

Code: 9D06204

M.Tech II Semester Supplementary Examinations January/February 2017

SYSTEMS PROGRAMMING

(Digital Systems & Computer Electronics)

Time: 3 hours

Max. Marks: 60

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Define language processor. Discuss the problem oriented and procedure oriented languages.
(b) Give a brief note on interpreter and YACC.
- 2 Discuss the problem of deletion of entries in the following symbol table organizations:
(a) Binary search organization.
(b) Sequential search organization.
(c) Linked list and tree structure organization.
- 3 (a) Write the algorithm for naïve bottom up parsing.
(b) Construct an operator precedence matrix for the operators of a grammar for expressions containing arithmetic, relational and Boolean operations.
- 4 (a) Explain the working of single pass assembler for IBM PC.
(b) List and explain the advantages and disadvantages of assembly language.
- 5 In an assembly language program, a certain action is required at 10 places in the program. Under what conditions would you code this actions as:
(a) A macro.
(b) A subroutine.
- 6 (a) Differentiate between a compiler and an interpreter. Give examples for each.
(b) What is the need for code optimization? Explain any two code optimization techniques.
- 7 (a) Explain the purpose of the segment index field in LEDATA record.
(b) Give a brief note on self relocation programs.
- 8 Briefly explain about editors and debug monitors.
