-organisms. They are omnipresent . They are having very simple body organization . They have significant role in human affairs. They are helpful in the field of house hold products, antibiotics, industries, agriculture.<br>Some are pathogens causing diseases in plants, animals and human beings. Though bacteria have the simplest structure, they are very complex in behaviour as mentioned above. Bacteria as group show extensive metabolic activities.<br>a) Give two points to substantiate that bacteria show extensive metabolic activities.<br>b) Which of the two – auto trophs or heterotrophs are abundant in nature? Write two points in support of your answer,<br>c) Name the specialized cells of Eubacteria that are capable of fixing atmospheric nitrogen. | 5 |
| <b>SECTION-C</b> |  |   |
| 10               | “Plant families like Convolvulaceae and Solanaceae are included in the same order” .<br>Name the order and state the basis for placing them together in the same order.<br>Name any two genera belonging to the family Solanaceae.   | 2 |
| 11               | Plants and animals grow by mitotic cell divisions. What differences do they exhibit in their growth.   | 2 |
| 12               | (i) During unfavourable conditions, how does slime mould survive?<br>(ii) Describe the development in slime moulds when conditions are favourable?   | 2 |
| 13               | (i) Explain the food reception chamber in ciliated protozans?<br>(ii) How cilia assist in ingestion in case of ciliated protozans?   | 2 |

| <b>SECTION-D</b> |   |   |
|------------------|---|---|
| 14               | (i) "Each genus may have one or more than one specific epithets representing different organisms, but having morphological similarities." Give examples on genera <i>Panthera</i> with respect to this statement mentioned.<br>(ii) Genera <i>Panthera</i> belongs to what family? Name another genera belonging to that family.<br>(i) Name two families to which the most common pet animals belong to? | 3 |
| 15               | (i) Give the arrangement of the cell walls in diatoms.<br>(ii) State any two properties of the cell walls in diatoms.<br>(iii) Write two uses of soils of 'diatomaceous earth'  | 3 |
| 16               | (i) Sex-organs are absent in Basidiomycetes, still the basidium is formed. Explain the process involved.<br>(ii) State the two processes take place in basidium to produce basidiospores.   | 3 |
| <b>SECTION-E</b> |   |   |
| 17               | a. What does the term 'virus' mean and who named it?<br>b. Virus is an obligate parasite. Why?<br>c. Which part of virus contributes to this property of being host specific?<br>d. Name the viruses having double stranded DNA.<br>e. Write the differences between viruses and viroids.   | 5 |