

21U371

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Name:

Reg.No:

THIRD SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2022

(CBCSS - UG)

CC21U SDC3 CD10 - CIRCUIT DESIGN FOR IOT, IOT WITH RASPBERRY Pi

(Information Technology)

(2021 Admission - Regular)

Time : 2.5 Hours

Maximum : 80 Marks

Credit : 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. What is Clayster.Library.IoT?
2. How HTTPS differ from HTTP?
3. What is the use of HttpSocketClient class?
4. What is the full form of SSDP and GENA?
5. What you mean by TTL?
6. What is the importance of binary headers in COAP?
7. Write the syntax of creating an MQTT client.
8. How will you register a COAP resource?
9. How XMPP acheives global scalability?
10. What is the principle of working of the provisioning server in XMPP?
11. What you mean by bare JID in XMPP?
12. How you can download the Clayster library?
13. List out the principles used in Inductive sensors.
14. Define guage factor of strain guage.
15. How X.509 certificates and encryption helps to achieve interoperability?

(Ceiling: 25 Marks)

Part B (Paragraph questions)

Answer *all* questions. Each question carries 5 marks.

16. What is DigitalOutput class and why it is used in the actuator project?
17. What is LinkSprite JPEG infrared color camera and how it is differ from the normal RaspberryPi camera?

18. Briefly explain SCPD.
19. Briefly explain copper.
20. Explain the purpose of OnMqttDataPublished() event handler in actuator.
21. Briefly explain XMPP.
22. Explain how inter operability reduces cost.
23. Briefly explain Active and Passive sensors.

(Ceiling: 35 Marks)

Part C (Essay questions)

Answer any *two* questions. Each question carries 10 marks.

24. Explain camera project in detail.
25. How to add UPnP support to the sensor?
26. What do you mean by MQTT protocol and how to add MQTT support to sensor?
27. Define Resistive sensor. Explain the working principle of Resistive sensor.

(2 × 10 = 20 Marks)
