

ECE (New)

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Reg. No.

Name.....



B.TECH. DEGREE EXAMINATION, MAY 2015

Seventh Semester

Branch : Electronics and Communications Engineering

EC 010 706 L06 – SYSTEM SOFTWARE (Elective II) [EC]

(New Scheme – 2010 Admission onwards)

[Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer **all** questions.

Each question carries 3 marks.

1. List the advantages of assembly language.
2. Differentiate static and dynamic binding.
3. Define process with proper syntax.
4. What are the fundamental concerns in the design of memory allocator?
5. Define Semaphore.

(5 × 3 = 15 marks)

Part B

Answer **all** questions.

Each question carries 5 marks.

6. Discuss the need of positional parameters and keyword parameters in macros.
7. Explain Job Control Box (JCB).
8. How resource allocation is done in distributed systems? Explain.
9. What is virtual memory system? Explain in detail.
10. What are assembler directives? Explain any *two* assembler directives with example.

(5 × 5 = 25 marks)

Turn over

**Part C**

Answer **all** questions.

Each question carries 12 marks.

11. Explain the phases of compilation with neat diagram. (12 marks)
- Or*
12. Write note on language specification in Language Processor. (12 marks)
13. Discuss the need of program relocation. Explain how relocation and linking of program is carried out in Assemblers. (12 marks)
- Or*
14. Write note on software tools for program development. (12 marks)
15. (a) Explain different states of process with process state transition diagram.
(b) Discuss contiguous memory allocation. (7 + 5 = 12 marks)
- Or*
16. (a) Explain different file Access methods.
(b) Explain any *two* job scheduling methods. (6 + 6 = 12 marks)
17. Give brief description of different types of operating systems. (12 marks)
- Or*
18. (a) How forward references are handled in Assemblers? Discuss.
(b) Write a note on nested macros. (6 + 6 = 12 marks)
19. Briefly explain various techniques used for protection of User files. (12 marks)
- Or*
20. What is Macro expansion? List the notations concerned with macro-expansion and give *one* example showing Macro call, definition and expansion. (12 marks)
- [5 × 12 = 60 marks]