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**NEPNY—44—2023**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**M.Sc. (NEP) (First Year) (First Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**COMPUTER SCIENCE**

**Paper-SCMPSC-403**

**(Advanced Java)**

**(Tuesday, 26-12-2023)**

**Time : 10.00 a.m. to 1.00 p.m.**

*Time—Three Hours*

*Maximum Marks—80*

- N.B. :-*
- (i) All questions carry equal marks.
  - (ii) Question No. 1 will be compulsory.
  - (iii) Attempt any *three* from Q. No. 2 to Q. No. 6.
  - (iv) Assume suitable data if necessary.

1. Attempt the following questions :
- (a) Explain vector class.
  - (b) Explain thread synchronization.
  - (c) Explain callable statement in brief.
  - (d) Explain the concept of meta data.

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2. Attempt the following questions : 20
  - (a) Explain thread life cycle in detail.
  - (b) Explain array list class in detail.
3. Attempt the following questions : 20
  - (a) Write a JAVA program to describe concept of linked list.
  - (b) Explain in detail concept of Tree set.
4. Attempt the following questions : 20
  - (a) Explain role of request parameters in JSP.
  - (b) Write a program to describe concept of runnable interface.
5. Attempt the following questions : 20
  - (a) Explain concept of cookies and sessions.
  - (b) Write a program using servlet to display student data.
6. Write the following questions : 20
  - (a) What is purpose of `<% %>` in JSP ? Explain in detail
  - (b) Write a program to describe database connectivity.

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