MANAV RACHNA
Vidyaparikshat

MANAV RACHNA UNIVERSITY
Declared as State Private University vide Haryana Act 26 of 2014

DEPARTMENT OF DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Term Examination Part1, Dec-2022"

SEMESTER	**1**	**DATE OF EXAM**	**16.01.2023**
SUBJECT NAME	**Introduction To Information Security**	**SUBJECT CODE**	**CSH109B-T**
BRANCH	**CSE (CSTI)**	**SESSION**	**I**
TIME	**9.00 to 12.00**	**MAX. MARKS**	**100**
PROGRAM	**B.Tech**	**CREDITS**	**4**
NAME OF FACULTY	**Mr. Sujeet**	**NAME OF COURSE COORDINATOR**	**Dr. R. GIRIJA**

Note: Part A: All questions are compulsory. Questions will be of short answer type (2 Marks).

Part B: All questions are compulsory. Questions will be of short answer type and brief answer type(2,4 Marks).

Part C: All questions are compulsory. Questions will be of descriptive type or scenarios based. Each question will be of (10 Marks).

Part D: All questions are compulsory. Questions will be of descriptive type or scenarios based. Each question will be of (10 Marks).

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-1	1(a)	What do you understand by Discretionary Access Control (DAC). Explain with the help of examples.	2	CO4	L1,L2	1.2.1
	1(b)	Differentiate between white hat hacker and black hat hacker. Explain each with the help of real life scenarios.	2	CO3	L2,L3	1.4
	1(c)					

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		What are the difference between active attack and passive attack? Explain in detail.	2	CO1	L1,L2	1.2
	1(d)	What are the difference between moral, Ethics and Law? Explain with the help of example.	2	CO2	L2,L3	1.4
	1(e)	Explain the term cyber stalking with the help of real life case scenario.	2	CO2	L1,L2	1.3
PART-2	2(a)	What do you understand by sociology of cyber criminals? Explain with the help of case study.	2	CO2	L2,L3	1.4.1
	2(b)	Write short note on IT Act 2000 and Amendments.	2	CO2	L1,L2	1.2.1
	2(c)	Define parkerian hexad in terms of information security. Explain with help of real-world scenarios.	2	CO1	L2,L3	1.3.1
	2(d)	What do you understand by Botnet and Script kiddies? Explain both with the help of case study.	4	CO2, CO3	L2, L3	2.1.1
PART-3	3(a)	What are the different domains of cyber security? Give real life examples to support your answer. Which domain will you prefer?	10	CO2	L3, L4	2.1.1
	3(b)	Discuss the term social engineering? What are the different types of social engineering? What are the counter measure we can take to overcome this issue?	10	CO2, CO3	L3, L4	2.3.1
	3(c)	Write down and explain each of the	10	CO3	L2, L3	1.1.1

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		below mentioned terms: ✓ Fraud ✓ Copyright ✓ Defamation ✓ Harassment and Stalking ✓ Trade Secrets				
	3(d)	What do you understand by Denial Of Service Attack, Email Bombing and Email Spoofing? Explain each with the help of IT Act 2000 and Amendments.	10	CO2, CO3	L3, L4	1.2.2
PART-4	4(a)	Explain different types of hackers in cyber security. Provide a real-life example to support your answer.	10	CO3	L3, L4	1.4.1
	4(b)	Explain different job roles available in the field of information security. Which job is suitable for you and why?	10	CO2	L2, L3	1.2.1
	4(c)	Explain the different types of attacks in information security. Support your answer with the help of example.	10	CO3	L3, L4	2.4.1
	4(d)	There is a web application running on which Nmap scan has been performed and it gave us host name which is Darren@hunt and got two open ports 80, 22. According to the given information, What will be the further steps to get an access of the web server? Please assume the missing data.	10	CO4	L3, L4	2.4.2

END

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End-Term Examination, January -2023"

SEMESTER	**I**	**DATE OF EXAM**	**16.01.2023**
SUBJECT NAME	**Digital product Engineering & Design Thinking**	**SUBJECT CODE**	**(CSH105B-T)**
BRANCH	**CDF**	**SESSION**	**2022-23 (I)**
TIME	**9:00 AM-12:00 Noon**	**MAX. MARKS**	**100**
PROGRAM	**B.TECH**	**CREDITS**	**4**
NAME OF FACULTY	**Dr Sanjay Singh,**	**NAME OF COURSE COORDINATOR**	**Dr Sanjay Singh**

Note: Part A : All questions are compulsory. Questions will be of short answer type (20 Marks).
Part B, C,D: Questions will be of descriptive type or numerical.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	1(A)	The Product manager was first referred to as __ during the 1930?	2	CO1	BT1	1.2.1
	1(B)	Design Thinking is:	2	CO2	BT1	1.2.1
	1(C)	What are the steps of the design thinking process?	2	CO2	BT2	1.2.1
	1(D)	What does North Star mean in Product?	2	CO2	BT1	1.2.1
	1(E)	Fill in the blank: "Before we start charging our customers for the app, we are going to first give them our _____ _____."	2	CO1	BT1	1.2.1
	1(F)	---- is one of methods to define a problem statement.	2	CO2	BT1	1.2.1

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	1(G)	Write the method that are used for shortlisting ideas for prototyping?	2	CO1	BT1	1.2.1
	1(H)	What is the primary purpose of capability Maturity Model?	2	CO1	BT1	1.2.1
	1(I)	Integrating with another company that supplies the raw material for manufacture of its product is called ?	2	CO1	BT1	1.2.1
	1(J)	Design Thinking typically helps in _____	2	CO1	BT1	1.2.1
PART-B	Q2(A)	What are the stages in Design Thinking? Explain in detail.	10	CO1	BT2	2.1.2
	2(B)	What Is the Product Development Cycle?	10	CO1	BT2	2.1.2
	Q3.	Define iceberg model of system thinking. Apply iceberg model in context of software product development.	10	CO3	BT3	2.1.3
PART-C	Q4.	Illustrate the nine components of business model canvas	10	CO3	BT3	1.7.1
	Q5.	Demonstrate in detail the day wise plan of Design Sprint for solving a complex problem. Apply it in your choice of Business.	10	CO4	BT3	2.8.2
PART-D	Q6.	Explain the digital marketing framework. Analyze Digital Framework that can be applied to your business in detail.	10	CO4	BT4	3.6.3
	Q7.	Analyze UI & UX? Why UX need to be user centric? What are the different types of requirements?	10	CO5	BT4	2.6.3
	Q8.	Elaborate about Prototype, its types and the benefits. Detail about Evaluation and the performance of a product.	10	CO5	BT5	2.7.2

END

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MANAV RACHNA UNIVERSITY
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NAAC ACCREDITED 'A' GRADE INSTITUTION)
Declared as State Private University under section 2f of the UGC act, 1956

DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Semester Examination, December 2022"

SEMESTER	**I**	**DATE OF EXAM**	**19.01.2023**
SUBJECT NAME	Programming for Problem Solving using C	**SUBJECT CODE**	**CSH101B-T**
BRANCH	CSE/AIML/CDFD/CSTI/R&AI/ECE	**SESSION**	**I (9:00AM - 12:00NOON)**
TIME	**3 hrs**	**MAX. MARKS**	**100**
PROGRAM	CSE/AIML/CDFD/CSTI/R&AI/ECE	**CREDITS**	**4**
NAME OF FACULTY	**Dr. Deepti Thakral** **Dr. Manpreet Kaur** **Dr. Parneeta Dhaliwal** **Ms. Chandni Magoo** **Ms. Kirti Aggarwal**	**NAME OF COURSE COORDINATOR**	**Dr. Deepti Thakral**

Note: All questions are compulsory.

Manpreet Kaur

S. No.	QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
Q1(a)	Differentiate between Structure and Union.	2	CO2	BT1	*1.4.1*
Q1(b)	What is an identifier (variable)? What are the rules to construct an identifier?	2	CO1	BT2	*1.4.1*
Q1(c)	Differentiate between malloc and calloc.	2	CO3	BT2	
Q1(d)	Write an algorithm to find the largest of three numbers.	2	CO1	BT3	*2.1.3*
Q1(e)	Explain the functionality of (i)sizeof() (ii) goto	2	CO1	BT3	*1.4.1*
Q1(f)	A structure BOOK is declared as struct BOOK{ char title[50]; char author[40]; float price; }b1; Find the memory occupied by structure variable b1?	2	CO2	BT2	*1.4.1*
Q1(g)	Differentiate between a function declaration and function definition with example.	2	CO1	BT2	*1.4.1*
Q1(h)	Describe the use of case control structure (switch) with syntax and example.	2	CO1	BT2	*1.4.1*
Q1(i)	Differentiate between Pre and Post increment operator.	2	CO1	BT2	*1.4.1*

Q1(j)	Find the output of the following code snippet:
	void main (){
	int x = 124, y = 139, z = 145;
	z = x + y;
	y = z - y;
	x = z - y;
	printf ("\n%d %d %d", x, y, z);
	}
		2	CO1	BT3	*2.1.3*

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Q2	a) Consider a scenario of a Hotel structure with data members Hotel_name, Hotel_id, Location, Price_of_accom. Create a structure and display the information for 3 hotels.. b) What is Recursion? WAP to find the sum of n numbers using recursion.	(10+10)	CO2 CO2	BT3 BT2	*2.1.3* *2.1.3*
Q3	a) Consider two strings A[10]= "I am doing fine". and B[10]=" How are you doing". Perform the following operations using inbuilt functions of strings. i. Calculate the length of the two strings. ii. Create a new string variable and copy the data from string A. iii. Compare string A and B and print the comparative result. b) Write a program to print the following pattern * ** *** **** ***** c) Write an algorithm to search an element in an array using Linear Search. Also explain the steps using an example.	(6+4+10)	CO3 CO1 CO2	BT3 BT3 BT3	*2.1.3* *2.1.3* *2.1.3*

Q4	a) Find the output:
	#include <stdio.h>
	int main()
	{
	int a=10,b=20,*p,s=0;
	p = &a;
	a++;
	(*p)++;
	s = a + b + *p;
	printf("a=%d, b=%d\n", a,b);
	printf("sum is %d\n",s);
	return 0;
	}
	b) What are Pointers? What are the benefits of using pointers? Explain with an example.
	
	c) Why is call by reference method preferred over call by value method in functions when swapping two variables? Explain with a code to swap two numbers.
		(4+6+10)	CO3
			
			CO3
			
			CO3
				BT2
				
				BT2
				
				BT2
					2.1.3
					
					1.4.1
					
					1.4.1

Q5	a) Explain any 5 different operations performed on a file with the help of an example. b) Write a program to add two matrices.	(10+10)	CO4 CO2	BT3 BT3	*2.1.3* *2.1.3*

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Semester Examination, December 2022"

SEMESTER	**I**	**DATE OF EXAM**	**19.01.2023**
SUBJECT NAME	Programming for Problem Solving using C	**SUBJECT CODE**	**CSH105B-T**
BRANCH	BSc (Phy./Chem./ Maths)	**SESSION**	**I (9:00AM - 12:00NOON)**
TIME	**3 hrs**	**MAX. MARKS**	**100**
PROGRAM	BSc (Phy./Chem./ Maths)	**CREDITS**	**4**
NAME OF FACULTY	**Dr. Shalu**	**NAME OF COURSE COORDINATOR**	**Dr. Shalu**

Note: All questions are compulsory.

S. No.	QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
Q1(a)	Using an example, demonstrate the two fundamental forms of control statements in C.	2	CO1	BT1	2.2.4
Q1(b)	What are four stages of compiling a C Program?	2	CO2	BT2	2.1.2
Q1(c)	Illustrate entry and exit loop statements in C with example.	2	CO1	BT2	3.1.2
Q1(d)	Write an algorithm to find out largest of three numbers.	2	CO2	BT2	3.1.2
Q1(e)	Find the output of the following code snippet: void main(){ int a=125; printf("\n %d",a>>3); printf("\n %d",a<<3);	2	CO2	BT3	3.1.2

Q1(f)	Give the output of the following C code:
	main ()
	float x=3.2, y=3.1;
	switch (x>y)
	case1:
	printf ("ADOBE SOFTWARE");
	break;
	}
		2	CO4	BT3	2.2.4

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Q1(g)	Differentiate between a function declaration and function prototyping with examples.	2	CO3	BT2	2.1.2
Q1(h)	What are the advantages of binary search over linear search?	2	CO4	BT2	3.1.2
Q1(i)	Differentiate between Pre and Post increment?	2	CO2	BT2	2.1.2

Q1(j)	Find the output of the following code snippet:
	void main (){
	int x = 124, y = 139, z = 145;
	z = x + y;
	y = z - y;
	x = z - y;
	printf ("\n%d %d %d", x, y, z);
	}
		2	CO1	BT3	4.1.2

Q2	a) Elucidate the importance of declaration in C programming language. How declaration different from initialization in C. Support your answer with suitable example. b) Write a program to find whether the string is palindrome or not?	(10+10)	CO2 CO3	BT3 BT3	3.1.2 3.1.2
Q3	a) Differentiate between gets () and Scanf() along with example ? b) WAP to find n power m with the help if recursion i.e., n, m -> n^m	(10+10)	CO2 CO2	BT2 BT3	3.1.2
Q4	a) Explain the usage of the following string functions with the help of suitable examples: i. strcmp() ii. strcpy() iii. strlen() b) Differentiate between Array and structure?	(10+10)	CO3 CO4	BT2 BT2	2.1.2 1.1.2
Q5	a) Check Whether a Number is Positive or Negative or Zero. b) Write a program in C to imput marks od student in 2 subjects, student is pass if marks in both subjects are greater than 50 otherwise fail.	(10+10)	CO3 CO2	BT3 BT3	2.1.2 1.4.2

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MANAV RACHNA UNIVERSITY

"End Semester Examination, Jan' -2023"

Semester: 1 | Subject: Skill Enhancement-I | NAME:.....

Subject Code: CDO501 | Time: 60 Mins | Session-I | Dt 24/01/2023

Roll No:..... | Max Marks: 50 | Branch: MBA-BA

Instructions: All questions are compulsory. Each question carries multiple options.

No negative marking. Calculator is not allowed. ***Answers are to be filled in the answer table only.***

Answers written outside the answer table won't be considered.

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

1. Find the number of factors of 250?

A. 8 B. 16 C. 24 D. 32

2. Find the number of even factors of 340?

A. 8 B. 6 C. 4 D. 2

3. Find the product of factors of 280?

A. 280^{18} B. 280^{24} C. 280^{8} D. 280^{9}

4. Find the sum of factors of 4004?

A. 4004^{1} B. 5444 C. 9000 D. 9408

5. Find the number of prime factors of 2187?

A. 1 B. 2 C. 4 D. 8

6. How many factors of $2^7 * 3^6 * 5^2 * 9^2 * 10^2$ are multiples of 18?

A. 496 B. 480 C. 405 D. 505

7. Find the sum of even factors of 370?

A. 656 B. 456 C. 756 D. 750

8. Find the unit digit of $21^{25} * 784^{125} * 582^{6586}$?

A. 2 B. 0 C. 6 D. 8

9. Find the last digit of $554^{782} * 983^{581}$?

A. 8 B. 1 C. 6 D. 3

10. Find the unit digit of $(257^{445} + 881^{858}) * (323^{825} + 445^{954})$?

A. 0 B. 1 C. 2 D. 4

11. Find the last digit of $(276^{122} * 126^{842})$?

A. 0 B. 6 C. 2 D. 3

12. What percent of 50 are 90?

A. 125% B. 150% C.175% D. 180%

13. If y exceeds x by 125%, then x is less than y by?

A. 44.44% B. 55.55 % C. 66.66 % D. 77.77 %

14. How much 75% of 60 is greater than 75% of 20?

A. 80 B. 30 C. 50 D. 20

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15. How much is 80% of 140 is greater than 4/5 of 80?

A. 48 B. 36 C. 49 D. 32

16. 40% of a number is more than 60% of 650 by 190. Find the number?

A. 1650 B. 1640 C. 1450 D. 1440

17. 50% of a number is added to 280, the result is the same number. Find the number?

A. 560 B. 570 C. 580 D. 590

18. 50 is subtracted from 50% of a number, the result is 50. Find the number?

A. 150 B. 200 C. 250 D. 300

19. What is the fraction value of 55.55%?

A. 2/9 B. 1/13 C. 2/13 D. 5/9

20. What is the fraction value of 71.4%?

A. 2/9 B. 4/7 C. 5/7 D. None of these

21. What is the fraction value of 30.76%?

A. 4/7 B. 3/8 C. 3/7 D. 4/13

22. Two numbers are respectively 25% and 40% more than a third number. The percentage that is first of the second is?

A. 82.82% B. 85.85% C. 89.28% D. 57.76%

23. The salary of a typist was at first raised by 20% and then the same was reduced by 25%. If he presently draws Rs.540.What was his original salary?

A. 450 B. 600 C. 540 D. 750

24. A candidate got 63% of the votes polled and he won to his rival by 4680 votes. How many votes were cast?

A. 15000 B. 18000 C. 17000 D. 16000

25. A fruit seller had some apples. He sells 60% apples and still has 420 apples. Originally, he had:

A. 1000 B. 1100 C. 1050 D. 1500

26. An engineering student has to secure 35% marks to pass. He gets 118 marks and fails by 22 marks. The maximum marks that can be obtained by him is?

A. 300 B. 400 C. 350 D. 500

27. If the cost price of 12 pens is equal to the selling price of 8 pens, the gain percent is ?

A. 12% B. 30% C. 50% D. 23%

28. A discount series of 20%, 20% and 40% is equal to a single discount of

A. 50% B. 61.60% C. 61% D. 66.8%

29. A shopkeeper allows a discount of 20% on an article and still makes a profit of 25%. What does he pay for an article whose marked price is ₹800?

A. 492 B. 800 C. 512 D. 640

30. A shopkeeper purchased pens in bulk for Rs.28 each. He sold each for Rs.40. What was his profit percentage?

A. 14.28% B. 7.14% C. 21.85% D. 47.78%

31. Siva Reddy walked 2 km west of his house and then turned south covering 4 km. Finally, He moved 3 km towards east and then again 1 km west. How far is he from his initial position?

A. 10 km B. 9 km C. 2 km D. 4 km

32. A man went 10 kms towads South. Then turned East and covered 10 kms and turned to the right. Again after 10 kms, he turned to left and covered 10 kms to reach the destination. How far is he from his starting point?

A. 18.8 km B. 28.28 km C. 16 km D. 20 km

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33. Rajesh's school bus is facing North when reaches his school. After starting from Rajesh's house, it turning twice right and then left before reaching the school. What direction the bus facing when it left the bus stop in front of Rajesh's house?

A. East B. North C. South D. West

34. Anil wants to go the university. He starts from his house which is in the East and comes to a crossing. The road to his left ends in a theatre, straight ahead is the hospital. In which direction is the University?

A. East B. North C. South D. West

35. If South-East becomes North, North-East becomes West and so on, what will West become?

A. North B. East C. South-East D. North-West

36. A man walks 1 km towards East and then he turns to South and walks 5 km. Again he turns to East and walks 2 km,after this he turns to North and walks 9 km .Now, how far is he from his starting point?

A. 10 km B. 9 km C. 5 km D. 4 km

37. I am facing South. I turn right and walk 20 m .Then I turn right again and walk 10 m .Then I turn left and walk 10 m and then turning right walk 20 m. Then, I turn right again and walks 60 m. In which direction am I from the starting point?

A. North-East B. North-West C. North D. West

38. Pointing to a girl in the photograph, Umesh said, "Her mother's brother is the only son of my mother's father." How is the girl's mother related to Umesh?

A. Mother B. Sister C. Aunt D. Grandmother

39. X introduces Y saying "He is the husband of the granddaughter of the father of my father". How is Y related to X?

A. Brother B. Son C. Brother-in-law D. Nephew

40. Pointing to a woman, Manish said, "She is the daughter of the only child of my grandmother." How is the woman related to Manish?

A. Sister B. Niece C. Cousin D. Data inadequate

41. Pointing to a person, a man said to a woman, "His mother is the only daughter of your father." How was the woman related to the person?

A. Aunt B. Mother C. Wife D. Daughter

42. K and L are brothers. M and N are sisters. K's son is N's brother. How is L related to M?

A. Father B. Brother C. Grandfather D. Uncle

43. Pointing to a person, Deepak said, "His only brother is the father of my daughter's father". How is the person related to Deepak?

A. Father B. Grandfather C. Uncle D. Brother-in-law

44. Pointing to a photograph Anjali said, "He is the son of the only son of my grandfather." How is the man in the photograph related to Anjali?

A. Brother B. Uncle C. Son D. Data is inadequate

45. Amit said - "This girl is the wife of the grandson of my mother". How is Amit related to the girl?

A. Brother B. Grandfather C. Husband D. Father-in-law

46. If VICTORY is coded as YLFWRUB, how can SUCCESS be coded?

A. VXEEIVV B. VXFFHVV C. VYEEHVV D. VYEFIVV

47.In a certain code, TOGETHER is written as RQEGRJCT. In the same code, PAROLE will be written as

A. NCPQJG B. NCQPJG C. RCPQJK D. RCTQNC

48. If BOMBAY is written as MYMYMY, how will TAMIL NADU be written?

A. TIATIATIA B. MNUMNUMNU C. IATIATIAT D. ALDALDALD

49. If FRIEND is coded as HUMJTK, how is CANDLE written in that code?

A. EDRIRL B. DCQHQK C. ESIFME D. FYOBOC

50. In a code if COUNSEL is coded as BITIRAK, how is GUIDANCE written?

A. EOHYZKBB B. FOHYZJBB C. FPHZZKAB D. HOHYBJBA

Director CDC

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MANAV RACHNA UNIVERSITY

Career Development Centre

"End Semester Examination, Jan' -2023"

Semester: I Subject: Professional Communication-I NAME:.....
Subject Code: CDO105 Time: 60 Mins Section:.....
Branch: Education/LAW (9AM - 10AM) Roll No:.....

