53 (EC 716) OPSY

2014

OPERATING SYSTEM

Paper : EC 716

Full Marks : 100

Pass Marks : 30

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer ***any five*** *questions.*

1. *(a)* Define PCB and specify all the information maintained in it. 10

   (b) How does FCFS scheduling differ from SJF ? Explain with example. 10

2. *(a)* Explain CPU scheduling and various scheduling criteria evaluating scheduling algorithms. 10

(b) Explain the Banker's algorithm for deadlock avoidance with an illustration. 10

3. (a) Briefly explain and compare, fixed and variable memory partitioning scheme with example. 10

(b) Explain Segmentation with example. 10

4. (a) Explain FIFO, optimal and LRU page replacement algorithms with an example reference string. 10

(b) Define Deadlock and explain how deadlock avoidance differ from deadlock prevention. 10

5. (a) What is a safe state ? Give the use of state in deadlock avoidance. 10

(b) Explain in brief various functions of OS. 10

6. (a) Explain and compare FCFS, SSTF and C-SCAN disk scheduling algorithm with an example. 10

(b) Briefly explain about Directory structure. 10

7. Write short notes on the following : 5×4=20

(i) RAG

(ii) File System

(iii) Process state

(iv) Embedded OS.

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