

Roll No.

Total No. of Questions : 9]
(2111)

[Total No. of Printed Pages : 4

**BCA (CBCS) RUSA Vth Semester
Examination**

4518

**OPERATING SYSTEM
BCA-0501**

Time : 3 Hours]

[Maximum Marks : 70

Note :- Question No. 1 Part A is compulsory. Select *one* question from each Part B, C, D and E.

Part-A

(Compulsory Question)

1. (A) (i) The Operating System is an example of :
- (a) System Software
 - (b) Application Software
 - (c) Hardware
 - (d) Storage Devices

- (ii) DOS is a/an Operating System
- (iii) PCB stands for Process Control block
- (iv) Which one of the following is the deadlock avoidance algorithm ?
- (a) Round Robin
 - (b) Karm's
 - (c) Elevator
 - (d) ~~Banker's~~
- (v) Logical memory is broken into blocks of the same size called :
- (a) Frames
 - (b) ~~Pages~~
 - (c) Backing store
 - (d) None of these
- (vi) Operating System keeps the files in a table called Page table
- (vii) The circular wait condition can be prevented by Preemption

(viii) The numbers of processes completed per unit time is known as :

- (a) Output
- (b) Throughput
- (c) Efficiency
- (d) Capacity

(ix) SRTF stands for *Shortest Remaining Time first*

(x) GUI stands for *Graphical User Interface* $4 \times 10 = 40$

(B) Answer the questions (25 to 50) words of 4 marks each :

(i) Write short note on simple monitor

(ii) Process and Thread

(iii) System Calls

(iv) Virtual Memory

(v) Internal Fragmentation

$4 \times 5 = 20$

Part-B (Unit-I)

10 each

2. What is operating system ? Discuss various services provided by operating system.
3. What do you mean by multi-programming, multi user and multi-processor operating system ?

Part-C (Unit-II)

10 each

4. What is process ? Explain the life-cycle of a process with the help of diagram.
5. What is deadlock ? Discuss various detection and recovery methods.

Part-D (Unit-III)

10 each

6. What is Memory ? Discuss memory management scheme, Bare Machine, Resident Monitor and swapping.
7. What is Paging ? How is it different from demand paging ?

Part-E (Unit-IV)

10 each

8. What is file ? Write advantages and disadvantages of index sequential and random access file system.
9. What is Directory ? How is it different from file ? Discuss various directory system.