

Total No. of printed pages = 3

Co-402/Syst. Program/4th Sem/M/2013

SYSTEM PROGRAMMING

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer any *five* questions.

1. (a) What is assembly level language ? How does it differ from high level language ? 4
- (b) What is addressing mode ? Explain with proper example the addressing modes—direct, indirect, index, autoincrement and autodecrement. 10
2. (a) What do you mean by recursive macros ? Give examples. 4
- (b) Explain the terms : Stack, Program counter and Instruction register. 6

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- (c) How does subroutine execute in a computer ? 4
3. (a) What is the difference between one pass and two pass assembler ? 4
- (b) Explain the algorithm of pass-I for two pass assembler. 10
4. (a) What is forward reference ? How does it resolve in single pass assembler ? 8
- (b) What is Macro ? How does it differ from subprogram ? 6
5. (a) Explain the responsibilities of the linker and the loader in program development. 4
- (b) What is relocation ? 1
- (c) Explain Absolute loaders, Relocating loaders and Linking loaders. 9
6. What is a compiler ? Explain the phases of a compiler. 14

7. Write the meaning of the following terms: 14

- (a) Symbol table
- (b) Dynamic loading
- (c) Bootstrap loader
- (d) Parser
- (e) Accumulator
- (f) Data type
- (g) Regular expression.