



15520



LIBRARY
Brainware University
Barasat, Kolkata -700125

BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Tech.(RA)-2021/B.Tech.(RA)-2022

Course Name – IoT Application Development on Cloud

Course Code - PCC-ECR601

(Semester VI)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Bluetooth is the wireless technology for _____
- a) Local Area Network b) Metropolitan Area Network
c) Personal Area Network d) Wide Area Network
- (ii) Global Sensor Network is built for _____
- a) Reducing cost and time for development b) Reducing cost and increasing time for development
c) Increasing cost and increasing time for development d) Increasing cost and decreasing time for development
- (iii) Identify, what does HTTP do?
- a) Enables network resources and reduces perception of latency b) Reduces perception of latency and allows multiple concurrency exchange
c) Allows multiple concurrent exchange and enables network resources. d) Enables network resources and reduces perception of latency and Allows multiple concurrent exchange
- (iv) Choose, what is remote monitoring of patients?
- a) Checking the health issues of patients upon arrival to hospital b) Remote log in to hospital
c) Monitoring a patient's health by a doctor using an IoT device with the patient being at his or her residence d) Monitoring a patient's health by a doctor using an IoT device with the patient being at hospital
- (v) The _____ may become an important facilitator and stimulate for the modern economy.
- a) e-Governments related b) Enterprise-based
c) Company based d) Business oriented platform
- (vi) Select, which of the following is false about the IoT components?

- a) A light sensor (photoresistor) is an analog sensor
b) A microphone is a digital sensor
c) A push button is a digital sensor
d) A keyboard is a digital sensor
- (vii) Record, Which of the following best defines IoT?
a) Internet of Textures
b) Internet of Things
c) Internet of Technologies
d) Internet of Thoughts
- (viii) Identify, What is the primary purpose of IoT applications?
a) Enhancing security
b) Reducing energy consumption
c) Connecting devices and enabling data exchange
d) Generating revenue through advertising
- (ix) Select, Which architectural layer typically manages device connectivity in IoT applications?
a) Application layer
b) Network layer
c) Data layer
d) Physical layer
- (x) State, what does MQTT stand for?
a) Message Queuing Telemetry Transport
b) Mobile Query Tracking Technology
c) Multi-Query Telemetry Transmission
d) Machine Quality Testing Tool
- (xi) Select, what is the purpose of edge computing in IoT applications?
a) Centralizing all computing tasks in the cloud
b) Distributing computing tasks closer to the data source
c) Minimizing data transmission latency
d) Maximizing energy consumption
- (xii) Identify which of the following is a characteristic of a public cloud?
a) Limited scalability
b) Accessible over the internet
c) Restricted to a specific organization
d) Higher security risks.
- (xiii) Identify what does Scalability mean in cloud computing?
a) The ability to handle increasing workloads.
b) The size of a cloud data center.
c) The cost of cloud services.
d) The speed of internet connection.
- (xiv) Choose the purpose of Testing Under Control in cloud computing.
a) To ensure software testing is conducted in a controlled environment.
b) To prevent unauthorized access to cloud services.
c) To monitor cloud server performance.
d) To test cloud-based applications under various conditions.
- (xv) Prepare what does IaaS stand for in cloud computing?
a) Infrastructure as a Service.
b) Internet as a Service.
c) Integrated Application as a Service.
d) Intelligent Automation as a Service.

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Illustrate some platforms which are used for large scale cloud computing. (3)
3. Illustrate different storage models of cloud systems. (3)
4. How do IoT sensors gather data in this application? (3)
5. Compare between traditional data centers and cloud. (3)
6. Analyze the security benefits of cloud computing. (3)

OR

Appraise the technologies for Data Security in Cloud Computing. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe three main advantages and two major disadvantages of cloud computing with suitable examples. (5)

8. Examine the NIST model of cloud computing with proper diagram. (5)
9. List out the general characteristics of cloud computing. (5)
10. Explain physical and cyber security protection requirements needed at cloud data centers. (5)
11. Explain the functioning of AWS EC2 service. (5)
12. Discuss the different types of virtualization in brief. (5)

OR

Discuss the benefits of cloud data centers. (5)
