22U373 (Pages: 2) Name: .....

Reg.No: .....

THIRD SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

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

(Information Technology)

(2021 Admission onwards)

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 the purpose of DigitalOutput class in the actuator project?
2. What is HTTP?
3. How HTTPS differ from HTTP?
4. What is the full form of SSDP and GENA?
5. What is SCPD
6. What is action in SCPD?
7. What is the importance of binary headers in COAP?
8. What is MQTT?
9. Discribe the structure of MQTT Topics. What are the wildcard charecters used in defining MQTT topics?
10. What is the purpose of OnMqttDataPublished() event handler in actuator?
11. What is the reason for ensuring full JID instead of bare JID in XMPP communications?
12. What is mean by active sensors? Give an example.
13. List any two applications of resistive sensors.
14. What is fiber optical sensors?
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 LinkSprite JPEG infrared color camera and how it is differ fro the normal RaspberryPi camera?

17. What are the two event objects used by the controller to control the actuator using HTTP? Write their syntax.
18. Explain the importance of SID in services.
19. Explain the protocol archetecture of MQTT.
20. Briefly explain the basic features of xmpp.
21. Explain Jabber ID.
22. What you mean by Clayster library and how can you download it?
23. Briefly explain any two applications of capacitive sensors.

(Ceiling: 35 Marks)

Part C (Essay questions)

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

24. Explain the creation of sensor project.
25. How to add CoAP to the sensor?
26. Explain a) HTTP protocol, b) CoAP protocol, c) UPnP protocol, d) MQTT protocol.
27. Define Resistive sensor. Explain the working principle of Resistive sensor.

(2 × 10 = 20 Marks)

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