



PB-003-1046003

Seat No. _____

B. Sc. (IT) (Sem. VI) (W.E.F. 2016) (CBCS)

Examination

March / April - 2020

CS - 33 : Internet of Things (IOT)

Faculty Code : 003

Subject Code : 1046003

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 (a) Objective type questions : 4
- (1) Full form of ITU and IETF.
 - (2) What is Gateways ?
 - (3) What is IOT ?
 - (4) List main design principles for IOT architecture.
- (b) Answers in brief : (any 1 out of 2) 2
- (1) Explain architecture building process in IoT.
 - (2) Explain data management.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Explain IOT architecture outline in detail.
 - (2) Explain business processes in IOT.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Write a short note on XaaS.
 - (2) Explain need of networking in IOT with local area network and wide area network.
- 2 (a) Objective type questions : 4
- (1) Full form of MSBF.
 - (2) Define : Views.
 - (3) Give any two examples of Core network.
 - (4) Give the full form and use of OGC.
- (b) Answers in brief : (any 1 out of 2) 2
- (1) Explain Interaction and remote control.
 - (2) Explain Data representation and visualization.

- (c) Answer in detail : (any 1 out of 2) 3
- (1) What is IOT architecture reference model ? Explain communication model in detail.
 - (2) Write a short note on IOT reference architecture.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain 'ETSI TC M2M architecture in detail.
 - (2) Explain following in detail.
 - (1) Functional View
 - (2) Information view.
- 3** (a) Objective type questions : 4
- (1) Full form of DHCP.
 - (2) Define Ipv6.
 - (3) Give the size of frame in IEEE 802.11 AH protocol.
 - (4) RFID stands for _____.
- (b) Answers in brief : (any 1 out of 2) 2
- (1) Explain 6TiSCH.
 - (2) Explain Z wave.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write a note on Bluetooth low energy.
 - (2) Write a note on Zigbee smart energy and DASH 7.
- (d) Write a note on : (any 1 out of 2) 5
- (1) What is IEEE ? Write a note on IEEE 802.15.
 - (2) Explain RPL, CORPLand CARP in detail.
- 4** (a) Objective type questions : 4
- (1) Full form of DCCP.
 - (2) Full form of SCTP.
 - (3) Full form of MQTT.
 - (4) Full form of UDP.
- (b) Answers in brief : (any 1 out of 2) 2
- (1) Write a note on TCP.
 - (2) Write a note on HTTP.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write a note on MPTCP.
 - (2) Define: Session layer and explain AMQP.

- (d) Write a note on : (any 1 out of 2) 5
- (1) Write a note on CoAP and XMPP in detail.
 - (2) Define: Transport layer and explain TLS and DTLS.
- 5 (a) Objective type questions : 4
- (1) Full form of ETSI.
 - (2) What is RPL ?
 - (3) OMA stands for _____.
 - (4) MAC stands for _____.
- (b) Answers in brief : (any 1 out of 2) 2
- (1) Explain Application layer.
 - (2) Define BFF.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Explain features of ETSI M2M.
 - (2) Explain IEEE 802.15.4 MAC.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Write a note on service layer oneM2M.
 - (2) Write a note on 6LoWPAN.
