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Total No. of Questions : 13] [Total No. of Pages : 02

J-3662[S-1518]

[2037]

M.Sc. (IT) (Semester - 1st)

OPERATING SYSTEMS (M.Sc. (IT) - 105)

Time : 03 Hours **Maximum Marks : 75**

Instruction to Candidates:

1) Section - A is **compulsory.**
2) Attempt any **Nine** questions from Section - B.

Section - A

Q1) ***(15 x 2 = 30)***

a) What is booting?

b) Give two examples of operating system.

c) What is a programming language?

d) What is Round Robin?

e) Define hardware.

f) What is batch processing?

g) What is a server?

h) Explain concurrency.

i) What is thrashing?

j) What is a cache hit?

k) Define GUI.

l) What is spooling?

m) What is context switching?

n) What is a file system?

o) Explain device driver?

P.T.O.

Section - B

(9 x 5 = 45)

Q2) What is an operating system? List the typical functions of operating systems.

Q3) What are interrupts? How are they handled by the operating system?

Q4) Explain multiprocessors and multicomputers.

Q5) Differentiate between complier and an assembler.

Q6) Define process. Describe the contents of a Process Control Block (PCB).

Q7) What are semaphores? How do they implement mutual exclusion?

Q8) Define turnaround time and response time using suitable examples.

Q9) Define the essential properties of the following types of operating systems (a) Time sharing, (b) Multi user.

Q10) Define deadlock? Explain the necessary conditions for deadlock to occur.

Q11) With an example, discuss the preemptive SJF scheduling algorithm.

Q12) Explain the difference between paging and segmentation with suitable examples.

Q13) Explain with an example, LRU page replacement algorithm.