Id	1
Question	_____ refers to those solutions that allow communication between devices of the same type and a specific application, all via wired or wireless communication networks.
A	Demographics
B	IoT
C	M2M communication
D	None of these.
Marks	1.5
Unit	I

Id	2
Question	A pattern or trend that will have a fundamental and global impact on society at a macro level over several generations is called as _____.
A	Megatrend
B	Business Drivers
C	Implications
D	IoT Business
Marks	1.5
Unit	I

Id	3
Question	A _____describes the full range of activities that firms and workers perform to bring a product from its conception to end use and beyond, including design, production, marketing, distribution, and support to the final consumer.
A	Global Value chain
B	Value Chain
C	Information driven Global Value Chain
D	all of the above
Marks	1.5
Unit	II

Id	4
Question	_____ are those entities that produce data in digital forms for use in other parts of the I-GVC.
A	Sensors, RFID
B	Data Factories
C	Intermediaries
D	Service Providers
Marks	1.5
Unit	II

Id	5
Question	The services provided by _____ are typically executing in data centers or servers farms inside organizations or in a cloud environment.
A	Service Support Layer
B	Asset Layer
C	Communication Layer
D	Business Layer
Marks	1.5
Unit	II

Id	6
Question	What does KMF stand for?
A	Knowledge Measured Framework
B	Knowledge M2M Framework
C	Knowledge Management Framework
D	None of these.
Marks	1.5
Unit	II

Id	7
Question	When direct communication between two nodes over a physical medium is not possible, networking can allow for these devices to communicate over a number of hops.
A	True
B	False
C	Partially True
D	Can't say
Marks	1.5
Unit	III

Id	8
Question	Capillary networks are _____.
A	typically autonomous, self-contained systems of M2M devices that may be connected to the cloud via an appropriate Gateway.
B	are typically required to bridge the M2M Device Domain to the backhaul network, thus providing a proxy that allows information to traverse heterogeneous networks.
C	covers cellular mobile telecommunication networks, a significant departure from WLAN in terms of technology, coverage, network infrastructure, and architecture.
D	All of these
Marks	1.5
Unit	III

Id	9
Question	_____refers to small amounts of data that are communicated between machines (devices to back-end services and vice versa) without the need for any human intervention.
A	Machine to Machine Communications
B	Access network
C	Power Line Communication
D	Machine Type Communications
Marks	1.5
Unit	III

Id	10
Question	In smart meters, a _____ collects data from the meters, performs aggregation, and periodically transmits the aggregated data to an application server over a cellular connection.
A	Aggregator Gateway
B	Concentrator gateway
C	Approximate gateway
D	all of these
Marks	1.5
Unit	III

Id	11
Question	Which of the following statement(s) is/are true? i. M2M device does not provide sensing and actuation capabilities. ii. The purpose of the network is to provide remote connectivity between the M2M device and the application-side servers. iii. The application component of M2M solution is a realization of the highly specific monitor and control process.
A	Only i and ii
B	Only i and iii
C	Only ii and iii
D	i, ii, and iii
Marks	1.5
Unit	I

Id	12
Question	Which of the following are game changers? i. Economic Shifts ii. Climate Change and Environmental Impacts iii. Robots iv. Food Safety
A	Only i
B	Only i and ii
C	Only i, ii and iii
D	All of these
Marks	1.5
Unit	I

Id	13
Question	The _____ is one of the greatest aspects of the evolution of ICT for IoT as it allows virtualized and independent execution environments for multiple applications to reside in isolation on the same hardware platform, and usually in large data centers.
A	Cloud computing
B	Big data
C	Open API
D	Service-oriented approach
Marks	1.5
Unit	I

Id	14
Question	_____is a horizontal enabler approach and _____ is vertical system solution approach.
A	M2M , IoT
B	TCP/IP, M2M
C	IoT, TCP/IP
D	IoT, M2M
Marks	1.5
Unit	I

Id	15
Question	_____refers to the procedures and associations within a given industrial sector.
A	Ecosystems
B	Value chains
C	Industrial structure
D	Global value chains
Marks	1.5
Unit	II

Id	16
Question	M2M solution requires more inputs than IoT application.
A	True
B	False
C	Partially true
D	Can not Say
Marks	1.5
Unit	II

Id	17
Question	_____is used to establish a means to achieve a high degree of interoperability between different IoT solutions at the different system levels of communication, service, and information.
A	IoT - Architectural Reference Model (ARM)
B	European Telecommunications Standards Institute (ETSI)
C	Application Program Interfaces (APIs)
D	Hyper Text Transfer Protocol(HTTP)
Marks	1.5
Unit	II

