AN/2013 Reg.
No.
(To be filled **by** the candidate**)**

Time： **3** Hours

05CS51

(2005 to 2008)

COIMBATORE **INSTITUTE OF** TECHNOLOGY **(**Government Aided Autonomous Institution) COIMBATORE **641** 014

B.E. **DEGREE** EXAMINATIONS, NOVEMBER 2013 **(**Fifth

Semester)

COMPUTER **SCIENCE AND** ENGINEERING **BRANCH**

05CS51 **OPERATING SYSTEMS (**Common to B.Tech. IT V Sem 05IT51**)**

Max: 75 marks

INSTRUCTIONS

1. Answer ALL questions in PART A and as per choice in PART B. 2. PART A and PART **B** questions should be answered separately in the same answer **sheet**.
3. Question No. 11 is compulsory.

PART - A

1. What is a relocatable loader?

2. Define: Microkemel.

3. Differentiate between a thread and a process.

4. What is meant by Zombie state of a process?

5. State the conditions for deadlock to occur.

6. What is a semaphore?

7. Compare page and segment.

8. What is thrashing?

9. What is **meant by** double buffering?

10. Name any **two OS** system calls and **state** their **functions**.

PART-B

11. **a)** Discuss about the various states of a **process with** state **diagram**. (5 X11=55)

    b) Explain the structure of **PCB**. **(6)**

12. **a)** Discuss about the various functions of operating systems. (**5**)

    b) Write a note on real-**time** systems. **(6)**

(OR)

(10 X 2 = 20) **(5)**

13. **a)** Explain Fair - **share** scheduling with an **example**.

b) Compare multiprogramming and multiprocessing.

(6)

(5)

Contd...

14.

Explain the producer **–** consumer problem and how **it is** handled using monitors. **(11)**

(OR**)**

15.

Explain Banker's algorithm for deadlock avoidance with **an** example.

(11)

16. a) How is address translation done in segmented memory.

(6)

b) Write a note on **translation look-**aside buffer**.**

(**5**)

(OR**)**

17.

Explain any two page replacement policies **with** examples.

(11)

18.

Discuss about the various disk scheduling policies.

(11**)**

(OR)

19.

Discuss about secondary storage management by operating systems.

(11)

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