Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester V

Course Code: ETC501 Course Name: Microcontroller and Applications

Time: 1 hour Max. Marks: 50

=============================================================================

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

|  |  |
| --- | --- |
| Q1.  | Which of the following is not a part of basic architecture of 8051. |
| Option A: | Data memory |
| Option B: | Analog to Digital converter |
| Option C: | UART |
| Option D:  | Times/Counter |
|  |  |
| Q2. | MOVC B, @B+DPTR instruction \_\_\_\_\_, |
| Option A: | is Invalid instruction |
| Option B: | Move data from code memory to B register |
| Option C: | Move data from DPTR register to B register |
| Option D: | Transfer data pointed by B+DPTR to B |
|  |  |
| Q3. | Which register usually store the output generated by ALU in several arithmetic and logical operations in 8051? |
| Option A: | Accumulator |
| Option B: | Special Function Register |
| Option C: | Timer Register |
| Option D: | Stack Pointer |
|  |  |
| Q4. | How much internal RAM is available for user in 8051? |
| Option A: | 128 Kbytes |
| Option B: | 256 Kbytes |
| Option C: | 128 Bytes |
| Option D: | 256 Bytes |
|  |  |
| Q5. | Which PORT is used to as address and data port during external memory access. |
| Option A: | P0 |
| Option B: | P1 |
| Option C: | P2 |
| Option D:  | P3 |
|  |  |
| Q6. | Which port of microcontroller 8051 is only I/O port and does not support multifunction |
| Option A: | P0 |
| Option B: | P1 |
| Option C: | P2 |
| Option D:  | P3 |
|  |  |
| Q7.  | MOV A, 30 instruction  |
| Option A: | Move immediate data 30H to Accumulator  |
| Option B: | Move immediate data 30 to Accumulator |
| Option C: | Move data from RAM memory location 30 to Accumulator  |
| Option D:  | Move data from RAM memory location 30H to accumulator |
|  |  |
| Q8.  | Which is the correct instruction to transfer the data from external data memory to accumulator |
| Option A: | MOVX A, @DPTR |
| Option B: | MOV A,25H |
| Option C: | MOV @R0,A  |
| Option D:  | MOV A,@R0 |
|  |  |
| Q9. | In SCON Register  |
| Option A: | MODE 0 is 8 bit UART |
| Option B: | MODE 1 is 9 Bit UART |
| Option C: | MODE 0 is Shift Register |
| Option D:  | MODE 3 IS 8-Bit UART |
|  |  |
| Q10.  | Which special function register play a vital role in the timer/counter mode selection process by allocating the bits in it? |
| Option A: | TMOD |
| Option B: | TCON |
| Option C: | SCON |
| Option D:  | PCON |
|  |  |
| Q11.  | MOV LCD, #38H gives command to the LCD, 38H command |
| Option A: | Describe 8 bit data length and 2 line LCD |
| Option B: | Describe 4 bit data length and 2 line LCD |
| Option C: | Clear LCD screen |
| Option D:  | Display & Cursor ON and blinking OFF |
|  |  |
| Q12.  | Why is it not necessary to specify the baud rate to be equal to the number of bits per second? |
| Option A: | Because each bit is preceded by a start bit & followed by one stop bit |
| Option B: | Because each byte is preceded by a start byte followed by stop byte |
| Option C: | Because each byte is preceded by a start bit & followed by one stop bit |
| Option D: | Because each bit is preceded by a start byte &followed by one stop byte |
|  |  |
| Q13. | TI bit of SCON register of 8051 is  |
| Option A: | Timer interrupt bit |
| Option B: | Timer-2 with auto reload bit |
| Option C: | Transmit interrupt flag bit |
| Option D:  | Stop bit of data frame |
|  |  |
| Q14.  | The ARM7 processor has \_\_\_\_ operation modes |
| Option A: | 3 |
| Option B: | 5 |
| Option C: | 7 |
| Option D:  | 6 |
|  |  |
| Q15. | The bit addressable area of 8051 is: |
| Option A: | From 20H to 2FH |
| Option B: | From 10H to 7FH |
| Option C: | From 32H to 42H |
| Option D:  | From 00H to 0FH |
|  |  |
| Q16.  | Which of the following is not an operating mode in ARM7 |
| Option A: | Interrupt |
| Option B: | User |
| Option C: | Undefined  |
| Option D:  | Exception  |
|  |  |
| Q17. | ARM 7 uses …….. stages pipeline. |
| Option A: | 2 |
| Option B: | 3 |
| Option C: | 4 |
| Option D: | 5 |
|  |  |
| Q18. | r15 of ARM processor is used as …………… |
| Option A: | Program counter  |
| Option B: | Link register |
| Option C: | Stack pointer |
| Option D:  | Current program status register |
|  |  |
| Q19.  | Addressing mode of mov r0, r1, lsr#2 is …………. |
| Option A: | Unmodified data |
| Option B: | Modified data |
| Option C: | Relative register indirect  |
| Option D:  | Based indexed |
|  |  |
| Q20. | Instruction add r0, r1, r2 performs |
| Option A: | r0 = r1 + r2 |
| Option B: | r0 = r0 + r1 + r2 |
| Option C: | r2 = r0 + r1 |
| Option D: | r2 = r0 + r1 + r2 |
|  |  |
| Q21. | In the thumb mode, all instructions are: |
| Option A: | 64 bit wide |
| Option B: | 32 bit wide |
| Option C: | 8 bit wide |
| Option D:  | 16 bit wide |
|  |  |
| Q22.  | PWMTCR register of ARM is used to  |
| Option A: | control operation of PWM timer and counter |
| Option B: | reset timer of ARM during PWM operation |
| Option C: | terminate counter during PWM operation |
| Option D:  | increase pulse of output waveform |
|  |  |
| Q23. | IOCLR0 = 1 << 9; instruction of ARM  |
| Option A: | Clear P0.0 to P0.9 pins of ARM |
| Option B: | Clear P0.9 of ARM |
| Option C: | Make P0.9 as HIGH |
| Option D:  | is invalid instruction |
|  |  |
| Q24.  | IODIR0 = 0xFFFFFFFF; instruction of ARM |
| Option A: | SET all pins of Port-0 |
| Option B: | Clear all pins of Port-0 |
| Option C: | Set Port-0 as output port |
| Option D:  | Set port-0 as input port |
|  |  |
| Q25. | PINSEL0 is used to …………….. |
| Option A: | Configure PORT0 pins P0.0 to P0.15 |
| Option B: | Configure PORT0 pins P0.16 to Po.31 |
| Option C: | Configure PORT0 pins P0.0 to Po.31 |
| Option D:  | Configure PORT0 pins P1.16 to P1.31 |