BACHELOR OF COMPUTER SCIENCE AND ENGINEERING
THIRD YEAR
FIRST SEMESTER SUPPLEMENTARY EXAM 2024

System Programming

Time: 3 hours   Full Marks : 100

Answer any *five* questions.   5 X 20 = 100

1. What is utility of relocation bit? Differentiate between Rep and REPT directives with proper examples. How does DLL work on windows platform?   5+8+7=20 [CO1]

2. Distinguish between single pass assembler and cross assembler. Why cross assembler becomes indispensable for system development. Summarize edit control features available for text editor.   5+5+10=20[CO4]

3. What are the advantages and disadvantages of Overlay. Why an absolute loader is called as a self-destroyed loader Compare similarities and dissimilarities between linkage editor and loader-linker   8+5+7=20 [CO3]

4. Write a macro to find the maximum of 10 numbers using SIC/8086. What are the differences between positional parameter passing and key word parameter passing in macro? 15+5=20[CO2]

5. Immediate operands and literals are both ways of specifying an operand value in a source statement. When might each be preferable than other? Write an Assembly language Program to find the number of vowels.   5+15=20 [CO1]

6. What are the differences between line editor and screen editor? Explain the differences in user mode and kernel mode in device driver architecture. How UART device driver works in EXINU. 5+8+7=20 [CO6]

7. Write the algorithm for two-pass assembler mentioning all data structures clearly. What are fundamental differences between SIC and SIC/XE?   10+10=20 [CO1]

8. What are different addressing modes of 8086?   Design a flowchart for one-pass assembler mentioning all data structure and steps clearly.   5+15=20 [CO1]

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