****

**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_

**End Semester Examination – Nov/Dec - 2016**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **12BT253** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **Basics of Biology (Bridge Course)** | **Max. marks :** | **100** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Q. No.** | **Questions** | | | | | **Marks** | | |
| **PART-A(10X1=10 MARKS)** | | | | | | | | |
| 1. | | | What are the 3 layers of plant cell wall? | | | (1) | | |
| 2. | | | Which organelle is called as ‘power house of cell’? | | | (1) | | |
| 3. | | | Name the sugars that are present in DNA and RNA. | | | (1) | | |
| 4. | | | What are the Nitrogen bases present in DNA? | | | (1) | | |
| 5. | | | Which kind of seeds will be developed in F1 generation while crossing round seeds X wrinkled seeds? | | | (1) | | |
| 6. | | | Give an example for heterozygous trait. | | | (1) | | |
| 7. | | | Name the source used to sterilize the Laminar Air Flow. | | | (1) | | |
| 8. | | | Name a bacterium that is used as single cell protein. | | | (1) | | |
| 9. | | | List out any 2 functions of brain. | | | (1) | | |
| 10. | | | Name the cells that are involved in cell mediated immune response. | | | (1) | | |
| **PART B(5 X 3= 15 MARKS)** | | | | | | | | | |
| 11. | | | Write about the chlorophyll and its functions. | | | | (3) | | |
| 12. | | | What are the three types of RNA? | | | | (3) | | |
| 13. | | | What is Punnett Square? | | | | (3) | | |
| 14. | | | Discuss the 3 stages of callus culture. | | | | (3) | | |
| 15. | | | Draw the structure of nervous cell with its parts. | | | | (3) | | |
| **PART C(5 X 15= 75 MARKS)** | | | | | | | |
| 16. | |  | | Discuss about the structure of plant cell and its organelles. | (15) | | |
| (OR) | | | | | | | |
| 17. | |  | | Illustrate the structure of animal cell and its organelles. | (15) | | |
| 18. | |  | | Describe in detail about the Double helical structure of DNA. | (15) | | |
| (OR) | | | | | | | |
| 19. | |  | | Describe in detail about genetic code. | (15) | | |
| 20. | | a. | | What do you mean about *trait*? | (3) | | |
| b. | | Discus the different forms of *traits* observed in pea plants. | (12) | | |
| (OR) | | | | | | | |
| 21. | | a. | | Explain the *Law of Dominance*. | (8) | | |
| b. | | Explain the *Law of Segregation*. | (7) | | |
| 22. | |  | | Write notes on the different types of methods and equipments used for sterilization in a microbiological laboratory. | (15) | | |
| (OR) | | | | | | | |
| 23. | |  | | How are biofertilizers prepared? Discuss in detail about various types of biofertilizers? | (15) | | |
| 24. | |  | | Describe structure and functions of heart and write notes circulatory system. | (15) | | |
| (OR) | | | | | | | |
| 25. | | a. | | How is Active immunity functioning? | (8) | | |
| b. | | Write the essential features of Passive immunity? | (7) | | |

ALL THE BEST