No. of Printed Pages : **2**

21BCA4C12OSL

Sl. No.

B.C.A. IV Semester Degree Examination, Sept./Oct. - 2024

COMPUTER SCIENCE

DSC 12 : Operating System Concepts

(NEP)

Time : 2 Hours Maximum Marks : 60

SECTION - A

I. Answer **all** the questions, each question carries **one** mark. **10x1=10**

1. (a) What is operating system ?

(b) Define process.

(c) Mention types of thread.

(d) What is Non-preemptive scheduling ?

(e) What is process synchronization ?

(f) Define deadlock.

(g) Define logical address.

(h) What is fragmentation ?

(i) Define file.

(j) Mention any two file operations.

SECTION - B

II. Answer **any four** of the following. Each question carries **five** marks. **4x5=20**

2. Write the services of operating system.

3. Write a note on multithreading models.

4. Explain critical section problem.

5. Write a short note on swapping in OS.

6. Describe the attributes of file.

7. Write a note on scheduler's.

P.T.O.

SECTION - C

III. Answer **any three** of the following. Each question carries **ten** marks. **3x10=30**

8. With a neat diagram, explain process life cycle.

9. Calculate the average waiting time and average turn around time of the following and draw the Gantt chart using SJF scheduling. Where all processes arrived at time 0(zero).

Process	**Burst time**
P1	6
P2	8
P3	7
P4	3

10. Explain any two methods for handling deadlock.

11. Explain FIFO page replacement algorithm with an example.

12. Explain File Access Methods.

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