Reg. No. ☐☐☐☐☐☐☐☐☐☐☐☐☐

B.E / B.TECH.DEGREE EXAMINATIONS, MAY 2024
Third Semester
IT18301 – IT ESSENTIALS
(Regulation2018/ 2018A)

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

CO1	Choose the various information systems and technologies may improve an organization's performance.	**2**
CO2	Develop web based applications using suitable client side and server side web technologies.	**4**
CO3	Appraise the requirements and build static, dynamic and interactive Web pages.	**5**
CO4	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.	Discuss in brief about PPI.	1	2
2.	Define Frame buffer and mention its uses.	1	1
3.	Identify how to open a link in a new page when it is clicked.	2	3
4.	Differentiate HTTP request and response package.	2	4
5.	Write a JavaScript program to change over the color of a text when the cursor moves.	3	3
6.	Differentiate Script and Program.	3	4
7.	Analyze the Hidden Terminal Problem. Provide an explanation with a diagrammatic example.	4	4
8.	Compare Routing and Switching.	4	4
9.	Calculate the reuse distance in cellular communication with a cell radius of 5 square kilometers and a cell containing 40 users.	5	3
10.	Mention Handoff and the use of power margin.	5	3

PART- B (5x 14=70Marks)

		Marks	CO	RBT LEVEL
11. (a)	Discuss in detail about the architecture of e-commerce systems, the different categories they encompass, and the variety of payment schemes they utilize.	(14)	1	2

(OR)

(b)	Describe in detail about the management structure and the information needs associated with each level within the organization.	**(14)**	**1**	**2**

12. (a) Develop a navigation menu and illustrate the various methods of integrating CSS into an HTML webpage. Provide a detailed demonstration by applying different styles to the menu.   **(14) 2 3**

<div align="center">

(OR)

</div>

(b) Write a HTML program to create the below given table and add email link to invoke an email client when clicked.   **(14) 2 3**

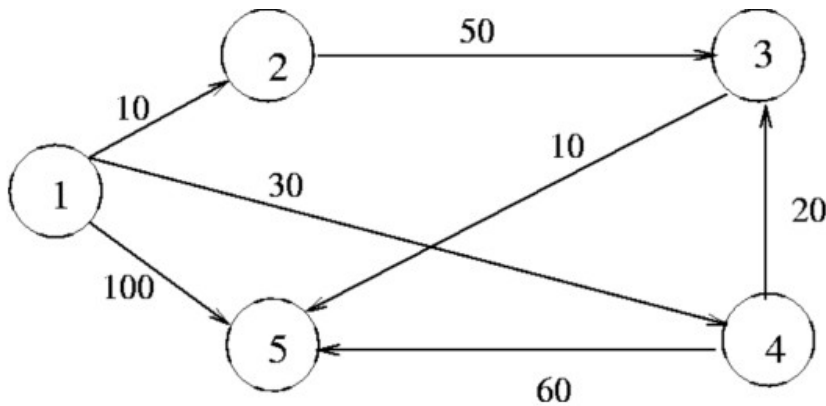| Student Details					
Department	**Register No**	**Name**	**Mobile Number**	**Email**	**Photo**
IT	17080123	John	8733429002	abc@gmail.com	
	17080125	Jesse	9872348761	def@gmail.com	
	17080124	Michael	7765321234	ghi@gmail.com	
CS	17080123	Matthew	8733429002	jkl@gmail.com	
	17080125	Alice	9872348761	mno@gmail.com	
	17080124	Cris	7765321234	pqr@gmail.com	
EE	17080123	Abishek	8733429002	stu@gmail.com	
	17080125	Kaavya	9872348761	vwx@gmail.com	
	17080124	Mohan	7765321234	yza@gmail.com	

13. (a) Develop an HTML form named "result.html" featuring a text box and a submit button for entering a student's registration number. Develop a "result.php" script to verify the result status from the table and indicate whether the student has a "PASS" or "FAIL" status. Assume the MySQL database "my_db" contains a table named "result_table" with columns REG_NO and STATUS.   **(14) 3 3**

<div align="center">

(OR)

</div>

(b)	**(i)** Develop a JavaScript program to find the greatest among three numbers.	**(8)**	**3**	**3**
	(ii) Develop a JavaScript program to compute factorial of 'n' using for loop construct.	**(6)**	**3**	**3**

14. (a) Analyze in detail about Link State Routing and find the shortest path from Node 1 to all other nodes using Dijkstra's algorithm. (14) 4 4

(OR)

(b) Analyze in detail about the layers of OSI model using a well-organized architectural diagram. (14) 4 4

15. (a) Examine the evolutionary phases of cellular networks and elaborate on the elements comprising a cellular network. (14) 5 4

(OR)

(b) Examine the security services offered by GSM and elucidate the functional architecture of a GSM system with an appropriate illustration. (14) 5 4

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

		Marks	CO	RBT LEVEL
16.	Develop an HTML form for a Student Management System and implement validation to trigger an alert message when a user attempts to submit an empty form.	(10)	3	5

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