



SF-7143

B. E. III (Sem. VI) (IT) Examination

May / June - 2011

Microprocessors (IT 602 IT) - I

Time : Hours]

[Total Marks :

Instructions :

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination : B. E. 3 (SEM. 6) (IT)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Name of the Subject : MICROPROCESSORS (IT 602 IT) - 1	<input type="text"/> Student's Signature
Subject Code No. : 7 1 4 3 Section No. (1, 2,.....): Nil	

- 1 (a) Attempt the following : 10
- (1) An instruction has two parts : Opcode and 1
- (2) ALE stands for _____ . 1
- (3) Addressing in which the instruction contains the address of the data to be operated on is known as 1
- (a) Implied addressing
- (b) Immediate addressing
- (c) Direct addressing
- (d) Register addressing
- (4) The 8085 microprocessor has six general purpose 8-bit _____ to store data. 1
- (5) How many memory locations can be addressed by a microprocessor with 14 address lines ? 1
- (6) Given a statement state whether True or False : 1
- (a) XRA A instruction can be used to clear register A. 1
- (b) If microprocessor uses peripheral-mapped I/O, the output devices it can access are restricted to 256. 1
- (c) Data bus is used to send a memory or devices address from microprocessor. 1
- (d) SP is a special purpose 16-bit register in 8085 microprocessor. 1
- (e) PSW in 8085 microprocessor refers to the general purpose register set of it.

- (8) In 8254 IC, mode 3 is known as _____ .
 (9) In 8259A IC, the control word ICW stands for _____ .

(10) True/False : In serial I/O, RS - 232C standard is used if data is transmitted as current.

(b) Explain the block diagram of 8255A programmable peripheral interface and briefly discuss its modes. **10**

5 (a) Describe the steps involved in 8085 interrupt process. **7**

OR

(a) Describe various 8085 vectored interrupts. Also explain SIM and RIM instructions. **7**

(b) Discuss DMA with the help of Data transfer diagram. **4**

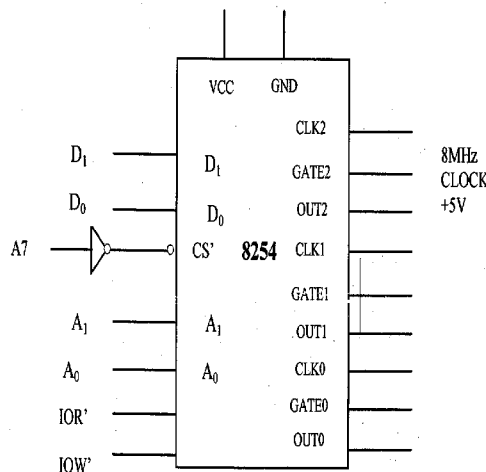
(c) Draw a circuit to implement RST 6 instruction. **4**

6 (a) Explain 8251A USART programmable communication interface in detail with the block diagram. **8**

OR

(a) Explain the functionality of the 8279 programmable Keyboard/display interface with the help of block diagram. **8**

(b) Identify the port address of control register and counter 2 of 8254. Write instructions to generate a 4kHz square wave from counter 2 of 8254 interval timer according to the given **7**



OR

(b) Write a main program to count continuously in binary with a 5 seconds delay between each count. Write a service routine at XX60H to flash FFH four times when the program is interrupted, with some appropriate delay between each flash. Assume that DELAY subroutine is given. **7**