21 - 24/01/2023 Session - I

Instructions: All questions are compulsory. Each question carries multiple options. No negative marking. Calculator is not allowed. ***Answers are to be filled in the answer table only. Answers written outside the answer table won't be considered.***

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Q1. The _____ language is well known for being the language of international communication in the world.
A] English B] Spanish C] French D] German

Q2. Learning English will be invaluable in both your _____ and professional lives.
A] Formal B] Personal C] General D] Public

Q3. _____ is a term exclusive to English Spoken by a particular locality.
A] Indianism B] Neutral C] Localism D] Hinglish

Q4. Localism refers to the way a sentence has been structured as if it was literally _____ from a local language.
A] taken B] Spoken C] used D] translated

Q5. What is your _____ name? This is a typical thoughtless translation from Hindi – Aap ka shubh naam kya hai?
A] good B] bad C] ugly D] beautiful

Q6. When one completes one's degree at an educational institution, they _____ from that institution, you do not, "pass out" from that institution.
A] master's B] graduate C] tenth D] High school

Q7. Birth and Berth is a classic example of _____.
A] antonyms B] synonyms C] homophones D] localism

Q8. Words that have same pronunciation, but different spelling and different meanings are called _____.
A] homophones B] antonyms C] synonyms D] homographs

Q9. Which of the sentence is correct:
A] Arnav likes to rap, nap and eating snacks. B] Arnav likes raping, nap and snacking.
C] Arnav likes to rap, nap and snack. D] Arnav likes to rap, napping and eat snacks.

Q10. Parallelism is used with elements in lists or in a _____. For example, This task can be done individually, in pairs, or in groups of four.
A] series B] disorder C] programme D] sitcom

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Q11. Parallelism is used with elements joined by _____ words. For example, the teacher wants his students not only to keep quiet but also to do the task.

A] joining B] linking C] faulty D] difficult

Q12. Tautological Error is the error of, " _____ ". It is the error of writing the same thing twice.

A] redundancy B] repeating C] important D] multiple

Q13. A _____ is a word, phrase, or clause that adds detail or description to a sentence.

A] order B] modifier C] altar D] static

Q14. Words, phrases, or clauses that are "out of place" are often called _____ modifiers.

A] not in place B] in place C] misplaced D] disorder

Q15. Comparisons should be made between two _____ things.

A] different B] not in order C] inappropriate D] similar

Q16. Few is used before the _____ nouns while less is used before the uncountable nouns.

A] numbered B] countable C] plenty D] scanty

Q17. Collective nouns usually take a _____ verb.

A] singular B] plural C] definite D] indefinite

Q18. Two infinitives separated by and take a _____ form.

A] singular B] plural C] definite D] indefinite

Q19. Titles of books, _____, novels, etc. are treated as singular.

A] documentaries B] pictures C] movies D] animation

Q20. All of the chickens _____ laid eggs.

A] some B] have C] has D] many

Q21. Only _____ affects the verb.

A] subject B] predicate C] noun D] pronoun

Q22. The word Tense is derived from Latin word "tempus" which means _____.

A] space B] time C] place D] thing

Q23. Janet _____ lived abroad for five years.

A] have B] has C] is D] if

Q24. Word Classes _____ the ways in which a word can be used in grammar.

A] paraphrase B] describe C] summarize D] elaborate

Q25. There are _____ major word classes.

A] 5 B] 6 C] 7 D] 8

Q26. There are nouns for things that don't physically exist are called _____ nouns.

A] abstract B] proper C] common D] countable

Q27. The words that describe nouns and tell you more about them is called _____.

A] adverb B] adjective C] pronoun D] verb

Q28. Verbs describe _____.

A] action B] reaction C] in action D] no action

Q29. The person or thing that does the action of the verb is the _____. It always comes before the verb.

A] verb B] adverb C] subject D] predicate

Q30. Adverbs tell you how, when, where and how _____ a thing is done. Adverbs are mostly connected to verbs.

A] often B] few C] more D] many

Q31. Adverbs can be categorized into manner, _____ and place.

A] money B] space C] time D] speed

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Q32. Words used instead of a noun are called _____.

A] verb B] adverb C] adjective D] pronoun

Q33. We use prepositions to show how different _____ relate to each other in a sentence.

A] noun B] verb C] adverb D] conjunctions

Q34. The children are playing with a ball ___ the yard.

A] on B] in C] at D] to

Q35. Some sentences are simple and give one idea. To join more than one idea together in the same sentence, we use _____ to link the ideas.

A] interjections B] prepositions C] conjunctions D] pronouns

Q36. An _____ is a single word that expresses a thought or feeling.

A] conjunction B] pronouns C] preposition D] interjections

Q37. Attitude changes _____.

A] something B] few things C] nothing D] everything

Q38. Cognitive, _____ and behaviour are the 3 components of attitude.

A] emotional B] spiritual C] Intellectual D] physical

Q39. Attitude is a human trait and _____ is an inborn attribute.

A] emotion B] behaviour C] physical D] psychological

Q40. There are _____ types of attitudes.

A] 5 B] 4 C] 3 D] 2

Q41. _____ behaviour helps maintain positive inter- personal relationships.

A] polite B] angry C] offensive D] rude

Q42. Learn to respect other's time. Use _____ language.

A] negative B] appropriate C] unsuitable D] not good

Q43. Social intelligence includes reading _____ cues.

A] non verbal B] spoken C] talking D] ignoring

Q44. Tact, timing, and trust describe _____ intelligence.

A] spiritual B] common C] emotional D] special

Q45. Saying thank you, please, speaking positively about others, being a good listener and _____ often, contribute to social grace.

A] gossiping B] whining C] rude D] smiling

Q46. High quality work relations, job satisfaction, job performance, organizational commitments are all outcomes of _____.

A] inclusion B] exclusion C] diversity D] integrity

Q47. _____ harassment is where the person is subjected to annoying behaviour while working.

A] party B] personal C] public D] workplace

Q48. Gender _____ refers to inequality between people of opposite gender.

A] inclusion B] discrimination C] acceptance D] behaviour

Q49. _____ is one of the biggest challenges for physically challenged people.

A] problem B] help C] stereotyping D] simple

Q50. _____ influences results.

A] fixed B] negative C] thought D] mindset

Dy. Director, CDC

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MANAV RACHNA

MANAV RACHNA UNIVERSITY

Career Development Centre

"End Semester Examination, Jan' -2023"

Semester: I
Subject Code: CDO105
Branch: Engineering

Subject: Professional Communication-I
Time: 60 Mins
Max Marks - 50
Session I

NAME:
Section:
Roll No.:
Ct 24/01/2023

Instructions: All questions are compulsory. Each question carries multiple options. No negative marking. Calculator is not allowed. ***Answers are to be filled in the answer table only. Answers written outside the answer table won't be considered.***

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

1. How a person thinks or feels about something is called his
A. Behavior B. Attitude Courtesy D. Chivalry

2. Feelings, sentiments and moods of emotions are represented by which component of attitude?
A. Cognitive B. Behavioral C. Emotional/ Affective D. None of these

3. Factors affecting the formation of attitude are:
A .Intellectual development B. Social Development C. Ethical development D. All of these

4. The predisposition that results in desirable outcomes for individuals and organizations
A .Attitude B. Positive Attitude C. Negative Attitude D. None of these

5. The formation of attitudes due to observance to one's own self is called
A. Exposure B. Associative Learning C. Self-Perception D. Functional reasons

6. Cognitive Dissonance is:
A. Self-Perception B. Change via internal discrepancy C. Persuasion D. None of these

7. Showing good behavior, actions, and manners when one communicates while dealing with people is called
A. Courtesy B. Manners C. Behavior D. Attitude

8. The degree to which an employee is accepted and treated as an insider by others in a work system is called
A. Courtesy B. Diversity C. Inclusion D. Chivalry

9. Outcomes of inclusion are:
A. Improved work relations B. Job satisfaction C. Both of these D. None of these

10. The biggest barrier for people with disability is how the society disables them by way of:
A. Disability discrimination B. Gender Discrimination C. Sexual Harassment D. Racial Discrimination

11. Bullying, inappropriate promise of rewards in exchange of sexual favors is called
A. Disability discrimination B. Gender Discrimination C. Sexual Harassment D. Racial Discrimination

12. The dress appropriate to wear for interview or for a professional work environment is
A. Party wear B.S ports wear C. Formal wear D. Casual wear

13. Best color for trousers to wear in an interview would be:
A. White B. Navy Blue C. Light Green D. Purple

14. The LGBTQ individuals face a number of challenges because of:
A. Family expectations B. Social Stigma C. Discrimination D. All of these

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15. Professional behavior at workplace includes
A. Civility B. Courtesy C. Social grace D. All of these

16-Direction Read the following sentence and pick out the underlined part which is neither a Noun nor a Pronoun?
I want to pursue my career in advertising.
A. I B. pursue C. career D. advertisement

17-Direction: Read the following sentence and pick out the underlined part which is neither a Noun nor an Adjective
The principal always helped the needy students
A. principal B. helped C. needy D. students

18-20Direction: Read the following sentence and choose the correct option as to which parts of speech the underlined word is?

18. He is the fan of cricket?
A. Adverb B. Pronoun C. Preposition D. Verb

19. Fruits and vegetables are good for health.
A. Verb B. Adverb C. Interjection D. Preposition

20. The student wrote an application to his teacher.
A. Adverb B. Noun C. Pronoun D. Verb

21-25 Direction: Choose the correct form of tenses from the options given below.

21. I _____ working all afternoon and have just finished the assignment.
A. have been B. had been C. shall be D. am

22. Rohan _____ the movie before he read the review.
A. watches B. have watched C. had watched D. was watching

23. He _____ in the States but he still does not have a command over the English language.
A. have been living B. has been living C. have lived D. living

24. "Shyam and his brothers" _____ a famous sweet shop in our neighbourhood.
A. are B. have been C. is D. have

25. You should not _____ the worst.
A. assumed B. assuming C. assume D. assumes

26-30 Direction: Choose the correct form of Verbs from the options given below.

26. The teacher _____ completed this chapter.
A. have B. has C. is D. are

27.Ram and Shyam _____ business partners.
A. have B. has C. are D. had

28. She _____ her office by 9 a.m. daily.
A. reach B. reaches C. reached D. reaching

29. Rahul and his friends _____ also invited to the party.
A. is B. was C. had D. were

30. Neither you nor your sister should _____ to them.
A. talk B. talks C. talked D. talking

31-32 Decide whether the sentence has parallelism or not?

31. She decided to leave her job and travelling the world.
A. Parallel B. Not Parallel C. Can't say D. None of these

32. He started the engine, released the hand break, and checked the mirror
A. Parallel B. Not Parallel C. Can't say D. None of these

33-34 Read the following questions and choose the correct options from the options given below.

33. Which of the following sentences is correct?
A. Mia likes playing Ludo, carroms, and chess. B. Mia likes playing Ludo, play carroms, and to play chess.
C. Mia likes to play Ludo, carroms, and playing chess. D. Mia likes playing Ludo, carroms, and play chess.

34. Amal has _____
A. a car, a bike, and a cycle. B. a car, a bike, and she has a cycle.
C. a car and a bike, and she has a cycle. D. None of the above.

35. In a group discussion , one must communicate with
A. Hostility B. Ignorance C. Courtesy D. Arrogance

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36. Which of these must be avoided in a group discussion?

A. Speaking Facts B. Counter questioning C. Speaking with clarity D. Speaking on the topic

37. In a group discussion a person who begins the discussion is called

A. Initiator B. Starter C. Beginner D) Moderator

38. In recruitment, Group Discussion is used as a tool of:

A. Presentation B. Workshop C. Lecture D. Elimination

39. Which of the following is incorrect way to initiate your self-introduction?

A. I am B. My name is C. Myself D. None of these

40. What is Self- introduction?

A. Your one minute self-sales pitch for the interviewer B. Your personality description

C. Description of daily routine D. Description of family information

41. Which of the following greeting is inappropriate in formal introduction?

A. Hello B. Good Morning C. Hey, What's up? D. None of the above

42. Which of the following CANNOT be considered as a good telephonic etiquette?

A. Speak slowly so as to be understood B. Listen to what other person has to say

C. Talking loudly if you are unable to hear the other speaker D. End the call with a polite Good bye or Thank You

43. The most appropriate grooming tip for an interview should include:

A. Take care of the body odor B. Display of tattoos to give contemporary look

C. The arms of the shirt should be folded D. None of the above

44. What do you do if you find someone not able to speak in a GD?

A. Utilize this opportunity to continue B. Invite the person to put forward his/her views

C. Make fun of the person D. All of the above

45. A well-crafted and well-practiced Self Introduction helps you to

A. Present your first answer with poise and confidence. B. Do away with fillers like umm, well, I guess etc.

C. Set a strong foundation for the rest of the interview. D. All of the above

46. The third branch of phonetics apart from articulatory, acoustics is

A. Resounding Phonetics B. Auditory Phonetics

C. Assimilatory Phonetics D. None of them

47. "Tell me something about yourself" should be answered with

A. Telling about your strengths only B. Talking about your areas of improvement

C. Talking briefly about your education, industrial training, co-curricular activities, and work experience

D. None of the above.

48. Variation in a language done by native speaker of the language is called

A. Dialect B. Accent C. Tone D. None of these

49. Variation in a language by non -native speaker of the language is called

A. Accent B. Dialect C. Tone D. None of these

50. Impure vowels are called

A. Diphthongs B. Monophthongs C. Both of them D. None of them

Director - CDC

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MANAV RACHNA UNIVERSITY

Career Development Centre

"End Semester Examination, Dec'-2022"

Semester: 3 Subject: Professional competency Enhancement-I NAME:
Subject Code: CD0201 Time: 60 Mins Roll No:
Max Marks: 50 Date: 21/12/2022 Session: D Branch: CSE/ME/ECE

Instructions: All questions are compulsory. Each question carries multiple options. No negative marking. Calculator is not allowed. ***Answers are to be filled in the answer table only. Answers written outside the answer table won't be considered.***

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Q1.There are 36 boys and 44 girls in a class. The average score of boys is 40 points and girls is 35 points. Then what will be the average score of the class?

A] 37.25 B] 22.5 C]52.85 D]65.78

Q2.The average of 15 numbers is 15. If the average of first five numbers is 14 and that of other 9 numbers is 16, then find the middle number.

A] 9 B]11 C]7 D]11

Q3.The average age of five members is 27. If one of them is excluded the average decreases by 2. The age of excluded person is:

A] 20 B]25 C]35 D]45

Q4.What is the largest 4 digit number exactly divisible by 88?

A]9944 B] 9956 C] 2000 D] 9955

Q5.Which one of the following can't be the square of a natural number?

A] 128245 B] 128248 C] 128242 D] 128248

Q6.In an election between two candidates, one got 55% of the total valid votes, 20% of the votes were invalid. If the total number of votes was 7500, the number of valid votes that the other candidate got, was :

A] 2700 B] 2900 C] 3000 D] 5000

Q7. How many factors of 1080 are perfect squares?

A] 4 B]7 C]5 D]6

Q8. A student has to obtain 33% of the total marks to pass. He got 125 marks and failed by 40 marks. The maximum marks are :

A] 500 B] 750 C]550 D]850

Q9. The sum of a series, 27+36+45+.....+162 is 1512. What is the number of terms in the series?

A]15 B]16 C] 12 D]10

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Q10.If the product and H.C.F. of two numbers are 4107 and 37 respectively, then find the greater number.

A] 111 B] 135 C]150 D] 170

Q11.Pointing to a person, a man said to a woman, "His mother is the only daughter of your father." How was the woman related to the person ?

A]Uncle B]Aunt C]Father D]Mother

Q12. If Ranveer Singh finds that he is 13th from the right in a line of boys and 8th from the left, how many boys should be included in the line such that there are 30 boys in the line?

A]10 B]19 C]12 D]14

Q13.Krishna ranked sixteenth from the top and twenty ninth from the bottom among those who passed an examination. Six boys did not participate in the competition and five failed in it. How many boys were there in the class?

A]48 B]55 C]65 D]51

Q14. One morning after sunrise, Suresh was standing facing a pole. The shadow of the pole fell exactly to his right. To which direction was he facing?

A]South B]North C]East D]West

Q15. Find the logarithm of 144 to the base 2√3

A]8 B]9 C]6 D]4

Q16. The unit digit in the product (784 x 618 x 917 x 463) is

A] 2 B]3 C] 4 D] 5

Q17. Find the number of factors of 9321?

A] 8 B] 5 C] 7 D] 3

Q18. K is 40 m South-West of L. If M is 40 m South-East of L, then M is in which direction of K?

A] South B] East C] North D] West

Q19. G is the grandfather of S. B has only two sons E and F. A and B are the only sons of G. Who is the father of S?

A] A B] B C] E D]F

Q20. If A is the brother of B; B is the sister of C; and C is the father of D, how D is related to A?

A] Can't be determined B] Sister C] Uncle D] Aunt

Q21. During assembly the students are standing in a line. Salman Khan is 21st in order from both the ends. How many boys are there in the class?

A] 40 B] 41 C] 44 D] 45

Q22. If Rocky finds that he is 31st from the right in a line of boys and 8th from the left, how many boys should be included in the line such that there are 60 boys in the line?

A] 7 B] 8 C] 20 D] 12

Q23. How many 4's are there preceded by 7 but not followed by 3?

5 9 3 2 1 7 4 2 6 9 7 4 6 1 3 2 8 7 4 1 3 8 3 2 5 6 7 4 3 9 5 8 2 0 1 8 7 4 6 3

A] Four B] Six C] Two D] One

Q24. How many such pairs of digits are there in the number 421579368 each of which has as many digits between them in the number as when they are arranged in ascending order?

A] One B] Three C] Two D] Six

Q25. In a class of 50 students M is eighth from top. H is 20th from bottom. How many students are there between M and H?

A] 18 B] 20 C] 21 D] 22

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Q26.Find the sum of the first 10 numbers of this arithmetic series: 1, 11, 21, 31...

A] 500 B] 480 C] 420 D] 460

Q27. If 11th term is 47 and first term is 7. What is common difference between them?

A] 3 B] 4 C] 3 D] 2

Q28. The sum of the first 3 terms in an AP is 6 and that of the last 3 terms is 16. If the AP has a total of 13 terms, what is the sum of the middle three terms?

A] 11 B]10 C]8 D]9

Q29. Priya cycles 5 km North, then turns East and cycles 4 km, then turns South and cycles 5 km, then turns to her right and cycles 6 km. Where is she now with reference to her starting position?

A] 2 km East B] 2 km West C]10 km West D] 10 km East

Q30. A man walks 5 km toward south and then turns to the right. After walking 3 km he turns to the left and walks 4 km. And then he goes back 10 km straight. Now in which direction is he from the starting place ?

A] North-West B] South C] East D] West

Q31. _____ involves the development of action plan designed in order to motivate and guide a person or group towards a goal.

A] Decision B] Goal Setting C] Self-awareness D] Hard work

Q32. Locke and Latham's Goal setting theory includes clarity, challenge, commitment, feedback and _____.

A] Complexity B] Simplicity C] Difficulty D] Problem

Q33. SMART goals abbreviation stands for specific, measurable, achievable, realistic and _____.

A] time framed B] time limit C] target date D] time bound

Q34. If there are no _____ there is no progress.

A] dare B] difficulties C] challenges D] problems

Q35. Knowing _____ is the beginning of all wisdom.

A] yourself B] others C] himself D] herself

Q36. Body's reaction to a change that requires a physical, mental or emotional adjustment or response is called _____.

A] tension B] strain C] stress D] trauma

Q37. Fear, anger, loneliness, worry are some of the symptoms of _____ stress.

A] Cognitive B] Physical C] Behavioral D] Emotional

Q38. _____ stress enables concentration, increases performance and it energizes you.

A] distress B] eustress C] neutral D] good

Q39. In ABC strategy A stands for awareness, B is for Balance and C is for _____.

A] control B] command C] change D] charge

Q40. "If your _____ does not include yourself, it is incomplete". Jack Kornfield

A] care B] concern C] compassion D] empathy

Q41. Negative stress results in reduced effectiveness, loss of motivation, _____ and mental problems and behavioral problems.

A] physical B] emotional C] cognitive D] spiritual

Q42. Right frame of mind, right technique and right _____ contributes to managing time better.

A] motivation B] a volition C] successful D] distraction

Q43. Managing time better increases effectiveness and _____.

A] efficiency B] order C] planning D] productivity

Q44. Perfectionism, insecurity, clutter, being unorganized could be the reasons for _____.

A] delaying tactics B] stalling C] procrastination D] dragging

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Q45. Personal approach to handling time could be developing a positive attitude, ownership for time loss and aiming for _____.

A] excellence B] supremacy C] merit D] perfection

Q46. Handling time in a better way helps reducing stress and increases _____.

A] creativity B] problem C] busyness D] stress

Q47. _____ is the first stage of team formation.

A] storming B] norming C] forming D] performing

Q48. "Humanity to others", is the English translation of which ancient African word?

A] Ubuntu B] hakuna matata C] swahii D] zulu

Q49. Building bond, creating understanding, trust, resolving conflict, overcoming obstacles, achieving growth together can be termed as a _____.

A] distance B] team C] class D] troupe

Q50. Ubuntu means there is no ME without _____.

