T.E.-V - Sem. Biomedical 24/11/15

11/15 Microprocesser (16)

TE/V/BM/CBGS/MICROPROCESSOR

QP Code : **5615**

(3 Hours) [Total Marks :80

N.B. : (1) Question no. 1 is compulsory.
(2) Attempt any three questions from the remaining five questions.
(3) State assumptions wherever necessary

1. Answer the following:- 20
   (a) Compare Harvard and Von-Neumann architecture
   (b) What do you understand by segmentation in 8086
   (c) Explain the following instructions
      (i) PUSH BX
      (ii) STOS B
      (iii) CBW
      (iv) TEST
      (v) XLATB
   (d) Explain the status register of 8087

2. (a) Draw and explain architecture of 8086 in details 10
   (b) Explain the Read and Write cycle of 8086 in minimum mode. 10

3. (a) Design an 8086 based system for the following specifications:- 15
      (i) 32KX8 RAM
      (ii) 32X8 ROM
      (iii) 8255 for simple I/O
   (b) WAP to find area of a circle with radius r = 4.2 cms using 8087 5

4. (a) Distinguish between minimum mode and maximum mode. 10
   (b) State and explain the various priority modes of 8259 10

5. (a) Explain the various data types used in 8087 10
   (b) Write a program to check whether the string is a palindrome 10

6. Write short notes on any four of the following:- 20
      (i) DMAC 8237
      (ii) Interfacing of 8086 and ADC
      (iii) Memory banking in 8086
      (iv) Bus controller 8288
      (v) Addressing modes in 8086

MD-Con. 8238-15.