97669

BCA 3rd Semester (New)
Examination – November, 2017

INTRODUCTION TO OPERATING SYSTEM

Paper : BCA-201

Time : Three Hours]　　　　　　[Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper.. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, by selecting *one* question from each Unit. Question No. **1** is *compulsory*. All question carry equal marks.

1. (a) What is distributed system ?

　　(b) What is inter-process communication ?

　　(c) What is bankers algorithm ?

(d) What is Virtual Memory ?

(e) What is Logical address space ?

(f) What is page replacement ?

(g) What is bit-Vector ?

(h) What is counting ?

UNIT – I

2. (a) What is an Operating System ? What are the responsibilities of an operating system ?

   (b) Explain :

   (i) Time-sharing

   (ii) Real Time System

3. Explain the following :

   (i) Threads and their uses

   (ii) Process and process states

UNIT – II

4. What is a scheduler ? What should be the performance criteria for a scheduler ? Compare and contract importance scheduling techniques.

5. What do you mean by deadlock ? Explain deadlock prevention, avoidance and detection.

UNIT – III

6. What is a Swapping system ? Consider a swapping system in which memory of the following hole sizes in memory order: 10k, 4k, 20k, 18k, 7k, 9k, 12k and 15k. Which hole is taken for successive request of :

   (i)   12k

   (ii) 10k

   (iii) 9k for First-Fit, Best-Fit, Worst-Fit and Next-Fit.

7. Explain :

   (i)   Demand paging

   (ii) Segmentation

(iii) Thrashing

(iv) paging

UNIT – IV

8. Why disk scheduling is necessary ? Explain the various disk scheduling methods with example.

9. (a) Explain any *two* types of allocation method.

   (b) What do you mean by Linked List and Grouping ? Explain.

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