A] you B] her C] him D] them

Dy. Director CDC

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MANAV RACHNA Vidyanatarikshat

MANAV RACHNA UNIVERSITY
Declared as State Private University vide Haryana Act 26 of 2014

DEPARTMENT OF Computer Science and Technology

"End Term Examination, December-2022"

SEMESTER	**III**	**DATE OF EXAM**	17/12/2022
SUBJECT NAME	**Data Structures and Algorithms**	**SUBJECT CODE**	**CSH103B- T**
BRANCH	**CSTI, CDA, AIML**	**SESSION**	I
TIME	3 Hrs.	**MAX. MARKS**	**100**
PROGRAM	**B. Tech**	**CREDITS**	**5**
NAME OF FACULTY	**Dr. Hanu Bharadwaj, Ms. Meena, Dr. Harsh Bhasin**	**NAME OF COURSE COORDINATOR**	**Dr. Harsh Bhasin**

Note: All questions are compulsory

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	1(A)	The details of employees of Manav Rachna University are to be maintained. However, some people may leave and some may join in the near future. You have been asked to suggest a data structure to store the records. What would you suggest: Arrays or linked lists?	2	CO1	BT2	2.1.2
	1(B)	An array of length n is given to you. How will you need to insert an element at the second last position of this array? What is the complexity of this process? If instead of array, a linked list was given, what would have been the complexity?	2	CO1	BT3	2.1.2
	1(C)	A sorted array is given to you and you need to search an element in the array. Suggest an algorithm to accomplish the task. What is the complexity of this algorithm?	2		BT3	
	1(D)	Can you modify the above process to search an element from a given matrix?	2	CO1	BT3	2.1.2
	1(E)	You are given a set of cards numbered 1 to 100. How will you sort them? State the complexity of the algorithm.	2	CO	BT2	2.1.2

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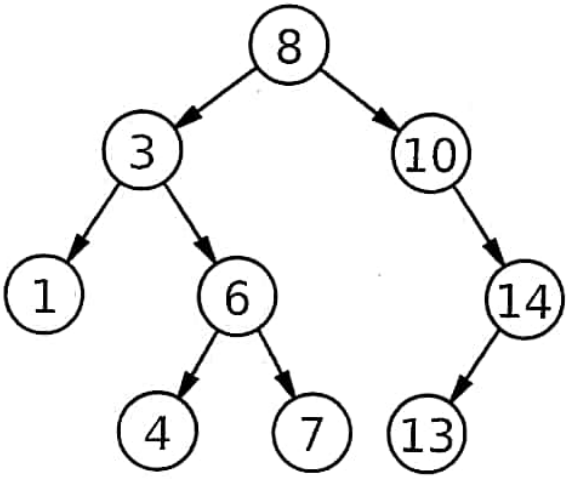
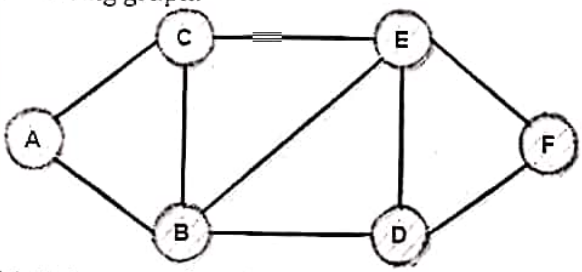
PART-B	2(A)	Write an algorithm to search an element from a singly lined list. Write the complexity of the algorithm.	5	CO	BT2	2.1.2
	2(B)	Write an algorithm to insert an element at the a) beginning and b) end of a doubly inked list.	5	CO	BT2	2.1.2
PART-C	3(A)	a) Write an algorithm to convert a given infix expression to post-fix. b) Convert the following expression to pre-fix and show each step: ((a+b) * (c-d))/e	20	CO	BT3	2.1.2
	3(B)	a) Write an algorithm to implement two stacks using an array. b) Write an algorithm to implement doubly ended queue using linked lists.	20	CO	BT2	2.1.2
	4(A)	a) Write the inorder, preorder and post order traversal of the following tree.  b) Create an Binary Search Tree from the following numbers: 3, 5, 1, 7, 8, 2, 90, 21, 56, 45 i) Delete 7 from the above tree. ii) Insert 91 to the above tree.	20	CO	BT2, BT3	2.1.2
PART D	4(B)	a)What is the adjacency representation of the following graph.  b) Write algorithm for the Breadth First Search of the above graph.	20	CO	BT2	2.1.2

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MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Semester Examination, December 2022"

SEMESTER	III	DATE OF EXAM	17/12/2022
SUBJECT NAME	OOPS USING JAVA	SUBJECT CODE	CSH201B-T
BRANCH	CSE	SESSION	Morning
TIME	9.00AM - 12.00 noon	MAX. MARKS	100
PROGRAM	B. Tech. CSE	CREDITS	5
NAME OF FACULTY	CSE3A: Dr. Shalu CSE3B&C: Mr. Ram Chatterjee	NAME OF COURSE COORDINATOR	Mr. Ram Chatterjee

Note: All questions are compulsory.

		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	Q1. Answer the following in short.					
	a)	How the Java String differs from the C String?	1	CO1	BT1	1.4.1
	b)	Demonstrate the relationship between association, aggregation and composition?	1	CO1	BT1	1.4.1
	c)	How do we parameterize a constructor?	1	CO1	BT1	1.4.1
	d)	What does this keyword symbolize?	1	CO1	BT1	1.4.1
	e)	Why multiple Inheritance is restricted in java?	1	CO1	BT1	1.4.1
	f)	Why java main method is static?	1	CO1	BT1	1.4.1
	g)	When automatic type conversion takes place in java?	1	CO1	BT1	1.4.1
	h)	What are the differences between static and non-static nested classes?	1	CO1	BT1	1.4.1
	i)	Differentiate between Identifier and Literal in java.	1	CO1	BT1	1.4.1
	j)	How would you access package from another package?	1	CO1	BT1	1.4.1

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PART-B	Q2 (A)	Demonstrate via figures different type of inheritance supported by Java.	5	CO2	BT2	3.2.1

	Q2(B)	Write the correct version of the given code by mentioning the error in the code:
		interface A {
		A() { }
		void m1();
		}
		public abstract class B implements A {
		public void m1(){
		System.out.println("One"); }}
			5	CO2	BT2	2.2.3

PART-C	Q3(A)	Explain SOLID design principle.	10	CO3	BT3	2.4.1
	Q3(B)	Brief the Java exception handling mechanism. Write a java program that handles the I/0 (one divided by zero) exception.	10	CO3	BT3	2.3.2

	Q3(C)	Write the code given below with correct logic & syntax by filling in the blanks and underline the same in your answer:
		_____java.io.*;
		
		class Main {
		// declareing the type of exception
		public static void findFile() _____ IOException {
		
		// code that may generate IOException
		File newFile = _____ File("test.txt");
		FileInputStream stream = new FileInputStream(_____);
		}
		
		public static void main(String[] args) {
		try {
		findFile();
		}
		catch (_____ e) {
		System.out.println(e);
		}}}
			10	CO3	BT3	3.4.2

	Q3(D)	Explain the design pattern would you apply while designing a code on shared database for I/O?	10	CO3	BT3	2.4.1
PART-D	Q4(A)	Demonstrate thread life cycle with self-explanatory diagram including thread methods. Write a java program to set the priority of thread.	10	CO3	BT3	2.3.1
	Q4(B)	Write a program in Java that will read the following content from the file "f1.txt" and write the same content in another file named "t2.txt".	10	CO3	BT3	3.4.2
	Q5(A)	Differentiate between the following a) FileReader Class and FileWriter Class b) InputStreamReaderClass and OutputStreamWriter Class	10	CO3	BT2	3.4.2
	Q5(B)	What are I/O Exceptions? Describe briefly four fundamental I/O-related Exceptions.	10	CO3	BT2	3.4.2

********** END **********

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MANAV RACHNA
Vidyaparikshat

MANAV RACHNA UNIVERSITY
Declared as State Private University vide Haryana Act 26 of 2014

DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Term Examination, December-2022"

SEMESTER	3RD/5TH	**DATE OF EXAM**	19/12/2022
SUBJECT NAME	Analysis & Design of Algorithms	**SUBJECT CODE**	CSH204B-T
BRANCH	Computer Science & Engineering (CSE)/AIML	**SESSION**	I
TIME	9 AM – 12 Noon	**MAX. MARKS**	100
PROGRAM	B.Tech	**CREDITS**	5
NAME OF FACULTY	Dr. Susmita Ray,DR.HARSH,MS.PRIYANKA	**NAME OF COURSE COORDINATOR**	Mr. Anup Singh Kushwaha

Note: Attempt all questions.

Q.NO.	QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
	PART A				
1(A)	What is the complexity of Radix Sort Algorithm? Which sorting algorithm is used by Radix Sort?	2	CO2	BT1, BT2	2.1.3
1(B)	Bucket Sort uses Insertion Sort. Is the complexity of Bucket Sort Algorithm same as Insertion Sort or not? Justify your answer.	2	CO4	BT3	2.2.3

1(C)	What is the time complexity of the following pseudocode of an algorithm?
	p=0
	for(i=1, i<n, i=i*2)
	{ p++ ; }
	for (j=1, j<p, j=j*2)
	{statement s;}
		2	CO4	BT3	2.2.3

1(D)	Name 2 sorting algorithms which uses Divide & Conquer Approach?	2	CO1	BT2	2.1.3

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<table>
<tr><td>1(E)</td><td>Which are the four different approaches for solving Recurrence Relations?</td><td>2</td><td>CO2</td><td>BT1</td><td>2.1.3</td></tr>
<tr><td></td><td><u>PART B</u></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Q2(A)</td><td>Explain Divide and Conquer strategy with an example. Write the algorithm of Merge Sort and derive its complexity.</td><td>8</td><td>CO2</td><td>BT2</td><td>2.1.3</td></tr>
<tr><td>2(B)</td><td>Use Merge Sort algorithm to sort the following set of numbers. Trace all steps of execution of sorting algorithm:

60, 23, 38, 76, 49, 14, 88, 57</td><td>2</td><td>CO3</td><td>BT3</td><td>2.2.3</td></tr>
<tr><td></td><td><u>PART C</u></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Q3(A)</td><td>Write the Activity Selection Algorithm and find its complexity. Name the algorithm design strategy used to formulate this algorithm.
Apply Activity Selection Algorithm for finding two sequences of sequencing activities with start and finish times as provided in the table below:

<table><tr><td>I</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>S_i</td><td>1</td><td>2</td><td>4</td><td>1</td><td>5</td><td>8</td><td>9</td><td>11</td><td>13</td></tr><tr><td>F_i</td><td>4</td><td>5</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>14</td><td>16</td></tr></table></td><td>5

Marks Breakup:(2+1+2)</td><td>CO1, CO2, CO3</td><td>BT2, BT2, BT3</td><td>2.1.3, 2.2.3</td></tr>
<tr><td>3(B)</td><td>Write the Job Sequencing with Deadline Algorithm and find its complexity. Name the algorithm design strategy used to formulate this algorithm.
Apply Job sequencing with Deadline algorithm for scheduling the jobs with specified deadline as given in the following table. Show step by step approach of obtaining the problem solution. Also compute the maximum profit.

<table><tr><td>INDEX</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>JOB</td><td>j1</td><td>j2</td><td>j3</td><td>j4</td><td>j5</td></tr><tr><td>DEADLINE</td><td>2</td><td>1</td><td>3</td><td>2</td><td>1</td></tr><tr><td>PROFIT</td><td>60</td><td>100</td><td>20</td><td>40</td><td>20</td></tr></table></td><td>5

Marks Breakup:(2+1+2)</td><td>CO1, CO2, CO3</td><td>BT2, BT2,BT 3</td><td>2.1.3, 2.2.3</td></tr>
</table>

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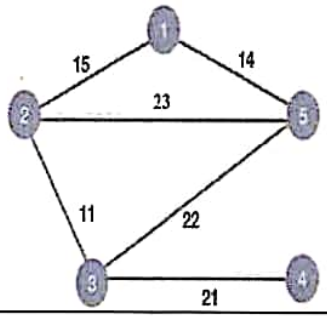
Q4(A)	Explain briefly Minimum Cost Spanning tree with an example. Write Prim's Algorithm to generate MST for any weighted graph. Analyze the time complexity of the algorithm	6	CO1, CO4	BT2, BT2,BT4	2.1.3
4(B)	Use Prim's Algorithm to generate the Minimum Cost Spanning Tree of the following graph: 	4	CO3	BT3	2.2.3
Q5(A)	Explain briefly the Dynamic Programming strategy of designing algorithm. Write the Algorithm of Matrix Chain Multiplication using Dynamic Programming strategy.	5	CO1	BT2, BT2	2.1.3
5(B)	Use Dynamic Programming method to multiply the chain of 3 Matrices namely A1, A2, A3. Following are the dimensions of the matrices : A1 : [2 x 3] A2 : [3 x 4] A3 : [4 x 2] To obtain M = A1 x A2 x A3 find out the cost of computation of multiplication of this Matrix Chain and the order in which the matrices need to be multiplied together. Show computation of all cells of the cost computation matrix and all cells of the matrix which stores optimal parenthesization (/sequence) of matrix chain multiplication.	5	CO3	BT4	2.2.3
Q6(A)	Explain with example optimal binary search tree	4	CO1, CO2	BT2	2.1.3
6(B)	Find the Optimal Binary Search Tree for the following set of keys and search frequencies using Dynamic Programming method for successful search only	6	CO3, CO4	BT3, BT4	2.2.3

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MANAV RACHNA
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DEPARTMENT OF MATHEMATICS

"End Term Examination, December-2022"

SEMESTER	**III**	**DATE OF EXAM**	**12/12/2022**
SUBJECT NAME	**Probability and Statistics**	**SUBJECT CODE**	**MAH-202 B-T**
BRANCH	**CSTI+CDA**	**SESSION**	**I**
TIME	**9:00AM-12:00Noon**	**MAX. MARKS**	**100**
B.Sc B.Ed	**B.Tech**	**CREDITS**	**04**
NAME OF FACULTY	**Ms Seema Aggarwal**	NAME OF COURSE COORDINATOR	**Ms Seema Aggarwal**

Note: All questions are compulsory.

	Q.NO.	QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	1(a)	The incidence of occupational disease in an industry is such that the workers have a 20% chance of suffering from it. What is the probability that out of six workers chosen at random,four or more will suffer from the disease?	5	CO 1	BT2	1.1.2, 2.1.3 4.4
PART-A	1(b)	Suppose a book of 585 pages contain 43 typographical errors.If these errors are randomly distributed throughout the book,what is the probability that 10 pages selected at random ,will be free from errors?	5	CO 2	BT2	1.1.2, 2.1.3 4.4.1
PART-B	2(a)	An aptitude test is conducted on 1000 candidates.The average score is 42 and the standard deviation score is 24. Assuming normal distributions for the scores,find (i) the number of candidates whose score exceeds 60, (ii) the number of candidates whose score lies between 30 and 60	5	CO 2	BT3	1.1.2, 2.1.3 4.4.1
PART-B	2(b)	X and Y are two random variable having joint density function $f(x,y)=\frac{1}{27}(2x+y)$, where x and y can assume only integer values 0,1,2. Find conditional distribution of Y for $X=x$.	5	CO 2	BT3	1.1.2, 2.1.3 4.4.1
PART-C	3(a)	In an examination of 675 candidates the examiner supplied the following information: *Marks Obtained* / *No.of Candidates* / *Marks Obtained* / *No.of Candidates* Less than 10% — 7 — Less than 50% — 381 Less than 20% — 39 — Less than 60% — 545 Less than 30% — 95 — Less than 70% — 631 Less than 40% — 201 — Less than 80% — 675 Calculate first quartile Q1 and third quartile Q3 of the percentage marks obtained.	10	CO 3	BT3	1.1.2, 2.1.3 4.4.1

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PART-C

3(b)	Calculate Pearson's measure of Skewness on the basis of mean,mode and standard deviation ,from the following data: Variable: 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 2 Frequency: 35 | 40 | 48 | 100 | 125 | 87 | 43 | 2	10	CO 3	BT3	1.1.2, 2.1.3 4.4.1
4(a)	The following data relate the age of husband and wife Age of husband: 35 | 34 | 40 | 43 | 56 | 20 | 38 Age of wife: 32 | 30 | 31 | 32 | 53 | 20 | 33 Calculate Karl Pearson's coefficient of correlation and interpret it.	10	CO 4	BT3	1.1.2, 2.1.3 4.4.1
4(b)	The data for advertising and sales are given below: Mean: Adv.Expenditure (X) (in lakhs) = 10; Sales (Y) (in lakhs = 90 Standard Deviation: 3; 12 Correlation coefficient $r = 0.8$ (i)Calculate two regression lines. (ii)Find the likely sales when advertisement expenditure is Rs.15 lakhs. (iii) What should be the advertisement expenditure if the company wants to attain a sales target of Rs 120 lakhs?	10	CO 4	BT3	1.1.2, 2.1.3 4.4.1
5 (a)	By the method of least square,find the straight line that best fits the data: x: 71 | 68 | 73 | 69 | 67 | 65 | 66 | 67 y: 69 | 72 | 70 | 70 | 68 | 67 | 68 | 64 Estimate y when $x = 60$.	10	CO 5	BT4	1.1.2, 2.1.3 4.4.1
5(b)	A group of 10 rats fed on a diet A and another group of 8 rats fed on a different diet B recorded the following increase in weight(gm) Diet A: 5 | 6 | 8 | 1 | 12 | 4 | 3 | 9 | 6 Diet B: 2 | 3 | 6 | 8 | 10 | 1 | 2 | 8 Does it show the superiority of diet A over diet B?	10	CO 5	BT3	1.1.2, 2.1.3 4.4.1

PART-D

6(a)	The following table gives the number of aircraft accidents that occurred during the various days of the week. Find whether the accidents are uniformly distributed over the week. Test at 5% level of significance. Days: Sun | Mon | Tue | Wed | Thu | Fri | Sat | To No.of accidents: 14 | 16 | 8 | 12 | 11 | 9 | 14 | 84	10	CO 5	BT3	1.1.2, 2.1.3 4.4.1
6(b)	Two random samples were drawn from normal population and their values are A: 66 | 67 | 75 | 76 | 82 | 84 | 88 | 90 | 92 B: 64 | 66 | 74 | 78 | 82 | 85 | 87 | 92 | 93 | 95 Test whether the two populations have the same variance at 5% level of significance?	10	CO 5	BT4	1.1.2, 2.1.3 4.4.1

** ********** END **********

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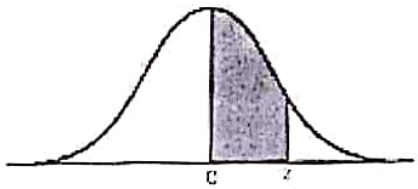
VII. AREA UNDER STANDARD NORMAL CURVE



z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.0000	.0040	.0080	.0120	.0160	.0199	.0239	.0279	.0319	.0359
0.1	.0398	.0438	.0478	.0517	.0557	.0596	.0636	.0675	.0714	.0753
0.2	.0793	.0832	.0871	.0910	.0948	.0987	.1026	.1064	.1103	.1141
0.3	.1179	.1217	.1255	.1293	.1331	.1368	.1406	.1443	.1480	.1517
0.4	.1554	.1591	.1628	.1664	.1700	.1736	.1772	.1808	.1844	.1879
0.5	.1915	.1950	.1985	.2019	.2054	.2088	.2123	.2157	.2190	.2224
0.6	.2257	.2291	.2324	.2357	.2389	.2422	.2454	.2486	.2517	.2549
0.7	.2580	.2611	.2642	.2673	.2704	.2734	.2764	.2794	.2823	.2852
0.8	.2881	.2910	.2939	.2967	.2995	.3023	.3051	.3078	.3106	.3133
0.9	.3159	.3186	.3212	.3238	.3264	.3289	.3315	.3340	.3365	.3389
1.0	.3413	.3438	.3461	.3485	.3508	.3531	.3554	.3577	.3599	.3621
1.1	.3643	.3665	.3686	.3708	.3729	.3749	.3770	.3790	.3810	.3830
1.2	.3849	.3869	.3888	.3907	.3925	.3944	.3962	.3980	.3997	.4015
1.3	.4032	.4049	.4066	.4082	.4099	.4115	.4131	.4147	.4162	.4177
1.4	.4192	.4207	.4222	.4236	.4251	.4265	.4279	.4292	.4306	.4319
1.5	.4332	.4345	.4357	.4370	.4382	.4394	.4406	.4418	.4429	.4441
1.6	.4452	.4463	.4474	.4484	.4495	.4505	.4515	.4525	.4535	.4545
1.7	.4554	.4564	.4573	.4582	.4591	.4599	.4608	.4616	.4625	.4633
1.8	.4641	.4649	.4656	.4664	.4671	.4678	.4686	.4693	.4699	.4706
1.9	.4713	.4719	.4726	.4732	.4738	.4744	.4750	.4756	.4761	.4767
2.0	.4772	.4778	.4783	.4788	.4793	.4798	.4803	.4808	.4812	.4817
2.1	.4821	.4826	.4830	.4834	.4838	.4842	.4846	.4850	.4854	.4857
2.2	.4861	.4864	.4868	.4871	.4875	.4878	.4881	.4884	.4887	.4890
2.3	.4893	.4896	.4898	.4901	.4904	.4906	.4909	.4911	.4913	.4916
2.4	.4918	.4920	.4922	.4925	.4927	.4929	.4931	.4932	.4934	.4936
2.5	.4938	.4940	.4941	.4943	.4945	.4946	.4948	.4949	.4951	.4952
2.6	.4953	.4955	.4956	.4957	.4959	.4960	.4961	.4962	.4963	.4964
2.7	.4965	.4966	.4967	.4968	.4969	.4970	.4971	.4972	.4973	.4974
2.8	.4974	.4975	.4976	.4977	.4977	.4978	.4979	.4979	.4980	.4981
2.9	.4981	.4982	.4982	.4983	.4984	.4984	.4985	.4985	.4986	.4986
3.0	.4987	.4987	.4987	.4988	.4988	.4989	.4989	.4989	.4990	.4990

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Table 2 : SIGNIFICANT VALUES $t_\nu(\alpha)$ OF t-DISTRIBUTION (TWO TAIL AREAS) $[|t| > t_\nu(\alpha)] = \alpha$

d.f. (ν)	Probability (Level of Significance)					
	0.50	0.10	0.05	0.02	0.01	0.001
1	1.00	6.31	12.71	31.82	63.66	636.62
2	0.82	0.92	4.30	6.97	6.93	31.60
3	0.77	2.32	3.18	4.54	5.84	12.94
4	0.74	2.13	2.78	3.75	4.60	8.61
5	0.73	2.02	2.57	3.37	4.03	6.86
6	0.72	1.94	2.45	3.14	3.71	5.96
7	0.71	1.90	2.37	3.00	3.50	5.41
8	0.71	1.80	2.31	2.90	3.36	5.04
9	0.70	1.83	2.26	2.82	3.25	4.78
10	0.70	1.81	2.23	2.76	3.17	4.59
11	0.70	1.80	2.20	2.72	3.11	4.44
12	0.70	1.78	2.18	2.68	3.06	4.32
13	0.69	1.77	2.16	2.05	3.01	4.22
14	0.69	1.76	2.15	2.62	2.98	4.14
15	0.69	1.75	2.13	2.60	2.95	4.07
16	0.69	1.75	2.12	2.58	2.92	4.02
17	0.69	1.74	2.11	2.57	2.90	3.97
18	0.69	1.73	2.10	2.55	2.88	3.92
19	0.69	1.73	2.09	2.54	2.86	3.88
20	0.69	1.73	2.09	2.53	2.85	3.85
21	0.69	1.72	2.08	2.52	2.83	3.83
22	0.69	1.72	2.07	2.51	2.42	3.79
23	0.69	1.71	2.07	2.50	2.81	3.77
24	0.69	1.71	2.06	2.49	2.80	3.75
25	0.68	1.71	2.06	2.49	2.79	3.73
26	0.68	1.71	2.06	2.48	2.78	3.71
27	0.68	1.70	2.05	2.47	2.77	3.69
28	0.68	1.70	2.05	2.47	2.76	3.67
29	0.68	1.70	2.05	2.46	2.76	3.66
30	0.68	1.70	2.04	2.46	2.75	3.65
∞	0.67	1.65	1.96	2.33	2.58	3.29

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Table 3: CHI-SQUARE (χ^2)

Significant Values χ^2 (α) of χ^2 Distribution Right Tail Areas for Given Probability α,

$P = P_r(\chi^2 > \chi^2(\alpha)) = \alpha$

And is Degrees of Freedom (d.f.)

