

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

April 2024 Semester End Main Examinations

Programme: B.E.

Branch: Industrial Engineering and Management

Course Code: 23IM3AEOET

Course: Overview of Emerging Technologies

Semester: III

Duration: 1 hr.

Max Marks: 50

Instructions: 1. Answer all the questions from PART A
2. Answer any THREE questions from PART B

	PART - A	CO	PO	Marks
1	Emerging technology can have different meanings when used in different areas, such as media, business, science, or education a) True b) False c) Partially true d) None of these	CO1	PO1	01
2	The term Emerging technology refers to technologies that are a) Currently developing b) Expected to be available within the next five to ten years c) Creating or are expected to create significant social or economic effects d) a, b and c	CO1	PO1	01
3	Radical transformation of society through technological development is known as a) Social evolution b) Digital evolution c) Technological evolution d) None of these	CO1	PO1	01
4	Industrial Revolution 2.0 is known as a) Machine tools Revolution b) Technological Revolution c) Digital Revolution d) cyberphysical systems Revolution	CO1	PO1	01
5	The disciplines like Cognitive psychology, Computer science, Human factors are contributing to a) IR 3.0 b) HCI study c) IoT d) All of these	CO1	PO1	01
6	----- is a multi-disciplinary field that uses scientific methods, processes, algorithms, and systems to extract knowledge and insights from data a) Data mining b) Data engineering c) Data analytics d) Data science	CO1	PO1	01

7	Structured, Semi-structured, Unstructured are types of data according to ----- perspective a) Computer programming b) Data Analytics c) Data mining d) Data science	COI	POI	01
8	JSON and XML are forms of a) Structured Data b) Semi-structured Data c) Unstructured Data d) Alphanumeric strings	COI	POI	01
9	----- provides additional information about a specific set of data a) Data science b) Data analysis c) Meta data d) None of these	COI	POI	01
10	----- describes the information flow within a big data system as a series of steps needed to generate value and useful insights from data a) Data value Chain b) Supply chain c) Value stream mapping d) Value analysis	COI	POI	01
11	----- is the branch of computer science by which we can create intelligent machines which can behave like a human, think like humans, and able to make decisions a) IoT b) AI c) Software engineering d) Robotics	COI	POI	01
12	Reasoning, Learning, Problem Solving are part of a) Intelligence b) HCI c) Evolution d) Education	COI	POI	01
13	----- AI systems have human-like intelligence a) Reasoning Machines b) Self Aware Systems c) Domain-Specific Expertise d) All of these	COI	POI	01
14	----- shares ideas, solves problems collectively, and even gives others access to our dreams as observers or participants a) Hive mind b) Free mind c) Agitated mind d) None of these	COI	POI	01
15	The weak, general and strong are the classifications of AI based on a) Function b) capability c) Time d) Systems	COI	POI	01
16	The Artificial intelligence, connectivity, sensors, active engagement, and small device use are the features of ----- a) Cyber security b) Internet of Things c) Data science d) None of these	COI	POI	01
17	The architecture of ----- comprises four major components: sensing, network, data processing, and application layers a) IoT device b) Robot c) CNC machine d) All of these	COI	POI	01

	18	-----sensors of IoT devices deal with the physical position and location of the device a) Distance b) Geometric c) Position d) Speed	CO1	PO1	01
	19	The term IoT according to the 2020 conceptual framework is expressed through a formula such as: a) Services+ Data+ Networks + Sensors b) Devices + data + computers + software c) Applications + feedback devices + devices + time d) None of these	CO1	PO1	01
	20	----- act as defining instruments that transform IoT from a standard passive network of devices into an active system capable of real-world integration a) Sensors b) Networks c) Systems d) Lines	CO1	PO1	01
		PART B			
	1	Discuss about the different levels of AI	CO1	PO1	10
	2	Discuss the components of IoT architecture	CO1	PO1	10
	3	What is a data value chain? Discuss about activities of data value chain	CO1	PO1	10
	4	What is a Data science? Discuss the application of Data science in any Grocery store and also brief on the Data types from Data Analytics perspective.	CO1 CO2	PO1	10
	5	Discuss the major developments which were part of IR 3.0 and IR 4.0 briefly. Also discuss the advantages and the disciplines that are contributing to HCI.	CO1	PO1	10
