Q. Code:501498

Reg. No. | | | | | | | | | | | | | |

B.TECH. DEGREE EXAMINATIONS, MAY 2023

Fifth Semester

IT18503 – INTERNET OF THINGS

(Information Technology)

(Regulation 2018A)

TIME: 3 HOURS **MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Define the vision of IoT from a global context.	**5**
CO 2	Select various protocols to be used in IoT	**3**
CO 3	Conclude the Market perspective of IoT.	**3**
CO 4	Choose between available technologies and devices for stated IoT challenge.	**3**
CO 5	Apply state of the art Methodologies in IoT application domain.	**3**
CO 6	Illustrate the application of IoT and identify Real World Design Constraint.	**6**

PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	Discuss about the features of Level 6 IOT system with a neat diagram.	**1**	**3**
2.	Discuss about the ways in which Raspberry Pi can be interfaced with other devices in IOT system.	**1**	**3**
3.	What is IOT protocol stack draw its architecture?	**2**	**1**
4.	Formulate the features of IEEE 802.15.4.	**2**	**3**
5.	List the advantages of IOT design methodology.	**3**	**2**
6.	Illustrate the issues in purpose and requirement specification.	**3**	**3**
7.	List the features of WAMP protocol.	**4**	**2**
8.	Explain briefly the working of Skynet IOT messaging platform.	**4**	**2**
9.	List the features of puppet.	**5**	**2**
10.	Explain briefly the working of Storm cluster.	**5**	**2**

PART- B (5 x 14 = 70 Marks)

		Marks	CO	RBT LEVEL
11. (a)	Discuss in detail physical Design of IOT system with a neat diagram.	**(14)**	**1**	**3**

(OR)

(b)	Discuss in details working of Raspberry pi, interfaces of Raspberry pi and write a program for blinking of LED with 500 milliseconds delay.	**(14)**	**1**	**3**
12. (a)	Examine in detail the implementation of Network Function Virtualization in an IOT system with a neat diagram.	**(14)**	**2**	**3**
	(OR)			
(b)	Examine in detail the working of KNX protocol with a neat diagram.	**(14)**	**2**	**3**
13. (a)	Design an IOT system for patient health monitoring application.	**(14)**	**3**	**3**
	(OR)			
(b)	Design an IOT system to automate the functioning of agriculture environment.	**(14)**	**3**	**3**
14. (a)	Write a program to implement Amazon EC2 in Amazon web services.	**(14)**	**4**	**3**
	(OR)			
(b)	Write a program to implement Amazon RDS feature in Amazon web services.	**(14)**	**4**	**3**
15. (a)	Discuss in detail about CHEF and setting up of CHEF in real time environment.	**(14)**	**5**	**3**
	(OR)			
(b)	Design a home intrusion detection system using NETCONF-YANG.	**(14)**	**5**	**3**

PART- C (1 x 10 = 10 Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	Access the working of interfacing a LED, Switch and a buzzer using Raspberry Pi in detail with suitable programs.	**(10)**	6	**3**

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