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Question Paper Code : 60387

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Fifth Semester

Computer Science and Engineering

CS 2304/CS 54/CS 1304 A/10144 CS 505 — SYSTEM SOFTWARE

(Common to Information Technology)

(Regulations 2008/2010)

(Also common to PTCS 2304/10144 CS 505 – System Software for B.E. (Part time)
Fourth Semester – CSE – Regulations 2009/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define system software.
2. What is the purpose of test device instruction of SIC?
3. State the importance of assembler directives.
4. Compare absolute expression and relative expression.
5. Mention the most fundamental function of a loader.
6. What is MS-DOS LINK?
7. What is the need for macro facility in assembly language programming?
8. What is a macro call and macro expansion?
9. What are the basic types of computing environments used in editor's functions?
10. Identify the use of command language processor.

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail about SIC standard model. (16)

Or

(b) Describe the SIC/XE machine Architecture. (16)

12. (a) (i) Explain how the program blocks are assembled. (8)

(ii) Discuss the functions of two pass assemblers. (8)

Or

(b) Explain the features of machine-independent assembler. (16)

13. (a) (i) Explain the functions of a loader in detail. (8)

(ii) What is BOOTSTRAP loader? Explain its characteristics with examples. (8)

Or

(b) (i) Explain the dynamic linking in detail. (8)

(ii) Compare linking loader and linkage editor. (8)

14. (a) Describe machine-independent macro processor features. (16)

Or

(b) Explain the macro processor design options. (16)

15. (a) (i) Write shortly about the tasks performed in the editing process. (6)

(ii) Explain the User-Interface of an Editor. (10)

Or

(b) Discuss about the interactive debugging systems. (16)