Duration: 2 Hours   **Marks: 60**

Instructions:
   i) All questions are compulsory and figures to the right indicate full marks.
   ii) Questions of 2 marks to be answered in not more than 40 words.
   iii) Questions of 3 marks to be answered in not more than 60 words.
   iv) Questions of 5 marks to be answered in not more than 100 words.

Q. 1)   a) Define Machine Learning.   **6 x 2=12**
        b) Define Business Intelligence.
        c) Describe IoT.
        d) Describe components of Embedded Systems.
        e) State some notable trends in cloud computing.
        f) Define Blockchain Technology.

Q. 2 A) (i) State a wide range of tasks and applications of NLP.   **3**
        (ii) State the benefits of Business Intelligence.   **2**
                              OR
Q. 2 A) (iii) Describe basic Personal Crypto Security.   **3**
         (iv) List the disadvantages of Cloud Computing.   **2**

Q. 2 B) (i) Describe various Functional blocks of IoT.   **5**
        (ii) Describe stages of BI.   **2**

Q. 3 A) (i) Distinguish between BI and Big data.   **3**
        (ii) Describe applications of Machine Learning.   **2**
                              OR
Q. 3 A) (iii) Explain the characteristics of Embedded Systems.   **3**
         (iv) Explain SaaS.   **2**

Q. 3 B) (i) Explain various characteristics of Big Data.   **5**
        (ii) Decribe various Types of Cryptocurrencies.   **2**

Q. 4 A) (i) Explain Cloud computing architecture.   **3**
        (ii) Compare IoT devices with computers.   **2**
                              OR
Q. 4 A) (iii) Describe Security Best Practices.   **3**

         (iv) Explain Real time embedded systems.   **2**

Q. 4 B) (i) Explain the need of AI applications in Education.   **5**
        (ii) Explain the need of BI.   **2**

Q. 5 A) (i) Illustrate the need of IoT Home Automation.   **3**
        (ii) Write the applications of NLP in real life.   **2**

                              OR
Q. 5 A) (iii) Write a note on developing a holistic cloud computing reference   **3**
           model.
        (iv) Illustrate the role of e-Wallets that securely manage   **2**
           Cryptocurrency.

Q. 5 B) (i) Differentiate between General processors and embedded processors.   **5**
        (ii) Identify applications of Big data in business.   **2**