



**Q.1. Answer the following Short Questions: (6x5=30)**

- 1. What are the benefits of using assembly language?**
- 2. What are the functions and format of the registers AX, BX, CX and DX?**
- 3. What is the format of an Assembly Program? Write its syntax and give one line description for each segment of assembly program.**
- 4. How do 16-bit registers differ from their 32-bit counterpart registers of any microprocessor?**
- 5. Write an assembly language program that take 2 input numbers from user and swap them.**
- 6. Differentiate between the following Instructions with examples.**
  - a) MOV and LEA**
  - b) CMP and SUB**

**Q.2. Answer the following Questions. (3x10=30)**

- i. Write an assembly language program that takes character string as input from the user and displays it in reverse order.
- ii. Write an assembly program that input an integer from user and find whether the number is POSITIVE, NEGATIVE or ZERO.
- iii.
  - a) Explain how procedure can be implemented in Assembly Language?
  - b) Write a program that find the size of the string entered by user.