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

[Note : Please fill subject code and paper ID on OMR]

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 do you mean by long term dispatcher?

b) What is the principal advantage of multitasking?

c) Differentiate between a program and a process.

d) Which do you mean by deadlock detection?

e) Define the concept of external fragmentation.

f) What is compaction and why it is used?

g) What is the difference between local page replacement and global page replacement?

h) What do you mean by inter-process communication?

i) What is the purpose of system program?

j) List two main functions of an operating system?

Section - B

(4 × 10 = 40)

Q2) What is Deadlock? List and explain four necessary conditions for dead lock to occur?

Q3) List and explain different classifications of operating systems?

Q4) (a) Explain Dining Philosopher problem in process synchronization.

(b) List and explain different states of a process?

Q5) (a) What do you mean by memory management? Differentiate between physical and logical memory?

(b) Explain the concept of virtual memory in detail?

Q6) (a) What is the need of file management? List different types of access methods available in files?

(b) List and explain different types of allocation methods available?

Q7) Write short note on the following :

(a) Authentication.

(b) Security threats.

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