

M.Sc. (Part-I) Semester-II (CBCS Scheme) Examination
ENVIRONMENTAL SCIENCE
(Bioinformatics in Environmental Analysis)
Paper-V

Time : Three Hours]

[Maximum Marks : 80

Note :— All questions are compulsory and carry equal marks.

1. What are the measures of central tendency mean, median and mode ? Calculate the mean, median and mode of given data.
The humidity in % of Nagpur city for the year 2015 of Rainy season is 60, 80, 50, 60, 55, 70, 80, 75, 80. 16

OR

The air pollutants released from Sugar Industry in the form of CO₂ in ppm 2000-10, 2001-12, 2002-15, 2003-18, 2004-08, 2005-20, 2006-08, 2007-10 give the diagrammatic presentation of data. 16

2. (a) Explain binomial and Poisson distribution. 5
(b) What do you understand by coefficient of correlation ? Explain. 5
(c) Explain regression and give regression equation. 6

OR

- (d) Explain normal distribution with statement of properties. 5
(e) Describe simple and linear regression. 5
(f) Define probability and give its utility. 6

3. Discuss in brief :
(g) Need of sample. Discuss types of sampling. 5
(h) What is hypothesis ? Discuss null hypothesis. 5
(i) Define Error. Discuss types. Mention its significance for large sample. 6

OR

- (j) Explain Chi-square test with its characteristics. 5
(k) Discuss application of Chi-square test. 5
(l) What is ANOVA ? Discuss its One Way technique of Analysis Variance. 6

4. What is environmental modelling ? Discuss simple and multiple regression models. 16

OR

Write advantages of environmental modelling and discuss validation and forecasting models. 16

5. (m) Give various generations of computers. 5
(n) Describe Desktop and Laptop computers. 5
(o) Describe MS-Power Point software; explain its advantages. 6

OR

- (p) Give the advantages of Microsoft Excel software. 5
(q) Explain Super computer and Tab. 5
(r) Describe Data Operating System. 6

