BCA (CBCS) RUSA Vth Semester Examination

3996

OPERATING SYSTEM
BCA–0501

Time : 3 Hours]   [Maximum Marks : 70

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

Part–A

(Compulsory Question)

1. (A) (i)   What is GUI ?

    (ii) In internal memory of fixed size partition, the unused space is called ....

    (iii) With multiprogramming .... is used productively.

    (a) Time   (b) Space

    (c) Memory   (d) All of these

(iv) The interval from the time of submission of a process to the time of completion is termed as :

(a) Waiting time

(b) Turnaround time

(c) Response time

(d) Throughput

(v) SRTF is known as ....

(vi) Which of the following is deadlock avoidance algorithm ?

(a) Banker's Algorithm

(b) Round Robin Algorithm

(c) Elevator Algorithm

(d) Karm's Algorithm

(vii) .... acts as a layer between hardware and user program.

(viii) Operating System keeps the files in a table called ....

(ix) By Operating System, the resource management can be done via :

(a) TDM

(b) SDM

(c) Both TDM and SDM

(d) None of these

(x) Circular wait condition can be prevented by .... $1 \times 10 = 10$

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

(i) Single and Multiuser Operating System

(ii) Banker's Algorithm

(iii) Swapping

(iv) Realtime Operating System

(v) Internal Fragmentation $4 \times 5 = 20$

Part–B (Unit–I)   10 each

2. What is Operating System ? Discuss various characteristics of an operating system.

3. Discuss the following Operating System :

(i) Time sharing

(ii) Batch processing

(iii) Single user

Part–C (Unit–II) 10 ea

4. What is PCB ? Discuss various functions performed by PCB.

5. What is difference between preemptive and non-preemptive scheduling algorithm ? Discuss SRTF in detail.

Part–D (Unit–III) 10 eac

6. What is Demand Paging ? How is it different from simple paging ?

7. Discuss various memory management techniques in detail.

Part–E (Unit–IV) 10 each

8. What is File ? Discuss various operations of file.

9. Discuss free space management in detail.