2024

5th Semester Examination

BOTANY (Honours)

MIDNAPORE CITY COLLEGE ESTD 2017 CENTRAL LIBRARY

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. Define biodiesel.
2. Write the full form of CFL and LED.
3. What do you mean by "Bioaugmentation"?
4. What do you mean by "Fen" and "Swamp"?
5. Write the index of gama diversity. Write the full form of NBSAP.

P.T.O.

6. Write the meanings of species diversity and genetic diversity.

7. Write the full form of CBD. Mention the venue and year of its inauguration.

8. Name two international organizations involved in conservation of natural resources.

Group - B

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

9. What is estuary? What do you mean by Non-renewable resources? Give examples. 2+2+1

10. Define Bioprospecting. Write the main principle of IPR. 2+3

11. What do you mean by atomic energy? How does atomic energy conserved? 1+4

12. Give a brief idea of alpha, beta and gamma diversity with schematic diagrams and their calculation method. 3+2

13. Give a brief idea of GIS and its types. Write some benefits of GIS. 3+2

14. Give a brief idea of *In-situ* and *Ex-situ* conservation of species with examples. 2½+2½

MIDNAPORE CITY COLLEGE • CENTRAL LIBRARY • ESTD 2017

Group - C

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

15. Write short notes on : 2½×4

    (i) Ecological Foot Print

    (ii) Biogas Energy

    (iii) Forest Depletion

    (iv) Genetical Diversity

16. Which is called Nature's Kidney? Discuss the role of wetland in conservation of environment. Discuss the conservation strategies of Wetland. What is the role of Ramsar conference in wetland conservation? 1+3+3+3

MIDNAPORE CITY COLLEGE • CENTRAL LIBRARY • ESTD 2017

P.T.O.

OR

[Biostatistics]

Group - A

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

1. Define sampling.
2. What is the full form of ANOVA?
3. What are variables?
4. What does it mean by negative correlation?
5. What is chi-square test? Write its formula.
6. Give two merits of 'Arithmetic Mean'.
7. What does it mean by skewness?
8. Write the formula of regression coefficient.

Group - B

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

9. Define mean, median and mode. Which one is more acceptable in statistical analysis and why? 1+1+1+2
10. What is normal distribution? Explain skewness and kurtosis with diagram. 1+4
11. When will you perform the paired 't' test and unpaired 't' test? Write down the formula for calculating the 't' value of paired 't' test. 1½+1½+2

12. An observation on 32 Balsam plants shows the following data. Calculate the arithmetic mean. 5

No. of flowers/plant (x)	4	5	6	7	8	9
No. of plants (f)	3	5	6	9	5	4

13. What is correlation? Explain different types of correlation with diagram. 2+3
14. What is test of significance? Explain null hypothesis and alternative hypothesis. 1+2+2

Group - C

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

15. (i) Calculate standard deviation and standard error from following supplied data : 5+2

No. of pods/plant (x)	No. of plants (f)
15-17	5
18-20	6
21-23	8
24-26	12
27-29	22
30-32	18
33-35	15
36-38	9
39-41	5

(ii) Discuss the scope of biostatistics. 3

P.T.O.

16. (i) Find out the correlation coefficient between the two attributes of 5 plants. 8

Height of the plant (x)	5 cm	9 cm	13 cm	17 cm	21 cm
Number of leaves per plant (y)	12	20	25	33	35

(ii) Give the merits of hypothesis. 2

MIDNAPORE CITY COLLEGE
ESTD 2017
CENTRAL LIBRARY