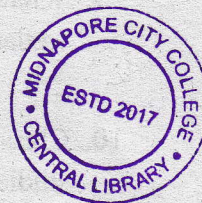# 2023

5th Semester Examination

BOTANY (Honours)

Paper : DSE 1-T

[CBCS]

Full Marks : 40   Time : Two Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.

[Natural Resource Management]

Group - A

Answer any *five* of the following questions :   2×5=10

1. What is horticulture?

2. Write the full form of NTFP.

3. What is resource accounting?

4. What is aquifers?

5. Write the names of two major Hot-Spots in India.

6. What is IPR?

7. Name two threatened plant species of West Bengal.

8. What is Silviculture?

P.T.O.

Group - B

Answer any *four* of the following questions : 5×4=20

9. What is wetland? Write the characteristics of an ideal wetland. Why wetlands are called "nature's kidney"? 1+2+2

10. Classify different types of groundwater that you have studied. Mention which type of groundwater is absorbed by plants. 4+1

11. What are the minor forest products? How these minor forest products are gradually degraded today in the forest? 1+4

12. What are solid wastes? Write different scientific procedures of solid waste management which are applied in urban areas. 1+4

13. What is soil degradation? Discuss major causes of soil degradation. 1+4

14. Write a note on carbon footprint. 5

Group - C

Answer any *one* of the following questions : 10×1=10

15. What are renewable and non-renewable sources of energy? Discuss about the national and international efforts of sustainable utilization, management and conservation of these resources. 3+7

16. Mention the major causes of biodiversity loss. Discuss different management strategies to protect biodiversity. 4+6
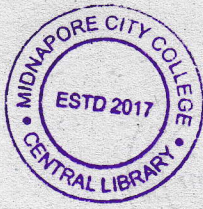
———

OR

[Biostatistics]

Group - A

Answer any *five* of the following questions : 2×5=10

1. Mention two basic principles of statistics.

2. Define primary and secondary data with suitable examples.

3. How is the arithmatic mean for grouped and ungrouped data calculated?

4. How is standard deviation calculated?

5. Explain the characteristic features of normal distribution with suitable illustration.

6. What is the use of t-test?

7. What is co-efficient of variation?

8. How do the slope and intercept in a regression analysis signify?

Group - B

Answer any *four* of the following questions : 5×4=20

9. Define mean, median and more. Illustrate a distribution in which all these central tendencies same. 3+2

P.T.O.

10. What do you mean by dispersion or variability? How will you measure the dispersion of a series of observations?

                   3+2

11. What is standard error of mean? How is it calculated? Why is measurement of standard deviation more applicable than mean deviation in Biostatistics?   1+2+2

12. Write short notes on skewness and kurtosis.   5

13. How is correlation related to regression.   5

14. Illustrate 'Null hypothesis'.   5

Group - C

Answer any *one* of the following questions :   10×1=10

15. Illustrate Chi-square test explaing the significance of degree of freedom and probability level.   10

16. Perform Chi-square test for the following problem :

Round/Yellow	Round/Green	Wrinkled/Yellow	Wrinkled/Green
317	109	102	32

Test the goodness of fit of it. Comment on the inheritance pattern of it.   8+2

_____