(Pages: 2)

Reg. No.....

## B.TECH. DEGREE EXAMINATION, NOVEMBER 2017

### Seventh Semester

Branch-Computer Science and Engineering

CS 010 706 L06—CLIENT SERVER ARCHITECTURE AND APPLICATIONS (CS)

(New Scheme-2010 Admission onwards)

[Regular/Supplementary]

Time: Three Hours

Maximum: 100 Marks

#### Part A

Answer all questions.

Each question carries 3 marks.

- Write a note on fat client architecture.
- 2. Outline the role played by middleware in a client server environment.
- 3. Define multiprogramming.
- 4. Present an outline of preemptive and non-preemptive scheduling.
- 5. Write a note on interprocess communication.

 $(5 \times 3 = 15 \text{ marks})$ 

#### Part B

Answer all questions.

Each question carries 5 marks.

- 6. Outline the advantages and disadvantages of client server computing.
- 7. Appraise the major influences that cause firms to shift to client server environment.
- 8. Write a note on multiple processor systems.
- 9. Explain with an example context switching.
- 10. Appraise the security threats in a client server environment.

 $(5 \times 5 = 25 \text{ marks})$ 

Turn over

#### Part C

# Answer all questions. Each full question carries 12 marks.

- 11. (a) What is a distributed system? Give example and compare a distributed system with a centralized system. (6 marks)
  - (b) What is cross platform computing? Outline the challenges in building cross platform computing environments.

Or

- 12. What is a database server? Explain with an example how clients access data from a database server.
- 13. What is remote procedure call? Explain with a diagram the working of remote procedure call.

Or

- 14. Appraise the issues to be addressed for optimizing an application for client server environment.
- 15. What is a network operating system? Discuss the features of Novell NetWare operating system.

Or

16. (a) What is a thread? Explain with an example multithreading.

(6 marks)

(b) Outline the issues to be addressed while developing server applications.

(6 marks)

17. (a) Explain with a diagram process state transition.

(6 marks)

(b) Draw the queuing diagram for scheduling and present an outline of the same.

(6 marks)

Or

- 18. What is a semaphore? Discuss semaphore implementation in Novell NetWare operating system.
- 19. Appraise the issues to be addressed for building portable client server applications.

Or

20. Appraise the general guidelines to secure a client server computing environment in a systematic manner.

 $[5 \times 12 = 60 \text{ marks}]$