Id	18
Question	_____ is a specialized web transfer protocol for use with severe computational and communication constraints typically characteristic of M2M and IoT applications.
A	RPL (IPv6 Routing Protocol for Low Power and Lossy Networks)
B	6LoWPAN (IPv6 Over Low Power Wireless Personal Area Networks)
C	HTTP(Hyper Text Transfer Protocol)
D	CoAP (Constrained Application Protocol)
Marks	1.5
Unit	III

Id	19
Question	The _____ provides a more abstract set of functions as its main purposes are to capture knowledge and provide advanced control logic support.
A	Data and Information Layer
B	Service Support Layer
C	Communication Layer
D	Asset Layer
Marks	1.5
Unit	II

Id	20
Question	_____allows the correct flow of data to reach information access and knowledge discovery tools to be retrieved at the correct time.
A	Strong Type data
B	Staged data
C	Weak Type data
D	Mixed data
Marks	1.5
Unit	II

Id	21
Question	_____do not generally allow for the broad sharing of data or connection of the devices in question directly to the Internet.
A	M2M solutions
B	Internet of Things
C	TCP/IP
D	None of these
Marks	1.5
Unit	I

Id	22
Question	The primary purpose of _____ component is to reduce cost for implementation and ease of application development.
A	M2M Application
B	M2M Device
C	Network
D	M2M Service Enablement
Marks	1.5
Unit	I

Id	23
Question	_____ is about the technology, the remote monitoring, & control, and about where these technologies are applied.
A	M2M solutions
B	TCP/IP
C	Internet of Things
D	None of these
Marks	1.5
Unit	I

Id	24
Question	Which of the following statement(s) is/ are true?
A	The game changers come from a set of social, economic, and environmental shifts that create pressure for solutions to address issues and problems, but also opportunities to reformulate the manner in which our world faces them.
B	Energy Production and Storage is relevant to IoT.
C	By using IoT technologies, urban agriculture could be highly optimized.
D	All of the above
Marks	1.5
Unit	I

Id	25
Question	Match the following: 1. Fleet management — i) Game changers 2. Urban Agriculture — ii) Global Megatrends 3. Safety and Security — iii) M2M application 4. Open APIs — iv) IoT application
A	1- (ii), 2-(i), 3-(iii), 4-(iv)
B	1- (iv), 2-(iii), 3-(i), 4-(ii)
C	1- (ii), 2-(i), 3-(iv), 4 –(iii)
D	1-(iii), 2-(iv), 3-(i), 4-(ii)
Marks	1.5
Unit	I

Id	26
Question	Analyzing an industry from a _____ perspective permits understanding the context of globalization on the activities contained within them by focusing on the sequences of tangible and intangible value-adding activities, from conception and production to end use.
A	Global Value Chain (GVC)
B	Ecosystems
C	Industrial structure
D	None of these
Marks	1.5
Unit	II

Id	27
Question	In Service Oriented Architecture(SOA), Service is termed as _____.
A	Software service
B	Network service
C	Business service
D	Developer service
Marks	1.5
Unit	I

Id	28
Question	Which of the following sequence is correct?
A	Input, Processing, Production/Manufacture, Packaging, Distribution/Marketing
B	Production/Manufacture, Input, Processing, Packaging, Distribution/Marketing
C	Production/Manufacture, Input, Packaging, Processing, Distribution/Marketing
D	Input, Production/Manufacture, Processing, Packaging, Distribution/Marketing
Marks	1.5
Unit	II

Id	29
Question	_____ is a form of wireless communication that incorporates the use of electromagnetic or electrostatic coupling in the radio frequency portion of the electromagnetic spectrum to uniquely identify an object, animal or person.
A	Radio Frequency Integrated Device
B	RFID (radio frequency identification)
C	TCP/IP
D	None of these
Marks	1.5
Unit	II

Id	30
Question	_____ are those entities that combine inputs from several different intermediaries, combine it together, analyze, and sell it to either end-users or to corporate entities.
A	Resellers
B	Intermediaries
C	Data factories
D	Service providers/data wholesalers
Marks	1.5
Unit	II

Id	31
Question	Which of the following layer provides the main functional capabilities of sensing, actuation, and embedded identities?
A	Asset Layer
B	Communication Layer
C	Service Support Layer
D	Resource Layer
Marks	1.5
Unit	II

