

Program: **BE Computer Engineering**

Curriculum Scheme: **Revised 2012**

Examination: **Third Year Semester V**

Course Code: **CPC501** and Course Name: **Microprocessor**

Time: 1 hour

Max. Marks: 50

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

|           |                                                    |
|-----------|----------------------------------------------------|
| Q1.       | DT/R pin of 8086 is connected to ___ pin of 8286   |
| Option A: | OE pin                                             |
| Option B: | T pin                                              |
| Option C: | CS pin                                             |
| Option D: | R pin                                              |
|           |                                                    |
| Q2.       | By using TRAP flag 8086 can                        |
| Option A: | Enable the FLAG register                           |
| Option B: | Can execute one instruction at a time              |
| Option C: | Can execute group of instruction at a time         |
| Option D: | Can add breakpoint                                 |
|           |                                                    |
| Q3.       | A0 pin of 8086 is used for selecting the data from |
| Option A: | Even bank                                          |
| Option B: | Odd bank                                           |
| Option C: | Both                                               |
| Option D: | Parity bank                                        |
|           |                                                    |
| Q4.       | Maximum mode of 8086 is                            |
| Option A: | Uniprocessor system                                |
| Option B: | Multiprocessor system                              |
| Option C: | Superscalar system                                 |
| Option D: | Single processor system                            |
|           |                                                    |
| Q5.       | With 8086 the use of DX register is to             |
| Option A: | Store count value                                  |
| Option B: | Store Operations result                            |
| Option C: | Store I/O addresses                                |
| Option D: | Store data value                                   |
|           |                                                    |
| Q6.       | In 8086 the overflow flag is set when_____.        |

|           |                                                                             |
|-----------|-----------------------------------------------------------------------------|
| Option A: | The sum is more than 16 bit                                                 |
| Option B: | Carry and sign flags are set                                                |
| Option C: | Signed numbers go out of their range after an arithmetic operation          |
| Option D: | During subtraction                                                          |
|           |                                                                             |
| Q7.       | The instruction, CMP to compare source and destination operands it performs |
| Option A: | Addition                                                                    |
| Option B: | Subtraction                                                                 |
| Option C: | Multiplication                                                              |
| Option D: | Division                                                                    |
|           |                                                                             |
| Q8.       | Which of the following instruction is not valid?                            |
| Option A: | MOV AX, BX                                                                  |
| Option B: | MOV DS, 5000H                                                               |
| Option C: | MOV AX, 5000H                                                               |
| Option D: | PUSH AX                                                                     |
|           |                                                                             |
| Q9.       | The instructions that involve various string manipulation operations are    |
| Option A: | branch instructions                                                         |
| Option B: | flag manipulation instructions                                              |
| Option C: | shift and rotate instructions                                               |
| Option D: | string instructions                                                         |
|           |                                                                             |
| Q10.      | CBW instruction converts                                                    |
| Option A: | Byte to word                                                                |
| Option B: | Word to byte                                                                |
| Option C: | Signed no to unsigned no                                                    |
| Option D: | Unsigned no to signed no                                                    |
|           |                                                                             |
| Q11.      | Which of the following is conditional branch instruction?                   |
| Option A: | CALL                                                                        |
| Option B: | Loop                                                                        |
| Option C: | JMP                                                                         |
| Option D: | JNC                                                                         |
|           |                                                                             |
| Q12.      | When 8259 PIC's SP/EN pin is connected to GND                               |
| Option A: | Its Master PIC                                                              |
| Option B: | Its slave PIC                                                               |
| Option C: | Its Core PIC                                                                |
| Option D: | Its basic PIC                                                               |
|           |                                                                             |
| Q13.      | The fully nested mode of 8259 PIC is also called as                         |
| Option A: | Fixed priority mode                                                         |

|           |                                                                                                            |
|-----------|------------------------------------------------------------------------------------------------------------|
| Option B: | Rotating Priority mode                                                                                     |
| Option C: | Automatic rotation                                                                                         |
| Option D: | Specific rotation                                                                                          |
|           |                                                                                                            |
| Q14.      | While responding to an interrupt 8086 microprocessor doesn't                                               |
| Option A: | It pushes flags to stack                                                                                   |
| Option B: | Pushes CS to stack                                                                                         |
| Option C: | Pushes IP to stack                                                                                         |
| Option D: | Push the content of general purpose register to stack                                                      |
|           |                                                                                                            |
| Q15.      | The Synchronization between microprocessor and memory is done by                                           |
| Option A: | ALE                                                                                                        |
| Option B: | HOLD                                                                                                       |
| Option C: | READY                                                                                                      |
| Option D: | HLDA                                                                                                       |
|           |                                                                                                            |
| Q16.      | Following register of 8237 DMAC is used for storing the no. of bytes to be transferred                     |
| Option A: | Address register                                                                                           |
| Option B: | Word count register                                                                                        |
| Option C: | Command register                                                                                           |
| Option D: | Status register                                                                                            |
|           |                                                                                                            |
| Q17.      | All the functions of the ports of 8255 are achieved by programming the bits of an internal register called |
| Option A: | data bus control                                                                                           |
| Option B: | read logic control                                                                                         |
| Option C: | control word register                                                                                      |
| Option D: | address buffers                                                                                            |
|           |                                                                                                            |
| Q18.      | The following mode of 8253 PIT can be used in digital clock                                                |
| Option A: | Square Wave Generator                                                                                      |
| Option B: | Programmable Rate Generator                                                                                |
| Option C: | Software Triggered Strobe                                                                                  |
| Option D: | Programmable One Shot                                                                                      |
|           |                                                                                                            |
| Q19.      | In square wave generator mode in case of odd count(N) the output stays high for                            |
| Option A: | N+2 clock cycles                                                                                           |
| Option B: | N-2 clock cycles                                                                                           |
| Option C: | $(N+1)/2$ clock cycles                                                                                     |
| Option D: | $(N-1)/2$ clock cycles                                                                                     |
|           |                                                                                                            |

|           |                                                                                      |
|-----------|--------------------------------------------------------------------------------------|
| Q20.      | The memory of 80386 was divided into following no of banks                           |
| Option A: | 2 banks                                                                              |
| Option B: | 4 banks                                                                              |
| Option C: | 6 banks                                                                              |
| Option D: | 8 banks                                                                              |
|           |                                                                                      |
| Q21.      | Following control register of 80386 holds the page directory physical base address.  |
| Option A: | CR0                                                                                  |
| Option B: | CR1                                                                                  |
| Option C: | CR2                                                                                  |
| Option D: | CR3                                                                                  |
|           |                                                                                      |
| Q22.      | The throughput of a super scalar processor is _____                                  |
| Option A: | less than 1                                                                          |
| Option B: | 1                                                                                    |
| Option C: | More than 1                                                                          |
| Option D: | 2                                                                                    |
|           |                                                                                      |
| Q23.      | Since SPARC uses the out of order mode of execution, the results are stored in _____ |
| Option A: | Buffers                                                                              |
| Option B: | Special memory locations                                                             |
| Option C: | Temporary registers                                                                  |
| Option D: | TLB                                                                                  |
|           |                                                                                      |
| Q24.      | How many bits does SPARC have?                                                       |
| Option A: | 8                                                                                    |
| Option B: | 16                                                                                   |
| Option C: | 32                                                                                   |
| Option D: | 64                                                                                   |
|           |                                                                                      |
| Q25.      | What is generated by an external interrupt in SPARC?                                 |
| Option A: | internal trap                                                                        |
| Option B: | external trap                                                                        |
| Option C: | memory trap                                                                          |
| Option D: | interfaced trap                                                                      |