

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER-IV • EXAMINATION – SUMMER • 2015

Subject Code: 3340302

Date: 04-05-2015

Subject Name: Microprocessor and Assembly Language Programming

Time: 10:30 am - 01:00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

- Q.1** Answer any seven out of ten. **14**
1. Flags.
  2. Word length.
  3. Address bus.
  4. Power supply.
  5. ALU.
  6. ALE.
  7. Micro computer.
  8. RISC.
  9. Control bus.
  10. Memory.
- Q.2** (a) Give the difference between Vannuman and Harward architecture. **03**
- OR
- (a) Draw the basic block diagram of micro processor. **03**
- (b) Draw the Bus organization of microprocessor 8085. **03**
- OR
- (b) Explain the Bus organization of microprocessor 8085. **03**
- (c) Draw the programming model of 8085. **04**
- OR
- (c) Explain the programming model of 8085. **04**
- (d) Draw the signaling diagram of microprocessor 8085. **04**
- OR
- (d) Draw the pin out diagram of microprocessor 8085. **04**
- Q.3** (a) Explain the signaling diagram of microprocessor 8085. **03**
- OR
- (a) Explain the pin out diagram of microprocessor 8085. **03**
- (b) Describe the Clock frequency of microprocessor 8085. **03**
- OR
- (b) Describe the data bus of microprocessor 8085. **03**
- (c) Enlist data transfer instructions. **04**
- OR
- (c) Give the example of ADD and ADC instruction. **04**
- (d) Give the example of XRL and CMP instruction. **04**
- OR
- (d) Give the example of JMP and CALL. **04**
- Q.4** (a) Write an assembly language program for copy the data 55h in to register A and B. **03**
- OR
- (a) Compare timers and counters in brief. **03**

(b) Write a difference between CALL and JMP. **04**

OR

(b) Write an assembly language program for transfer the series of data from 3000h to 4000h. **04**

(c) Draw and explain basic block diagram of 8086 processor. **07**

**Q.5** (a) Draw the block diagram of Pentium processor. **04**

(b) Describe the RISC processor in brief. **04**

(c) Write an assembly language program for adding the data 34h and 56h. **03**

(d) Enlist the types of looping. **03**

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