No. of Printed Pages : **2**

21BCA4C12OSL

B.C.A. IV Semester Degree Examination, September/October - 2023

COMPUTER SCIENCE

Operating System Concepts

(NEP)

Time : 2 Hours Maximum Marks : 60

SECTION-A

1. Answer **all** the questions. Each carries **one** mark. **10x1=10**

(a) Define Operating System.

(b) Expand IPC and PCB.

(c) What is System Call ?

(d) Define Thread.

(e) Mention any two CPU scheduling algorithms.

(f) What is Semaphore ?

(g) Define Deadlock.

(h) What is Paging ?

(i) Define File.

(j) Write any two attributes of File.

P.T.O.

SECTION-B

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

2. Discuss the functions of operating system.

3. Explain the process states with a neat diagram.

4. Explain the types of Threads.

5. Explain the Page Table.

6. Write a note on critical section problem.

7. Write a note on file access methods.

SECTION-C

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

8. Explain PCB with a neat diagram.

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

Process	**Burst time**
P_1	8
P_2	6
P_3	2

10. Explain any two methods for handling the deadlock.

11. Explain LRU page replacement, algorithm with an example.

12. Explain the operations on Files.

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