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BCA (Sem. – 4ᵗʰ)
OPERATING SYSTEM
SUBJECT CODE : BC – 404
Paper ID : [B0218]

Time : 03 Hours **Maximum Marks : 60**

Instruction to Candidates:

1) Section - A is **Compulsory**.

2) Attempt any **Four** questions from Section - B.

Section - A

Q1) *(10 × 2 = 20)*

a) What are operating system services? Explain.

b) What is process state diagram? Explain.

c) What is process? How it is different from thread.

d) Define multiprogramming and multitasking operating system.

e) Explain the difference between logical and physical address space.

f) What is internal and external fragmentation?

g) What is virtual memory? Explain its advantages.

h) What are semaphores? Explain their role.

i) Define critical section?

j) What are various CPU scheduling criterion?

Section – B

(4 × 10 = 40)

Q2) What is operating system? Discuss the evolution of operating system. Explain the characteristics features of batch operating system and real time operating system.

Q3) What is process and process scheduling? Explain various CPU scheduling algorithms with their merits and demerits.

Q4) What is paging? How it is different from demand paging? Explain hardware support for paging.

Q5) What is deadlock? Explain the combined approach used to handle the deadlock.

Q6) Write note on the following :

(a) Directory structure.

(b) System threats.

Q7) What is file? What are different types of file? Explain various file access methods?

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