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Total No. of Pages: 02

Total No. of Questions: 09

B.Tech. (CSE) (Sem. – 4)

SYSTEM PROGRAMMING

Subject Code: BTCS405

M Code: 56608

Date of Examination : 10-01-23

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. Write briefly:

- a) Give the difference between DC and EQU
- b) What do you mean by Dynamic Loading?
- c) What are the functions performed in pass 1 and pass 2 of a two assembler?
- d) What is a common use of ORG?
- e) Differentiate Syntax analysis and Semantic analysis
- f) What are the functions of a compiler?
- g) Compare interpreter and compiler
- h) Discuss about the salient features of Vi Editor?
- i) Define macro. What are the three main data structures used by our macro processor?
- j) Define lexeme.

SECTION-B

2. Explain dynamic linking. What is the use of Linkage editor?
3. Why do we use YACC? Differentiate LEX and YACC tools.
4. Write note on:
 - a) Full Screen Editors
 - b) Multi Window Editors
5. What is debugging in system programming? Discuss the debugging techniques used in embedded systems?
6. Discuss absolute loader scheme. Also, write its advantages and disadvantages.

SECTION-C

7. Explain the one-pass assembler in detail with block diagram. What are the problems faced by a one-pass assembler. How can we overcome with the problems faced by the one pass assembler?
8. Explain the different phases of compilers.
9. Explain recursive macro expression in detail. How could a non-recursive macro preprocessor allow for the invocation of macros within the macros? What would be the advantages and disadvantages of such an approach?

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.