Id	32
Question	Which of the following statement(s) is/ are true?
A	If the devices are visible to the DM server, the gateway can simply forward the messages between the device and the server and is not a visible participant in the session.
B	If the devices are not visible but understand the DM protocol in use, the gateway can act as a proxy, essentially acting as a DM server towards the device and a DM client towards the server.
C	Both (A) and (B)
D	None of these
Marks	1.5
Unit	III

Id	33
Question	What happens when service providers change their operating system and communication protocols?
A	Inoperability and complexity arises
B	Only complexity arises
C	Only inoperability arises
D	Nothing arises
Marks	1.5
Unit	III

Id	34
Question	Which one is not an element of IoT? a) People b) Process c) Security d) Things
A	People
B	Process
C	Security
D	Things
Marks	1.5
Unit	I

Id	35
Question	What risks and challenges should be considered in the internet of things?
A	Privacy and security
B	Energy consumption
C	Network congestion
D	All of the above
Marks	1.5
Unit	I

Id	36
Question	When the huge numbers of devices connected to the Internet of Things has to communicate automatically, not via humans, this is known as_____.
A	Bot to bot
B	Intercloud
C	Skynet
D	Machine to machine communication
Marks	1.5
Unit	I

Id	37
Question	Which of the following is the first recognized IoT device?
A	Smart watch
B	ATM
C	Radio
D	Video Game
Marks	1.5
Unit	I

Id	38
Question	_____ is being used by Internet of things.
A	Radio Identification Technology
B	Satellite
C	Cable
D	Broadband
Marks	1.5
Unit	I

Id	39
Question	Which is not one of the features of Internet of Things devices?
A	Remotely controllable
B	Programmable
C	Can turn themselves off if necessary
D	All the features
Marks	1.5
Unit	I

Id	40
Question	Which is not the concerns of Internet of Things?
A	Efficiency
B	Cyber security
C	Privacy
D	Data storage standards
Marks	1.5
Unit	I

Id	41
Question	_____ are those entities that collect data from various sources worldwide, and through the creation of massive databases, use it to either improve their own information products or sell information products in various forms.
A	Data factories
B	Service Providers and Data wholesalers
C	Intermediaries
D	Resellers
Marks	1.5
Unit	II

Id	42
Question	In the emerging industrial structure of the I-GVC, there is a need for _____ that handle several aspects of the production of information products.
A	Data factories
B	Service Providers and Data wholesalers
C	Intermediaries
D	Resellers
Marks	1.5
Unit	II

Id	43
Question	The purpose of the _____ is to provide the means for connectivity between the resources on one end and the different computing infrastructures that host and execute service support logic and application logic on the other end.
A	Service Support Layer
B	Data and Information Layer
C	Application Layer
D	Communication Layer
Marks	1.5
Unit	II

Id	44
Question	_____devices that only provide the basic services of sensor readings and/or actuation tasks, and in some cases limited support for user interaction whereas _____ devices host the application logic and a WAN connection.
A	Advanced Devices, Extended Devices
B	Basic devices, Extended Devices
C	Basic devices, Advanced Devices
D	None of these
Marks	1.5
Unit	III

Id	45
Question	Typical functions of_____**,** include performing sensor readings and caching data, as well as filtering, concentrating, and aggregating the data before transmitting it to back-end servers.
A	Device management
B	Data management
C	Both (A) and (B)
D	None of these
Marks	1.5
Unit	III

Id	46
Question	In _____, data acquired is checked for correctness and meaningfulness within the specific operating context.
A	Data verification
B	Data acquisition
C	Data validation
D	All of these
Marks	1.5
Unit	III

Id	47
Question	_____ is (are) characteristics of cloud computing.
A	On-Demand Self-Service
B	Broad Network Access
C	Resource Pooling
D	All of these
Marks	1.5
Unit	I

Id	48
Question	_____refers to cloud solutions that provide both a computing platform and a solution stack as a service via the Internet.
A	Software as a Service (SaaS)
B	Infrastructure as a Service (IaaS)
C	Platform as a Service (PaaS)
D	Hardware as a Service(HaaS)
Marks	1.5
Unit	III

Id	49
Question	_____is column-oriented data store that provides real-time read/write access to very large tables distributed over HDFS.
A	HBase
B	Mahout
C	Pig
D	Impala
Marks	1.5
Unit	III

Id	50
Question	_____ can be extracted into tabular format and can be subjected to traditional database analysis techniques.
A	Staged Data
B	Strong Type Data
C	Weak Type Data
D	Mixed Data
Marks	1.5
Unit	III

