

University of Mumbai

Examination June 2021

Examinations Commencing from 1st June 2021

Program: Information Technology

Curriculum Scheme: Rev2016

Examination: BE Semester VIII

Course Code: ITC802 and Course Name: Internet of Everything

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Which one out of these are said to be Moveable IoT objects.
Option A:	Buildings
Option B:	Industrial Plants
Option C:	Mobile Phones
Option D:	Environmental Assests
2.	In IoT Stack Layers which Layer is responsible for Data Collection?
Option A:	Physical or Sensor Layer
Option B:	Processing and Control Action Layer
Option C:	User Experience Layer
Option D:	Application Layer
3.	IEEE 802.15.4 ZigBee operates at which one of these Frequencies?
Option A:	2.4 Ghz
Option B:	2.8 GHz
Option C:	2.6 GHz
Option D:	2.1 GHz
4.	Which one of the IoT Protocols appear in Application Layer of IoT Protocols stack
Option A:	TCP
Option B:	UDP
Option C:	IPV6
Option D:	MQTT
5.	Which Link Layer Protocol provides data transfer rates from 1 Mb/s to upto 6.75 Gb/s
Option A:	802.3
Option B:	802.16
Option C:	802.11
Option D:	802.15.4
6.	Which one of the following is an I/O interface in IoT
Option A:	SD
Option B:	MMC
Option C:	I2C
Option D:	HDMI

7.	Which RFID component receives electromagnetic waves from the RFID Tag??
Option A:	Antenna
Option B:	Reader
Option C:	RFID Tag
Option D:	Middleware
8.	Which component in sensor node performs functionality of both the transmitter and receiver?
Option A:	Controller
Option B:	Transceiver
Option C:	External Memory
Option D:	Power Source
9.	An RFID device is capable of sending radio waves between the range of
Option A:	5-25 metres
Option B:	3-10 metres
Option C:	1-30 metres
Option D:	2-20 metres
10.	Which protocol is created to avoid incomplete collision?
Option A:	Pure Aloha
Option B:	Slotted Aloha
Option C:	Framed Slotted Aloha
Option D:	Tree based Protocol
11.	Which protocol was aimed to minimise the total number of slots, to increase RFID system efficiency and to speed up the process of identification
Option A:	Bitwise Arbitration Tree
Option B:	Query Window Tree Protocol
Option C:	Query Tree
Option D:	Smart Trend Traversal
12.	This layer in WSN provides an edge for transferring a stream of bits above physical medium.
Option A:	Network Layer
Option B:	Data Link Layer
Option C:	Transport Layer
Option D:	Physical Layer
13.	Which component in sensor node is responsible for performing tasks, processing data and controlling the functionality of other components in Sensor Node?
Option A:	Transceiver
Option B:	Controller
Option C:	Sensor
Option D:	Power Source
14.	The functionality of both the transmitter and the receiver is combined into a single device is known as

Option A:	Transceiver
Option B:	Controller
Option C:	Sensor
Option D:	Power Source
15.	The correct sequence of operational states for transceivers include _____.
Option A:	Receive, Transmit, Idle, Sleep
Option B:	Sleep, Receive, Idle, Transmit
Option C:	Transmit, Receive, Idle, Sleep
Option D:	Transmit, Idle, Receive, Sleep
16.	This layer in WSN is responsible for routing & power conservation
Option A:	Network Layer
Option B:	Data Link Layer
Option C:	Transport Layer
Option D:	Physical Layer
17.	Which layer in WSN is liable for multiplexing of data frame detection and data streams.
Option A:	Network Layer
Option B:	Data Link Layer
Option C:	Transport Layer
Option D:	Physical Layer
18.	Which of the following are Localization Techniques?
Option A:	Triangulation
Option B:	Scene Analysis
Option C:	Proximity
Option D:	all of the above
19.	NFC Technology is based on _____
Option A:	Low Frequency RFID
Option B:	High Frequency RFID
Option C:	Ultra High Frequency RFID
Option D:	all of the above
20.	Which element in Mobile Ip is responsible for providing services for the MN and is located in HN?
Option A:	Correspondent Node
Option B:	Home Node
Option C:	Home Agent
Option D:	Foreign Agent

Q2	
A	Solve any Two 5 marks each
i.	<i>Explain IoT enabling technologies.</i>

ii.	<i>Explain IoT Protocols.</i>	
iii.		
B	Solve any One	10 marks each
i.	<i>Explain Standards and Fora in WSN.</i>	
ii.	<i>Is WSN the same as IoT, please explain.</i>	

Q3		
A	Solve any Two	5 marks each
i.	<i>Explain MOTT Protocol in detail.</i>	
ii.	<i>Explain Layers of WSN</i>	
iii.		
B	Solve any One	10 marks each
i.	<i>Explain components of RFID with diagram</i>	
ii.	<i>Explain Mobility in IPV6.</i>	