



AC-1728

B. Sc. (I. T.) (Sem. - IV) Examination
March/April - 2015
Microprocessor & Assembly Language

Time : 3 Hours]

[Total Marks : 70

Instruction :

नीचे दृशावेक निशानीवाणी विगतो उत्तरवही पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. SC. (I. T.) (SEM. - IV)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="MICROPROCESSOR & ASSEMBLY LANGUAGE"/>	<input type="text"/>
Subject Code No. : <input type="text" value="1"/> <input type="text" value="7"/> <input type="text" value="2"/> <input type="text" value="8"/>	<input type="text"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	<input type="text"/>
	Student's Signature

- 1 Answered the following questions in detail : **(Any Four)** 16
- (1) Draw 80486 microprocessor block diagram.
 - (2) Explain following pins of 8086 microprocessor.
 - (a) BHE
 - (b) RESET
 - (c) AO-A19
 - (d) M/\overline{IO}
 - (3) Explain Interrupt vector table in detail.
 - (4) Explain following instruction
 - (a) RCR
 - (b) ADC
 - (5) Draw minimum mode timing diagram to write data in memory from 8086 micro processor.
- 2 Answer the following questions in detail : **(Any Three)** 18
- (1) Explain 8255 programmable peripheral interface IC.
 - (2) List out "Addressing modes" and explain memory addressing mode in detail.
 - (3) Make correction in given instructions and explain it.
 - (1) MUL AX,BL
 - (2) ADC CL,DX
 - (3) MOV SI,AL
 - (4) DEC AL,CL
 - (5) NOT BL,AL
 - (6) PUSHF BL
 - (4) Explain following directives with examples
 - (1) DT
 - (2) DB
 - (3) OFFSET

- 3 Answer the following questions in detail : (Any Two) 18**
- (1) Draw 8086 block diagram and explain instruction pointer, ALU and source index register.
- (2) (a) Draw 80286 microprocessor block diagram. **4**
 (b) Explain following instructions **5**
 (a) CMP AX,CX (b) SBB AL,CL
 (c) MOV [SI],BX (d) OUT 0x0A,AL
 (e) CLC
- (3) (a) Explain instruction template with example. **6**
 (b) Explain following directives **3**
 (a) DQ (b) SEGMENT
- 4 (A) Find out true or false from given sentences: 6**
- (1) DEC CL instruction execution is decrementing CL content by one in 8086 microprocessor.
 (2) 8086 microprocessor is 8 bit microprocessor.
 (3) Stack pointer is holding Next instruction address.
 (4) Data-segment register is 16 bit address register.
 (5) INC AL instruction is decrement value of AL register.
 (6) Instruction queue can hold 8 byte of instructions in 8086.
- (B) Answer following questions in detail : (Any two) 12**
- (1) Write program to arrange five consecutive memory locations content in ascending order and store it on 0x0700 to 0x0705 data segment memory locations.
- (2) Explain following registers in detail
 (a) Instruction Pointer (IP)
 (b) Base Pointer (BP)
 (c) code segment register (CS)
 (d) Accumulator registrar (AX)
 (e) Instruction Queue
 (f) Destination Index (DI)
- (3) Explain status flags from flag register of 8086 microprocessor.