

[30/A-24]

SEAT No. _____

Total number of printed pages: 2

SARDAR PATEL UNIVERSITY

MASTER OF COMPUTER APPLICATIONS SEMESTER – III EXTERNAL ATKT EXAMINATIONS PS03CMCA05 (System Software)

Saturday, April 13th, 2019

Time: 2:00 pm to 5:00 pm

Max. Marks: 70

Q-1 Choose the most appropriate option for each question:

[8]

- _____ is the program that converts an assembly language program into machine language program.
A. Migrator
B. Interpreter
C. Assembler
D. None of these
- BIOS interrupt is give _____ value
A. int 11h
B. int 21h
C. int 1h
D. int 10h
- _____ instruction shifts each bit in the destination some number of bit positions to the right.
A. SHL
B. SHD
C. SHR
D. None of these
- _____ is an example of the 8086 conditional flags.
A. IF
B. DF
C. ZF
D. None of these
- _____ implies replacement of a character string by another character string during program execution
A. Semantic expansion
B. Lexical expansion
C. Both A & B
D. None of these
- _____ eliminates the need to memorize numeric operation code.
A. Symbolic Operands
B. Variables
C. Mnemonic
D. Data Declared
- An _____ statement indicates an action to be performed during the execution of the assembled program.
A. Imperative
B. Declarative
C. Directive
D. None of these
- Linear-analysis phase is also known as _____
A. Lexical
B. Hierarchical
C. Semantic
D. None of these

①

(P.T.O)

Q-2 Answer the following questions (Any Seven): [14]

1. Define the following: 1) Execution gap 2) Language Processor
2. Differentiate between Problem oriented and Procedure oriented languages.
3. Write the code snippet to input a string in a 8086 assembly program.
4. List all four section of assembly program.
5. List and explain two types of Macro expansions.
6. Explain format of any assembly language statement.
7. List different uses of embedded system.
8. Define the following: 1) Pretty Printers 2) Hard Real-time system
9. Explain "RCL" 8086 assembly instruction with code.

Q-3 Answer the following questions:

- A. Write a note on different types of active flags available on 8086 Microprocessor architecture. [6]
- B. Explain LOOP, LOOPE and LOOPNE instructions. [6]

OR

- B. Justify the statement, "Semantic gap has consequences like large development time, large development effort and poor quality of s/w". [6]

Q-4 Answer the following questions:

- A. Discuss Macros in brief. [6]
- B. Explain the different types of analysis of compiler. [6]

OR

- B. Explain any four assembly directive statements in detail. [6]

Q-5 Answer the following questions:

- A. Write a short note on error handling and reporting in Compiler. [6]
- B. Write the steps of relocation algorithm. [6]

OR

- B. Discuss semantic analysis and lexical analysis occurring during compilation process. [6]

Q-6 Answer the following questions:

- A. Discuss how external references are resolved by linkers. [6]
- B. Explain floating point arithmetic issues with embedded systems. [6]

OR

- B. Discuss the different chips used in embedded systems. [6]

