DF-3004
Second Year B. Sc. (Sem. III) Examination
March / April - 2016
Electronics for Computer Science : Paper - IV
(Microprocessor Circuit & Application)

Time : 2 Hours] [Total Marks : 50

Instructions :

(1) Fill up strictly the details of signs on your answer book.

Name of the Examination:
S.Y. B. Sc. (SEM. 3)

Name of the Subject:
ELECTRONICS FOR COMPUTER SCIENCE - 4

Subject Code No. 3 0 0 4  [Section No. (1, 2,....) 1, 2, 3]

(2) All questions are compulsory.

(3) Symbols and terminology used here have their usual meanings.

(4) Scientific calculator is allowed.

(5) Mobile (Cell phones) are strictly prohibited.

Q. 1 to 12 Multiple choice questions : (1 mark)
Q. 13 to 22 Multiple Choice Questions : (2 marks)
Q. 23 to 28 Multiple Choice Questions : (3 marks)

O.M.R. Sheet भरवा अंगेली अंगेली सूजनाओ आपेख
O.M.R. Sheet-ल पाएल एलेख हुँ

Important instructions to fillup O.M.R. Sheet
is given on back side of the provided O.M.R. Sheet.

DF-3004_A] 1 [ Contd...
1. Because microprocessor CPUs do not understand mnemonics as they are, they have to be converted to ________.
   (A) hexadecimal machine code
   (B) binary machine code
   (C) assembly language
   (D) All of these

2. The software used to drive microprocessor-based systems is called:
   (A) assembly language
   (B) firmware
   (C) machine language code
   (D) BASIC interpreter instructions

3. The circuits in the 8085A that provide the arithmetic and logic functions are called the:
   (A) CPU
   (B) ALU
   (C) I/O
   (D) None of these

4. How many buses are connected as part of the 8085A microprocessor?
   (A) 2
   (B) 3
   (C) 5
   (D) 8
5 The register in the 8085A that is used to keep track of the memory address of the next op-code to be run in the program is the:

(A) stack pointer
(B) program counter
(C) instruction pointer
(D) accumulator

6 How many bits are used in the data bus?

(A) 7
(B) 8
(C) 9
(D) 10

7 Which bus is a bidirectional bus?

(A) address bus
(B) data bus
(C) address bus and data bus
(D) None of these

8 Single-bit indicators that may be set or cleared to show the results of logical or arithmetic operations are the:

(A) flags
(B) registers
(C) monitors
(D) decisions
9 The technique of assigning a memory address to each I/O device in the computer system is called:

(A) memory-mapped I/O
(B) ported I/O
(C) dedicated I/O
(D) wired I/O

10 When was the first 8-bit microprocessor introduced?

(A) 1969
(B) 1974
(C) 1979
(D) 1985

11 Which of the following buses is primarily used to carry signals that direct other ICs to find out what type of operation is being performed?

(A) data bus
(B) control bus
(C) address bus
(D) address decoder bus

12 What type of circuit is used at the interface point of an input port?

(A) decoder
(B) latch
(C) tristate buffer
(D) None of these
13 If \((A) = 55H\) & \(Data\) is 10 H, then what will be XRI A?
   (A) 11 H
   (B) 45 H
   (C) Both of these
   (D) None of these

14 If \((A) = DE H\) and \((B) = 11 H\) then \(A+B =\)
   (A) 11H
   (B) B2H
   (C) EF H
   (D) None of these

15 The 1's compliment of 50H =
   (A) DF H
   (B) 24H
   (C) BCH
   (D) AF H

16 The 2's compliment of 33H is
   (A) CD H
   (B) A2 H
   (C) FF H
   (D) None of these

17 If \((A) = CD H\) and \((B) = BC H\) then \(A-B =\)
   (A) 10 H
   (B) 55 H
   (C) 14 H
   (D) 11 H
18. ORI C, 7E H will perform
   (A) AND operation between (A) and 22H
   (B) AND operation between (A) and (B)
   (C) OR operation between (C) and 7E H
   (D) None of these

19. If (A)=11 H and if (C)=22 H, then what will be (A) after executing the instruction MOV A, C
   (A) 11 H
   (B) 22 H
   (C) Both of these
   (D) None of these

20. If (C) = 1D H then what will be the (C) after executive the instruction INR C
   (A) 13 H
   (B) 09 H
   (C) 11 H
   (D) 1E H

21. LXI B will initiate
   (A) BC pair
   (B) HL pair
   (C) Both of these
   (D) None of these

22. The instruction XCHG is used to interchange
   (A) AB pair and DE pair
   (B) HL pair and AB pair
   (C) HL pair and DE pair
   (D) None of these
23. What will be the (A) after executing the operation, A+B−C, if (A)=33 H, (B) = 22H and (C) = 11 H
   (A) 72 H
   (B) C7 H
   (C) 44 H
   (D) 33 H

24. If (A) = 44H and (B)=70 H then, what will be the (A) after executing instruction ANA B?
   (A) D3 H
   (B) 40 H
   (C) 73 H
   (D) None of these

25. If the (A) = 55H and (B) = 33 H, then what will be (A) after executing instruction A−B and then A+B
   (A) 12 H
   (B) 55 H
   (C) 82 H
   (D) 62 H
26 What will be the 2’s compliment of register C if (C)=11 H?

(A) AB H

(B) EF H

(C) CA H

(D) DE H

27 XRA A can be used

(A) To clear an Accumulator

(B) To clear register B

(C) To clear register H

(D) None of these

28 What will be the content of an Accumulator after executing the following instructions, ORA B then ANA A, if (A)=40 H and (B) = 33 H?

(A) 73 H

(B) 01 H

(C) 00 H

(D) 42 H