Degree of freedom (ν)	*Probability (Level of Significance)*						
	0 = .99	*0.95*	*0.50*	*0.10*	*0.05*	*0.02*	*0.01*
1	.000157	.00393	.455	2.706	3.841	5.214	6.635
2	.0201	.103	1.386	4.605	5.991	7.824	9.210
3	.115	.352	2.366	6.251	7.815	9.837	11.341
4	.297	.711	3.357	7.779	9.488	11.668	13.277
5	.554	1.145	4.351	9.236	11.070	13.388	15.086
6	.872	2.635	5.348	10.645	12.592	15.033	16.812
7	1.239	2.167	6.346	12.017	14.067	16.622	18.475
8	1.646	2.733	7.344	13.362	15.507	18.168	20.090
9	2.088	3.325	8.343	14.684	16.919	19.679	21.669
10	2.558	3.940	9.340	15.987	18.307	21.161	23.209
11	3.053	4.575	10.341	17.275	19.675	22.618	24.725
12	3.571	5.226	11.340	18.549	21.026	24.054	26.217
13	4.107	5.892	12.340	19.812	22.362	25.472	27.688
14	4.660	6.571	13.339	21.064	23.685	26.873	29.141
15	4.229	7.261	14.339	22.307	24.996	28.259	30.578
16	5.812	7.962	15.338	23.542	26.296	29.633	32.000
17	6.408	8.672	15.338	24.769	27.587	30.995	33.409
18	7.015	9.390	17.338	25.989	28.869	32.346	34.805
19	7.633	10.117	18.338	27.204	30.144	33.687	36.191
20	8.260	10.851	19.337	28.412	31.410	35.020	37.566
21	8.897	11.591	20.337	29.615	32.671	36.343	38.932
22	9.542	12.338	21.337	30.813	33.924	37.659	40.289
23	10.196	13.091	22.337	32.007	35.172	38.968	41.638
24	10.856	13.848	23.337	32.196	36.415	40.270	42.980
25	11.524	14.611	24.337	34.382	37.65	41.566	44.314
26	12.198	15.379	25.336	35.363	38.885	41.856	45.642
27	12.879	16.151	26.336	36.741	40.113	41.140	46.963
28	13.565	16.928	27.336	37.916	41.337	45.419	48.278
29	14.256	17.708	28.336	39.087	42.557	46.693	49.588
30	14.933	18.493	29.336	40.256	43.773	47.962	50.892

Note. For degrees of freedom (ν) greater than 30, the quantity $\sqrt{2\chi^2} - \sqrt{2\nu - 1}$ may be used as a normal variate with unit variance.

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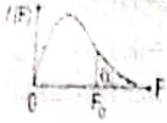

X. 5% POINTS OF FISHER'S F-DISTRIBUTION

n / m	1	2	3	4	5	6	7	8	9	10	12	15	20	30	60	∞
1	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	241.88	243.91	245.95	248.01	250.09	252.20	254.32
2	18.513	19.000	19.164	19.247	19.296	19.330	19.353	19.371	19.385	19.396	19.413	19.429	19.446	19.462	19.479	19.496
3	10.128	9.5521	9.2766	9.1172	9.0135	8.9406	8.8868	8.8452	8.8123	8.7855	8.7446	8.7029	8.6602	8.6166	8.5720	8.5265
4	7.7086	6.9443	6.5914	6.3883	6.2560	6.1631	6.0942	6.0410	5.9988	5.9644	5.9117	5.8578	5.8025	5.7459	5.6878	5.6281
5	6.6079	5.7861	5.4095	5.1922	5.0503	4.9503	4.8753	4.8183	4.7725	4.7351	4.6777	4.6188	4.5581	4.4957	4.4314	4.3650
6	5.9874	5.1433	4.7571	4.5337	4.3874	4.2839	4.2066	4.1468	4.0990	4.0600	3.9999	3.9381	3.8742	3.8082	3.7398	3.6688
7	5.5914	4.7374	4.3468	4.1203	3.9715	3.8660	3.7870	3.7257	3.6767	3.6365	3.5747	3.5108	3.4445	3.3758	3.3043	3.2298
8	5.3177	4.4590	4.0662	3.8378	3.6875	3.5806	3.5005	3.4381	3.3881	3.3472	3.2840	3.2184	3.1503	3.0794	3.0053	2.9276
9	5.1174	4.2565	3.8626	3.6331	3.4817	3.3738	3.2927	3.2296	3.1789	3.1373	3.0729	3.0061	2.9365	2.8637	2.7872	2.7067
10	4.9646	4.1028	3.7083	3.4780	3.3258	3.2172	3.1355	3.0717	3.0204	2.9782	2.9130	2.8450	2.7740	2.6996	2.6211	2.5379
11	4.8443	3.9823	3.5874	3.3567	3.2039	3.0946	3.0123	2.9480	2.8962	2.8536	2.7876	2.7186	2.6464	2.5705	2.4901	2.4045
12	4.7472	3.8853	3.4903	3.2592	3.1059	2.9961	2.9134	2.8486	2.7964	2.7534	2.6866	2.6169	2.5436	2.4663	2.3842	2.2962
13	4.6672	3.8056	3.4105	3.1791	3.0254	2.9153	2.8321	2.7669	2.7144	2.6710	2.6037	2.5331	2.4589	2.3803	2.2966	2.2064
14	4.6001	3.7389	3.3439	3.1122	2.9582	2.8477	2.7642	2.6987	2.6458	2.6021	2.5342	2.4630	2.3879	2.3082	2.2230	2.1307
15	4.5431	3.6823	3.2874	3.0556	2.9013	2.7905	2.7066	2.6408	2.5876	2.5437	2.4753	2.4035	2.3275	2.2468	2.1601	2.0658
16	4.4940	3.6337	3.2389	3.0069	2.8524	2.7413	2.6572	2.5911	2.5377	2.4935	2.4247	2.3522	2.2756	2.1938	2.1058	2.0096
17	4.4513	3.5915	3.1968	2.9647	2.8100	2.6987	2.6143	2.5480	2.4943	2.4499	2.3807	2.3077	2.2304	2.1477	2.0584	1.9604
18	4.4139	3.5546	3.1599	2.9277	2.7729	2.6613	2.5767	2.5102	2.4563	2.4117	2.3421	2.2686	2.1906	2.1071	2.0166	1.9168
19	4.3808	3.5219	3.1274	2.8951	2.7401	2.6283	2.5435	2.4768	2.4227	2.3779	2.3080	2.2341	2.1555	2.0712	1.9796	1.8780
20	4.3513	3.4928	3.0984	2.8661	2.7100	2.5990	2.5140	2.4471	2.3928	2.3479	2.2776	2.2033	2.1242	2.0391	1.9464	1.8432
21	4.3248	3.4668	3.0725	2.8401	2.6848	2.5727	2.4876	2.4205	2.3661	2.3210	2.2504	2.1757	2.0960	2.0102	1.9163	1.8117
22	4.3009	3.4434	3.0491	2.8167	2.6613	2.5491	2.4638	2.3965	2.3419	2.2967	2.2258	2.1508	2.0707	1.9842	1.8895	1.7831
23	4.2793	3.4221	3.0280	2.7955	2.6500	2.5277	2.4422	2.3748	2.3201	2.2747	2.2036	2.1282	2.0476	1.9605	1.8649	1.7570
24	4.2597	3.4028	3.0088	2.7763	2.6207	2.5082	2.4226	2.3551	2.3002	2.2547	2.1834	2.1077	2.0267	1.9390	1.8424	1.7331
25	4.2417	3.3852	2.9912	2.7587	2.6030	2.4904	2.4047	2.3371	2.2821	2.2365	2.1649	2.0889	2.0075	1.9192	1.8217	1.7110
26	4.2252	3.3690	2.9751	2.7426	2.5868	2.4741	2.3883	2.3205	2.2655	2.2197	2.1479	2.0716	1.9898	1.9010	1.8027	1.6906
27	4.2100	3.3541	2.9604	2.7278	2.5719	2.4591	2.3732	2.3053	2.2501	2.2043	2.1323	2.0558	1.9736	1.8842	1.7851	1.6717
28	4.1960	3.3404	2.9467	2.7141	2.5581	2.4453	2.3593	2.2913	2.2360	2.1900	2.1179	2.0411	1.9586	1.8687	1.7689	1.6541
29	4.1830	3.3277	2.9340	2.7014	2.5454	2.4324	2.3463	2.2782	2.2229	2.1768	2.1045	2.0275	1.9446	1.8543	1.7537	1.6377
30	4.1709	3.3158	2.9223	2.6896	2.5336	2.4205	2.3343	2.2662	2.2107	2.1646	2.0921	2.0148	1.9317	1.8409	1.7396	1.6223
40	4.0848	3.2317	2.8387	2.6060	2.4495	2.3359	2.2490	2.1802	2.1240	2.0772	2.0035	1.9245	1.8389	1.7444	1.6373	1.5089
60	4.0012	3.1504	2.7581	2.5252	2.3688	2.2540	2.1665	2.0970	2.0401	1.9926	1.9174	1.8364	1.7480	1.6491	1.5343	1.3893
120	3.9201	3.0718	2.6802	2.4472	2.2900	2.1750	2.0867	2.0164	1.9588	1.9105	1.8337	1.7505	1.6587	1.5543	1.4290	1.2539
∞	3.8415	2.9957	2.6049	2.3719	2.2141	2.0986	2.0096	1.9384	1.8799	1.8307	1.7522	1.6664	1.5705	1.4591	1.3180	1.0000

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MANAV RACHNA UNIVERSITY

"End term Examination, 2022"
Paper ID: .....

Semester: III & VII
Subject: French
Branch: All
Course Type: Core
Time: 1.5 hours
Program: BTech/BSc/LLB/BBA
Student Name: _____

Date of Exam: 13/12/2022
Subject Code: FLS 103
Session: Odd (II)
Course Nature: Hard
Max. Marks: 40
Signatures HOD/Associate HOD: Vijayanka
Roll-No: _____

Note: All questions are compulsory.

Section-A
COMPRÉHENSION ÉCRITE

1. Lisez le passage et répondez aux questions suivantes.
(Read the passage and answer to the questions)

Bonjour! Je m'appelle Sonia. J'ai vingt ans. J'habite à Lille. Je suis française. Je parle français, anglais et espagnol. Je suis étudiante. J'aime danser et chanter .Je déteste le poulet. Il y a quatre membres dans ma famille. Mon père est homme d'affaires. Il est fort et gentil. Ma mère est institutrice. Elle est belle et sympathique. J'ai un frère qui s'appelle Rohan. Il a dix-huit ans. Il est étudiant. J'aime ma famille.

A. Dites vrai ou faux: (3)
(True or False)

a) Sonia a une sœur. _____
b) Le père de Sonia est journaliste. _____
c) Sonia parle allemande. _____

B. Répondez aux questions. (2)
(Answer the questions)

a) Il y a combien de (how many) membres dans la famille de Sonia?

_____.

b) Quelle est la profession de mère de Sonia?

_____.

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Section B

Expression Écrite

2. **Présentez – vous (Present yourself)** (5)

OU

Décrivez votre ami(e) (Describe your friend)

Section - C

Grammaire

3. **Conjuguez les verbes.** (5)

(Conjugate the verbs)

a) Nous _____(être) italiens.

b) Je _____(aller) au parc.

c) L'oiseau _____ (chanter) les chansons.

d) Elles _____ (visiter) les monuments.

e) Tu _____(travailler) au bureau.

4. ***Complétez avec les articles définis.*** (2)
(Complete with definite articles-le,la,l',les)

a) C'est _____ livre de Ria.

b) Ce sont _____ bonbons de Caroline.

c) _____ avion est beau.

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d) C'est _____ chaise de cette classe.

5. Complétez avec les articles indéfinis. (2)
(Complete with indefinite articles-un,une, des)

a) Nous mangeons _____ gâteaux.

b) C'est _____ fleur.

c) C'est _____ femme.

d) C'est _____ chapeau.

6. Complétez avec les nombres ordinaux. (3)
(Complete with ordinal numbers)

a) Mai est le _____ mois de l'année.

b) Samedi est le _____ jour de la semaine.

c) Septembre est le _____ mois de l'année.

7. Quelle heure est-il ? (4)
(What time is it?)

a) 06 :30 _____.

b) 04 :10 _____.

c) 06 :30 _____.

d) 12:10pm _____.

8. Répondez aux questions. (3)

(Answer to the questions)

a) Quel est le mois entre juin et août?

_____.

b) Comment allez- vous?

_____.

c) Quel est le sixième jour de la semaine?

_____.

9. Reliez les colonnes. (3)
(Match the columns)

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Colonne A	Colonne B	Answers
a. Il neige	i. It is pleasant	
b. Il fait beau	ii. It is sunny	
c. Il fait du soleil	iii. Snowing	

(3)

10. Traduisez les mots en anglais.
(Translate the words in English)

a) Merci beaucoup _____.

b) Bonne Chance _____.

c) Au revoir _____.

SECTION-D
CULTURE ET CIVILISATION

(5)

11. Complétez les phrases.
(Complete the sentences).

a) _____ est un vin français.

b) _____ est un fromage français.

c) _____ est la monnaie unique européenne.

d) _____, _____ et _____ sont les couleurs de drapeau français.

e) _____ est la capitale de la France.

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MANAV RACHNA
MANAV RACHNA UNIVERSITY

DEPARTMENT OF FOREIGN LANGUAGE
End term Examination, 2022

Semester: 3rd & 7th
Subject: Spanish
Branch: All
Course Type: Core
Time: 90 Minutes
Program: B.Tech/Education/Law/BBA/B.Sc

Date of Exam: 13./.12/2022
Subject Code: FLS 101
Session: Odd (I)
Course Nature: Soft
Max. Marks: 40
Signature: HOD/Associate HOD: Priyanka

Name: _____ Roll No. _____

Note: All questions are compulsory.

Ques. 1 Lee el texto y responde verdadero o falso. **(5)**
Read the text and respond true or false.

¡Hola! ¡Buenas tardes!
Me llamo Maria, soy mexicana pero vivo en Madrid con mi familia, la capital de España. Yo tengo veintinueve años y soy directora. Tengo un primo en Madrid que se llama Juan. Él es de España, es español, Juan tiene 30 años y es camarero. Él vive en una casa muy grande.

a. Maria es de Francia. V/F
b. Maria vive con familia. V/F
c. Juan es camarero. V/F
d. Juan es de España. V/F
e. La casa de Juan es muy grande. V/F

Ques. 2 Elige las palabras de tabla en esta imagen y hace cinco frase con números. **(2.5)**
Choose the words from the table in the picture and make 5 sentences using numbers.

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e.g. Hay seis sillas en esta clase.

a. _____.
b. _____.
c. _____.
d. _____.
e. _____.

Ques. 3 Hace cinco frases con el verbo ser usando profesión. **(5)**
Make five sentences with the verb ser using profession.

a. _____.
b. _____.
c. _____.
d. _____.
e. _____.

Ques. 4 Busca los errores de adjetivo posesivo. **(2.5)**
Look for the error of adjective possessive.
e.g. Nuestros escuelas son grandes.
Nuestras escuelas son grandes.

a. Mis bolsos son caros.
_____.

b. Sus coche es interesante.
_____.

c. Vuestros hermanas y vuestros primas son bonitos.
_____.

d. Nuestra padre es doctor.
_____.

e. Tu camisetas son modernas.
_____.

Ques. 5 Completa con días, meses y estaciones. **(4)**
Complete with days, months and seasons.

a. Martes _____ Jueves.
b. _____ _____ Noviembre.
c. _____ Sábado Domingo
d. _____ Febrero Marzo

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e. Spring- _____.
f. Winter- _____.
g. Abril Mayo _____.

Ques.6 Completa la serie de números. (8)
Complete the series with numbers.

a. Quince _____, _____ dieciocho
b. Dos _____, _____, _____.
c. _____ Treinta y uno _____, _____.
d. Cero _____, _____,
e. Veintinueve _____ , treinta y uno _____, _____.
f. Cuarenta y siete _____, cuarenta y nueve_____.

Ques. 7 Escribe el nombre del miembro de la familia. (2.5)
Write the name of the family member.

a. La hermana de mi padre es mi _____ _____
b. Los padres de mi padre son mis _____
c. La mujer de mi padre es mi _____
d. El hijo de mi tia es mi _____
e. La madre de mi madre es mi _____

Ques. 8 Cambia las siguientes palabras a plural. (2.5)
Change the words to plural.

Eg. Mesa = Mesas
a. Rotulador _____
b. Pez _____
c. Lunes _____
d. Canción_____
e. Chico _____

Ques. 9 Lee las frases y escribe verdadero o falso. (3)
Read the sentences and write true or false.

a. Este casa es de Juan. _____
b. Aquella bolso es negro. _____
c. Esa chica es mi amiga. _____
d. Estas mesas son nuevas. _____
e. Esa ventana es marrón. _____
f. Estos hermanas son bonitas. _____

5-9

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Ques. 10 Relaciona los saludos y las despedidas de español con inglés. (2.5)
Match salutations from Spanish to English.

a. Buenas noches	Thank you
b. Hasta pronto	Same here
c. Bienvenidos	See you soon
d. Gracias	Good night
e. Igualmente	Welcome

Ques.11 Completa con el artículo determinado e indeterminado. (2.5)
Complete with determinate and indeterminate article.

e.g. Una bolsa (in)
El cuaderno. (d)

a. _____ sillas (d)
b. _____ canción (in)
c. _____ bolso (d)
d. _____ estudiantes (in)
e. _____ móviles (d)

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MANAV RACHNA
MANAV RACHNA UNIVERSITY

DEPARTMENT OF FOREIGN LANGUAGE

"End Term Examination, 2022"

Paper ID:.....

Semester: 3rd& 7th
Subject: German
Branch:B.Tech/BBA/Law/B.Sc/B.ed
Course Type: Core
Time: 1 hour 30 minutes
Program: All

Date of Exam: 13.12.2022
Subject Code: FLS 102
Session: Odd (II)
Course Nature: Hard
Max. Marks: 40
Signatures HOD/Associate HOD:

Student name: _____ ***Roll-No:*** _____

Note: All questions are compulsory.

Question 1.
Lesen Sie den Text und antworten Sie! **(5 marks)**
(Read the text and answer the following questions)

Vorstellung

Mein Name ist Anna. Ich kommeausösterreich und lebeseitdrei Jahren in Deutschland. Ich bin 15 Jahre alt und habezweiGeschwister: MeineSchwesterheißt Klara und ist 13 Jahre alt, meinBruder Michael ist 18 Jahre alt. Wirwohnenmitunserenltern in einem Haus in der Nähe von München. Meine Mutter istKöchin, meinVaterarbeitet in einer Bank.

Ich lese gerne und mag Tiere: Wirhabeneinen Hund, zweiKatzen und im Garten einenTeichmitGoldfischen. Ich geheauch gerne in die Schule, meinLieblingsfachistMathematik. Physik und Chemie mag ich nicht so gerne.

