

S.No. : 401

ITBC3301

No. of Printed Pages : 04

Following Paper ID and Roll No. to be filled in your Answer Book.

**PAPER ID : 34002**

Roll  
No.

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## **B. Tech Examination 2023-24**

**(Odd Semester)**

### **INTERNET OF THINGS APPLICATION DEVELOPMENT**

*Time : Three Hours]*

*[Maximum Marks : 60*

**Note :-** Attempt all questions.

#### **SECTION-A**

1. Attempt all parts of the following :  $8 \times 1 = 8$

- (a) Differentiate between M2M and IOT.
- (b) What protocol does the Watson IOT platform dash board use to communicate with the Watson IOT platform?
- (c) What do you mean by HTTP protocol?

**[P. T. O.]**



- (d) What do you understand by flow based programming?
- (e) What are the three account types in IBM cloud Mcq?
- (f) What protocol does node-RED use?
- (g) What's the difference between mobile and IOT?
- (h) What is Android?

### SECTION – B

2. Attempt any two parts of the following :  $2 \times 6 = 12$

- (a) Discuss about the applications and services on IBM cloud.
- (b) Write short note on node-RED palette manger.
- (c) Discuss the benefits of JSON and XML in android applications.
- (d) What are the features of android architecture?

### SECTION – C

**Note:-** Attempt all questions. Attempt any two parts from each question.  $8 \times 5 = 40$



3. (a) How do we ensure devices connect securely to the IBM Watson IOT platform service? How do we prevent data from leaking between IOT devices?
- (b) How we can create database on IBM cloud? And how we can manage it?
- (c) Discuss about IOT platform recipes.
4. (a) How can we create our first flow in node-RED?
- (b) What are the five principles of REST API and its features?
- (c) What is JSON data format? Discuss with the help of example.
5. (a) What are the accessing watson and cloudant services with REST APIs?
- (b) What is the purpose of IBM cloud analytics services? And what are the benefits of IBM cloud?
- (c) What is a data analytics engine? Also explain the types of data analytics?

/ P. T. O.



6. (a) Explain the life cycle of android activity with the help of diagram?
- (b) What are the integrating IOT applications with IBM watson visual recognition?
- (c) How does an android app works? Explain in brief.

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