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UG/5th Sem/Bot(H)/T/19

2019

B.Sc. (Honours)

5th Semester Examination

**BOTANY**

Paper - DSE-1T

Full Marks : 40

Time : 2 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)**

1. Answer any *five* questions from the following.

2×5=10

- (a) Write the full form of CBD & IPR.
- (b) What is meant by resources ?
- (c) Write the utilization purpose of land.
- (d) What is wetland ? Write it's function.

*[ Turn Over ]*

( 2 )

- (e) Differentiate between marine and estuarine water.
- (f) Write down significance of biodiversity.
- (g) What is EIA ?
- (h) What does it mean by ecological foot print ?

2. Answer any *four* questions from the following.

5×4=20

- (a) Write the major and minor forest products and their uses.
- (b) Briefly discuss the national efforts in sustainable management of natural resources and their conservation.
- (c) What is waste ? How do you manage the waste as a resource ? 2+3
- (d) Discuss about renewable and non-renewable resources of energy regarding their sources and utility. 2½+2½

( 3 )

(e) What is meant by silviculture ? What is soil degradation ? How soil degradation can be managed ? 1+2+2

(f) Write down the major causes for the loss of biodiversity. 5

3. Answer any *one* question from the following.

10×1=10

(a) What is natural resources ? Give an account of different types of natural resources and their utility. 2+8

(b) What is meant by fresh water ? Discuss different sources of fresh water. Write a short note on watershed management. 2+3+5

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[ Turn Over ]

( 4 )

**(Biostatistics)**

1. Answer any *five* questions from the following.

2×5=10

- (a) What is meant by Bar Diagram ?
- (b) What is skewness ?
- (c) What is meant by Null Hypothesis ?
- (d) What is quartile deviation ?
- (e) What is Histogram ?
- (f) What is Kurtosis ?
- (g) What is meant by Binomial distribution ?
- (h) What is Central tendency ?

2. Answer any *four* questions from the following.

5×4=20

- (a) What is Chi-square ? Enumerate the steps followed in Chi-square analysis to evaluate the extent of variation in plants. 1+4

( 5 )

- (b) From a field of garden plants, a random sampling of 13 plants is made. This height in cms. are as follows :

161, 183, 177, 157, 181, 176, 180, 162, 163, 174, 179, 187, 182. Calculate the (a) variance and (b) standard deviation. 3+2

- (c) Differentiate between population and sample. What do you mean by random sampling ? 4+1

- (d) Explain the laws of probability with proper examples. 5

3. Answer any *one* question from the following.

$10 \times 1 = 10$

- (a) An observation on 32 balsam plants shows the following data —

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

[ Turn Over ]

( 6 )

Calculate the mean, coefficient of variation and standard error. 2+6+2

- (b) Find whether or not there is a significant correlation between grain weights (g) and whole plant weights (g) of ten oat plants.

Grain Wts	70	90	120	160	200	220	220	232	300	310
Plant Wts	390	482	1360	1440	1482	1520	1540	1611	1492	1672

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