B.Tech (Fourth Semester Computer Science and Engineering (C.B.C.S))
End Semester Examination Summer – 2023
Course Name: Operating System

Course Code: **BCS2403**

Time: 3 Hours]

ADS/EFV5736J/3092

[Max.Marks: 60

Instructions to Candidates:

1. *All questions carry marks as indicated.*
2. *All the sub- questions (a, b, c, d, and e) of Que.1 in Section A are compulsory.*
3. *Solve any two sub-questions from Que. 2 to Que.6 in Section B.*
4. *Assume suitable data wherever necessary.*
5. *Use of non-programmable calculator is permitted.*

Section – A

Que.1

a)	Comment on Operating System & lists its types.	2 (CO1)
b)	Define scheduling and its types.	2 (CO2)
c)	Illustrate is critical section problem.	2 (CO3)
d)	Define terms Relocation, Paging.	2 (CO4)
e)	Comment on access matrix.	2 (CO5)

Section – B

Que.2

a)	Explain in brief types of OS.	5 (CO1)
b)	Define OS structure and explain the role of Kernel in it.	5 (CO1)
c)	Describe system calls with suitable example.	5 (CO1)

Que.3

a)	State the different scheduling algorithms. Explain anyone.	5 (CO2)
b)	Illustrate Process Concept in brief.	5 (CO2)
c)	Explain multithreading model.	5 (CO2)

Que.4

a)	Explain Deadlock Detection and recovery concept.	5 (CO3)
b)	Explain classical inter process communication problems.	5 (CO3)
c)	Provide software and hardware solution for synchronization.	5 (CO3)

Que.5

a)	Illustrate with example Demand Paging concept.	5 (CO4)
b)	Explain Recovery concept.	5 (CO4)
c)	Explain any two space allocation strategies.	5 (CO4)

Que.6

    a) Explain goals of Protection in OS.   5 (CO5)

    b) Explain Access Matrix implementation in OS.   5 (CO5)

    c) Explain in brief Protection in OS.   5 (CO5)

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