Id	51
Question	Why M2M and IoT solutions are necessary?
A	An increased need for understanding the physical environment in its various forms, from industrial installations through to public spaces and consumer demands.
B	The improvement of technology and improved networking capabilities.
C	Reduced costs of components and the ability to more cheaply collect and analyze the data they produce.
D	All of these
Marks	1.5
Unit	I

Id	52
Question	The applications of _____ are data logging, goods and vehicle positioning, and security of valuable or hazardous goods.
A	Metering
B	Fleet management
C	Security
D	Remote monitoring
Marks	1.5
Unit	I

Id	53
Question	Without Open APIs, a developer would need to create contracts with several different companies in order to get access to the correct data to develop the application.
A	True
B	False
C	Partially true
D	Can not Say
Marks	1.5
Unit	I

Id	54
Question	Which of the following are barriers and concerns with IoT?
A	the compromise of privacy and the protection of personal integrity.
B	the reliability and accuracy of data and information when relying on a large number of data sources that can come from different providers.
C	Security and costs for massive deployment of IoT devices and embedded technologies.
D	all the above
Marks	1.5
Unit	I

Id	55
Question	_____ refers to the process whereby a product is prepared for sale.
A	Processing
B	Production/Manufacture
C	Packaging
D	Distribution/Marketing
Marks	1.5
Unit	II

Id	56
Question	_____ refers to the process whereby a product can be branded as would be recognizable to end-user consumers.
A	Processing
B	Production/Manufacture
C	Packaging
D	Distribution/Marketing
Marks	1.5
Unit	II

Id	57
Question	_____ use Wi-Fi to communicate with web services.
A	Home Alarms
B	Smart Meters
C	Standalone Smart Thermostats
D	Building Automation Systems
Marks	1.5
Unit	III

Id	58
Question	Provisioning, Device Configuration, Software Upgrades and Fault Management tasks are handled by_____ part of IoT.
A	Device management
B	Local Applications
C	Data Management
D	All of these
Marks	1.5
Unit	III

Id	59
Question	_____ are typically required to bridge the M2M Device Domain to the backhaul network, thus providing a proxy that allows information to traverse heterogeneous networks.
A	Local Area Networks
B	Metropolitan Area Networks
C	Wide Area Networks
D	All of these
Marks	1.5
Unit	III

Id	60
Question	The important functions of the WAN include:
A	To establish connectivity between capillary networks, hosting sensors, and actuators, and the M2M service enablement.
B	Use of identity management techniques (primarily of M2M devices) in cellular and non-cellular domains to grant right-of-use of the WAN resource.
C	both(A) and (B)
D	None of these
Marks	1.5
Unit	III

Id	61
Question	_____ creates an entirely new level of demands on city infrastructures in order to support increasing urban populations.
A	Socioeconomic Expectations
B	Urbanization
C	Changing Demographics
D	Economic Shifts
Marks	1.5
Unit	I

Id	62
Question	A _____ is a useful model to explain how markets create value and how they evolve over time.
A	value chain
B	game changers
C	RFID
D	IoT
Marks	1.5
Unit	II

Id	63
Question	Which industries employ the use of "Big Data" in their day to day operations?
A	Weather forecasting
B	Marketing
C	Healthcare
D	All of these
Marks	1.5
Unit	I

Id	64
Question	What is/are the characteristic(s) of Big Data?
A	Volume
B	Velocity
C	Variety, Veracity
D	All the above
Marks	1.5
Unit	III

Id	65
Question	_____ refers to software that is provided to consumers on demand, typically via a thin client.
A	Platform as a Service (PaaS)
B	Infrastructure as a Service (IaaS)
C	Services as a Service (SaaS)
D	Software as a Service (SaaS)
Marks	1.5
Unit	III

Id	66
Question	The _____ focuses on supporting the core business or operations of any enterprise, organization, or individual that is interested in IoT applications.
A	Service Support Layer
B	Data and Information Layer
C	Business Layer
D	Application Layer
Marks	1.5
Unit	II

Id	67
Question	_____enable very constrained devices with a small footprint of a few mm^2 and with a very low power consumption in the milli- to micro-Watt range, but which are capable of hosting an entire Transmission Control Protocol/Internet Protocol (TCP/IP) stack, including a small web server.
A	System-on-a-Chip solution
B	Execution Environment
C	Device Management
D	Sensors and Actuators
Marks	1.5
Unit	III

Id	68
Question	_____ provides sensing and actuation capabilities.
A	Network
B	M2M Service Enablement
C	M2M Device
D	M2M Application
Marks	1.5
Unit	I