Nach der Schule gehe ich oft mitmeinenFreundinnenim Park spazieren, manchmalessenwireinEis. Am Samstaggehenwir oft ins Kino. Am Sonntag schlafe ich lange, dannkoche ich mitmeiner Mutter das Mittagessen. Nach dem Essen gehenwirmit dem Hund am See spazieren. Sonntag istmeinLieblingstag!

I. Beantworten Sie den folgenden Frage:
(Answer the following questions.)

i. Wie alt ist die Schwester von Anna?

_____

ii. Wo arbeitet der Vater von Anna?

_____

iii. Wohingeht die Familie am Sonntag mit dem Hund spazieren?

_____

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II. Suchen Sie die Wörter aus dem Text.
(Look for the words from the text.)

i. Sometimes- _____

ii. Parents- _____

Question 2.
Was kannst du in der Freizeit machen oder nicht machen? (3 Marks)
(What can you or cannot do in free time? Look at the given pictures and write complete sentence.)

i. _____.

ii. _____.

iii. _____.

Question 3.
Schreiben Sie über eins der folgendenThemen,circa 60 Wörter. (6 Marks)
(Write on any one of the topics given below.)

i. Mein Freund/MeineFreundin
ii. MeineFamilie

_____

_____

_____

_____

_____

_____

_____

_____

_____

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II. Suchen Sie die Wörter aus dem Text.
(Look for the words from the text.)

i. Sometimes- _____

ii. Parents- _____

Question 2.
Was kannst du in der Freizeit machen oder nicht machen? **(3 Marks)**
(What can you or cannot do in free time? Look at the given pictures and write complete sentence.)

i. _____

ii. _____

iii. _____

Question 3.
Schreiben Sie über eins der folgendenThemen,circa 60 Wörter. **(6 Marks)**
(Write on any one of the topics given below.)

i. Mein Freund/MeineFreundin
ii. MeineFamilie

_____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

_____

_____

_____

Question 4.
Übersetzen Sie auf Englisch. **(4 Marks)**
(Translate into English)

i. Im Winter schneit es

_____.

ii. Eine Woche hat Sieben Tage

_____.

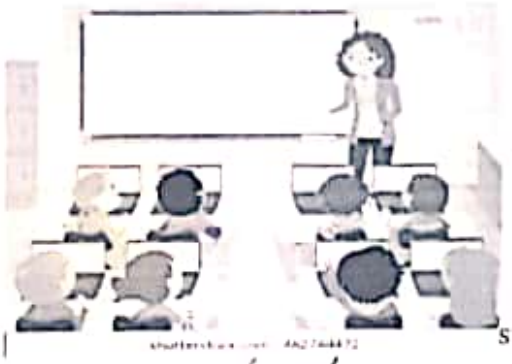
iii. Mein Geburtstagist am siebzehntenJuni.

_____.

iv. Der Unterrichtbeginnt um elf uhrvierzig.

_____.

Question 5.
Werist das? **(2 Marks)**
(Who is this?)

i.  sie ist _____.

ii. Er ist _____.

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Question 6. **(5 Marks)**

Ergänzen Sie die richtige verben.
(Fill in the blanks with appropriate verb forms.)

(ist/kauft/bekommst/hat/bringt)

i. Er _____ zwei Kilo Tomaten.

ii. Was _____ du heutezumGeburtstag?

iii. Tina _____ eine Cola und einel.imonademit.

iv. Sie _____ die Mutter von Tina und Marx.

v. Mein Freund _____ zweiGeschwister.

Question 7. **(3 marks)**

Schreiben Sie den Artikel (der/die/das)? —
(Write the correct article.)

i. _____Bleistift

ii. _____Heft

iii. _____Freundin

iv. _____Kuli

v. _____Lineal

vi. _____Tasse

Question 8. **(5 Marks)**

Welches Wort past hier?
(Fill in the blank with suitable word in German.)

(ist/bin/wohne/mein/in/meine/heißt/in/wohnt/E-mail addresse)

Servus,_____ Name ist Roland Maurer Ich ____ 30 jahrealt.Ich _____ in Linz.Linzliegt _____ Osterreich. _____—Freundin_____ Anna.Sie _____ in Pasing.Dasliegt _____ Munchen.IhreTelefonnummer _____ 0897654323 Meine _____ ist roland.maurer@gmail.com.

Question 9. **(2 marks)**

Welcher Tag oder Monat fehlt?
(Which day or month is missing?)

i. Heute istDienstag, Morgen ist _____.

ii. Es ist Herbst. Die Monatesind _____, _____,

Question 10. **(5 Marks)**

Ergänzen Sie.
(Fill in the blank with the appropriate information about Germany):

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Question 6.
Ergänzen Sie die richtige verben. **(5 Marks)**
(Fill in the blanks with appropriate verb forms.)

(ist/kauft/bekommst/hat/bringt)

i. Er _____ zwei Kilo Tomaten.
ii. Was _____ du heutezumGeburtstag?
iii. Tina _____ eine Cola und eineLimonademit.
iv. Sie _____ die Mutter von Tina und Marx.
v. Mein Freund _____ zweiGeschwister.

Question 7.
Schreiben Sie den Artikel (der/die/das)? — **(3 marks)**
(Write the correct article.)

i. _____Bleistift
ii. _____Heft
iii. _____Freundin
iv. _____Kuli
v. _____Lineal
vi. _____Tasse

Question 8.
Welches Wort past hier? **(5 Marks)**
(Fill in the blank with suitable word in German.)

(ist/bin/wohne/mein/in/meine/heißt/in/wohnt/E-mail addresse)

Servus,_____ Name ist Roland Maurer Ich ____ 30 jahrealt.Ich _____ in Linz.Linzliegt _____ Osterreich. _____—Freundin_____ Anna.Sie _____ in Pasing.Dasliegt _____ Munchen.IhreTelefonnummer _____ 0897654323 Meine _____ ist roland.maurer@gmail.com.

Question 9.
Welcher Tag oder Monat fehlt? **(2 marks)**
(Which day or month is missing?)

i. Heute istDienstag, Morgen ist _____.

ii. Es ist Herbst. Die Monatesind _____, _____.

Question 10.
Ergänzen Sie. **(5 Marks)**
(Fill in the blank with the appropriate information about Germany):

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A. When does the Oktoberfest start? _____

i. early November
ii. mid-September

B. Famous eatable in Oktoberfest is? _____

i. Wurstchen
ii. Ginger Heart Bread

C. Capital of Germany is _____

i. Wien
ii. Berlin

D. The famous river of Germany is _____

i. Rhein
ii. Hudson

E. Lara kommtaus _____. Sie sprichtTürkisch.

i. Polen
ii. Die Türkei

ALLES GUTE!

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Term Examination, December-2022"

SEMESTER	3RD/5TH	**DATE OF EXAM**	19/12/2022
SUBJECT NAME	Analysis & Design of Algorithms	**SUBJECT CODE**	CSH204B-T
BRANCH	Computer Science & Engineering (CSE)/AIML	**SESSION**	I
TIME	9 AM – 12 Noon	**MAX. MARKS**	100
PROGRAM	B.Tech	**CREDITS**	5
NAME OF FACULTY	Dr. Susmita Ray,DR.HARSH,MS.PRIYANKA	**NAME OF COURSE COORDINATOR**	Mr. Anup Singh Kushwaha

Note: Attempt all questions.

Q.NO.	QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
	PART A				
1(A)	What is the complexity of Radix Sort Algorithm? Which sorting algorithm is used by Radix Sort?	2	CO2	BT1, BT2	2.1.3
1(B)	Bucket Sort uses Insertion Sort. Is the complexity of Bucket Sort Algorithm same as Insertion Sort or not? Justify your answer.	2	CO4	BT3	2.2.3

1(C)	What is the time complexity of the following pseudocode of an algorithm?
	p=0
	for(i=1, i<n, i=i*2)
	{ p++ ; }
	for (j=1, j<p, j=j*2)
	{statement s;}
		2	CO4	BT3	2.2.3

1(D)	Name 2 sorting algorithms which uses Divide & Conquer Approach?	2	CO1	BT2	2.1.3

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<table>
<tr><td>1(E)</td><td>Which are the four different approaches for solving Recurrence Relations?</td><td>2</td><td>CO2</td><td>BT1</td><td>2.1.3</td></tr>
<tr><td></td><td><u>PART B</u></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Q2(A)</td><td>Explain Divide and Conquer strategy with an example. Write the algorithm of Merge Sort and derive its complexity.</td><td>8</td><td>CO2</td><td>BT2</td><td>2.1.3</td></tr>
<tr><td>2(B)</td><td>Use Merge Sort algorithm to sort the following set of numbers. Trace all steps of execution of sorting algorithm:

60, 23, 38, 76, 49, 14, 88, 57</td><td>2</td><td>CO3</td><td>BT3</td><td>2.2.3</td></tr>
<tr><td></td><td><u>PART C</u></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Q3(A)</td><td>Write the Activity Selection Algorithm and find its complexity. Name the algorithm design strategy used to formulate this algorithm.
Apply Activity Selection Algorithm for finding two sequences of sequencing activities with start and finish times as provided in the table below:

<table><tr><td>I</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>S_i</td><td>1</td><td>2</td><td>4</td><td>1</td><td>5</td><td>8</td><td>9</td><td>11</td><td>13</td></tr><tr><td>F_i</td><td>4</td><td>5</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>14</td><td>16</td></tr></table></td><td>5

Marks Breakup:(2+1+2)</td><td>CO1, CO2, CO3</td><td>BT2, BT2, BT3</td><td>2.1.3, 2.2.3</td></tr>
<tr><td>3(B)</td><td>Write the Job Sequencing with Deadline Algorithm and find its complexity. Name the algorithm design strategy used to formulate this algorithm.
Apply Job sequencing with Deadline algorithm for scheduling the jobs with specified deadline as given in the following table. Show step by step approach of obtaining the problem solution. Also compute the maximum profit.

<table><tr><td>INDEX</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>JOB</td><td>j1</td><td>j2</td><td>j3</td><td>j4</td><td>j5</td></tr><tr><td>DEADLINE</td><td>2</td><td>1</td><td>3</td><td>2</td><td>1</td></tr><tr><td>PROFIT</td><td>60</td><td>100</td><td>20</td><td>40</td><td>20</td></tr></table></td><td>5

Marks Breakup:(2+1+2)</td><td>CO1, CO2, CO3</td><td>BT2, BT2,BT 3</td><td>2.1.3, 2.2.3</td></tr>
</table>

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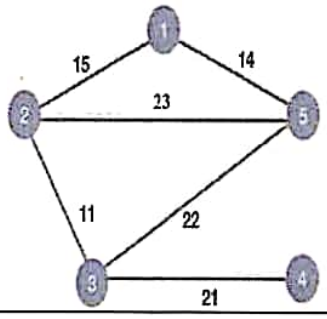
Q4(A)	Explain briefly Minimum Cost Spanning tree with an example. Write Prim's Algorithm to generate MST for any weighted graph. Analyze the time complexity of the algorithm	6	CO1, CO4	BT2, BT2,BT4	2.1.3
4(B)	Use Prim's Algorithm to generate the Minimum Cost Spanning Tree of the following graph: 	4	CO3	BT3	2.2.3
Q5(A)	Explain briefly the Dynamic Programming strategy of designing algorithm. Write the Algorithm of Matrix Chain Multiplication using Dynamic Programming strategy.	5	CO1	BT2, BT2	2.1.3
5(B)	Use Dynamic Programming method to multiply the chain of 3 Matrices namely A1, A2, A3. Following are the dimensions of the matrices : A1 : [2 x 3] A2 : [3 x 4] A3 : [4 x 2] To obtain M = A1 x A2 x A3 find out the cost of computation of multiplication of this Matrix Chain and the order in which the matrices need to be multiplied together. Show computation of all cells of the cost computation matrix and all cells of the matrix which stores optimal parenthesization (/sequence) of matrix chain multiplication.	5	CO3	BT4	2.2.3
Q6(A)	Explain with example optimal binary search tree	4	CO1, CO2	BT2	2.1.3
6(B)	Find the Optimal Binary Search Tree for the following set of keys and search frequencies using Dynamic Programming method for successful search only	6	CO3, CO4	BT3, BT4	2.2.3

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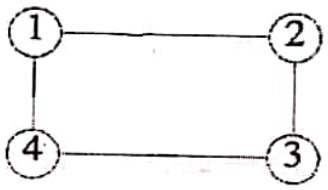
		Index	1	2	3	4		
		Keys	12	15	20	25		
		Search Frequencies	4	3	6	2		
	Show all steps of computation in building the memorization matrix. Analyse the matrix to find the optimal binary search tree organization							
	PART D							
Q7(A)	What is Backtracking strategy for algorithm design? How is it different from Brute Force approach?				4	CO1, CO2	BT2, BT4	2.13.
7(B)	Use Backtracking algorithm to solve 4-Queen problem by drawing a State Space Tree.				6	CO3	BT3	2.2.3
Q8(A)	What are the three formulations of Graph Colouring Problem?				3	CO1	BT2	2.1.3
8(B)	Use Backtracking Approach to determine all the possible solutions for coloring the nodes of the following graph by drawing State Space Tree. Determine the chromatic number of the graph. 				7	CO3	BT3	2.2.3
Q9(A)	Explain briefly the Branch-N-Bound technique used in algorithm design. Explain with examples the 3 different Branch and Bound techniques.				5	CO1	BT2	2.1.3
9(B)	Solve the following 0/1 Knapsack Problem using Branch and Bound Technique. Draw State Space Tree in solving the problem step by step : M=15, n=4, (p1, p2, p3, p4) = 10, 10, 12, 18 and (w1, w2, w3, w4)=(2, 4, 6, 9).				5	CO3	BT3	2.2.3
10	Define P, NP, NP-Hard, NP complete classes of problem with suitable examples.				10	CO5	BT2	2.1.2

********** END **********

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DEPARTMENT OF COMPUTER SCEINCE AND ENGINEERING

"End Term Examination, Dec-2022"

SEMESTER	**CSE 5**	**DATE OF EXAM**	**13/12/2022**
SUBJECT NAME	**ADVANCED JAVA**	**SUBJECT CODE**	**CSH308B-T**
BRANCH	**CSE (A/B)**	**SESSION**	**I (9.00AM - 11.00AM)**
TIME	**2 Hrs**	**MAX. MARKS**	**50**
PROGRAM	**B.Tech**	**CREDITS**	**2**
NAME OF FACULTY	**Dr. RANJNA JAIN**	**NAME OF COURSE COORDINATOR**	**Dr. RANJNA JAIN**

Note: Part A & Part B: All questions are compulsory.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	1(A)	Name the different types of session tracking in servlet and web application.	2	CO3	BT2	2.1.2
	1(B)	Define the concept of Encapsulation with the help of java program.	2	CO1	BT2	1.2.1
	1(C)	Differentiate between Iterator &ListIterator.	2	CO2	BT1	2.2.5
	1(D)	What is the function of Service () method in the lifecycle of Servlet?	2	CO3	BT1	5.1.1
	1(E)	What directive will be used to add library in the JSP page? Write its syntax as well.	2	CO4	BT3	3.4.2
PART-B	2(A)	What are the steps involved in making JDBC connectivity?	5	CO1	BT2	2.1.1
	2(B)	Create a simple calculator application using servlet.	5	CO3	BT3	4.2.1
	3(A)	Explain the Architecture of JSP.	5	CO4	BT2	3.2.1
	3(B)	Write a JSP program which reads username and password input by user on an HTML page.On submission check username and password against any default value in servlet program, if both detail matches redirect user to new home page or else redirect to an error page.	5	CO4	BT3	2.3.1

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		Note: Create error page using page directive.				
	4(A)	What are generics and how to use it? Demonstrate with the help of java program.	5	CO2	BT3	2.2.3
	4(B)	How to pass initialization parameters to a servlet in java using servletconfig interface. Demonstrate the same using Java program.	5	CO3	BT3	4.3.1
	5(A)	Explain MVC design Pattern in detail.	5	CO5	BT2	5.1.1
	5(B)	Differentiate between GET and POST method. Mention examples also.	5	CO3	BT3	2.2.5

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DEPARTMENT OF DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Term Examination Dec-2022"

SEMESTER	5	DATE OF EXAM	13.12.2022
SUBJECT NAME	Network Security	SUBJECT CODE	CSH329B-T
BRANCH	CSE (CSTI)	SESSION	I
TIME	9.00 Am to 12.00 Noon	MAX. MARKS	100
PROGRAM	B.Tech	CREDITS	3.5
NAME OF FACULTY	Mr. Sujeet	NAME OF COURSE COORDINATOR	Dr. R. Grijia

Note: Part A: All questions are compulsory. Questions will be of short answer type (2 Marks).

Part B: All questions are compulsory. Questions will be of short answer type and brief answer type(2,4 Marks).

Part C: All questions are compulsory. Questions will be of descriptive type or scenarios based. Each question will be of (10 Marks).

Part D: All questions are compulsory. Questions will be of descriptive type or scenarios based. Each question will be of (10 Marks).

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	A(1)	What are the difference between packet analysis and packet forwarding? Explain each with the help of example.	2	CO1	L1,L2	1.2.1
	A(2)	Differentiate between network security and wireless network security. Explain each with the help of real life scenarios.	2	CO1	L2,L3	1.2.1

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	A(3)	What are the difference between Morris Worm and Mellissa Worm? Explain in detail.	2	CO1	L1,L2	1.4.1
	A(4)	Explain the difference between Denial of Service Attack and Man In The Middle attack with the help case study.	2	CO1	L2,L3	2.2.1
	A(5)	What is Distributed Denial of Service attack? How it affects the systems performance?	2	CO1	L1,L2	2.2.1
PART-B	B(1)	What do you understand by Email Encryption? Explain with the help of example.	2	CO2	L1,L2	1.2.1
	B(2)	Write a short note on SMTP, HTTP, HTTPS FTP, SSH, SSL, TCP and UDP with port number?	2	CO2	L1,L2	1.2.1
	B(3)	Define Mobile device security. Explain with the help of case study.	2	CO2	L1,L2	2.2.1
	B(4)	What do you understand by intrusion prevention systems intrusion detection systems? Explain both with the help of case study.	4	CO2	L2, L3	1.2.1
PART-C	C(1)	What do you understand common lower-layer protocols and common upper-layer protocols? Explain both with the help of real world scenarios.	10	CO3	L2, L3	2.2.1
	C(2)	Describe in brief about Access control. What do you understand by one factor authentication, two factor authentication and multifactor authentication? Explain each with the help of real life scenarios.	10	CO3	L3, L4	1.2.1
	C(3)	Define open systems interconnection layer. Explain each layer with the help	10	CO3	L2, L3	2.2.1

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		of diagram. What are the difference between TCP/IP model and OSI model explain with the help of real life scenarios.				
	C(4)	What do you understand by proxy? Discuss the advantages and disadvantages of configuring the proxy with the help of example and also mention the few tools that can be used for setting up.	10	CO3	L2, L3	1.2.1
PART-D	D(1)	Define scanning. Explain different types of Scanning and Analysis tools available. Describe in brief Port Scanners with help of example.	10	CO4	L1, L2	2.2.1
	D(2)	How we can enhance the network security with respect to network physical devices and software's (tools, updates and patches) explain in points.	10	CO4	L2, L3	2.1.1
	D(3)	Tina used their Microsoft account on a lab computer. She made sure her account was no longer open in the browser before leaving the lab. Someone came in behind her and used the same browser to re-access her account. How it was possible?	10	CO4	L3, L4	2.1.1
	D(4)	A cousin sent an electronic e-greeting card to your work email. You need to click on the attachment to see the card. What will be your response?	10	CO4	L3, L4	1.4.1

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NAAC ACCREDITED 'A' GRADE INSTITUTION)

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"T3 Examination, Dec. -2022"

SEMESTER	5th	DATE OF EXAM	16/12/22
SUBJECT NAME	Advanced Database Management Systems	SUBJECT CODE	CSH304B-T
BRANCH	Comp. Sc. & Engg.	SESSION	I
TIME	3 hrs.	MAX. MARKS	100
PROGRAM	B. Tech.	CREDITS	3
NAME OF FACULTY	Pramneet Kaur	NAME OF COURSE COORDINATOR	Pramneet Kaur

Note: *All questions are compulsory.*

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART A	1(A)	Differentiate between ER-Model and Object-oriented Model with the help of an example	5	CO1	BT1,BT2, BT3	1.1.2
	1(B)	Construct an E-R diagram for a hospital with a set of patients and a set of medical doctors. Associate with each patient a log of the various tests and examinations conducted.	5	CO1	BT1,BT2	1.1.1
PART B	2(A)	Explain Two-tier and three tier architecture with suitable example.	5	CO2	B1,BT3	1.2.1
	2(B)	Given a relation R(P, Q, R, S, T, U) and Functional Dependency set FD = { PQ → R, SR→ PT, T → U }, determine given R is in which normal form?	5	CO2	BT2,BT3	1.3.1
PART C	3(A)	What are Reliability and Commit Protocol, Fragmentation and distribution. Explain	10	CO3	BT1,BT2 BT3	1.3.1
	3(B)	Differentiate between the following a) Parallel and Distributed Databases b) Federated and Unfederated Database design	10	CO3	BT1,BT3	1.3.1
	4(A)	What are the points of comparison between Deductive and Non	10	CO3	BT1,BT2	1.3.1

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		deductive databases. Discuss the features of Parallel databases architecture and draw comparison between Deductive and Parallel databases				
	4(B)	Discuss the following: a) Prolog Notation b) Data log Notation c)Clausal Form d) Horn Clauses	10	CO4	BT2	2.1.2
PART D	5(A)	Explain with example the Multimedia Database Architecture	10	CO4	BT2	2.1.2
	5(B)	Discuss the Spatial Data Model, Components and characteristics	10	CO4	BT2	2.1.2
	6(A)	What is Digital Library and their components? Discuss the advantages and disadvantages. Compare them with traditional libraries	10	CO4,CO5	BT2	2.1.3
	6(B)	Discuss the components, characteristics, merits and demerits of Temporal Databases	10	CO5	BT1,BT2	2.3.1
		********** END **********				

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Semester Examination, Dec-2022"

SEMESTER	Vth	DATE OF EXAM	16.12.2022
SUBJECT NAME	SOFTWARE PROJECT MANAGEMENT	SUBJECT CODE	CSH307B-T
BRANCH	CSE	SESSION	9AM-12PM
TIME	3Hrs	MAX. MARKS	75
PROGRAM	CSE	CREDITS	4
NAME OF FACULTY	Mr. Agha Imran	NAME OF COURSE COORDINATOR	Mr. Agha Imran

Note: Attempt all questions.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	Q1.	What you understand by work break structure (WBS)? What are the various types of WBS? What is the role of WBS directory and what the contents of it? Explain. Draw product breakdown structure and product flow diagram for online ticket reservation.	15	CO1	BT2, BT3	2.2.2
PART-B	Q2.	The following details are available regarding a project:	15	CO1	BT3	2.2.2

Activity	Predecessor Activity	Duration (Weeks)
A	-	3
B	A	5
C	A	7
D	B	10
E	C	5
F	D,E	4

Determine the critical path, the critical activities and the project completion time.

