

Total No. of Questions : 4 ]

SEAT No. :

**PB29**

**[6268]-223**

[Total No. of Pages :1

**S.E. (Artificial Intelligence & Data Science) (Insem)**

**INTERNET OF THINGS**

**(2019 Pattern) (Semester-IV) (217529)**

*Time : 1Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Draw neat and clean diagrams.*
- 3) *Assume suitable data, if necessary.*

- Q1)** a) Illustrate and elucidate the block diagram depicting the fundamental structure of a computer system. **[5]**
- b) Draw & Explain different phases of the Instruction Cycle? **[4]**
- c) Convert following Decimal no. to its Binary, Oct and Hex **[6]**
- i) 378
  - ii) 1346

OR

- Q2)** a) Explain Peripheral Component Interconnect (PCI)? **[5]**
- b) Explain the difference between Micro, Mini, Mainframe and Supercomputer? **[4]**
- c) Convert Hex no. to its respective Binary, Decimal and Octal Number **[6]**
- i) DCF7
  - ii) C978
- Q3)** a) Draw and explain internal block diagram of 8255. **[5]**
- b) Draw the interfacing of ADC 0808 to the Microprocessor. **[4]**
- c) Explain Block diagram of 8086 with its features. **[6]**

OR

- Q4)** a) Explain the Control word format for Bit Set/Reset mode and I/O Mode? **[5]**
- b) Draw the Schematic for interfacing a stepper motor using 8255. **[4]**
- c) Differentiate between Minimum and Maximum Mode of 8086. **[6]**

