

**IMSc (CSF) (NEP) Sem.-3 Examination
AEC-ICSF-235**

**Vedic Programming
November-2025**

Time : 1-00 Hour]

[Max. Marks : 25

Question 1 Answer the following questions:

- | | |
|---|---------|
| i. Explain the philosophical and functional relationship between Purusha-Prakriti, Maya, and Drashta in Vedic Programming Language (VPL). How do these concepts collectively support context-aware and observer-driven program logic? | 5 Marks |
| ii. Differentiate between Kriya, Vidhi, and Pratiphalam in VPL. Illustrate with suitable code examples how functions and procedures are defined and invoked. | 5 Marks |

OR

- | | |
|--|---------|
| i. Discuss how the principles of Purity, Clarity, Minimalism, and Harmony are embedded within Vedic Programming practices. How do these align with modern programming paradigms like Functional and Declarative programming? | 5 Marks |
| ii. Explain how Vedic mathematical sutras such as Ekadhikena Purvena and Paravartya Yojayet influence computational efficiency in VPL. Provide practical examples of where these sutras can optimize arithmetic operations. | 5 Marks |

Question 2 Answer the following questions:

- | | |
|---|---------|
| i. Explain the role of Vidhi, Anya, and Avartanam constructs in VPL. How do these Sanskrit-inspired control structures correspond to modern conditional and iterative statements such as if-else and loops? | 5 Marks |
| ii. Discuss how Koshta, Srotas, and Sthana represent the stack and queue data structures in VPL. Illustrate their working principles and compare the LIFO and FIFO mechanisms using suitable VPL examples. | 5 Marks |

OR

- | | |
|--|---------|
| i. Describe the representation of Vriksha, Parijata, and Jala in VPL for tree and graph structures. Explain how traversal techniques like inOrderTraversal and depthFirstSearch are symbolically connected to Vedic metaphors. | 5 Marks |
| ii. Define the term Chakra in the context of iterative and graph-based computation in VPL. How does the idea of "cycle" or "repetition" in Vedic philosophy reflect in the design of Chakra and Paribhramanam constructs? | 5 Marks |

Questions 3: Attempt any Five out of Six.

5 Marks

1. In the declaration Ganita Sankhya numbers[5];, what does Sankhya specify?
2. What is the main difference between Ganita and Suchi in VPL?
3. What is the primary focus of Vedic cryptography?
4. In VPL, Samuchaya refers to: _____.
5. Which function is hypothetically used in VPL to display output messages?
6. What is the primary technique for handling exceptions in Vedic programming?

.....X.....X.....