22CSE941

GIET UNIVERSITY, GUNUPUR – 765022

B. Tech – I Semester :: CYCLE TEST - II

22BBSHS11001 - Communicative English and Soft Skills.

(Common to all branches)

Time: 1.30 hrs | Maximum : 30 Marks

Answer all questions

PART – A (2 x 5 = 10 Marks)

Q.1. Answer ALL questions		CO #	Blooms Level
a.	Explain 2C's of non- communication.	CO-3	K1
b.	Explain horizontal communication with an example.	Co-3	K1
c.	Differentiate internet and intranet.	Co-3	K2
d.	Define Soft skills.	Co-4	K1
e.	Define Lateral thinking.	Co-4	K2

PART – B (10 x 2 = 20 Marks)

Answer ALL Questions		Marks	CO#	Blooms Level
2.a	Explain different channels of communication exist in corporate communication.	10	Co-3	K2
	OR			
b.	Explain the role of ICT in technical education.	10	Co-3	K2
3.a	Soft skills help in building the career of engineering graduates. Justify the statement.	10	Co-4	K2
	OR			
b.	Write short notes on A. Time management B. Stress management.	5+5	Co-4	K2

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B. Tech – I Semester :: CYCLE TEST - II

22BBSES10007 - Fundamentals of Web Technology

(Common to all branches)

Time: 1.30 hrs | Maximum : 30 Marks

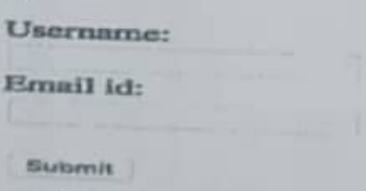
PART – A (2 x 5 = 10 Marks)

Q.1. Answer ALL questions

		CO #	Blooms Level
a.	Write the features of HTML	CO1	K1
b.	Do all tags have end tags? List few of them.	CO1	K1
c.	Describe the structure of HTML	CO1	K1
d.	Name few famous browsers that support HTML.	CO1	K1
e.	How to make a picture as the background of the webpage	CO1	K2

PART – B (10 x 2 = 20 Marks)

Answer ALL Questions

		Marks	CO#	Blooms Level
2.a.	What are the different types of arrays in Java Script	5	CO3	K2
b.	What is the main purpose of Document Object Model. Draw the hierarchical diagram to represent DOM.	5	CO3	K1
	OR			
c.	Design a HTML webpage for the above input field types and submit button. 	5	CO1	K2
d.	Explain in detail about <pre> and <par> tags.	5	CO1	K1
3. a.	What are the different datatypes in JavaScript?	6	CO3	K1
b.	In a web page with title My Web Page and name mywebpage.html, insert an image with name image.jpg in the center of the webpage with any border.	4	CO3	K2
	OR			
c.	What is scope of a variable? Write the different type of scope rules in Java Script.	5	CO3	K2
d.		5	CO1	K2

Name	Email	Website
Jon	jon@example.com	jonexample.com
Ann	ann@example.com	annexample.com
Joe	joe@example.com	joeexample.com

Write HTML Code for creating the above table.

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B. Tech – I Semester :: CYCLE TEST - II

22BBSBS11001 - Engineering Mathematics – 1

(Common to all branches)

Time: 1.30 hrs | Maximum : 30 Marks

PART – A (2 x 5 = 10 Marks)

		CO #	Blooms Level
Q.1. Answer ALL questions			
a.	Define general and particular solution of a differential equation.	CO2	K1
b.	Define half range cosine series.	CO2	K1
c.	Determine whether the function $f(x)=x\left(\frac{a^x-1}{a^x+1}\right)$ even or odd	CO3	K2
d.	Find the Eigen values of the matrix $\begin{bmatrix} 0 & 3i \\ -3i & 0 \end{bmatrix}$	CO3	K3
e.	Find the symmetric coefficient matrix of the quadratic form $Q=4x^2-8xy+5y^2$	CO4	K3

PART – B (10 x 2 = 20 Marks)

		Marks	CO#	Blooms Level
Answer ALL Questions				
2.a.	Solve $y''-4y'+4y=\frac{e^{2x}}{x}$ by using variation of parameter.	5	CO2	K3
b.	Solve $y''+3y'-18y=9\sin x$ by using undetermined coefficient method	5	CO2	K3
	OR			
c.	Find the Fourier series of $f(x)=\lvert x\rvert$, $-2<x<2$.	5	CO3	K3
d.	Find the Half range sine Series of $f(x)=x^2$, *in* $0<x<\pi$	5	CO3	K3
3.a.	Solve $-3x+2y+z=3$, $2x+y+z=0$ and $6x+2y+4z=6$ by Gauss Elimination method	5	CO 4	K3
b.	Find the Eigen value and Eigen vector of the matrix $\begin{pmatrix} 2 & 1 & 1 \\ 1 & 2 & 1 \\ 0 & 0 & 1 \end{pmatrix}$	5	CO 4	K3
	(OR)			
c.	Digonalize the matrix $\begin{pmatrix} -19 & 7 \\ -42 & 16 \end{pmatrix}$	5	CO4	K3
d.	Prove that the Eigen Values of Hermitian Matrix are real	5	CO4	K3

--- End of Paper ---

SET - B

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B. Tech – I Semester :: CYCLE TEST - II

21BBSES10001

BEEE

(Sec: A, B, C, D, E, M, N, P & K)

Time: 1.30 hrs

Maximum : 30 Marks

PART – A (2 x 5 = 10 Marks)

