

BATCH 2 SET B

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FACULTY OF ENGINEERING TECHNOLOGY, SRM UNIVERSITY
DEPARTMENT OF INFORMATION TECHNOLOGY
CYCLE TEST-2

ACADEMIC YEAR: 2017-2018

Program offered : B.Tech(IT)
Max.Marks(100)

Year/Sem : III/VI
Duration : 3 Periods
Date of Exam: 28/10/2017

Course code and Title: 15IT422E & INTERNET OF THINGS

20*1=20

PART A

1. AMQP is a _____ layer protocol for message oriented middleware
(A) Application (B) Transport
(C) Physical (D) Link
2. _____ is the OS which cannot be run on Pi
(A) Rasbian (B) Linutop
(C) Pidora (D) None of the above
3. 8051 has _____ pins
(A) 40 (B) 32
(C) 64 (D) 16
4. Sprinkler is an example of _____
(A) Actuator (B) Input
(C) sensor (D) Sensor/Actuator
5. Arduino has how many Analog pins _____
(A) 14 (B) 12
(C) 6 (D) 10
6. Pick up words related to Arduino programming
(A) loop() (B) A and C
(C) setup() (D) input()
7. What is the name of the CoAP plugin in Mozilla Firefox?
(A) Copper (B) Platinum
(C) Silver (D) Gold
8. U-NII works well for less than _____ W power consumption
(A) >1W (B) <40mW
(C) <80mW (D) >2W
9. 868mhz band is followed in _____
(A) USA (B) Europe
(C) Japan (D) Russia

10. Waste management can be an example for _____
(A) Smart city (B) Smart security
(C) Smart agriculture (D) Smart metering
11. 802.16 refers to _____
(A) wifi (B) zigbee
(C) bluetooth (D) WiMax
12. FHSS is _____
(A) Frequency hopping spread spectrum
(B) Frequency hopping synchronization spectrum
(C) Frequency hopping spread space
(D) Frequency hopping space spectrum
13. _____ is the most widely deployed smart home technology
(A) NFC (B) Zigbee
(C) Bluetooth (D) Z wave
14. Zigbee is a _____ layer Protocol for home and industrial automation
(A) 1 (B) 2
(C) 3 (D) 4
15. Pi _____ RAM size
(A) 1GB (B) 1KB
(C) 2KB (D) 500GB
16. XML represents data in _____
(A) Plain text format (B) CSV
(C) Rich text format (D) A and C
17. RPC Model Qualifies its routers as _____
(A) Dealer (B) caller - callee
(C) Broker (D) Publisher -Subscriber
18. Xively API supports _____
(A) WebSockets (B) REST
(C) MQTT (D) A, B and C
19. Amazon RDS is a _____
(A) Relational Database (B) Relational Database for cloud
(C) Reference database (D) Reference database for cloud
20. Map-Reduce is related to _____
(A) dynamoDB (B) Kufka
(C) django (D) Hadoop

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CYCLE TEST-2

ACADEMIC YEAR: 2017-2018

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PART B (Any 5)

5*4=20

21. What is the difference between microprocessor and micro controller.
22. Write about NFC.
23. Write a code snippet for blinking an LED using Arduino.
24. What do you mean by Advanced Message and Queuing Protocol.
25. Write a syntax for dictionary in python with example.
26. Explain the pins used in Raspberry pi
27. Write the function used to establish the Amazon EC2 web service.

PART C

5*12=60

28. a) What is Micro processor? Write the Architecture for 8085 microprocessor with neat sketch.

(OR)

- 28.b) Demonstrate Raspberry pi with its pins and write a code for blinking an LED.

- 29.a) Explain the following:

a. XMPP b. AMQT

(OR)

- 29.b) Write down the steps involved in IoT system design methodology for weather monitoring system.

- 30.a) Lights are to be automatically ON based on sunlight (or ambience) not based on time (Not the traditional pattern of every day morning 5:30am). List appropriate sensors and draw a block diagram to realize an IoT module for achieving a module in government smart city initiative. Write code snippets for Pi to realize the same.

(OR)

- 30.b) Explain in detail IEEE802.15.4 Zigbee protocol in detail.

- 31.a) Explain in detail about spark in IoT.

(OR)

31.b) Explain the variables, data types used in python programming language with example.

32.a) What are the uses of messaging queues? What are the message formats supported by Amazon SQS?

(OR)

32.b) Explain about Web Application Messaging Protocol(WAMP) in detail and also write the framework used for IoT applications.