## VITHALBHAI PATEL & RAJRATNA P.T. PATEL SCIENCE COLLEGE VALLABH VIDHYA NAGAR

T.Y. B.Sc. SEM: VI

INTERNAL TEST

Salakan marang kecamatan di Kabupatèn Kabupatèn Kabupatèn Kabupatèn Kabupatèn Kabupatèn Kabupatèn Kabupatèn Ka

SUB: INSTRUMENTATION (VOC.)

SUB CODE: US06CINV05

DATE: 14<sup>th</sup> march 2014 TIME: 3:30 pm to 5:00 pm

**TOTAL MARKS: 30** 

| Q.1<br>(1)<br>(2)<br>(3)<br>(4)<br>(5)<br>(6) | Answer the following in short. (Attempt any Three, each two marks)  State the different technique of dynamic debugging.  Define STACK and subroutine.  List the instruction related to stack.  Briefly ASCII code.  Define RAR and RLC instruction.  Define T-state in micro processor. | [06] |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Q.2                                           | Explain different techniques used for debugging a program.  OR                                                                                                                                                                                                                          | [80] |
| Q.2                                           | Discuss different arithmetic instruction related to memory with illustration.                                                                                                                                                                                                           | [80] |
| Q.3                                           | Discuss different conditional and unconditional CALL and RET instruction of 8085 system with illustration.  OR                                                                                                                                                                          | [80] |
| Q.3                                           | Write a program to count continuously in hex-decimal from CD H to 00 H in system with 1 micro second clock period. Set up time delay of 1.5 milli second between each count. Display the count at output port. ( Take no of T-state = 14)                                               | [08] |
| Q.4                                           | Write a program to convert a BCD number stored in memory location to its equivalent binary number and save the answer in output buffer memory.  OR                                                                                                                                      | [80] |
| Q. 4                                          | Write a program to convert a BCD number to its equivalent seven segment LED codes. The codes for the common cathode LED are stored in memory.                                                                                                                                           | [80] |

-: All the best: -