Total No. of printed pages = 3

Co-505/OS/5th Sem/2015/M

OPERATING SYSTEM

Full Marks – 70

Pass Marks – 28

Time – Three hours

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

Answer question No.1 and any *four* from the rest.

1. Answer the following short questions : 10×1=10

   (a) Define process.

   (b) Define thread.

   (c) What is PCB ?

   (d) Define sector of a magnetic disk.

   (e) What is cylinder of a hard disk ?

   (f) What is seek time ?

   (g) What is page fault ?

[Turn over

(h) What is virtual memory ?

(i) Define time quantum.

(j) Define deadlock.

2. (a) Write a brief note on segmented paged memory management. 7

(b) Explain any one page replacement algorithm with the help of a suitable example. 4+4=8

3. (a) Define short term scheduler. 2

(b) Explain SRTN and FCFS short term scheduler. 8

(c) Explain how inter process communication (IPC) is implemented. 5

4. (a) How deadlock can be prevented ? 4

(b) What is spooling ? 3

(c) Define mutual exclusion. 3

(d) Illustrate some features of unix operating system. 5

5. (a) Specify few characteristics of distributed operating system. 6

(b) Compare the following models of distributed operating system : 9

(i) Workstation server

(ii) Processor pool

(iii) Hybrid model

6. (a) Discuss different memory allocation methods in brief. 9

(b) Compare unix operating system and windows NT operating system. 6

7. Write short notes on any *three* : 3×5=15

(a) State transition diagram

(b) LRU page replacement policy

(c) Demand paging

(d) MS-DOS operating system.