

TB172660D

Reg. No:.....

Name: .....

**BCA DEGREE (C.B.C.S.S.) EXAMINATION, APRIL 2018**  
**(2017 Admission Regular & 2016 Admission Improvement / Supplementary)**  
**SEMESTER II – CORE COURSE**  
**(CLOUD TECHNOLOGY & INFORMATION SECURITY MANAGEMENT)**  
**CA2C06TB – OPERATING SYSTEMS**

**Time: Three Hours**

**Maximum Marks: 80**

**PART A**

**I. Answer all the questions. Each question carries 1 mark.**

1. What is captcha?
2. Define Process.
3. What is Real time scheduling?
4. What is paging?
5. What is virtual memory?
6. Define OS.

**(6x1=6)**

**PART B**

**II. Answer any seven questions. Each question carries 2 marks.**

7. What do you mean by API?
8. What are virtual machines?
9. What are the benefits of multi-threading?
10. Brief communication in client server systems
11. What is race condition?
12. Differentiate pages and frames.
13. What happens if there is no free frame?
14. What are mass storage devices?
15. What are threats?
16. What is encryption and decryption?

**(7x2=14)**

**PART C**

**III. Answer any five questions. Each question carries 6 marks.**

17. Differentiate batch processing and multiprocessing operating system.
18. Explain loadable kernel modules and layered operating system structure approach.
19. Draw the process scheduling queuing model and explain the different queues.
20. Narrate the different scenarios where deadlock can occur.
21. Explain disc structure.

22. Draw the paging model and explain.
23. What is the relevance of user authentication in terms of security?
24. Differentiate system threats and program threats.

**(5x6=30)**

#### **PART D**

#### **IV. Answer any questions. Each question carries 15 marks.**

25. Why do we need operating system? Brief evolution highlighting objectives and functions of OS.
26. Explain any three CPU scheduling algorithms with examples.
27. Explain any three page replacement algorithms with examples.
28. Classify computer vulnerabilities and explain.

**(2x15=30)**