Id	69
Question	Which of the following are the characteristics of advanced devices?
A	A powerful CPU or microcontroller with enough memory and storage to host advanced applications, such as a printer offering functions for copying, faxing, printing, and remote management.
B	A more advanced user interface with, for example, display and advanced user input in the form of a keypad or touch screen.
C	Video or other high bandwidth functions
D	All of the above
Marks	1.5
Unit	III

Id	70
Question	Which of the following are the prime examples of LAN in IoT application?
A	Wireless Personal Area Networks
B	Home or Building Area Networks
C	Neighborhood Area Networks
D	All of these
Marks	1.5
Unit	II

Id	71
Question	Which of the following are the applications of IoT?
A	Smart city
B	Agriculture
C	Robots
D	All of these
Marks	1.5
Unit	I

Id	72
Question	A set of megatrends are combining to create needs and capabilities, which in turn produce a set of IoT Technology and Business Drivers.
A	True
B	False
C	Partially true
D	Can not Say
Marks	1.5
Unit	I

Id	73
Question	_____ can be used to build advanced micro-sized sensors like accelerometers and gyroscopes.
A	Micro Electro Mechanical Systems (MEMS)
B	Micro Controllers and Embedded System(MCES)
C	Micro Processors
D	None of these
Marks	1.5
Unit	I

Id	74
Question	Which of the following statement(s) is/ are true?
A	Energy Production and Storage relates to the global interest of securing the availability of electricity while reducing climate and environmental impacts.
B	Powering embedded devices in Wireless Sensor Networks (WSNs) will increasingly rely on different energy harvesting technologies and also rely on new miniaturized battery technologies and ultra capacitors.
C	Both (A) and (B)
D	None of these
Marks	1.5
Unit	I

Id	75
Question	Cloud computing allows elasticity in deployment of services and enables reaching long-tail applications in a viable fashion.
A	True
B	False
C	Partially true
D	Can not Say
Marks	1.5
Unit	I

Id	76
Question	What does SLA stand for?
A	Software Latent Architecture
B	System Level Architecture
C	Software Level Arguments
D	Service Level Agreements
Marks	1.5
Unit	I

Id	77
Question	Data processing and intelligent software will not have a role to play in IoT solutions.
A	True
B	Partially true
C	False
D	Can not Say
Marks	1.5
Unit	I

Id	78
Question	Which of the following statement(s) is/ are False?
A	M2M is point problem-oriented, resulting in point solutions where devices and applications are highly dedicated to solve a single task.
B	Big data refers to the increasing number and size of data sets that are available for companies and individuals to collect and perform analysis on.
C	M2M solutions solve a larger set of issues or ones that could involve several stakeholders.
D	Open APIs permit the creation of a fluid industrial platform, allowing components to be combined together in multiple different ways by multiple developers with little to no interaction with those who developed the platform, or installed the devices.
Marks	1.5
Unit	I

Id	79
Question	The analysis of IoT data may be viewed as a complex set of interactions related to time (i.e. when the data is received) and relevance (i.e. the overall relevance of the piece of data to the question in hand).
A	True
B	Partially true
C	False
D	Can not Say
Marks	1.5
Unit	II

Id	80
Question	Data from an M2M solution does not need to be verified and tagged for provenance.
A	True
B	Partially true
C	False
D	Can not Say
Marks	1.5
Unit	II

Id	81
Question	For M2M solutions, the data will have to be combined with other information from internal corporate databases to see whether the data received requires any action.
A	True
B	False
C	Partially true
D	Can not Say
Marks	1.5
Unit	II

Id	82
Question	Open data is not important input to Information Value Chains.
A	True
B	False
C	Partially true
D	Can not Say
Marks	1.5
Unit	II

Id	83
Question	In _____, the data from the various inputs from the production and manufacture stage are combined together to create information.
A	Marketing
B	Distribution
C	Processing
D	Packaging
Marks	1.5
Unit	II

Id	84
Question	In IoT, inputs from _____are aggregated, analyzed, repackaged, and exchanged between the different economic actors that form the value chain.
A	Only sensors
B	RFIDs
C	End users
D	Sensors, other devices and End-users
Marks	1.5
Unit	II

Id	85
Question	The _____ needs to integrate anything from single pieces of data from individual sensors to highly domain-specific expert knowledge into a common knowledge.
A	Supervisory Control And Data Acquisition (SCADA) systems
B	Geographic Information System (GIS)
C	Knowledge Management Framework (KMF)
D	Software Development Kits (SDK)
Marks	1.5
Unit	II