

University of Mumbai
Examination First Half 2022

Program: **Electronics & Telecommunication**

Curriculum Scheme: Rev 2019

Examination: TE Semester VI

Course Code: ECCDLO6015 and Course Name: IoT and Industry 4.0

Time: 2 hour 30 minutes

Max. Marks: 80

Q1. (20 Marks)	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Who coined the term “Internet of Things”?
Option A:	Kevin Aston
Option B:	John Wright
Option C:	Edward Jameson
Option D:	George Garton
2.	The machine to machine nodes are of how many types
Option A:	1
Option B:	2
Option C:	3
Option D:	4
3.	How many number of elements are present in open IoT architecture
Option A:	3
Option B:	7
Option C:	8
Option D:	6
4.	IoT gateway must provide
Option A:	Protocol Abstraction
Option B:	Data storage
Option C:	Security
Option D:	Fast Installation
5.	Which of the following protocols is used to link all devices in IoT
Option A:	HTTP
Option B:	UDP
Option C:	Network
Option D:	TCP/IP
6.	_____ can be described as a programming model used to develop Hadoop based applications that can process massive amounts of data
Option A:	MapReduce
Option B:	Mahout
Option C:	Oozie
Option D:	Storm
7.	The second Level of traditional automation pyramid is
Option A:	ERP

Option B:	Production Level
Option C:	Process Level
Option D:	Manufacturing Execution System
8.	Industry 5.0 is based on which technology
Option A:	Machinery
Option B:	Steam
Option C:	Internet
Option D:	Equal Global trade potential
9.	The _____ is a tool for identifying ways to create more customer value
Option A:	Value chain
Option B:	Value delivery
Option C:	Customer survey
Option D:	Products and services
10.	Which of the following is future application of IoT
Option A:	Secure communication
Option B:	Role of Green IoT system
Option C:	QoS communication
Option D:	Multimedia communication

Q2 (20 Marks)	Solve any Four out of Six	5 marks each
A	What are the features of REST architectural Style.	
B	With the help of neat diagram explain M2M system architecture.	
C	Compare Puppet & Chef Tool	
D	Explain the features of Value Creation in IoT.	
E	Differentiate between IoT level 3 and level 4 application model	
F	Compare IoT & IIoT in terms of functionality, connectivity & usage.	

Q3 (20 Marks)	Solve any Two Questions out of Three	10 marks each
A	Explain in Detail Industrial IoT architecture.	
B	Design a weather monitoring IoT system using Web Sockets?	
C	Write a note on Hadoop map reduce for Big data Analysis.	

Q4 (20 Marks)	Solve any Two Questions out of Three	10 marks each
A	Write a short Note on Industry 5.0.	
B	Describe in detail about NETCONF- YANG with one example.	
C	List the features of XMPP and SOAP.	