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SUBJECT CODE NO: - YY-2338**FACULTY OF SCIENCE AND TECHNOLOGY****B.Sc. S.Y. SEM IV (CBCGS) (Pattern 2022)****Examination April / May - 2024****Electronics-XIII 8086 Microprocessor Interfacing****[Time: 1:30 Hours]****[Max. Marks: 40]**

Please check whether you have got the right question paper.

N. B

1. Attempt all questions.
2. Illustrate your answer with suitable labelled diagram.

Q1 Draw the pin diagram of 8255 PPI and explain the function of various pins. **10**

OR

Explain in brief (each 5 marks) **10**

- a) What are different operating modes of 8251
- b) Modern control section of 8251

Q2 Draw the block diagram of 8254 PIT. Explain the function of various blocks. **10**

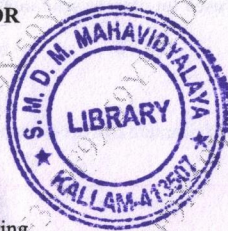
OR

Explain in brief (each 5 marks) **10**

- a) Draw the pin diagram of 8257
- b) General Features of 8257

Q3 Write a short notes on any two of the following **10**

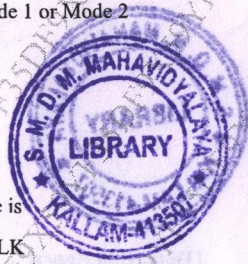
- 1) Group A and B control blocks of 8255
- 2) Features of 8251
- 3) Draw a pin diagram of 8254
- 4) Draw a block diagram of 8257



Q4 Attempt all of the following multiple choice question.

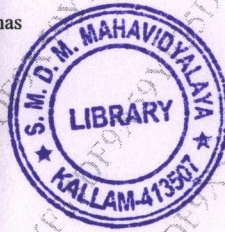
10

- 1) The port that is used for the generation of handshake lines in Mode 1 or Mode 2 of 8255 is
 - a) port A
 - b) port B
 - c) port C upper
 - d) port C lower
- 2) The pin that clears the control word register of 8255 when enable is
 - a) CLEAR
 - b) SET
 - c) RESET
 - d) CLK
- 3) The 8255 A _____ is used to perform bidirectional operation
 - a) Mode 0
 - b) Mode 1
 - c) Mode 2
 - d) Mode 3
- 4) In 8251 the pin that controls the rate at which the character is to be transmitted is
 - a) TXC (active low)
 - b) TXC (active high)
 - c) TXD (active low)
 - d) RXC (active low)
- 5) Which one is programmable communication interface
 - a) 8255
 - b) 8254
 - c) 8251
 - d) 8279
- 6) _____ pin is used for clear to send in 8251
 - a) $\overline{\text{CTS}}$
 - b) CTS
 - c) $\overline{\text{CTR}}$
 - d) $\overline{\text{RTS}}$
- 7) The number of counters that are present in the programmable timer device 8254 is
 - a) 1
 - b) 2
 - c) 3
 - d) 4
- 8) 8254 counter can count in the
 - a) Binary
 - b) Decimal
 - c) Hexadecimal
 - d) Both a & b



9) In 8257 each of the four channels has

- a) A pair of two 8 - bit registers
- b) A pair of two 16 - bit registers
- c) One 16 - bit register
- d) One 8 - bit register



10) The number of clock cycle required for an 8257 to complete a transfer is

- a) 2
- b) 4
- c) 8
- d) None of the mentioned