TB245307R

Reg. No :.....

Name :.....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, NOVEMBER 2024

2022 ADMISSIONS REGULAR

SEMESTER V - 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. List any four personalities who stood for environmental protection.
2. Explain the significance of biodiversity.
3. Define water logging.
4. Define Green Chemistry.
5. List the biogeographic regions of India.
6. Summarize procedural rights.
7. Expand UDHR.
8. Describe collective developmental human rights.
9. If $f(x) = x^2-117 = 0$ then the iterative formula for Newton Raphson Method is given by
10. Estimate the order of convergence of Regula Falsi method?
11. Compare and contrast between Algebraic and Transcendental Functions
12. Name the modification method of Gauss elimination method

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Why food security is important?
14. Elaborate on desert ecosystem
15. Explain the factors affecting endangered species.
16. Differentiate between extinct, endangered, vulnerable and rare species giving examples of each.
17. Write on the constitutional privileges for Scheduled Caste and Tribe.
18. State the utilization of chemical energy
19. Derive the formula for Regula Falsi method
20. Derive the formula for Newtons Raphsons method using the concept of tangent
21. Summarize the working rule of Gauss Seidal Method

Part C

III. Answer any Two questions. Each question carries 15 marks **(2x15=30)**

22. a) Describe aquatic ecosystem. What are the different types? Explain each. b) Discuss on the cause, effects and control measures employed for solid waste.
23. Discuss the fundamental rights guaranteed in our Indian constitution.

    Solve the system of Equations using Gauss Seidal Method

    $x + y + 54z = 110$

    $27x + 6y - z = 85$

24. $6x + 15y + 2z = 72$

25. a) Find the root of the following function correct to four decimal places using iteration method

$$cosx = 3x - 1$$

b) Write a short note on the different methods to solve a system of eqautions