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PART-C	Q3 (A)	What would be the basic COCOMO equations form? A project size of 500 KLOC is to be developed. Software development team has average experience on similar type of projects. The project schedule is not very tight. Calculate the Effort, development time, average staff size, and productivity of the project.	15	CO2	BT3	3.2.2
	Q3 (B)	Define contract management, What are the advantages & disadvantages of fixed price contracts?	10	CO3	BT2	3.2.4
PART -D	Q4 (A)	Differentiate between Six Sigma and CMM model, what are their consideration factors?	10	CO4	BT2	4.1.2
	Q4 (B)	Define the Characteristics of software quality and explain the ISO 9126 related to it. What are the areas for which it is used?	10	CO5	BT2	4.2.2

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"T3 Examination, Dec. -2022"

SEMESTER	5th	DATE OF EXAM	16/12/2022
SUBJECT NAME	System & N/w Admin.	SUBJECT CODE	CSH306B-T
BRANCH	CSE/AIML/CDA/CSTI	SESSION	I
TIME	3 hr.	MAX. MARKS	75
PROGRAM	B. Tech.	CREDITS	4
NAME OF FACULTY	Narender	NAME OF COURSE COORDINATOR	Narender

***Note:** All questions are compulsory.*

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART A	1(A)	Differentiate the tasks and responsibilities of System administrator and Network administrator.	5	CO1	BT1	1.1.1
	1(B)	What are various file system and standards. Explain in detail.	10	CO1	BT2	1.1.2
PART B	2(A)	What is process? Explain UNIX process model.	5	CO2	BT2	1.3.1
	2(B)	What do you mean by Redundant array of independent disks? Explain in brief.	5	CO2	BT2	1.4.1
PART C	3(A)	An ISP is granted a block of addresses starting with 190.100.0.0/16 (65,536 addresses). The ISP needs to distribute these addresses to three groups of customers as follows: a. The first group has 64 customers; each needs 256 addresses. b. The second group has 256 customers; each needs 64 addresses. c. The third group has 128 customers; each needs 64 addresses. Design the sub-blocks and find out how many addresses are still available after these allocations	15	CO3	BT3	2.1.3

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	3(B)	Explain the concept of routing. Differentiate the inter-domain and intra-domain routing in detail.	10	CO3	BT2	1.1.2
PART D	4(A)	Security is a major concern today. How can a system or Network administrator can help in this? Explain different backup methods also.	10	CO4	BT2	2.1.1
	4(B)	Explain system tools and GUI tools in detail.	10	CO4	BT2	1.4.1
	4(C)	Write short notes on any one: a. Patches b. TCP wrappers	5	CO4	BT2	2.1.1
********** END **********						

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DEPARTMENT OF Computer Science & Technology

"End Term Examination,Dec-2022"

SEMESTER	5th(CDA/CSTI)/7th(DSML)	DATE OF EXAM	19.12.2022
SUBJECT NAME	THEORY OF AUTOMATA AND COMPILER DESIGN	SUBJECT CODE	CSE 311B-T
BRANCH	CST	SESSION	MORNING
TIME	9:00-12:00	MAX. MARKS	100
PROGRAM	BTECH	CREDITS	4
NAME OF FACULTY	DEEPANSHI GUPTA	NAME OF COURSE COORDINATOR	DEEPANSHI GUPTA

Note: Part A : All questions are compulsory.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	Q1	Define Grammar with example. Design the PDA which recognize the string of the tape $L = \{ a^n b^{2n} \mid \Sigma=\{a,b\}\}$	10	CO2,CO3	BT1,BT2	1.3.2
PART-B	Q2	Define NFA and DFA. Design a Turing machine that accepts all strings consisting of even numbers of 1's	10	CO1, CO3	BT1,BT2	2.3.1
PART-C	Q3	What is first and follow? Why it is important in compiler Design? Justify your answer with example. Construct parsing table for LR(0) items for the following grammar. S-> Aa | bAc | dc | bda A->d	20	CO4	BT2	2.2.2
	Q4	Show that the following grammar S→ AaAb | BbBa A → ϵ B → ϵ is LL(1) but not SLR(1)	10	CO4	BT3	2.3.1
	Q5	Explain rules to eliminate left recursion with example. Also explain left factoring in detail with example.	10	CO4	BT1	1.3.1
P	Q6	Develop a syntax directed definition for the grammar. Draw an annotated parse tree for	15	CO5	BT2	2.3.1

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A		the input expression: (3*2+2)*4				
R T- D	Q7	Explain Peephole Optimization in detail.	10	CO5	BT1	1.1.1
	Q8	(a) Discuss synthesized and inherited attributes using a suitable grammar. (b) What is intermediate code? What is its importance? Discuss various representations of three address code.	15	CO5	BT1	1.3.1.

********** END **********

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

END SEMESTER (Dec 2022)

FACULTY NAME: Dr Neelu Chaudhary			**NAME OF COURSE COORDINATOR: Dr Neelu Chaudhary**		
COURSE NAME: Data Structures	**COURSE CODE: CSH210B-T**	**CREDIT: 03**	**MAX. MARKS: 50**	**TIME DURATION: 2:00 hrs**	**DATE OF EXAM: 17-12-2022**
PROGRAM: B.Tech ME-SMA		**SEMESTER: 5th**			

Note: All Questions are Compulsory.

Part	Q.NO	QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
A	1	Consider the linear arrays XXX(0:10) and YYY(1935:1985). a) Find the number of elements in each array. b) Suppose Base(YYY)=400, and w=4 words per memory cell for YYY, Find the address of YYY[1942], and YYY[1988].	5	CO1	BT3	1.4.1
B	2	Write an algorithm to insert element in linked list.	5	CO2	BT2	1.4.1
C	3a	Write an algorithm to push elements in stack.What will be the value of top when there are 5 elements in stack.	5	CO1, CO3	BT3	1.4.1
	3b	Find the value of the postfix expression :- ABCD ^*- (IF A = 150, B=10, C=2 D=3)	5	CO1, CO3	BT3	1.4.1
	4a	Write an algorithm to delete an element from a queue implemented through array.What will be the value of Front and Rear when queue is completely filled/empty	5	CO1, CO3	BT3	1.4.1
	4b	Suppose a queue is maintained by a circular array QUEUE with N=12 memory cells. Find the number of elements in QUEUE if i) FRONT=4, REAR=8; ii) FRONT=10,REAR=3	5	CO3	BT3	1.4.1
D	5a	A binary tree T has 9 nodes. The inorder and preorder traversals of T yield the following sequences of nodes: Inorder:- D H B E A F C I G Postorder:- H D E B F I G C A	5	CO1,CO4	BT3	1.4.1
	5b	What is binary search tree.Construct a bst using following nodes. 10 8 15 25 22 30	5	CO4	BT4	1.4.1
	6a	Write breadth first search algorithm/steps to search an element in a tree.	5	CO1,CO4	BT2	1.4.1
	6b	Calculate the total number of edges in a complete a) directed graph and b)undirected graph when the number of connected nodes is 12.	5	CO4	BT3	1.4.1
		Total Marks	**50**			

END

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MANAV RACHNA Vidyaparishad

MANAV RACHNA UNIVERSITY
Declared as State Private University vide Haryana Act 26 of 2014

DEPARTMENT OF CST

"End Term Examination, Dec-2022"

SEMESTER	**5**	**DATE OF EXAM**	**17/12/2022**
SUBJECT NAME	**Green Computing**	**SUBJECT CODE**	**CSS325B-T**
BRANCH	**CSE / AIML / CDA / CSTI**	**SESSION**	**II**
TIME	**1 ½ hours**	**MAX. MARKS**	**25**
PROGRAM	**B Tech**	**CREDITS**	**2**
NAME OF FACULTY	**Dr. Sachin Lakra Mr. Sanjay Kumar Mr. Narender**	**NAME OF COURSE COORDINATOR**	**Dr. Sachin Lakra**

Note: Part A : All questions are compulsory.
Part B : All questions are compulsory.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	1(A)	Define recycling.	2	CO5	BT2	7.2.2
	1(B)	Name any 2 toxins found in a computer.	2	CO1	BT1	7.1.1
	1(C)	State 2 properties of energy-efficient software.	2	CO5	BT2	7.1.2
	1(D)	Name any 2 global centers of e-waste disposal.	2	CO2	BT1	7.2.1
	1(E)	Give 2 differences between green computing and sustainability.	2	CO1	BT2	7.1.1
PART-B	Q2	What is E-waste? What are the various types of e-waste being produced by human beings? Suggest one way each for processing each of the types of e-waste you have mentioned.	1+2+2	CO1	BT3	1.3.1 6.1.2
	Q3	What is the purpose of a data center? What should be the strategy which should be followed by a company such as Google to make one of its data centers green?	2+3	CO3	BT3	7.2.2
	Q4	Differentiate between telecommuting and outsourcing. What advantages have been observed for the environment due to "Work from Home" during the Covid lockdown?	2+3	CO4	BT3	2.2.4 7.2.2

********** END **********

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MANAV RACHNA

MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

Semester: 5 | Subject: PCE-III | NAME:.....
Subject Code: CDO301 | Time: 60 Mins | Roll No:.....
Max Marks: 50 Session - II | Dt. 14/12/2022 | Branch: CST/ME/ECE

Instructions: All questions are compulsory. Each question carries multiple options.

No negative marking. Calculator is not allowed. ***Answers are to be filled in the answer table only.***

Answers written outside the answer table won't be considered.

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

1. A man sitting in a train travelling at the rate of 100 km/hr observes that it takes 18 seconds for a goods train travelling in the **opposite** direction to pass him. If the goods train is 375 m long, find its speed?
A. 25 kmph B. 40 kmph C. 35 kmph D. 36 kmph

2. Two trains, 130 m and 110 m long, are going in the same direction. The faster train takes one minute to pass the other completely. If they are moving in opposite directions, they pass each other completely in 3 seconds. Find the speed of the faster train?
A. 38 m/s B. 46 m/s C. 42 m/s D. None of these

3. Two trains running in opposite directions cross a man standing on the platform in 54 seconds and 34 seconds respectively and they cross each other in 46 seconds. The ratio of their speeds is?
A. 1 : 3 B. 3 : 2 C. 3 : 4 D. None of these

4. A boat running upstream covers a distance of 10 km in 30 minutes and while running downstream, it covers the same distance in 25 min. What is the speed of the river current (in kmph)?
A. 2.5 kmph B. 2.2 kmph C. 2 kmph D. Can't say

5. Ram goes downstream from one port to another in 4 h. He covers the same distance upstream in 5 h. If the speed of the stream is 2 km/h, find the distance between the two ports?
A. 50 km B. 60 km C. 70 km D. 80 km

6. Two boats, travelling at 7 km/h and 8 km/h, head directly towards each other. They begin at a distance of 20 km from each other. How far apart are they (in km) one minute before they collide?
A. 1/12 km B. 1/6 km C. 1/4 km D. 1/3 km

7. At his usual rowing rate, Mohit can travel 12 miles downstream in a certain river in six hours less than it takes him to travel the same distance upstream. But if he could double his usual rowing rate for this 24 mile round trip, the downstream 12 miles would then take only one hour less than the upstream 12 miles. What is the speed of the current in miles per hour?
A. 7/3 B. 4/3 C. 5/3 D. 8/3

8. A boat's speed in still water is 15 km/h. While river is flowing with a speed of 6 km/h and time taken to cover a certain distance upstream is 2 h more than time taken to cover the same distance downstream. Find the distance?
A. 30.5 km B. 31 km C. 31.5 km D. 32 km

9. To complete a work, A and B take 30 days, B and C take 24 days, and C and A take 20 days. They all start together and work for 5 days after which B and C leave. How many days will A take to finish the remaining work?
A. 11 B. 28 C. 33 D. 18

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10. A can do a job in 20 days, B in 30 days and C in 60 days. If A is helped by B and C every 3rd day. How long will it take for them to complete the job?

A. 12 days B. 4 days C. 15 days D. 18 days

11. If a soldier fires 7 shots from a gun in 12 minutes then find the total number of shots fired by the man in 3/2 hrs.

A. 45 B. 44 C. 46 D. 47

12. A woman fills a bucket in 6 minutes. 1845 buckets have to be filled from 8 am. to 9:30 am. How many woman employees should be employed for this task?

A. 111 B. 117 C. 139 D. 123

13. A group of men decided to do a job in 4 days. But since 20 men dropped out every day, the job completed at the end of the 7th day. How many men were there at the beginning?

A. 240 B. 140 C. 280 D. 150

14. C is twice efficient as A, B takes thrice as many days as C. A takes 12 days to finish the work alone. If they work in pairs (i.e., AB, BC, CA) starting with AB on the first day then BC on the second day and AC on the third and so on, then how many days are required to finish the work?

A. 6 (1/5) B. 4.5 C. 8 D. 5 (1/9)

15. The work done by a man, a woman and a child is in the ratio of 3 : 2 : 1. There are 20 men, 30 women and 36 children in a factory. Their weekly wages amount to Rs 780, which is divided in the ratio of work done by the men, women and children. What will be the wages of 15 men, 21 women and 30 children for 2 weeks?

A. Rs 1170 B. Rs 292.5 C. Rs 585 D. Rs 900

16. P can complete a work in 12 days working 8 hours a day. Q can complete the same work in 8 days working 10 hours a day. If both p and Q work together, working 8 hours a day, in how many days can they complete the work?

A. 60/11 B. 61/11 C. 71/11 D. 72/11

Directions (17-21): Study the following table carefully to answer the given questions

Classification of 50 Students based on the marks obtained by them in Quants & Reasoning in Prelim exam

	Mark Out of 100				
Subject	**80 and above**	**70 and above**	**50 and above**	**30 and above**	**0 and above**
Quants	23	28	37	43	50
Reasoning	12	32	35	39	50
Average(Aggregate)	15	22	38	40	50

17. The number of students scoring less than 30% marks in aggregate is?

A. 15 B. 2.5 C. 20 D. 10

18. If it is known that at least 20 students were eligible for main exam, then the minimum qualifying marks in Reasoning for eligibility to attend the main exam(Top 20 students only can attend main exam)?

A. 70-80 B. above 80 C. 70-60 D. 50-70

19. The percentage of number of students scored 70% marks in Quants is what percentage of number of students scored 30% marks in aggregate?

A. 60% B. 70% C. 50% D. 75%

20. If at least 50% marks in aggregate are required for interview, how many students will be eligible to attend interview?

A. 50 B. 40 C. 20 D. 38

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21. What is the different between the number of students passed with 80 as cut-off marks in Quants and 30 as cut-off marks in aggregate together to no of students passed with 70 as cut-off marks in aggregate and 50 as cut off in Reasoning?

A. 11 B. 5 C. 8 D. 6

Direction (22-24) Study the following information carefully to answer the given questions

'Online tests for IT Company interview' is written as ' 54 260 120 101 308'

'Questions for the Interview' is written as ' 54 90 120 213'

'Prepare for the Interview test' is written as ' 156 54 260 90 120'

'Interview for IT company' is written as ' 120 308 54 210'

22. What is the code for 'test' in the given code language?

A. 120 B. 260 C. 101 D. 308

23. 308 is the code for which of the following?

A. Interview B. IT Company C. Online D. for

24. What is the code for 'prepare questions for test'?

A. 120 54 101 54 B. 260 308 54 120 C. 90 120 101 213 D. 156 213 54 260

25. If 3rd December, 1990 is Sunday, What day is 3rd January 1991?

A. Sunday B. Monday C. Tuesday D. Wednesday

26. What was the day of the week on 28th May, 2006?

A. Sunday B. Friday C. Wednesday D. Tuesday

27. On 8th Dec, 2007 Saturday falls. What day of the week was it on 8th Dec, 2006?

A. Saturday B. Friday C. Monday D. Tuesday

28. A clock is set right at 8 a.m. The clock gains 10 minutes in 24 hours will be the true time when the clock indicates 1 p.m. on the following day?

A. 48 min. past 12. B. 46 min. past 12. C. 45 min. past 12. D. 47 min. past 12.

29. Find the angle between the hour hand and the minute hand of a clock when the time is 3.25

A. 47.5 degrees B. 57.5 degrees C. 45.5 degrees D. 55.5 degrees

30. An accurate clock shows 8 o'clock in the morning. Through how may degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon?

A. 360 B. 180 C. 90 D. 60

31. Though the raids on Spanish ships and towns were on a small scale, Sir Francis Drake achieved _____ success, adding gold and silver to England's treasury and diminishing Spain' s supremacy.

A. Insignificant B. Temporary C. Significant D. Ineffective

Choose a synonym for the word in BOLD in the following sentences:

32. If you don't **curtail** your spending, you'll be broke in no time at all.

A. Reduce B. Follow C. Behind D. Buy

33. We have rather **lofty** expectations for you, son! You will attend college, become rich and famous, and be elected as President of the United States before you turn forty.

A. High B. Shaky C. Small D. Lowly

34. How can we **concentrate** on serious issues if you keep dragging us towards the petty issues?

A. Improved B. Healthy C. Focus D. Happy

Directions for questions 35-38: Spot the part of the sentence that contains an error. Mark option D if there is no error.

35. A. A big bouquet of flowers B. were given to the chief guest, who
C. arrived at the venue. D. No error.

36. A. Why do we insist on using B. accessories made from leather
C. when we know that animals suffer because of this? D. No error.

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37. A. A farmer who owns cows B. is considered poorer than a farmer
C. who owns sheeps. D. in this part of the country.

38. A. Strong winds and heavy rains B. are likely to make life miserable
C. as an aftermath of hurricane Katrina. D. no error.

Choose the correct options:

39. Every pale tomato slice, wilted pickle, and brown lettuce leaf _____ an extra 25 cents at Bernie's Burger Emporium.

A. Costs B. Cost C. Costed D. Had cost.

40. The Smiths, along with Tonya, _____ to avoid indigestion after eating these weird muffins.

A. Hopes B. Hope C. Hoped D. Had hoped

41. Grandpa claims that Martian measles _____ green and purple spots to erupt all over a person's body.

A. causes B. cause C. will cause D. had caused

42. Each of these women _____ that she had read the care instructions before washing the delicate and expensive dresses.

A. wishes B. wish C. wished D. would wish

Are the modifiers in these sentences correct or misplaced?

43. Place the plate in front of the diner with the meat, not the vegetables, facing the person.

A. Correct B. Misplaced C. Can't say D. None of these

44. We had almost thrown all our snowballs when our fort was charged by two frenzied redheads from the opposing team.

A. Correct B. Misplaced C. Can't say D. None of these

45. The computer system almost cost $2,000, but Michel had enough money saved from his fire-eating gigs to pay the bill in full.

A. Correct B. Misplaced C. Can't say D. None of these

Choose the correct options from the options given below:

46. The employee thought that the CEO _____.

A. cheating B. is cheat C. cheated D. had cheated

47. See, how beautifully they _____

A. are dancing B. is dancing C. are danced D. have dancing

48. The train _____ when I arrived at the station.

A. is just left B. is just leaving C. had just left D. has just left

49. She _____ two miles before reaching the post office.

A. will have jogged B. will have jog C. will had jogged D. will jogged

50. This servant ..... (work) with us for ten years.

A. works B. has been working C. is working D. does work

Director CDC

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MANAV RACHNA

MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

Semester: 5
Subject Code: CDS305B
Max Marks: 50

Subject: PDP V
Time: 60 Mins

NAME:.....
Roll No:.....
Branch: FAA/EFB/HCM/BA/GOM

Instructions: All questions are compulsory. Each question carries multiple options. No negative marking. ***Answers are to be filled in the answer table only.***

Answers written outside the answer table won't be considered.

