Subject: Internet of Things	R-2016	Sem: VIII
Course Code: ELX801	Sample Question Bank	Paper –P1

Module No.	Questions along with Options	Answer key
M-1	IPv6 uses- a. 128-bit address b. 64-bitaddress c. 32-bit address d. 16-bit address	a
M-1	IETF stands for- a. International Engineering Task Force b. International Engineering Telecommunication Force c. Internet Engineering Task Force d. Internet Engineering Telecommunication Force	c
M-1	Protocol 802.3 Ethernet is- a. Network layer protocol b. Transport layer protocol c. Application layer protocol d. Link layer protocol	d
M-1	The HTTP protocol follows- a. Request-Response Model b. Public-Subscribe Model c. Push-Pull Model d. Exclusive Pair Model	a
M-1	Which of the following standard is the collection of wireless local area network (WLAN)? a. IEEE802.3-Ethernet b. IEEE802.16-WiMax c. IEEE 802.11-WiFi	c

	d. IEEE 802.15.4	
M-1	In comparison with the OSI model , IETF model has data adaption layer in place of – a. Transport layer b. Network layer c. Session layer d. Data-link layer	d
M-1	The conceptual framework for IoT Applications and Services is- a. Gather+Enrich+Stream b. Gather+Enrich+Stream+(Manage+Acquire) c. Gather+Enrich+Stream+(Manage+Acquire+ Organise) d. Gather+Enrich+Stream+(Manage+Acquire+ Organise+Analyse)	d
M-1	With respect to IoT Challenges, which of the following option majorly applies? a. Compatibility b. Security c. Network Connectivity d. Continuity	b
M-1	The main function of an IoT gateway can be summarised as : a. Forwarding packets between LAN and WAN on IP layer. b. Performing application layer functions between IoT nodes and other entities c. Enabling local, short-range communication between IoT devices. d. Only for short-range communication between IoT devices.	a
M-1	Open Flow protocol is implemented on- a. Both sides of the interface between the application and the network devices b. One side of the interface between the controller and the network	d

	devices c. One side of the interface between the application and the network devices d. Both sides of the interface between the controller and the network devices	
M-2	Service Oriented Architecture of IoT consists of i) sensing layer ii) network layer iii) service layer iv) Interface layer a. i, ii, iii & iv b. i,& ii only c. i, & iii only d. i, ii & iii	a
M-2	Which is a lightweight protocol in terms of overhead? a. MQTT b. HTTP c. CoAP d. SPI	a
M-2	MQTT is designed to provide connectivity between (i) Application and middle-ware on one side and network and communication on other side (ii) Application and middle-ware only (iii) Communication and network only iv) Network and Transport a. i b. ii c. iii d. iv	a
M-2	MQTT components are i) Publisher ii) Subscriber iii) Broker a. i only b. i & ii only	d

	c. i & iii only d. i, ii & iii	
M-2	MQTT supports which transport layer protocol a. UDP b. TCP c. UDP and TCP both d. Neither UDP nor TCP	b
M-2	Which protocol is useful for real time exchange of structured data? a. CoAP b. XMPP c. MQTT d. HTPP	b
M-2	Which of the following statement is true ? a. WebSocket enables unidirectional communication over a single UDP connection b. WebSocket enables bidirectional communication over a single UDP connection c. WebSocket enables bidirectional communication over a single TCP connection d. WebSocket enables unidirectional communication over a single TCP connection	c
M-2	Scalability, as one of the challenges in IoT involve , i) Flexibility within Internet ii) IoT integration iii) Large Scale deployment iv) Real time connectivity of billions of devices a. i, ii, iii & iv b. i & ii only c. i & iii only d. i, ii & iii	a
M-2	Operating frequency of Z-Wave protocol is a. 865.2 KHz b. 113.65 KHz c. 865.2 MHz d. 1000 MHz	c
M-2	Fully Functional Devices (FFD) and Reduced Functional Devices (RFD) are used in network based on which protocol	d

	a. Zwave b. LPWAN c. Bluetooth d. 802.15.4	
M-2	Reduced Functional Devices (RFD) include i) PAN Coordinator, ii) Router and iii) Devices a. i & ii b. i , ii & iii c. ii & iii d. only iii	c
M-2	NFC's data transmission frequency is a. 13.65 MHz b. 13.65 KHz c. 100 KHz d. 100 MHz	a
M-2	Bluetooth technology is based on Ad-hoc technology known as a. Internet b. Piconet c. Micronet d. Intranet	b
M-2	Piconet can contain up to _____slaves clustered around a single master a. 10 b. 20 c. 100 d. 7	d
M-2	Consumer IoT has which of the following features i) an IoT device connects within locally networked devices. ii) Local Communication done mainly via Bluetooth, Zigbee, Wifi. iii) Generally limited to communication by Gateway a. i & ii b. i , ii & iii c. ii & iii d. only iii	b
M-3	The first step in IoT design methodology is to define the - a. purpose and future scope b. purpose and requirements c. purpose and advantages d. purpose and specification	b
M-3	In IoT design methodology the fourth step defines the attributes of _____ a. resource b. specification c. domain model	d

