

B.SC. (I. T.) SEM. - III (2011 COURSE) : WINTER - 2017
SUBJECT: OPERATING SYSTEMS

Day: **Thursday**
Date: **28/12/2017**

W-2017-0871

Time: **10.00 AM TO 01.00 PM**
Max. Marks: 80

N.B.:

- 1) Attempt any **EIGHT** questions.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labelled diagrams **WHEREVER** necessary.
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- Q.1** What is a process? Describe different states of a process with neat diagram. **(10)**
- Q.2** What is an Operating System? Describe different types of services provided by the operating system. **(10)**
- Q.3** Illustrate 'Deadlock' and 'Starvation'. **(10)**
- Q.4** Explain the principles of following methods by taking suitable examples: FCFS, SJF and RR. **(10)**
- Q.5** Explain Direct Memory Access (DMA). **(10)**
- Q.6** Explain the concept of 'Swapping' in memory management with the help of neat diagram. **(10)**
- Q.7** What is page fault? Explain various steps for handling page fault. **(10)**
- Q.8** Explain 'Virtual Machine' with the help of neat diagram. **(10)**
- Q.9** What are threads? Differentiate between multi-processing and multi-threading. **(10)**
- Q.10** Differentiate between pre-emptive scheduling and non-preemptive scheduling with example. **(10)**