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BICS-019

B. TECH.-VIEP-COMPUTER SCIENCE AND ENGINEERING (BTCSVI)
Term-End Examination
June, 2019

BICS–019 : OPERATING SYSTEMS

Time : 3 Hours   *Maximum Marks : 70*

Note : *Answer any* **seven** *questions. All questions carry equal marks.*

1. Define Operating System. Explain the resources and characteristics of an operating system. **2 + 8**

2. Illustrate threads in operating system with the help of an example. **10**

3. What is Virtual Memory ? Briefly explain implementation of segmentation systems. **10**

4. What are the different file organization techniques ? Discuss their access mechanisms. **10**

5. Explain the following :
   (a) Directory system **5**
   (b) File protection **5**

6. Describe the following :

   (a) Pre-emptive scheduling   5

   (b) Non-pre-emptive scheduling   5

7. (a) Explain the need of Process Control Block (PCB).   5

   (b) What is deadlock ? List necessary conditions for the occurrence of deadlock. 5

8. Define paging. Discuss in detail about paged memory management and its implementation.

                                                10

9. How are static and dynamic linking handled in memory management ?   10

10. Explain and compare the short-term, medium-term and long-term schedulers.   10