

**RAN-2511000904044001**

Bachelor of Computer Applications (NCF - NEP) (Sem. - IV) Examination September - 2025
Internet of Things - Minor (Paper - 402-01)

Time: 2 Hours]**[Total Marks: 50****સૂચના : / Instructions**

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
 Fill up strictly the above details on your answer book.

Seat No.:

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Student's Signature

SET - I**Q. 1. Answer in brief (Any Five) (10)**

- What is embedded system? Give an example.
- Is HTTP protocol suitable for network communication in IoT application? Justify your answer.
- What is AAA framework?
- What is constrained node in terms of IoT device?
- Brief on Ultrasonic sensor and IR sensor.
- What is GPIO pins on Raspberry Pi.?
- What is PaaS and IaaS.

Q. 2. A. Explain the Applications of wireless sensor network. (03)**OR**

Explain Exclusive Pair Communication Module in Detail.

B. Answer Following (Any Three) (12)

- Explain the benefits and advantage of big Data analytics.
- Explain M2M Architecture in Detail.
- Discuss on IoT security issues, challenges, threats and the measures against them.
- What is an IoT Device? Explain basic building blocks of an IoT Device

Q. 3. A. How is Raspberry Pi different from a Desktop computer? (04)**OR**

Explain Application Layer and Link Layer Protocols.

B. Answer following. (Any Three) (21)

- What is Arduino? Discuss on Components of Arduino in detail with its pinout diagram.
- Explain the various types of sensors with its usage.
- Write Case Study of Health Monitoring System.
- Write Case study of smart Home Application.