	Q.1. Answer ALL questions	CO #	Blooms Level
a.	Calculate the synchronous speed & slip of 6 pole induction motor running at 1140 rpm while being connected to a 60 Hz three phase AC source.	2	K2
b.	Write any two application of single phase induction Motors.	2	K1
c.	Find 2's compliment of (11001001)2.	4	K2
d.	What is basic principle of operation of alternators?	2	K1
e.	What is the function of trigger circuit?	4	K1

PART – B (10 x 2 = 20 Marks)

	Answer ALL Questions	Marks	CO#	Blooms Level
2 a.	Derive an e.m.f equation of a single phase transformer. Also find out transformation ratio of the transformer and explain each term briefly.	5	2	K2
b.	Draw the circuit diagram of a full wave bridge type rectifier using diode and explain its operation.	5	3	K2
	(OR)			
c.	Write short note on Common Collector Configuration.	5	3	K2
d.	A balanced 3-phase star load has load impedance of (5-j10) Ω per phase and is supplied from a balanced 3-phase 400V, 50 Hz AC supply. Calculate the values for (i) line voltages, phase voltages (ii) Line currents, phase currents & (iii) Power consumption at the load.	5	1	K2

SET - B

3.a.	State and explain working principle and construction of a DC machine.	5	2	K2
b.	Convert (101010001)2, (11001.1001)2 into decimal, octal and hexadecimal.	5	4	K2
	(OR)			
c.	What is a semiconductor diode and Explain with suitable diagram about biasing of a p-n Junction?	5	3	K1
d.	(i) Subtract (111.111)2 from (1010.01)2. (ii) Multiply (1011.101)2 by (101.01)2.	5	4	K2

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B. Tech – I Semester :: CYCLE TEST - II

22BBSES11003 - Programming for Problem Solving

(Common to all branches)

Time: 1.30 hrs | Maximum : 30 Marks

Answer all questions

PART – A (2 x 5 = 10 Marks)

		CO #	Blooms Level
Q.1.	**Answer ALL questions**		

a.	Find the output:
	int addition(int, int);
	
	main( )
	{ int x=15, y=20;
	int p=addition(x,y);
	printf("%d",p);
	}
	int addition(int c, int d)
	{ int e=c+d;
	return(c);
	return(d);
	}
		CO3/PO3	L3

b.	Find the output:
	main()
	{
	static int a;
	
	printf(" %d",a++);
	if(a<=2) main();
	}
		CO3/PO2	L3

c.	Where the keywords "break" and "continue" used and what is the difference between them, explain with a suitable example.	CO2/PO3	L2
d.	What is the role of return statement in program, explain with an example?	CO2/PO2	L3
e.	What is the use of library functions: isupper( ), toupper( ), islower(), tolower( )	CO1/PO3	L2

PART – B (10 x 2 = 20 Marks)

Answer ALL Questions	Marks	CO#	Bloom's Level
2.a. Write a C program to create an UDF which accepts two integers as their arguments, calculates and return the result.	5	CO2/PO2	L2
b. Write a program to input values into two 4X4 matrices and perform matrix addition.	5	CO3/PO3	L2
OR			
c. Write a program to display "HELLO CODERS" for 100 times using recursive function.	5	CO3/PO3	L1
d. Write a program to display the transpose of a square matrix given as input.	5	CO3/PO3	L2
3.a. Write a program to create a structure called BOOKS having members: book_no, book_cost, book_name. Store 5 books information using a structure array. Display only those books whose cost is between 300 to 500.	5	CO4/PO2	L2
b. Write a program generate pyramid given below: 1 12 13 1234 12345	5	CO3/PO3	L3
OR			
c. Write a program to test a 3 digit number is Armstrong or not. (ex: 153 is Armstrong number because $1^3+3^3+5^3=153$)	5	CO3/PO3	L3
d. Write a program to create structure called ITEM having members: item code, name, and price. Create a structure array of size 10. Store the item details and then display all those items whose price>=500	5	CO4/PO2	L2

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B. Tech – I Semester :: CYCLE TEST - II

22BBSES10002 - **Elements of Mechanical Engineering**

(Common to all branches)

Time: 1.30 hrs | Maximum : 30 Marks

Answer all questions

PART – A

(2 x 5 = 10 Marks)

Q.1. Answer ALL questions		CO #	Blooms Level
a.	Write two differences for microscopic and macroscopic approach in thermodynamics.	CO3	K2
b.	State and explain Zeroth law of thermodynamics?	CO3	K2
c.	What is a PMM1? Why is it impossible?	CO3	K1
d.	Define 'Degree of Freedom".	CO4	K1
e.	Write down the various benefits of industrial robot.	CO4	K2

PART – B

(10 x 2 = 20 Marks)

Answer ALL Questions		Marks	CO#	Blooms Level
2.a.	With neat sketch Explain the working principle of Steam power plant?	10	CO3	K2
	OR			
b.	Convert the following reading of pressure to kPa assuming that the barometer is reading in 760 mm of Hga)40 cm of Hg vacuum b) 1.2 met of H_2O gauge	5	CO3	K3
c.	An investigator designed a temperature scale (X) on two fixed points as 60°N and 300°N. What will be the value of temperature 375 K and 85oF in new scale (X). At what temperature, both the new scale and °C Scale have same reading.	5	CO3	K3
3.a.	List out the advantages and disadvantages of industrial robots.	5	CO4	K2
b.	Explain briefly about the basic components of CNC machine.	5	CO4	K2
	OR			
c.	Write a note on "Flexible Manufacturing System (FMS)".	5	CO4	K1
d.	List out the difference between NC and CNC machines.	5	CO4	K2