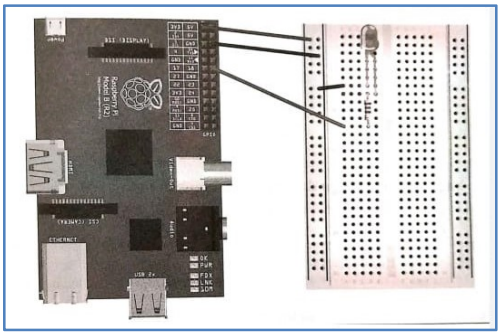
	d. virtual entities	
M-3	_____ is 9th step involved in IoT Design Methodology. a. Service specification b. Functional view specification c. IoT level Specification d. Device & Component Integration	d
M-3	This IoT deployment level is suitable for modelling low-cost and low-complexity solutions where the data involved is not big and the analysis requirements are not computationally intensive a. IoT level 1 b. IoT level 2 c. IoT level 3 d. IoT level4	a
M-3	This IoT deployment level is suitable for solutions where the data involved is with less computationally intensive analysis a. IoT level 2 b. IoT level 1 c. IoT level 3 d. IoT level 4	a
M-3	Smart Irrigation can be designed for IoT level ____ a. IoT Level 3 b. IoT level 1 c. IoT level 4 d. IoT level 2	d
M-3	Smart cities can be conceptualized as a. IoT level 4 b. IoT level 3 c. IoT level 5 d. IoT level 2	a
M-3	If the system uses multi-input data sources and cloud platform, then IoT deployment level will be a. IoT level 2 b. IoT level 5 c. IoT level 4 d. IoT level 1	b
M-4	Example of Relation database is a) PostGreSQL, b) HBase c) MongoDB d) CouchDB	a
M-4	SQL is a language for: a) Data querying, updating, inserting, appending and deleting the databases b) Digital Control Systems c) Industrial Automation & Process Control d) Image Processing in IOT	a

M-4	In DBMS, if transactions between different tables are secluded from each other then we call it as a) Atomicity b) Isolation c) Durability d) Consistency	b
M-4	In Berkeley Data Analytics Stack Structure OLAP is part of a) Business Analytics and Intelligence Applications layer b) Analytics Applications Support layer c) Organized data store layer d) Data Link layer	a
M-4	Cloud Computing model is everything as a _____model a) Operating b) Service c) Process d) Data storing	b
M-4	Tata Communication 10 X, Apple, and Cisco data storage platforms are example of a) IaaS b) DaaS c) PaaS d) SaaS	b
M-4	Feature of Device Hub is a) Distributed Computing b) Open source middleware c) Web based IDE d) Open source backbone	d
M-4	Software architectural concept that enables deployment and development of applications and offers services using web and SOA is a) SAAS	c

	b) PAAS c) XAAS d) DAAS	
M-4	Analytics architecture Reference Model consists of how many layers? a) 7 b) 3 c) 4 d) 5	c
M-4	Which of the following runs faster on column format i.e. more rows & fewer columns a) OLAP b) MQTT c) OLTP d) REST	a
M-4	For IoT cloud-based services, _____communicates feeds on requests, triggers, and subscriptions. a) server b) client c) broker d) Cloud	a
M-4	Who uses these services -“Pay As You Go”? a) Cloud Providers b) Cloud users c) End users d) Clients	b
M-4	Data processing, data management and resource management are Layers of which Stack? a) Berkeley Data Analytics Stack b) Bluetooth Protocol Stack c) IEEE 802.11 d) ISO OSI Model	a
M-4	Log, Event & twitter are examples of: a) Layers	c

	b) Stacks c) Streams d) Queries	
M-4	Computing that pushes the frontier of computing applications, data, and services away from centralized nodes to IoT data generating nodes, that means at logical extremes of the network a) Utility Computing b) Web Computing c) Distributed Computing d) Edge Computing	d
M-4	Architecture infrastructure layer used as a front end in Cloud computing is a) client b) cloud c) soft d) top	a
M-4	Licensed version of Microsoft 365 used within organizations only is an example of _____ cloud a) Hybrid b) Public c) Private d) Community	c
M-4	User application, service or process access to resources appearing as just one network, though in fact the network access to the resources may be through multiple resources and networks, is called a) cloud network b) network function virtualization c) application virtualization d) Internet access.	b
M-4	IoT Cloud services can be provided through a) server applications	c

	b) desktop applications c) web applications d) devices	
M-4	Simple equation considered for Cloud Computing is a) ICT + IoT + AI + ML b) SaaS + PaaS + IaaS + DaaS c) PaaS + HaaS + SaaS + FaaS d) DBMS + AWS IoT + PLC + M2M	b
M-5	Arrange the following events sequentially (starting from the first step to the last) for sending data from client to server using sockets and saving it? 1 Create a client and server 2 Establish connection between the two 3 Send data from the client to the server 4 Save the data in a file a. 1-2-3-4 b. 1-3-4-2 c. 3-2-4-1 d. 3-1-2-4	a
M-5	How power supply is given to Raspberry Pi? a. USB Connection b. Internal battery c. Charger d. Adapter	a
M-5	The function of the command "netstat" is a. Print name of the present working directory b. Print lines matching a pattern c. Print file d. Print network connections, routing tables, interface statistics	d
M-5	The smallest change which a sensor can detect is called the _____ a. Resolution b. Accuracy	a

