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SUBJECT CODE NO:- B-2172
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. T.Y (Sem-VI)
Examination November / December -2022
Electronics Paper- XX (602)
Micro Controller – II

[Time: 1:30 Hours]

[Max. Marks:50]

Please check whether you have got the right question paper.

- N.B 1. Attempt all questions.
- Q.1 Enlist the special function registers used for Timer in 8051 microcontroller. Explain the format of timer mode control register. Write an initialization instruction for 20
- a) Use of timer 2 in mode 1
b) Use of 1 in mode 2
- OR
- What is baud rate? Explain with diagram the generation of clock for timer from crystal oscillator to set baud rate. Give the format of SCON register and explain of each bit Give the eight steps of programming to transfer data serially 20
- Q.2 What is an interrupt in 8051 microcontrollers Explain the steps of interrupt execution. Explain six interrupts with their vector address. Explain the format of IE register. 20
- OR
- Write short notes. (Any four) 20
1. Interfacing of ADC0808 with 8051 microcontrollers.
 2. Interfacing of 16×2 LCD with 8051 microcontroller.
 3. Pin diagram and pin function of DAC0808
 4. ALP to count external pulses using counter 1 in mode 2
 5. Band Late and data framing in synchronous data transfer in 8051 microcontroller.
 6. ALP to generate square Waves on post P1.2 using timer 1 interrupt.
- Q.3 Rewrite the following by selecting correct answer from given options. 10
1. 8051 timer has _____ modes of operation
a) One b) Two c) Three d) Four

2. To use timer / Counter as timer _____ bit of TMOD should be logic 0.
a) M0 b) M1 c) C/\bar{T} d) Gate
3. In split mode, timer is _____ bit timer
a) 4 b) 8 c) 16 d) 32
4. _____ pin of 8051 is used to receive data serially.
a) TxD b) RxD c) T0 d) T1
5. SBUF is _____ bit register.
a) 8 b) 16 c) 32 d) 63
6. In asynchronous mode I serial communication, data is framed with _____
a) one start bit only
b) One stop bit only
c) One start and one stop bit
d) Only two stop bits.
7. Highest priority interrupt is _____
a) R1 b) TI c) INTO d) TF1
8. MOV IE, #81H instruction will enable _____ interrupt.
a) RI b) TI (C) TFO (d) INTO
9. The enable (E) pin of 16x2 LCD should be changed _____ for data latching.
a) from 0 to 1
b) from 1 to
c) from 0 to 1 and 7 to 0
d) from 1 to 0 and 0 to 1
10. The temperature sensor LM35 provides _____ mV for each degree Celsius.
a) 1 b) 5 c) 10 d) 15