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BCA (Sem. - 4th)
OPERATING SYSTEM
SUBJECT CODE : BC - 404 (N2)
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 is meant by saying that program is reentrant?
- b) A round robin system uses swapping to free process memory space. What should be the relative sizes of the time-slot and swap time to ensure efficient processor utilization.
- c) What do you understand by thrashing?
- d) What is a real time system?
- e) What is the purpose of Command Interpreter?
- f) What is a Dirty bit?
- g) What are the main advantages of the multiprogramming?
- h) What do you understand by Spooling?
- i) What is a system call?
- j) What is a Process Control block?

Section - B

(4 × 10 = 40)

- Q2)** In a variable partition scheme, the operating system has to keep track of allocated and free space. Suggest a means to of achieving this. Describe the effects of new allocations and process terminations in your suggested scheme.
- Q3)** Differentiate between Internal and External fragmentation.
- Q4)** What is an operating system? What are the various services provided by the operating system?
- Q5)** What are the various memory management techniques? Discuss with example.
- Q6)** A computer uses an 18 bit address system, with 6 bits used as a page address and 12 bits used as a displacement. Calculate the total number of pages and express the following address as a paging address :- 001111000000111000.
- Q7)** What is a deadlock. Differentiate between deadlock prevention and deadlock avoidance.

