**ICT 2256 Computer Organization and Microprocessor Systems, IV sem B.Tech (IT), 16-02-2023**

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| **Sl. No** | **Question** | **Marks** | **CLO** |
| 1 | Assume Data segment content as given below and DS register is initialized to the base address of data segment:  A DW 0AB05H, 0001H, 0008h, 2462H, 0001H  Error –free code snippet:  MOV CX, 0008H  UP: MOV SI, CX  MOV CX, [SI]  LOOP UP  How many times is the loop executed? Justify.  Write the content of SI and [SI] after the execution of above code. | 2 | 2 |
| 2 | Which of the following are invalid instructions?  i. MOV 7FFFEH [BP], 20H  ii. MOV [SI][CX], 2345H  iii. MOV [SI-DI], CX  A. ONLY iii  B. i and ii  C. ii and iii  D. i, ii and iii \_\_\_\_\_\_\_\_ | 1 | 1 |
| 3 | Explain the addressing mode is used in MOV AX, [2500H] | 2 | 2 |

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| **Sl. No** | **Question** | **Marks** | **CLO** |
| 1 | Assume Data segment content as given below and DS register is initialized to the base address of data segment:  A DW 0105H, 0200H, 0100H,0004h, 0003H, 0001H, 0003H,0001H, 0002H  Error –free code snippet:  MOV CX, DS:0008  UP: MOV DI, CX  MOV CX, [DI]  LOOP UP  How many times is the loop executed? Justify.  Write the content of SI and [SI] after the execution of above code. | 2 | 2 |
| 2 | The BIU contains FIFO register of size \_\_\_\_\_\_\_\_byte | 1 | 1 |
| 3 | Explain the addressing mode is used in MOV AX, 1234[BP] | 2 | 2 |

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| **Sl. No** | **Question** | **Marks** | **CLO** |
| 1 | Assume Data segment content as given below and DS register is initialized to the base address of data segment:  A DW 7805H, 0002H,0001H, 0002H  Error –free code snippet:  MOV SI, 01  UP: MOV CX, [SI]  INC SI  LOOP UP  How many times is the loop executed? Justify.  Write the content of SI and [SI] after the execution of above code. | 2 | 2 |
| 2 | If the extra segment register content is 1246H, the base address is:\_\_\_\_\_\_ | 1 | 1 |
| 3 | Explain the addressing mode is used in MOV AX, [BX] | 2 | 2 |

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| **Sl. No** | **Question** | **Marks** | **CLO** |
| 1 | Assume Data segment content as given below and DS register is initialized to the base address of data segment:  A DW 0002H, 0004H, 0001H, 0000H, 0003H  Error –free code snippet:  MOV BX, DS:0000  UP: MOV AX, [BX]  MOV BX,AX  MOV CX,BX  LOOP UP  How many times is the loop executed? Justify.  Write the content of BX and [BX] after the execution of above code. | 2 | 2 |
| 2 | The value of sign flag and Axillary flag after the of two numbers 567DH and A565H is | 1 | 1 |
| 3 | Explain the addressing mode used in MOV AX, [BX+SI+05] | 2 | 2 |