



SB-3768

**M. Sc. (Tech) (Instrumentation) (Part - I)
(Sem - II) Examination**

March / April – 2011

**Paper - INS - 22 - Microprocessors : Paper - II
(New Course)**

Time : Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दशांशके निशानीवाणी विगतो उत्तरवही पर अवश्य लपनी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. SC. (TECH) (INSTRUMENTATION) (PART - I) (SEM - II)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="PAPER - INS - 22 - MICROPROCESSORS : PAPER - II"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="6"/> <input type="text" value="8"/>	<input type="text" value="Student's Signature"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	

- (2) All questions carry **equal** marks.
(3) Figures to the **right** indicate full marks.
(4) Assume necessary data if required.

- 1 Answer the following questions : (any **eight**) 16
- (i) 8254 can work in 6 different modes, true or False.
 - (ii) Differentiate between PROM and EPROM.
 - (iii) Specify the four control signals commonly used in the 8085 MPU
 - (iv) What is main difference between microprocessor and microcomputer ?
 - (v) If $AOA_1 = 00$ while 808 is selecting 8254 counter _____ will be selected.
 - (vi) INTA pulses are required because INTR is having the lowest priority. True or False.
 - (vii) LXI H 2600 H takes _____ machine cycles.
 - (viii) TRAP is a mistakable interrupt. True or False.
 - (ix) Define the terms bits, byte, word and instructions.
 - (x) List the four operations commonly performed by the MPV.

- 2 Answer any **three** questions of the following : 18
- (i) Explain in detail different types of memory with their suitable examples.
 - (ii) Discuss rotation modes of 8259 A programmable interrupt controller. Also explain EOI command.
 - (iii) Write the name of various types of addressing modes and explain any one of them.
 - (iv) Write short note on Program Counter (PC) and Stack Pointer (SP).
- 3 Answer any **three** questions of the following : 18
- (i) Draw and explain functional block diagram of 8085 MPU.
 - (ii) Discuss any two operating modes of 8255 A IC.
 - (iii) How many address lines are used to identify and I/O port in the peripheral I/O and in the memory mapped I/O methods ?
 - (iv) Explain in brief the following :
 - (a) Masked ROM
 - (b) Flash memory
 - (c) PROM
- 4 Answer any **three** questions of the following : 18
- (i) Write main difference between MPU and CPU.
 - (ii) Explain mode 0 and mode 1 of 8253.
 - (iii) Explain the initiated operations and 8085 bus organization in MPU.
 - (iv) How to write 'ASSEMBLE' and 'EXECUTE' A simple program of 8085 MPU ?
-