# Program: BE Electronics and Telecommunication Engineering <br> Curriculum Scheme: Revised 2016 <br> Examination: Third Year Semester V <br> Course Code: ECC501 and Course Name: MPI 

Time: 1 hour


Note to the students:- All the Questions are compulsory and carry equal marks .

| Q1. | If there are N address lines, then it can address how many memory locations? |
| :--- | :--- |
| Option A: | $2^{\wedge} \mathrm{N}$ |
| Option B: | $2^{\wedge}(\mathrm{N}-1)$ |
| Option C: | $(2-1)^{\wedge} \mathrm{N}$ |
| Option D: | $\mathrm{N}^{\wedge} 2$ |
|  |  |
| Q2. | A processor has 4 GB memory, how many address lines are required to access <br> this memory? |
| Option A: | $2^{\wedge} 16$ |
| Option B: | $2^{\wedge} 32$ |
| Option C: | $2^{\wedge} 8$ |
| Option D: | $2^{\wedge} 16$ |
|  |  |
| Q3. | Identify which from the following is not High Level Language |
| Option A: | 8086 Assembly Language |
| Option B: | $\mathrm{C}++$ |
| Option C: | FORTRAN |
| Option D: | BASIC |
|  |  |
| Q4. | What is the main function of Priority Resolver of 8259? |
| Option A: | Store the masking pattern of interrupts |
| Option B: | Determine highest Priority interrupt |
| Option C: | Store level of Interrupt Request currently being serviced |
| Option D: | Control the other blocks |
| Q5. |  |
| Option A: | Zero Flag(ZF) |


| Option B: | Sign Flag(SF) |
| :---: | :---: |
| Option C: | Parity Flag(PF) |
| Option D: | Overflow Flag(OF) |
| Q6. | Which pin of 8257 Programmable DMA controller clears mode set register and status register, and forces 8257 into slave mode |
| Option A: | CLEAR |
| Option B: | READY |
| Option C: | HLDA |
| Option D: | RESET |
| Q7. | 8086 Execution unit has four general purpose......registers |
| Option A: | 8 bit |
| Option B: | 64 bit |
| Option C: | 16 bit |
| Option D: | 32 bit |
|  | 16 bit |
| Q8. | Which from the following works as a default counter register for string \& loop operations |
| Option A: | Ax |
| Option B: | Bx |
| Option C: | Cx |
| Option D: | Dx |
| Q9. | Identify the physical address for MOV Ax,[Bx+SI+06H] Assume, DS=2100H, Bx=0158H, SI=3050H |
| Option A: | 241AEH |
| Option B: | 241AFH |
| Option C: | 241A8H |
| Option D: | 2418AH |
| Q10. | S3 \& S4 gives the status of the memory segment currently accessed. What is the status of S3 \& S4 to access Stack Segment |
| Option A: | S3=0, S4=0 |
| Option B: | S3=1, S4=0 |
| Option C: | S3=0, S4=1 |
| Option D: | $\mathrm{S} 3=1, \mathrm{~S} 4=1$ |
| Q11. | In 8086, one bank contains all even addresses called......\& ........ containing all odd addresses. |
| Option A: | Lower bank, Upper bank |
| Option B: | Upper bank, Lower bank |
| Option C: | Odd bank, Even bank |
| Option D: | Even bank, Lower bank |


| Q12. | If in case of 8255 following instructions are given: <br> OUT CWR, AL; status of 8255 ports. <br> MOV AL, 95H; Then select the |
| :---: | :---: |
| Option A: | Initialize port A as input, port B as output, port C upper as output \& port C lower as input |
| Option B: | Initialize port A as output, port B as input, port C upper as output \& port C lower as input |
| Option C: | Initialize port A as input, port B as output, port C upper as input \& port C lower as output |
| Option D: | Initialize port A as input, port B as output, port C upper as output \& port C lower as output |
| Q13. | Which of the following signalis not generated by 8288 bus controller |
| Option A: | ALE |
| Option B: | I/O Read |
| Option C: | BHE' |
| Option D: | DEN |
| Q14. | Identify the instruction which is having Register Indirect addressing mode |
| Option A: | MOV [SI], Bx |
| Option B: | MOV Bx, Cx |
| Option C: | SUB CI, [Bx+SI] |
| Option D: | ADD Ax, Bx |
| Q15. | Which pin is enabled to begin A to D conversion? |
| Option A: | ALE |
| Option B: | START |
| Option C: | EOC |
| Option D: | OE |
| Q16. | Main function of.........is decoding \& execution of the instruction |
| Option A: | Execution Unit |
| Option B: | Bus Interface Unit |
| Option C: | Instruction Byte Queue |
| Option D: | Memory unit |
| Q17. | If Total RAM=32KB, chip available=8KB, then how many sets are required? |
| Option A: |  |
| Option B: | 2 |
| Option C: | 4 |
| Option D: | 8 |
| Q18. | The pin that disables all the DMA channels by clearing the mode registers is |
| Option A: | MARK |
| Option B: | CLEAR |


| Option C: | RESET |
| :--- | :--- |
| Option D: | READY |
|  |  |
| Q19. | EPROM required is 32KB, available chil size $=8 \mathrm{~KB}$, then how many chips required? |
| Option A: | 2 |
| Option B: | 3 |
| Option C: | 4 |
| Option D: | 8 |
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| Q.20 | The register that stores the bits required to mask the interrupt inputs is |
| Option A: | In-service register |
| Option B: | Priority resolver |
| Option C: | Interrupt Mask register |
| Option D: | None |
|  |  |
| Q.21 | For selection of counter 0, what should be the status of AO-A1 |
| Option A: | 00 |
| Option B: | 01 |
| Option C: | 10 |
| Option D: | 11 |
|  |  |
| Q.22 | What is mode 3 of 8254? |
| Option A: | Pulse generator |
| Option B: | Square wave generator |
| Option C: | Software trigger strobe |
| Option D: | Interrupt on terminal count |
|  |  |
| Q.23 | In BSR mode, only port C can be used to |
| Option A: | set individual ports |
| Option B: | reset individual ports |
| Option C: | set and reset individual ports |
| Option D: | programmable I/O ports |
|  |  |
| Q.24 | In 8086, which locations are reserved for IVT? |
| Option A: | 0000 H to 03FFH |
| Option B: | 0000 H to 03FFE |
| Option C: | 00000 H to 003FFH |
| Option D: | 00000 H to FFFFFH |
|  |  |
| Q.25 | In which type of interrupt gets generated if the result of DIV or IDIV operation is <br> too large to fit destination register? <br> Option A: <br> Option B: <br> Option C: <br> Type0 <br> Tyption D: |

