Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 52381

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

Fifth Semester

Computer Science and Engineering

CS2304 – SYSTEM SOFTWARE

(Regulations 2008)

(Common to Information Technology)

(Also Common to PTCS2304 – System Software for BE (Part-Time)

Fourth Semester – CSE – Regulations 2009)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. What is a system software ?

2. What are the registers used in SIC architecture ?

3. What are the phases of compilation ?

4. What are the functions of assembler ?

5. What are the functions of a loader ?

6. Write short notes on MS DOS linker.

7. Mention the advantages of a macro processor.

8. What is macro call ?

9. What is the function of command language processor ?

10. What is the use of debugger ?

PART – B   (5×16=80 Marks)

11. a) Draw and explain the architecture of SIC/XE machine.   (16)

(OR)

b) Write an algorithm for pass 1 and pass 2 assembler and explain.   (16)

12. a) What is lexical analysis ? Design an lexical analyzer and explain. (16)

    (OR)

   b) What is program relocation ? Explain the concepts of program relocation in detail. (16)

13. a) Explain in detail about machine dependent and machine independent code optimization. (16)

    (OR)

   b) What is dynamic linking ? Describe loading and calling of a subroutine using dynamic linking. (16)

14. a) Explain the features of machine independent macro processor. Also discuss about the data structures considered for implementing a macro processor. (16)

    (OR)

   b) Discuss in detail about the features of MASM macro processor with relevant examples. (16)

15. a) Discuss in detail about the basic functions supported by the interactive debugger. (16)

    (OR)

   b) Explain in detail on the features and structure of text editor. (16)

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