DF-3004

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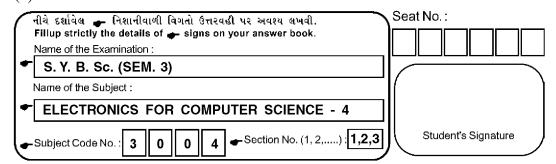# Electronics for Computer Science : Paper - IV
(Microprocessor Circuit & Application)

Time : 2 Hours]   [Total Marks : 50

Instructions :

(1)

(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 Choise Questions : (2 marks)

Q. 23 to 28 Multiple Choice Questions : (3 marks)

1 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) control bus

(B) address bus

(C) address decoder bus

(D) data bus

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

(A) latch

(B) tristate buffer

(C) None of these

(D) decoder

3 Because microprocessor CPUs do not understand mnemonics as they are, they have to be converted to _____.

(A) binary machine code

(B) assembly language

(C) All of these

(D) hexadecimal machine code

4 The software used to drive microprocessor-based systems is called :

(A) firmware

(B) machine language code

(C) BASIC interpreter instructions

(D) assembly language

5 The circuits in the 8085A that provide the arithmetic and logic functions are called the :

(A) ALU

(B) I/O

(C) None of these

(D) CPU

6 How many buses are connected as part of the 8085A microprocessor ?

(A) 3

(B) 5

(C) 8

(D) 2

7 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) program counter

(B) instruction pointer

(C) accumulator

(D) stack pointer

8 How many bits are used in the data bus ?

(A) 8

(B) 9

(C) 10

(D) 7

9 Which bus is a bidirectional bus ?

(A) data bus

(B) address but and data bus

(C) None of these

(D) address bus

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

(A) registers

(B) monitors

(C) decisions

(D) flags

11 The technique of assigning a memory address to ech I/O device in the computer system is called :

(A) ported I/O

(B) dedicated I/O

(C) wired I/O

(D) memory-mapped I/O

12 When was the first 8-bit microprocessor introduced ?

(A) 1974

(B) 1979

(C) 1985

(D) 1969

13   The 1's compliment of 50H =

(A)   24H

(B)   BCH

(C)   AF H

(D)   DF H

14   The 2's compliment of 33H is

(A)   A2 H

(B)   FF H

(C)   None of these

(D)   CD H

15   If (A) = CD H and (B) = BC H then A–B =

(A)   55 H

(B)   14 H

(C)   11 H

(D)   10 H

16   ORI C, 7E H will perform

(A)   AND operation between (A) and (B)

(B)   OR operation between (C) and 7E H

(C)   None of these

(D)   AND operation between (A) and 22H

17   If (A)=11 H and if (C)=22 H, then what will be (A) after executing the instruction MOV A, C

(A)   22 H

(B)   Both of these

(C)   None of these

(D)   11 H

18 If (C) = 1D H then what will be the (C) after executive the instruction INR C

(A) 09 H

(B) 11 H

(C) 1E H

(D) 13 H

19 LXI B will initiate

(A) HL pair

(B) Both of these

(C) None of these

(D) BC pair

20 The instruction XCHG is used to interchange

(A) HL pair and AB pair

(B) HL pair and DE pair

(C) None of these

(D) AB pair and DE pair

21 If (A) = 55H & Data is 10 H, then what will be XRI A ?

(A) 45 H

(B) Both of these

(C) None of these

(D) 11 H

22 If (A) = DE H and (B) = 11 H then A+B =

(A) B2H

(B) EF H

(C) None of these

(D) 11H

23   If (A) = 44H and (B)=70 H then, what will be the (A) after executing instruction ANA B ?

(A) 40 H

(B) 73 H

(C) None of these

(D) D3 H

24   If the (A) = 55H and (B) = 33 H, then what will be (A) after executing instruction A–B and then A+B

(A) 55 H

(B) 82 H

(C) 62 H

(D) 12 H

25   What will be the 2's compliment of register C if (C)=11 H ?

(A) EF H

(B) CA H

(C) DE H

(D) AB H

26 XRA A can be used

(A) To clear register B

(B) To clear register H

(C) None of these

(D) To clear an Accumulator

27 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) 01 H

(B) 00 H

(C) 42 H

(D) 73 H

28 What will be the (A) after executing the operation, A+B–C, if (A)=33 H, (B) = 22H and (C) = 11 H

(A) C7 H

(B) 44 H

(C) 33 H

(D) 72 H