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Choose the correct option in the following

1. In a group discussion , one must communicate with
   A. Hostility B. Ignorance C. Knowledge D. Arrogance
2. Which of these must be avoided in a group discussion
   A. Speaking Facts B. Asking questions C. Speaking with clarity D. Deviating from the topic
3. In a group discussion a person who begins the discussion is called
   A. Initiator B. Starter C. Beginner D. Moderator
4. Which of the following is more interactive and solution oriented
   A. Seminar B. Chalk board instruction
   C. Lecture D. Group Discussion
5. The best way to apply for a job is to submit a resume that is
   A. Suitable for any job B. Self-recommending
   C. Specifically written for a particular job D. Personal information only
6. The application letter and the resume perform
   A. Two different tasks B. Overlapping tasks C. The same task D. Two opposite tasks
7. The résumé of a fresh graduate is generally
   A. One page long B. Two pages long C. Half a page D. Three pages long
8. The cover letter is
   A. A foreword B. A summary of your qualifications and experiences
   C. A description of your core strengths and suitability for the job D. A statement of your job objective
9. A summary placed at the beginning of the resume acts as a
   A. synopsis B. Career objective C. Preface D. Letter of recommendation
10. In an interview when you do not know an answer, you should
    A. Keep guessing B. Bluff C. Admit that you do not know the answer D. Remain quiet

Fill up the blanks with appropriate option.

11. The teacher _____ completed this chapter.
    A. have B. has C. is D. are
12. Ram and Shyam _____ business partners.
    A. have B. has C. are D. had
13. She _____ her office by 9 a.m. daily.
    A. reach B. reaches C. reached D. reaching
14. Rahul and his friends _____ also invited to the party.
    A. is B. was C. had D. were

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15. A bouquet of flowers ---------- required for the event.

A. are B. have C. has D. is

16. Twenty years _____ the minimum age to fill this form.

A. are B. is C. has D. have

17. Much ---------- been said in the news reports.

A. were B. have C. has D. was

18. Either of the two dresses shall _____ good

A. looking B. look C. looks D. looked

Choose the correct option

19. At the time of interview, jewellery should be kept to a minimum

A. True B. False C. Can't say D. None of these

20. We should be aware of all the following grooming tips, except for

A. face should be clean or well-maintained.

B. brush your teeth and have fresh breath

C. firm handshake as the best gesture for good impression

D. hands and nails should be well maintained.

21. What should not be included in your self- introduction

A. Very personal Information B. Your weakness C. Your failures D. All of the above

22. Shoes for both men and women should be:

A. Steel-toed for protection B. Open-toed for comfort C. Brightly colour D. Clean and polished

23. Time management refers to a range of skills, tools, and techniques used to manage time when accomplishing specific tasks, projects, and goals.

A. True B. False C. Can't Say D. None of these

24. Which word means- " the time by which something must be completed"?

A. Chore B. Consequence C. Goal D. Deadline

25. Using a planner or making a "to-do" list every day.

A. Is a waste of paper B. Helps keep things "in sight, in mind

C. Takes too long to fill out D. None of the above

26. To spend your time productively, you need to have set some

A. Possibilities B. Ideas C. Boundaries D. Goals

27. Efficient time management includes

A. Doing the best tasks first, and the worst tasks last

B. Having a very structured schedule and not leaving any room to be flexible

C. Being flexible

D. Doing the worst tasks first while you're alert and not tired

28. For a student, time management in college would mean

A. You have to learn to manage your extra time more efficiently.

B. You have limited time in hand

C. You have too many activities at a time in hand

D. All of the above are true.

29. Using spare time wisely includes limiting the time you spend on the internet, using a cell phone, etc..

A. True B. False

30. What is NOT included in the body language?

A. Body movements B. Listening C. Gestures D. Facial expressions

31. Body language can communicate

A. Feelings B. Intentions C. Emotions D. All of these

32. A head positioned forward facing someone indicates

A. Interest B. Superiority C. Disrespect D. Disinterest

33. What should not be done at the time of interview?

A. Reaching late B. Misquoting facts

C. Going unprepared D. All of the above

6.04

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34. What should you do while preparing for an interview?

A. Research the company
B. Learn the company's vision and mission
C. Practice top interview questions and answers
D. All of the above

35. Who should be greeted in a friendly and respectful manner?

A. The receptionist
B. The secretary
C. The Interviewer
D. All of the above

36. When answering interview questions, it is important to

A. Be specific
B. Be general
C. Stretch the facts to look good
D. Misquoting facts

37. In every answer you give, the employer is looking for

A. How you will save them time
B. How you will save them money
C. How you will solve their problem(s)
D. All of the above

38. Which of the following is not a step in the preparation of an interview?

A. Analyzing Yourself
B. Identifying your skills
C. Being negative
D. Revising your subject

39. At the start of an interview, you should

A. Try to find common interests.
B. Look around the office for things.
C. Greet the interviewer with a smile.
D. All of the above

40. While attending the online interview you should not

A. Dress casually
B. Keep your camera on
C. Keep the microphone off
D. should be sitting at a well-lit place and attend

41. Interviews are conversations with

A. Fun
B. Purpose
C. Friendliness
D. Informality

42. Which of these is not a type of interview?

A. Screening interview
B. Stress interview
C. Music interview
D. Lunch interview

43. The best way to dress to impress for the interview is to

A. Wear jeans and T-shirt
B. Wear a jogging suit wear
C. A business suit
D.It doesn't matter what you wear

44. Gesture, posture, eye contact are examples of communication that is

A. Verbal
B. Non- verbal
C. Aggresive
D. Polite

45. "You should be authentic in an interview" means to be

A. False
B. Invalid
C. surprising
D. Realistic

46. Before your interview in a company you should

A. Sit Idle
B. Get worked up
C. Research
D. None of the above

46. Should you answer interview questions in complete sentences or give one word answer?

A. Complete sentences
B. One word answers
C. Both
D. Neither

47. Which of the following is not the part of a resume ?

A. Religious affiliation
B. Employment History
C .Contact Information
D. Education

48. Which of the following is the safest email address style to use on your resume?

A. lovin _ladies 123@emailprovider.com
B. j_smith@emailprovider.com
C. party all the time@emailprovider.com
D. none of these

49. Which of the following methods is the best to know more about the person and his/ her fitment for a role?

A. Observation
B. Interview
C. Case Study
D. Survey Method

50. What is the rule to decide the colour of the belt (for men)?

A. always wear black
B. the belt should match the colour of the shoe
C. the belt should match the colour of trousers
D. the belt should match the colour of the tie

605

Dy. Director
CDC

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MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

Semester: 5
Subject Code: CDO303
Max Marks: 50

Subject: Career Skills-II
Time: 60 Mins
Date: 17/12/2024

NAME: .....
Roll No: .....
Branch: Phy/Chem/Maths

Session - II

Instructions: All questions are compulsory. Each question carries multiple options. No negative marking. Calculator is not allowed. ***Answers are to be filled in the answer table only. Answers written outside the answer table won't be considered.***

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

1. If a bus travels 320 km in 8 hrs and a train travels 640 kms in 10 hours at uniform speed, then what is the ratio of distance travelled by them in one hour? 1

A. 8 : 5 B. 5 : 8 C. 4 : 5 D. 1 : 2

2. Mohan reaches his factory 3 minutes late if his speed from his house of the factory is 5 km/hr. If he walks at a speed of 6 km/hr, then he reaches the factory 7 minutes early. The distance of the factory from his house is?

A. 6 km B. 5 km C. 7 km D. 8 km

3. If a train runs at 20 km/hr, it reaches its destination late by 22 min. but if it runs at 30 km/hr it is late by 10 min. only. The correct time for the train to complete its journey is?

A. 14 min. B. 10 min. C. 19 min. D. 21 min.

4. A person crosses a 1200 m long street in 10 minutes. What is his speed in kmph?

A. 3.6 kmph B. 7.2 kmph C. 8.4 kmph D. 10 kmph

5. A train covers a distance in 50 minutes, if it runs at a speed of 48 kmph on an average. The speed at which the train must run to reduce the time of journey to 40 mints is?

A. 70 kmph B. 60 kmph C. 55 kmph D. 65 kmph

6. A car travels the first one-third of a certain distance with a speed of 10 km/hr, the next one-third distance with a speed of 20 km/hr and the last one-third distance with a speed of 60 km/hr. The average speed of the car for the whole journey is?

A. 18 kmph B. 24 kmph C. 30 kmph D. 36 kmph

7. A train travels at a certain average speed for a distance of 63 km and then travels a distance of 72 km at an average speed of 6 kmph more than its original speed. If it takes 3 hours to complete the total journey, what is the original speed of the train in kmph? 1

A. 24 kmph B. 33 kmph C. 42 kmph D. 66 kmph

8. If a flight of 600 km an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 kmph and the time of flight increased by 30 minutes. The duration of the flight is?

A. 1 hr B. 2 hr C. 3 hr D. 4 hr

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9. A car covers four successive 6 km stretches at 20 km/hr, 40 km/hr, 60 km/hr and 80 km/hr respectively. Its average speed over this distance is?

A. 20 kmph B. 30 kmph C. 35.5 kmph D. 40 kmph

10. M, N and O can complete the work in 18, 36 and 54 days respectively. M started the work and worked for 8 days, then N and O joined him and they all worked together for some days. M left the job one day before completion of work. For how many days they all worked together?

A. 4 B. 5 C. 3 D. 6

11. Paul and Bipin together can do a piece of work in 8 days. If Paul alone can do the same work in 12 days, then Bipin alone can do the same work in?

A. 20 days B. 16 days C. 24 days D. 28 days

12. To complete a work, a person Ram takes 10 days and another person Bikas takes 15 days. If they work together, in how much time will they complete the work?

A. 2 days B. 6 days C. 4 days D. 8 days

13. Two friends Aman and Raghav working together can complete an assignment in 4 days. If Aman can do the assignment alone in 12 days, in how many days can Raghav alone do the assignment?

A. 2 days B. 6 days C. 4 days D. 8 days

14. P can do a piece of work in 4 days. Q can do it in 5 days. With the assistance of R they completed the work in 2 days. Find in how many days can R alone do it?

A. 10 days B. 20 days C. 5 days D. 4 days

15. After working for 6 days, Ashok finds that only $1/3^{rd}$ of the work has been done. He employs Ravi who is 60% as efficient as Ashok. How many days more would Ravi take to complete the work?

A. 19 days B. 10 days C. 20 days D. 12 days

16. Three taps A, B and C can fill a tank in 12, 15 and 20 hours respectively. If A is open all the time and B and C are open for one hour each alternately, the tank will be full in:

A. 20/3 hours B. 6 hours C. 15/2 hours D. 7 hours

17. A large tanker can be filled by two pipes A and B in 60 minutes and 40 minutes respectively. How many minutes will it take to fill the tanker from empty state if B is used for half the time; A and B fill it together for the other half?

A. 15 min B. 20 min C. 27.5 min D. 30 min

18. Three pipes A, B and C can fill a tank in 6 hours. After working at it together for 2 hours, C is closed and A and B can fill the remaining part in 7 hours. The number of hours taken by C alone to fill the tank?

A. 10 B. 12 C. 14 D. 16

19. Two pipes can fill a tank in 25 and 30 minutes respectively and a waste pipe can empty 3 gallons per minute. All the three pipes working together can fill the tank in 15 minutes. The capacity of the tank is:

A. 250 gallons B. 450 gallons C. 120 gallons D. 150 gallons

20. Two pipes P and Q can fill a tank in 15 minutes and 40 minutes respectively. Both the pipes are opened together but after 4 minutes, pipe P is turned off. What is the total time required to fill the tank?

A. 10 min 10 sec B. 25 min 20 sec C. 29 min 20 sec D. 20 min 10 sec

21. If in a certain language, COUNSEL is coded as BITIRAK, how is GUIDANCE written in that code?

A. OHYFZJBB B. OFHBJZYB C. BJZYBHFO D. FOHYZJBB

22. If in a certain code, TWENTY is written as 863985 and ELEVEN is written as 323039, how is TWELVE written in that code?

A. 203863 B. 368302 C. 863203 D. 320368

23. In a certain code language, '851' means 'good sweet fruit', '783' means 'good red rose' and '341' means 'rose and fruit'. Which of the following digits stands for 'sweet' in that language?

A. 2 B. 3 C. 4 D. 5

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24. In a certain code language, 'col tip mot' means 'singing is appreciable', 'mot baj min' means 'dancing is good' and 'tip nop baj' means 'singing and dancing' , then, which of the following means 'good' in that code language ?

A. Mot B. Baj C. Min D. Nop

25. If DELHI is coded as CCIDD, how would you encode BOMBAY?

A. AJMTVT B. AMJXVS C. MJXV5U D. WXYZAX

26. If in a certain language, SHIFT is coded as RFFBO, which word would be coded as LKUMB?

A. MMXQG B. MLVNC C. KJVLA D. MJVLC

27. In a certain code, RIPPLE is written as 613382 and LIFE is written as 8192. How is PILLER written in that code?

A. 318826 B. 318286 C. 618826 D. 338816

28. If PALAM could be given the code number 43, what code number can be given to SANTACRUZ?

A. 75 B. 85 C. 120 D. 123

29. If 'gnr tag zog qmp' stands for 'Seoul Olympic Organising committee', 'hyto gnr emf' stands for 'summer Olympic games' and 'esm sdr hyto' stands for 'modern games history', what would be the code for 'summer'?

A. hyto B. gnr C. emf D. zog

30. If Z = 52 and ACT = 48, then BAT will be equal to

A. 39 B. 41 C. 44 D. 46

Direction (31-35) Choose the correct form of Verb that is in agreement with the subject-

31. She _____ her office by 9 a.m. daily.

A. reach B. reaches C. reached D. reaching

32. The information which _____ obtained from the business owners_____relevant to be included in the study.

A. has, is B. had. has C. has, have D. is , is

33. The student or the committee members _____everyday and each of the members _____most welcome for that.

A. write, are B. write, is C. writes, is D. write, were

34. Shubham as well as his brothers _____coming today.

A. are B. had been C. is D. have been

35. Prachi is one of the students who _____passed the exam.

A. have B. has C. had been D. would have

Direction (36-39) Choose the correct answer from the options given below-

36. Why _____, you should be listening to me?

A. you talk B. you are talking C. do you talk D. are you talking

37. You_____ into things and break them. How can someone be so clumsy?

A. are always bumping B. always bumps C. always bumping D. always bump

38. I _____ working all afternoon. I have just finished the assignment.

A. have been B. had been C. shall be D. am

39. By the next month, we shall _____ the project.

A. has completed B. completing C. completed D. have completed

Direction (40-41) Choose the correct sentence.

40. A. When I woke up, he has already eaten breakfast.

B. When I woke up, he had already eaten breakfast.

C. When I had woken up, he had already eaten breakfast.

D. When I had woken up, he has already eaten breakfast.

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41. A Monika likes playing Ludo, carroms, and play chess.

B. Monika likes playing Ludo, play carroms, and to play chess

C. Monika likes playing Ludo, carroms, and chess

D. Monika likes to play Ludo, carroms, and playing chess.

Direction (42-45) Choose the correct answer from the options given below-

42. The art studio is spacious, pleasantly cluttered, _____.

A. and has good lighting B. and being well-lit C. and is lit well D. and well-lit

43. For lunch I would like _____.

A. fried eggs and to bake potatoes. B. baked potatoes and to fry eggs.

C. to fry eggs and bake potatoes. D. None of the above.

44. A way to avoid misplaced modifiers is to place the modifier close to the word it modifies.

A. True B. False C. Can't say D. None of these

45. Which word is being modified? His costume, which was quite original, was just a cardboard box.

A. costume B. large C. cardboard D. original

In the following the questions choose the word which best expresses the meaning of the given word.

46. CORPULENT-

A. Lean B. Gaunt C. Emaciated D. Obese

47. Brief-

A. Limited B. Small C. Little D. Short

48- Alert-

A. Energetic B. Watchful C. Intelligent D. Observant

Each sentence below consists of a word or a phrase which is underlined. It is followed by four words or phrases. Select the word or phrase which is the OPPOSITE in the meaning of the word or phrase underlined.

49. The inhabitants of the island were <u>barbarians.</u>

A. civilized B. cruel C. uncivilized D. bad

50. The members thought that the task was <u>feasible.</u>

A. unfeasible. B. impossible C. difficult D. impracticable

Dy. Director CDC

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MANAV RACHNA

MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

Semester: 5 | Subject: PCE-III | NAME:.....
Subject Code: CDO301 | Time: 60 Mins | Roll No:.....
Max Marks: 50 Session - II | Dt. 14/12/2022 | Branch: CST/ME/ECE

Instructions: All questions are compulsory. Each question carries multiple options.

No negative marking. Calculator is not allowed. ***Answers are to be filled in the answer table only.***

Answers written outside the answer table won't be considered.

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

1. A man sitting in a train travelling at the rate of 100 km/hr observes that it takes 18 seconds for a goods train travelling in the **opposite** direction to pass him. If the goods train is 375 m long, find its speed?
A. 25 kmph B. 40 kmph C. 35 kmph D. 36 kmph

2. Two trains, 130 m and 110 m long, are going in the same direction. The faster train takes one minute to pass the other completely. If they are moving in opposite directions, they pass each other completely in 3 seconds. Find the speed of the faster train?
A. 38 m/s B. 46 m/s C. 42 m/s D. None of these

3. Two trains running in opposite directions cross a man standing on the platform in 54 seconds and 34 seconds respectively and they cross each other in 46 seconds. The ratio of their speeds is?
A. 1 : 3 B. 3 : 2 C. 3 : 4 D. None of these

4. A boat running upstream covers a distance of 10 km in 30 minutes and while running downstream, it covers the same distance in 25 min. What is the speed of the river current (in kmph)?
A. 2.5 kmph B. 2.2 kmph C. 2 kmph D. Can't say

5. Ram goes downstream from one port to another in 4 h. He covers the same distance upstream in 5 h. If the speed of the stream is 2 km/h, find the distance between the two ports?
A. 50 km B. 60 km C. 70 km D. 80 km

6. Two boats, travelling at 7 km/h and 8 km/h, head directly towards each other. They begin at a distance of 20 km from each other. How far apart are they (in km) one minute before they collide?
A. 1/12 km B. 1/6 km C. 1/4 km D. 1/3 km

7. At his usual rowing rate, Mohit can travel 12 miles downstream in a certain river in six hours less than it takes him to travel the same distance upstream. But if he could double his usual rowing rate for this 24 mile round trip, the downstream 12 miles would then take only one hour less than the upstream 12 miles. What is the speed of the current in miles per hour?
A. 7/3 B. 4/3 C. 5/3 D. 8/3

8. A boat's speed in still water is 15 km/h. While river is flowing with a speed of 6 km/h and time taken to cover a certain distance upstream is 2 h more than time taken to cover the same distance downstream. Find the distance?
A. 30.5 km B. 31 km C. 31.5 km D. 32 km

9. To complete a work, A and B take 30 days, B and C take 24 days, and C and A take 20 days. They all start together and work for 5 days after which B and C leave. How many days will A take to finish the remaining work?
A. 11 B. 28 C. 33 D. 18

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10. A can do a job in 20 days, B in 30 days and C in 60 days. If A is helped by B and C every 3rd day. How long will it take for them to complete the job?

A. 12 days B. 4 days C. 15 days D. 18 days

11. If a soldier fires 7 shots from a gun in 12 minutes then find the total number of shots fired by the man in 3/2 hrs.

A. 45 B. 44 C. 46 D. 47

12. A woman fills a bucket in 6 minutes. 1845 buckets have to be filled from 8 am. to 9:30 am. How many woman employees should be employed for this task?

A. 111 B. 117 C. 139 D. 123

13. A group of men decided to do a job in 4 days. But since 20 men dropped out every day, the job completed at the end of the 7th day. How many men were there at the beginning?

A. 240 B. 140 C. 280 D. 150

14. C is twice efficient as A, B takes thrice as many days as C. A takes 12 days to finish the work alone. If they work in pairs (i.e., AB, BC, CA) starting with AB on the first day then BC on the second day and AC on the third and so on, then how many days are required to finish the work?

A. 6 (1/5) B. 4.5 C. 8 D. 5 (1/9)

15. The work done by a man, a woman and a child is in the ratio of 3 : 2 : 1. There are 20 men, 30 women and 36 children in a factory. Their weekly wages amount to Rs 780, which is divided in the ratio of work done by the men, women and children. What will be the wages of 15 men, 21 women and 30 children for 2 weeks?

A. Rs 1170 B. Rs 292.5 C. Rs 585 D. Rs 900

16. P can complete a work in 12 days working 8 hours a day. Q can complete the same work in 8 days working 10 hours a day. If both p and Q work together, working 8 hours a day, in how many days can they complete the work?

A. 60/11 B. 61/11 C. 71/11 D. 72/11

Directions (17-21): Study the following table carefully to answer the given questions

Classification of 50 Students based on the marks obtained by them in Quants & Reasoning in Prelim exam

	Mark Out of 100				
Subject	**80 and above**	**70 and above**	**50 and above**	**30 and above**	**0 and above**
Quants	23	28	37	43	50
Reasoning	12	32	35	39	50
Average(Aggregate)	15	22	38	40	50

17. The number of students scoring less than 30% marks in aggregate is?

A. 15 B. 2.5 C. 20 D. 10

18. If it is known that at least 20 students were eligible for main exam, then the minimum qualifying marks in Reasoning for eligibility to attend the main exam(Top 20 students only can attend main exam)?

A. 70-80 B. above 80 C. 70-60 D. 50-70

19. The percentage of number of students scored 70% marks in Quants is what percentage of number of students scored 30% marks in aggregate?

A. 60% B. 70% C. 50% D. 75%

20. If at least 50% marks in aggregate are required for interview, how many students will be eligible to attend interview?

A. 50 B. 40 C. 20 D. 38

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21. What is the different between the number of students passed with 80 as cut-off marks in Quants and 30 as cut-off marks in aggregate together to no of students passed with 70 as cut-off marks in aggregate and 50 as cut off in Reasoning?

A. 11 B. 5 C. 8 D. 6

Direction (22-24) Study the following information carefully to answer the given questions

'Online tests for IT Company interview' is written as ' 54 260 120 101 308'

'Questions for the Interview' is written as ' 54 90 120 213'

'Prepare for the Interview test' is written as ' 156 54 260 90 120'

'Interview for IT company' is written as ' 120 308 54 210'

22. What is the code for 'test' in the given code language?

A. 120 B. 260 C. 101 D. 308

23. 308 is the code for which of the following?

