Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (ECE) (2012 to 2017) (Sem.–6)

# OPERATING SYSTEMS

Subject Code : BTCS-401

M.Code : 71120

Time : 3 Hrs. Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

## SECTION-A

**Write briefly :**

1) What is dual mode operation?

2) What is spooling?

3) Why page size is always power of 2?

4) Differentiate between kernel and shell.

5) What are semaphores?

6) Define Safe State.

7) Draw resource allocation graph.

8) What do you mean by best fit and first fit?

9) What is directory?

10) What are multiprocessor systems?

## SECTION-B

11) What is file system? What are the various attributes of files?

12) How paging and segmentation are associated?

13) Discuss the effect of time quantum on the performance of Round robin scheme.

14) Write short notes on Pipes?

15) Differentiate between internal and external fragmentation? Which one occurs in paging system?

## SECTION-C

16) What are the recent trends in operating system?

17) What is a process? Explain different states of a process with diagram. Also explain in detail the contents of PCB of a process.

18) What do you mean by Page Replacement? Explain various Page Replacement algorithms with example of each.



**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**