

GOA VIDYAPRASARAK MANDAL'S

GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE ANDECONOMICS, PONDA - GOA

B.C.A. (SEMESTER- VI) EXAMINATION JUNE 2022

DISCIPLINE SPECIFIC ELECTIVE COURSE

INTERNET OF THINGS

Duration: 2 Hours

Marks: 60

Q.1. A) Fill in the Blanks:

(5x1=05)

- a) The Arduino _____ was initially created for wearable projects.
- b) AppStore Applications are an example of _____ as a Service.
- c) The Arduino _____ are the boards, which can be plugged on the top of the PCB.
- d) _____ behaves as an intermediate layer between cloud and devices.
- e) The Raspberry Pi Model _____ is recommended for embedded and low-power projects that do not require Ethernet or multiple USB ports.

B) Define the following:

(5x1=05)

- a) Accuracy of a sensor.
- b) Precision of a sensor.
- c) Cloud Computing.
- d) Node-red.
- e) Fog Computing.

Q.2. Answer the following:

- A) Explain in brief the categories of IoT. (02)
- B) With the help of neat diagram, explain the functional blocks in IoT. (03)
- C) Write a short note on applications of IoT. (05)

Q.3. Answer the following:

- A) Explain in brief the Arduino offline IDE. (02)
- B) With the help of neat diagram, explain the Request-Response model. (03)
- C) Explain in detail any two actuator types. (05)

Q.4. Answer the following:

- A) State the features of Raspberry Pi model 4. (02)
- B) Explain the components of Arduino Uno board. (03)
- C) With the help of a neat diagram, explain the Process Specification for Home Automation System. (05)

Q.5. Answer the following:

- A) State and explain in brief the Cloud Deployment Models. (02)
- B) With the help of a neat diagram, explain the Cloud Sensor Architecture. (03)
- C) With the help of a neat diagram, explain the Level Specification for Home Automation System. (05)

Q.6. Answer the following:

- A) Define Sensor Cloud and state the Sensor Cloud Actors. (02)
- B) Write a short note on the working of Fog. (03)
- C) Write programsto interface IR sensor with (05)
 - a. Arduino board.
 - b. Raspberry Pi
