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BIEL-015

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# B. Tech. ELECTRONICS AND COMMUNICATION ENGINEERING (BTECVI)

## Term-End Examination

## June, 2013

## BIEL-015: MICROPROCESSOR AND ITS APPLICATIONS

*Time : 3 hours* *Maximum Marks : 70*

***Note :*** *Attempt **any seven** questions including Question No - 1 which is **compuslory**.*

1. (a) The memory address of the last location of a 1 - k byte memory chip is given as $FBFF_H$, specify the starting address. 2x5=10

   (b) Write four different instructions by which we can clear accumulator ?

   (c) Give the Order of Priority of the following instructions with reason.

   (i) HOLD (ii) INTERUPT

   (iii) RESET

   (d) List the various 'call' instructions and their use.

   (e) What do you mean by PSW ? Give its format and mention the function of each bit.

2. What is addressing mode ? Explain the various addressing modes of 8085 with example. **10**

3. Explain the function carried out by the microprocessor on execution of following instructions : **10**

   (a) PCHL (b) SPHL (c) DAD B

   (d) HLT (e) PUSH

4. Discuss different techniques used for interfacing I/O devices to microprocessor. State merit and demerit of each. **10**

5. What are different data transfer techniques ? Explain in detail. **10**

6. Write an assembly Language Program with flow chart to convert 8 - bit BCD number to its equivalent Binary Number. **10**

7. (a) Describe the function of 8086 instruction queue. **5**

   (b) Discuss the memory segmentation scheme used in 8086. **5**

8. Show the interfacing of 8257 with 8085 in memory mapped I/O technique, and discuss the control words of 8257. **10**

9. Draw and explain the block diagram of timer chip 8253 and also explain its Mode - 4 with wave form. **10**

10. Write notes on ***any two*** of the following. **5x2=10**

    (a) Minimum mode and maximum mode of 8086

    (b) 80 486 Microprocessor

    (c) 8255 Timer.