

TB205155V

Reg. No :

Name :

B. Sc. DEGREE (C.B.C.S.) EXAMINATION, NOVEMBER 2022
2020 ADMISSIONS REGULAR AND 2019, 2018 ADMISSIONS SUPPLEMENTARY
SEMESTER V - CORE COURSE (STATISTICS)
(For Computer Applications)

ST5B06B18 - ENVIRONMENTAL STUDIES, HUMAN RIGHTS AND NUMERICAL METHODS

Time : 3 Hours

Maximum Marks : 80

Part A

I. Answer any Ten questions. Each question carries 2 marks

(10x2=20)

1. Classify energy resources.
2. What do you mean by afforestation?
3. Explain the significance of biodiversity.
4. Define Green Chemistry.
5. What do you mean by hazardous wastes?
6. Define Environmental rights.
7. Expand UDHR.
8. What do you mean by Human Rights?
9. If $f(x) = x^2 - 117 = 0$ then the iterative formula for Newton Raphson Method is given by
10. Quote the principle used to find the root of a function using Bisection method
11. Every polynomial equation of the nth degree has _____ roots.
12. Write down 4 methods for Solving simultaneous linear equations

Part B

II. Answer any Six questions. Each question carries 5 marks

(6x5=30)

13. Discuss about the benefits of Dam.
14. Describe the effects of soil erosion and deforestation on nature.
15. Comment on Love Canal incident – a case study of ground water pollution
16. Differentiate between extinct, endangered, vulnerable and rare species giving examples of each.
17. Describe about the Universal Declaration of Human Rights.
18. Describe ILO? Write its functions?
19. Derive the formula for Newtons Raphsons method using the concept of tangent
20. Explain Gauss Elimination Method
21. Estimate the root of the equation $x^3 + x^2 - 1 = 0$, using Iteration Method

Part C

III. Answer any Two questions. Each question carries 15 marks

(2x15=30)

22. a) Discuss disaster management? Write explanatory note on the control measures adopted for a) floods b) earthquakes b) Explain about Resettlement and Rehabilitation? Discuss the problems related to resettlement and

rehabilitation policies in India.

23. Outline the causes of industrial pollution and the measures to be taken to control it.

24. Evaluate the a real root of the following equation $\sin x = 10(x - 1)$

25. a) Derive the formula for Newton Raphson Method

b) Use Newton Raphson Method to obtain root, correct to 3 decimal places

$$x - \cos x = 0$$