



# MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code : OE-EC803A Internet of Things(IoT)

UPID : 008339

Time Allotted : 3 Hours

Full Marks :70

The Figures in the margin indicate full marks.

Candidate are required to give their answers in their own words as far as practicable

## Group-A (Very Short Answer Type Question)

1. Answer any ten of the following :

[ 1 x 10 = 10 ]

- (I) What is the component of an IoT system that executes a program?
- (II) WOT reduces the \_\_\_\_\_ of HTTP.
- (III) What do API systems enable?
- (IV) What is the last step of reliable data transfer?
- (V) Service is termed as \_\_\_\_\_ in SOA.
- (VI) What is the format of IP address?
- (VII) What is the full form of DHCP in IoT communication protocols?
- (VIII) The address of the original IEEE 802 MAC comes from \_\_\_\_\_.
- (IX) LTE stands for
- (X) What role of the cloud in smart grid architecture is?
- (XI) The standard length of the MAC address is \_\_\_\_\_.
- (XII) Arduino IDE is written in which programming language?

## Group-B (Short Answer Type Question)

Answer any three of the following :

[ 5 x 3 = 15 ]

2. Discuss static and dynamic IP address assignment. [5]
3. Explain the use of TCP and UDP ports. Give examples. [5]
4. Discuss, what are the benefits of using IPV6 in IOT? [5]
5. Describe use of IP, TCP and UDP protocols. [5]
6. What do you mean by BLE (Bluetooth Low Energy)? [5]

## Group-C (Long Answer Type Question)

Answer any three of the following :

[ 15 x 3 = 45 ]

7. Explain various trend in Information and communication technologies and its impact on IoT. [ 15 ]
8. Explain the functional layers and capabilities of an IoT solution with a neat diagram. [ 15 ]
9. Explain an information driven value chain for IoT with a neat diagram. [ 15 ]
10. Explain the generic M2M System Solution with a neat diagram. [ 15 ]
11. Explain ETSI M2M service capabilities in detail with a neat diagram. [ 15 ]

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