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Question Paper Code: 95R25

M.E. DEGREE EXAMINATION, JAN 2020

Elective

Computer Science and Engineering

19PCS525 - Smart Sensors and Internet of Things

(Regulation 2019)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The huge number of devices connected to the Internet of Things has to communicate automatically, not via humans. What is this called? CO1- R
(a) Skynet (b) Bot 2 Bot
(c) Machine 2 Machine (d) Intercloud
2. What is the sensor/protocol used in GSN? CO1- R
(a) HTTP protocol (b) CoAP protocol
(c) MQTT protocol (d) XMPP protocol
3. Services in a microservice architecture are _____ that communicates with each other over the network. CO2- R
(a) Microservices (b) SOA (c) API (d) Processes
4. Which of the following is IoT device manageability? CO2- R
(a) Protocol abstraction (b) Simple and fast installation
(c) Security with hardware (d) Data storage
5. Which devices measures gases or liquid? CO3- R
a) Proximity sensor (b) Pressure sensor
(c) Temperature sensor (d) Touch sensor

6. Which sensor measures the pressure relative to perfect vacuum? CO3- R
 (a) Absolute pressure sensor (b) Gauge pressure sensor
 (c) Vacuum pressure sensor (d) Differential pressure sensor
7. What is the role of Bigdata in smart grid architecture of IoT? CO4- R
 (a) Store data (b) Manage data
 (c) Collect data (d) Security
8. What is the role of Cloud in smart grid architecture of IoT? CO4- R
 (a) Store data (b) Manage data
 (c) Collect data (d) Security
9. Which sensor can detect nearby objects? CO5- R
 (a) Proximity sensor (b) Humidity sensor
 (c) Touch sensor (d) Pressure sensor
10. The monitoring of machines, gears and objects are achieved by which sensor? CO5- R
 (a) Humidity sensor (b) Proximity sensor
 (c) Touch sensor (d) Pressure sensor

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Explain about environmental parameter of IoT applications. CO1- U (8)
12. Discuss in detail about selection of sensors for practical applications CO2- U (8)
13. Discuss in detail about Molecular spectroscopic sensor CO3- U (8)
14. Discuss in detail about Architecture of Smart Sensors. CO4- U (8)
15. Discuss in detail about Interface Electronic Circuit for Smart Sensors CO5- U (8)