Reg. No. ☐☐☐☐☐☐☐☐☐☐☐☐

B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2023

Third Semester

IT18301 – IT ESSENTIALS

(Information Technology)

(Regulation 2018A)

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

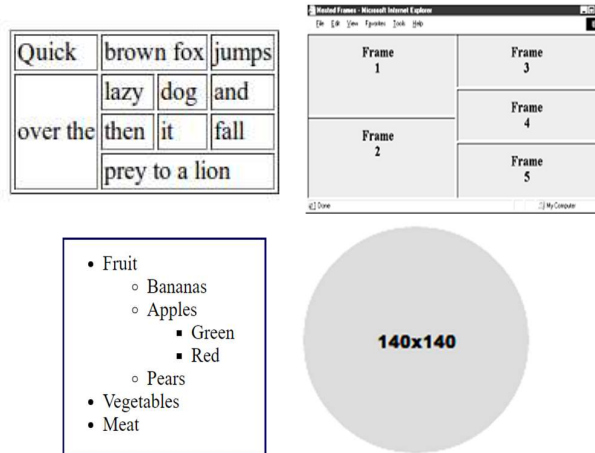| COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Choose the various information systems and technologies that may improve an organization's performance.	2
CO 2	Develop web based applications using suitable client side and server side web technologies	4
CO 3	Appraise the requirements and build static, dynamic and interactive Web pages.	5
CO 4	Relate the general principles and technological components of Computer networks.	4
CO 5	Demonstrate their understanding on functioning of cellular radio concepts and standards.	4

PART- A(10x2=20Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	How many gray shades are represented with 4 bits?	1	2
2.	List out the steps involved in Quantization process.	1	1
3.	How do you create a logo in the webpage?	2	3
4.	Differentiate between style attribute and style tag with an example.	2	4
5.	How are constants created in PHP and javascript?	3	2
6.	Write a javascript to display an alert message when the text box is empty.	3	3
7.	Differentiate between circuit switched networks and packet switched networks.	4	4
8.	Compare and contrast Wi-Fi and Bluetooth.	4	4
9.	Is 3G cellular wireless technology superior to 2G technology? Justify your answer.	5	4
10.	List the parameters that affect handoff.	5	2

PART- B (5x 14=70Marks)

		Marks	CO	RBT LEVEL
11. (a)	Explain how images can be acquired, compressed and stored in a PC. Illustrate with suitable diagrams.	(14)	1	2
	(OR)			
(b)	Discuss in detail about the Acquisition of video signals and its compression methods.	(14)	1	2
12. (a)	Create a HTML page to display the following elements: a complex table, image with rounded borders, nested list and frames.	(14)	2	3

(OR)

(b)	Write a HTML code to design a course feedback form that include minimum 10 different form elements.	**(14)**	2	3
13. (a)	**(i)** Write a PHP script using functions to calculate factorial of a number.	**(7)**	3	3
	(ii) Write a PHP script to search for an element in an associative array.	**(7)**	3	3

(OR)

(b)	Consider a web form which accepts two numbers 'first' and 'second' as integers and invoke arithmetic operations using functions to calculate the sum, difference, product and division when the 'Add', 'subtract', 'multiply' and 'division' button is pressed. Write the functions using PHP and pass the numbers as arguments to the functions using 'GET/POST' method.	**(14)**	3	3
14. (a)	Illustrate the OSI layer model with a neat diagram.	**(14)**	4	3

(OR)

(b)	Compare and contrast different types of switching technologies in network communication.	**(14)**	4	3
15. (a)	**(i)** Illustrate in detail the operation of voice calls and SMS.	**(8)**	5	4
	(ii) How call roaming services is carried out in cellular network. Explain it with a neat diagram.	**(6)**	5	4

(OR)

(b)	Examine in detail about the various types of handover in GSM and also discuss the timeline diagram of the Intra MSC handover.	**(14)**	5	4

PART- C(1x 10=10Marks)
(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	Create an interactive webpage for online catering service with the following functionalities. a) The website must provide the available menu cost of each menu item in a tabular form. b) The websites should display the images of the items. c) The website must also accept the order form which includes any number of items and quantity required. d) A Script to validate the form and compute the total amount to be paid.	**(10)**	3	5