[46/A-27]　SEAT No.

SARDAR PATEL UNIVERSITY

MASTER OF COMPUTER APPLICATIONS
SEMESTER – III EXTERNAL ATKT EXAMINATIONS
PS03CMCA05 (System Software)
Monday Nov 26th, 2018

Time: 2:00 pm to 5:00 pm　　　　　　　　　**Max. Marks: 70**

Q-1　Choose the most appropriate option for each question:　　　[8]

1. The _____ register is also called the accumulator.

   A. AL　　　　　　　　　　　B. AH
   C. AX　　　　　　　　　　　D. None of these

2. The _____ is always made to contain the address of the next memory word in the target program

   A. IP　　　　　　　　　　　B. AP
   C. SF　　　　　　　　　　　D. None of these

3. The _____ instruction determines shifts the bits in the operand by rotating them.

   A. MOV　　　　　　　　　　B. ROL
   C. LEA　　　　　　　　　　D. None of these

4. _____ is an example of the 8086 control flags.

   A. SF　　　　　　　　　　　B. ZF
   C. CF　　　　　　　　　　　D. None of these

5. _____ eliminates the need to memorize numeric operation code.

   A. Symbolic Operands　　　B. Mnemonic
   C. Variables　　　　　　　D. Data Declared

6. _____ translate a predicate containing relational and boolean operators into commands to search a database

   A. Text Formatter　　　　　B. Pretty Printers
   C. Query interpreters　　　　D. Query compiler

7. _____ analysis tokens are grouped hierarchical into nested collections with collective meaning

   A. Lexical　　　　　　　　B. Linear
   C. Semantic　　　　　　　D. None of these

8. Syntax-analysis phase is also known as_____

   A. Lexical　　　　　　　　B. Herarchical
   C. Semantic　　　　　　　D. None of these

(1)

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

1. List different types of bus available in 8086 assembly programming.
2. Define: 1) Problem Oriented Language 2) Procedure Oriented Language
3. Write 8086 assembly interrupt code used for taking single character input from user.
4. List all four general sections assembly program.
5. What is a Mnemonic Operation Code?
6. What is a declarative statement? Give its examples.
7. What is a literal?
8. Define the following: a)Silicon compilers   b) Static checkers
9. List and explain different types of Real time system.

Q-3 Answer the following questions:

A. Explain bus interface unit 8086 Microprocessor architecture. [6]
B. Justify that a program generator domain increases the reliability of the generated program. [6]

OR

B. Write an assembly program to input a character and convert it in its equivalent uppercase [6] character.

Q-4 Answer the following questions:

A. Write a note on basic structure of an 8086 assembly program. [6]
B. List and explain different types of Iteration control 8086 Assembly Instructions. [6]

OR

B. Explain different types of statements available in assembly language. [6]

Q-5 Answer the following questions:

A. Write a note on Table of Incomplete Instructions. Explain its usage. [6]
B. Explain the process of two pass translation in detail. [6]

OR

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

Q-6 Answer the following questions:

A. Discuss the working floating-point unit in embedded systems. [6]
B. Write a note on Self relocating Program. [6]

OR

B. Justify the use of C programming in different embedded systems. [6]

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