	c. Precision d. Scale	
M-5	A UART device sends ____bits for each 8 bit data (character or digit or command) at successive intervals a. 8 b. 9 c. 10 d. 11	c
M-5	A Raspberry Pi is connected to a LED as shown in the figure. What is the output of the following Python program?  import RPi.GPIO as GPIO import time GPIO.setmode(GPIO.BCM) GPIO.setup(18,GPIO.OUT) while True: GPIO.output (18,True) time.sleep(1) GPIO.output(18,False) time.sleep (1) a. LED Blinking after a delay of 1 nanosecond b. LED Blinking after a delay of 1 microsecond c. LED Blinking after a delay of 1 second d. LED Blinking after a delay of 1 minute	c
M-5	The components of RFID system are a Transceiver, data processing subsystem, middleware, applications and services b. Reader, data processing subsystem, middleware, applications and services c. Transceiver, reader, data processing subsystem d. Transceiver, reader, data processing subsystem, middleware, applications and services	d

Subject: Internet of Things	R-2016	Sem: VIII
Course Code: ELX801	Sample Question Bank	Paper –P1

M-5	Middleware in RFID consists of a. Identity manager, device manager, data router, analyser b. Identity manager, device manager, storage and database server and services c. Identity manager, data router, analyser, storage and database server and services d. Identity manager, device manager, data router, analyser, storage and database server and services	d
M-5	The main source of power consumption in wireless sensor networks is due to a. Sensing b. Transmitting c. Processing d. Storing	b
M-5	Sensors use the parameters of i)resistance, ii)capacitance, iii)reverse diode saturation current, iv) saturation current between collector-emitter in photo-transistor, v) current in LED, vi) Piezo electric current and vii) magnetic field variation with time for sensing the physical environment or conditions. a. i and ii b. i to vi c. i to iv d. all except v	d
M-5	Distance of a car in front is measured by measuring the delay of i) ultrasonic pulses echoed back, ii) microwaves reflected , iii) infrared reflected, iv) light reflected and v) image from the car in front a. i to iii b. iv c. i d. v	c
M-6	____is the IoT level suitable for simple home automation application. a) IoT Level 2 b) IoT Level 1 c) IoT Level 3 d) IoT Level 4	b
M-6	Entities, devices , resources and services are described in _____ a) Process Model Specification b) Domain Model Specification c) Service Specification d) Information Model	b
M-6	The Mode service is a _____web service that sets mode to auto or manual. a) IoT Level 6 b) IoT Level 4 c) RESTful d) IoT Level 5	c
M-6	In smart car parking system , _____are used to detect whether the slot is empty or occupied. a)LCD	c

	b) LEDs c)Sensors d)Displays	
M-6	_____refers to a service using web protocols, web objects or WebSockets. a)Cloud computing b)Web service c)PasS d)IasS	b
M-6	Connected platform-as-a-Service (PaaS) clouds are-------- a.M2M b. WiMAX c. LPWAN d. CIOT	d
M-6	Which of the following is a social and legal challenge of IoT in smart cities? a. Message Queuing Telemetry Transport b. CIOT c. LPWAN d. Services based on user provided information may be subject to local or international laws.	d
M-6	Weather monitoring system is ____ based implementation a. HTTP b. Web socket c. Both REST & Web Socket d. REST	d
M-6	Web Socket implementation is done using _____ framework. a. Django REST b. Autobahn c. Both Django & Autobahn d. only with websocket	b
M-6	____ use IoT devices & soil moisture sensors to determine the amount of moisture in the soil. a. Smart farming b. Smart Irrigation system c. Weather monitoring system d. Soil monitoring system	b
M-6	A supply chain monitoring system is ---------- a. SCMS b. SMS c. SCOVARS d. RFID	c
M-6	IoT system needs designing for which of following layers layer1:Physical object(s),sensor(s),and or actuators layer2:Intranet,internet or mobile service provider layer3:controller and monitor layer 4:Aquire at server or cloud and organize a.layer 1,2,3 b.layer 1,2 c.layer 1	a

	d.All layers	
M-6	Weather monitoring system mostly use ____controller and _____sensors a. 8051 and LM 35 b. ARM and LM 35 c. Arduino and DHT11 d. Raspberry Pi and DHT 11	d
M-6	_____ refers to a platform which functions and renders services on virtually any business domain. a)Device agent b)Multi-tenant c) Domain agnostic d) Concurrent Versions System	c
M-6	----------client refers to a software client for revision control for a development software a)Device agent b)Multi-tenant c) Domain agnostic d) Concurrent Versions System	d
M-6	_____refers to creation of dashboard. a) Device agent b) Infographic c) Domain agnostic d) Multi-tenant	b