A. Interview B. IT Company C. Online D. for

24. What is the code for 'prepare questions for test'?

A. 120 54 101 54 B. 260 308 54 120 C. 90 120 101 213 D. 156 213 54 260

25. If 3rd December, 1990 is Sunday, What day is 3rd January 1991?

A. Sunday B. Monday C. Tuesday D. Wednesday

26. What was the day of the week on 28th May, 2006?

A. Sunday B. Friday C. Wednesday D. Tuesday

27. On 8th Dec, 2007 Saturday falls. What day of the week was it on 8th Dec, 2006?

A. Saturday B. Friday C. Monday D. Tuesday

28. A clock is set right at 8 a.m. The clock gains 10 minutes in 24 hours will be the true time when the clock indicates 1 p.m. on the following day?

A. 48 min. past 12. B. 46 min. past 12. C. 45 min. past 12. D. 47 min. past 12.

29. Find the angle between the hour hand and the minute hand of a clock when the time is 3.25

A. 47.5 degrees B. 57.5 degrees C. 45.5 degrees D. 55.5 degrees

30. An accurate clock shows 8 o'clock in the morning. Through how may degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon?

A. 360 B. 180 C. 90 D. 60

31. Though the raids on Spanish ships and towns were on a small scale, Sir Francis Drake achieved _____ success, adding gold and silver to England's treasury and diminishing Spain' s supremacy.

A. Insignificant B. Temporary C. Significant D. Ineffective

Choose a synonym for the word in BOLD in the following sentences:

32. If you don't **curtail** your spending, you'll be broke in no time at all.

A. Reduce B. Follow C. Behind D. Buy

33. We have rather **lofty** expectations for you, son! You will attend college, become rich and famous, and be elected as President of the United States before you turn forty.

A. High B. Shaky C. Small D. Lowly

34. How can we **concentrate** on serious issues if you keep dragging us towards the petty issues?

A. Improved B. Healthy C. Focus D. Happy

Directions for questions 35-38: Spot the part of the sentence that contains an error. Mark option D if there is no error.

35. A. A big bouquet of flowers B. were given to the chief guest, who
C. arrived at the venue. D. No error.

36. A. Why do we insist on using B. accessories made from leather
C. when we know that animals suffer because of this? D. No error.

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37. A. A farmer who owns cows B. is considered poorer than a farmer
C. who owns sheeps. D. in this part of the country.

38. A. Strong winds and heavy rains B. are likely to make life miserable
C. as an aftermath of hurricane Katrina. D. no error.

Choose the correct options:

39. Every pale tomato slice, wilted pickle, and brown lettuce leaf _____ an extra 25 cents at Bernie's Burger Emporium.

A. Costs B. Cost C. Costed D. Had cost.

40. The Smiths, along with Tonya, _____ to avoid indigestion after eating these weird muffins.

A. Hopes B. Hope C. Hoped D. Had hoped

41. Grandpa claims that Martian measles _____ green and purple spots to erupt all over a person's body.

A. causes B. cause C. will cause D. had caused

42. Each of these women _____ that she had read the care instructions before washing the delicate and expensive dresses.

A. wishes B. wish C. wished D. would wish

Are the modifiers in these sentences correct or misplaced?

43. Place the plate in front of the diner with the meat, not the vegetables, facing the person.

A. Correct B. Misplaced C. Can't say D. None of these

44. We had almost thrown all our snowballs when our fort was charged by two frenzied redheads from the opposing team.

A. Correct B. Misplaced C. Can't say D. None of these

45. The computer system almost cost $2,000, but Michel had enough money saved from his fire-eating gigs to pay the bill in full.

A. Correct B. Misplaced C. Can't say D. None of these

Choose the correct options from the options given below:

46. The employee thought that the CEO _____.

A. cheating B. is cheat C. cheated D. had cheated

47. See, how beautifully they _____

A. are dancing B. is dancing C. are danced D. have dancing

48. The train _____ when I arrived at the station.

A. is just left B. is just leaving C. had just left D. has just left

49. She _____ two miles before reaching the post office.

A. will have jogged B. will have jog C. will had jogged D. will jogged

50. This servant ..... (work) with us for ten years.

A. works B. has been working C. is working D. does work

Director CDC

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MANAV RACHNA

MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

Semester: 5
Subject Code: CDS305B
Max Marks: 50

Subject: PDP V
Time: 60 Mins

NAME:.....
Roll No:.....
Branch: FAA/EFB/HCM/BA/GOM

Instructions: All questions are compulsory. Each question carries multiple options. No negative marking. ***Answers are to be filled in the answer table only.***

Answers written outside the answer table won't be considered.

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Choose the correct option in the following

1. In a group discussion , one must communicate with
   A. Hostility B. Ignorance C. Knowledge D. Arrogance
2. Which of these must be avoided in a group discussion
   A. Speaking Facts B. Asking questions C. Speaking with clarity D. Deviating from the topic
3. In a group discussion a person who begins the discussion is called
   A. Initiator B. Starter C. Beginner D. Moderator
4. Which of the following is more interactive and solution oriented
   A. Seminar B. Chalk board instruction
   C. Lecture D. Group Discussion
5. The best way to apply for a job is to submit a resume that is
   A. Suitable for any job B. Self-recommending
   C. Specifically written for a particular job D. Personal information only
6. The application letter and the resume perform
   A. Two different tasks B. Overlapping tasks C. The same task D. Two opposite tasks
7. The résumé of a fresh graduate is generally
   A. One page long B. Two pages long C. Half a page D. Three pages long
8. The cover letter is
   A. A foreword B. A summary of your qualifications and experiences
   C. A description of your core strengths and suitability for the job D. A statement of your job objective
9. A summary placed at the beginning of the resume acts as a
   A. synopsis B. Career objective C. Preface D. Letter of recommendation
10. In an interview when you do not know an answer, you should
    A. Keep guessing B. Bluff C. Admit that you do not know the answer D. Remain quiet

Fill up the blanks with appropriate option.

11. The teacher _____ completed this chapter.
    A. have B. has C. is D. are
12. Ram and Shyam _____ business partners.
    A. have B. has C. are D. had
13. She _____ her office by 9 a.m. daily.
    A. reach B. reaches C. reached D. reaching
14. Rahul and his friends _____ also invited to the party.
    A. is B. was C. had D. were

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15. A bouquet of flowers ---------- required for the event.

A. are B. have C. has D. is

16. Twenty years _____ the minimum age to fill this form.

A. are B. is C. has D. have

17. Much ---------- been said in the news reports.

A. were B. have C. has D. was

18. Either of the two dresses shall _____ good

A. looking B. look C. looks D. looked

Choose the correct option

19. At the time of interview, jewellery should be kept to a minimum

A. True B. False C. Can't say D. None of these

20. We should be aware of all the following grooming tips, except for

A. face should be clean or well-maintained.

B. brush your teeth and have fresh breath

C. firm handshake as the best gesture for good impression

D. hands and nails should be well maintained.

21. What should not be included in your self- introduction

A. Very personal Information B. Your weakness C. Your failures D. All of the above

22. Shoes for both men and women should be:

A. Steel-toed for protection B. Open-toed for comfort C. Brightly colour D. Clean and polished

23. Time management refers to a range of skills, tools, and techniques used to manage time when accomplishing specific tasks, projects, and goals.

A. True B. False C. Can't Say D. None of these

24. Which word means- " the time by which something must be completed"?

A. Chore B. Consequence C. Goal D. Deadline

25. Using a planner or making a "to-do" list every day.

A. Is a waste of paper B. Helps keep things "in sight, in mind

C. Takes too long to fill out D. None of the above

26. To spend your time productively, you need to have set some

A. Possibilities B. Ideas C. Boundaries D. Goals

27. Efficient time management includes

A. Doing the best tasks first, and the worst tasks last

B. Having a very structured schedule and not leaving any room to be flexible

C. Being flexible

D. Doing the worst tasks first while you're alert and not tired

28. For a student, time management in college would mean

A. You have to learn to manage your extra time more efficiently.

B. You have limited time in hand

C. You have too many activities at a time in hand

D. All of the above are true.

29. Using spare time wisely includes limiting the time you spend on the internet, using a cell phone, etc..

A. True B. False

30. What is NOT included in the body language?

A. Body movements B. Listening C. Gestures D. Facial expressions

31. Body language can communicate

A. Feelings B. Intentions C. Emotions D. All of these

32. A head positioned forward facing someone indicates

A. Interest B. Superiority C. Disrespect D. Disinterest

33. What should not be done at the time of interview?

A. Reaching late B. Misquoting facts

C. Going unprepared D. All of the above

6.04

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34. What should you do while preparing for an interview?

A. Research the company
B. Learn the company's vision and mission
C. Practice top interview questions and answers
D. All of the above

35. Who should be greeted in a friendly and respectful manner?

A. The receptionist
B. The secretary
C. The Interviewer
D. All of the above

36. When answering interview questions, it is important to

A. Be specific
B. Be general
C. Stretch the facts to look good
D. Misquoting facts

37. In every answer you give, the employer is looking for

A. How you will save them time
B. How you will save them money
C. How you will solve their problem(s)
D. All of the above

38. Which of the following is not a step in the preparation of an interview?

A. Analyzing Yourself
B. Identifying your skills
C. Being negative
D. Revising your subject

39. At the start of an interview, you should

A. Try to find common interests.
B. Look around the office for things.
C. Greet the interviewer with a smile.
D. All of the above

40. While attending the online interview you should not

A. Dress casually
B. Keep your camera on
C. Keep the microphone off
D. should be sitting at a well-lit place and attend

41. Interviews are conversations with

A. Fun
B. Purpose
C. Friendliness
D. Informality

42. Which of these is not a type of interview?

A. Screening interview
B. Stress interview
C. Music interview
D. Lunch interview

43. The best way to dress to impress for the interview is to

A. Wear jeans and T-shirt
B. Wear a jogging suit wear
C. A business suit
D.It doesn't matter what you wear

44. Gesture, posture, eye contact are examples of communication that is

A. Verbal
B. Non- verbal
C. Aggresive
D. Polite

45. "You should be authentic in an interview" means to be

A. False
B. Invalid
C. surprising
D. Realistic

46. Before your interview in a company you should

A. Sit Idle
B. Get worked up
C. Research
D. None of the above

46. Should you answer interview questions in complete sentences or give one word answer?

A. Complete sentences
B. One word answers
C. Both
D. Neither

47. Which of the following is not the part of a resume ?

A. Religious affiliation
B. Employment History
C .Contact Information
D. Education

48. Which of the following is the safest email address style to use on your resume?

A. lovin _ladies 123@emailprovider.com
B. j_smith@emailprovider.com
C. party all the time@emailprovider.com
D. none of these

49. Which of the following methods is the best to know more about the person and his/ her fitment for a role?

A. Observation
B. Interview
C. Case Study
D. Survey Method

50. What is the rule to decide the colour of the belt (for men)?

A. always wear black
B. the belt should match the colour of the shoe
C. the belt should match the colour of trousers
D. the belt should match the colour of the tie

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Dy. Director
CDC

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MANAV RACHNA UNIVERSITY

Declared as State Private University vide Haryana Act 26 of 2014

Semester: 5
Subject Code: CDO303
Max Marks: 50

Subject: Career Skills-II
Time: 60 Mins
Date: 17/12/2024

NAME: .....
Roll No: .....
Branch: Phy/Chem/Maths

Session - II

Instructions: All questions are compulsory. Each question carries multiple options. No negative marking. Calculator is not allowed. ***Answers are to be filled in the answer table only. Answers written outside the answer table won't be considered.***

Answer Table:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
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31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

1. If a bus travels 320 km in 8 hrs and a train travels 640 kms in 10 hours at uniform speed, then what is the ratio of distance travelled by them in one hour? 1

A. 8 : 5 B. 5 : 8 C. 4 : 5 D. 1 : 2

2. Mohan reaches his factory 3 minutes late if his speed from his house of the factory is 5 km/hr. If he walks at a speed of 6 km/hr, then he reaches the factory 7 minutes early. The distance of the factory from his house is?

A. 6 km B. 5 km C. 7 km D. 8 km

3. If a train runs at 20 km/hr, it reaches its destination late by 22 min. but if it runs at 30 km/hr it is late by 10 min. only. The correct time for the train to complete its journey is?

A. 14 min. B. 10 min. C. 19 min. D. 21 min.

4. A person crosses a 1200 m long street in 10 minutes. What is his speed in kmph?

A. 3.6 kmph B. 7.2 kmph C. 8.4 kmph D. 10 kmph

5. A train covers a distance in 50 minutes, if it runs at a speed of 48 kmph on an average. The speed at which the train must run to reduce the time of journey to 40 mints is?

A. 70 kmph B. 60 kmph C. 55 kmph D. 65 kmph

6. A car travels the first one-third of a certain distance with a speed of 10 km/hr, the next one-third distance with a speed of 20 km/hr and the last one-third distance with a speed of 60 km/hr. The average speed of the car for the whole journey is?

A. 18 kmph B. 24 kmph C. 30 kmph D. 36 kmph

7. A train travels at a certain average speed for a distance of 63 km and then travels a distance of 72 km at an average speed of 6 kmph more than its original speed. If it takes 3 hours to complete the total journey, what is the original speed of the train in kmph? 1

A. 24 kmph B. 33 kmph C. 42 kmph D. 66 kmph

8. If a flight of 600 km an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 kmph and the time of flight increased by 30 minutes. The duration of the flight is?

A. 1 hr B. 2 hr C. 3 hr D. 4 hr

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9. A car covers four successive 6 km stretches at 20 km/hr, 40 km/hr, 60 km/hr and 80 km/hr respectively. Its average speed over this distance is?

A. 20 kmph B. 30 kmph C. 35.5 kmph D. 40 kmph

10. M, N and O can complete the work in 18, 36 and 54 days respectively. M started the work and worked for 8 days, then N and O joined him and they all worked together for some days. M left the job one day before completion of work. For how many days they all worked together?

A. 4 B. 5 C. 3 D. 6

11. Paul and Bipin together can do a piece of work in 8 days. If Paul alone can do the same work in 12 days, then Bipin alone can do the same work in?

A. 20 days B. 16 days C. 24 days D. 28 days

12. To complete a work, a person Ram takes 10 days and another person Bikas takes 15 days. If they work together, in how much time will they complete the work?

A. 2 days B. 6 days C. 4 days D. 8 days

13. Two friends Aman and Raghav working together can complete an assignment in 4 days. If Aman can do the assignment alone in 12 days, in how many days can Raghav alone do the assignment?

A. 2 days B. 6 days C. 4 days D. 8 days

14. P can do a piece of work in 4 days. Q can do it in 5 days. With the assistance of R they completed the work in 2 days. Find in how many days can R alone do it?

A. 10 days B. 20 days C. 5 days D. 4 days

15. After working for 6 days, Ashok finds that only $1/3^{rd}$ of the work has been done. He employs Ravi who is 60% as efficient as Ashok. How many days more would Ravi take to complete the work?

A. 19 days B. 10 days C. 20 days D. 12 days

16. Three taps A, B and C can fill a tank in 12, 15 and 20 hours respectively. If A is open all the time and B and C are open for one hour each alternately, the tank will be full in:

A. 20/3 hours B. 6 hours C. 15/2 hours D. 7 hours

17. A large tanker can be filled by two pipes A and B in 60 minutes and 40 minutes respectively. How many minutes will it take to fill the tanker from empty state if B is used for half the time; A and B fill it together for the other half?

A. 15 min B. 20 min C. 27.5 min D. 30 min

18. Three pipes A, B and C can fill a tank in 6 hours. After working at it together for 2 hours, C is closed and A and B can fill the remaining part in 7 hours. The number of hours taken by C alone to fill the tank?

A. 10 B. 12 C. 14 D. 16

19. Two pipes can fill a tank in 25 and 30 minutes respectively and a waste pipe can empty 3 gallons per minute. All the three pipes working together can fill the tank in 15 minutes. The capacity of the tank is:

A. 250 gallons B. 450 gallons C. 120 gallons D. 150 gallons

20. Two pipes P and Q can fill a tank in 15 minutes and 40 minutes respectively. Both the pipes are opened together but after 4 minutes, pipe P is turned off. What is the total time required to fill the tank?

A. 10 min 10 sec B. 25 min 20 sec C. 29 min 20 sec D. 20 min 10 sec

21. If in a certain language, COUNSEL is coded as BITIRAK, how is GUIDANCE written in that code?

A. OHYFZJBB B. OFHBJZYB C. BJZYBHFO D. FOHYZJBB

22. If in a certain code, TWENTY is written as 863985 and ELEVEN is written as 323039, how is TWELVE written in that code?

A. 203863 B. 368302 C. 863203 D. 320368

23. In a certain code language, '851' means 'good sweet fruit', '783' means 'good red rose' and '341' means 'rose and fruit'. Which of the following digits stands for 'sweet' in that language?

A. 2 B. 3 C. 4 D. 5

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24. In a certain code language, 'col tip mot' means 'singing is appreciable', 'mot baj min' means 'dancing is good' and 'tip nop baj' means 'singing and dancing' , then, which of the following means 'good' in that code language ?

A. Mot B. Baj C. Min D. Nop

25. If DELHI is coded as CCIDD, how would you encode BOMBAY?

A. AJMTVT B. AMJXVS C. MJXV5U D. WXYZAX

26. If in a certain language, SHIFT is coded as RFFBO, which word would be coded as LKUMB?

A. MMXQG B. MLVNC C. KJVLA D. MJVLC

27. In a certain code, RIPPLE is written as 613382 and LIFE is written as 8192. How is PILLER written in that code?

A. 318826 B. 318286 C. 618826 D. 338816

28. If PALAM could be given the code number 43, what code number can be given to SANTACRUZ?

A. 75 B. 85 C. 120 D. 123

29. If 'gnr tag zog qmp' stands for 'Seoul Olympic Organising committee', 'hyto gnr emf' stands for 'summer Olympic games' and 'esm sdr hyto' stands for 'modern games history', what would be the code for 'summer'?

A. hyto B. gnr C. emf D. zog

30. If Z = 52 and ACT = 48, then BAT will be equal to

A. 39 B. 41 C. 44 D. 46

Direction (31-35) Choose the correct form of Verb that is in agreement with the subject-

31. She _____ her office by 9 a.m. daily.

A. reach B. reaches C. reached D. reaching

32. The information which _____ obtained from the business owners_____relevant to be included in the study.

A. has, is B. had. has C. has, have D. is , is

33. The student or the committee members _____everyday and each of the members _____most welcome for that.

A. write, are B. write, is C. writes, is D. write, were

34. Shubham as well as his brothers _____coming today.

A. are B. had been C. is D. have been

35. Prachi is one of the students who _____passed the exam.

A. have B. has C. had been D. would have

Direction (36-39) Choose the correct answer from the options given below-

36. Why _____, you should be listening to me?

A. you talk B. you are talking C. do you talk D. are you talking

37. You_____ into things and break them. How can someone be so clumsy?

A. are always bumping B. always bumps C. always bumping D. always bump

38. I _____ working all afternoon. I have just finished the assignment.

A. have been B. had been C. shall be D. am

39. By the next month, we shall _____ the project.

A. has completed B. completing C. completed D. have completed

Direction (40-41) Choose the correct sentence.

40. A. When I woke up, he has already eaten breakfast.

B. When I woke up, he had already eaten breakfast.

C. When I had woken up, he had already eaten breakfast.

D. When I had woken up, he has already eaten breakfast.

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41. A Monika likes playing Ludo, carroms, and play chess.

B. Monika likes playing Ludo, play carroms, and to play chess

C. Monika likes playing Ludo, carroms, and chess

D. Monika likes to play Ludo, carroms, and playing chess.

Direction (42-45) Choose the correct answer from the options given below-

42. The art studio is spacious, pleasantly cluttered, _____.

A. and has good lighting B. and being well-lit C. and is lit well D. and well-lit

43. For lunch I would like _____.

A. fried eggs and to bake potatoes. B. baked potatoes and to fry eggs.

C. to fry eggs and bake potatoes. D. None of the above.

44. A way to avoid misplaced modifiers is to place the modifier close to the word it modifies.

A. True B. False C. Can't say D. None of these

45. Which word is being modified? His costume, which was quite original, was just a cardboard box.

A. costume B. large C. cardboard D. original

In the following the questions choose the word which best expresses the meaning of the given word.

46. CORPULENT-

A. Lean B. Gaunt C. Emaciated D. Obese

47. Brief-

A. Limited B. Small C. Little D. Short

48- Alert-

A. Energetic B. Watchful C. Intelligent D. Observant

Each sentence below consists of a word or a phrase which is underlined. It is followed by four words or phrases. Select the word or phrase which is the OPPOSITE in the meaning of the word or phrase underlined.

49. The inhabitants of the island were <u>barbarians.</u>

A. civilized B. cruel C. uncivilized D. bad

50. The members thought that the task was <u>feasible.</u>

A. unfeasible. B. impossible C. difficult D. impracticable

Dy. Director CDC

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DEPARTMENT OF COMPUTER ENGINEERING

"T3 Examination, Dec-2022"

SEMESTER	**7th**	**DATE OF EXAM**	**19/12/2022**
SUBJECT NAME	**VIRTUALIZATION - CONTAINERS/CLOUD**	**SUBJECT CODE**	**CSH422B-T**
BRANCH	**CSE-DTE**	**SESSION**	**Morning**
TIME	**9:00am-11:00am**	**MAX. MARKS**	**100**
PROGRAM	**B.Tech**	**CREDITS**	**5**
NAME OF FACULTY	**Ms. Anu Priya Sharma**	**NAME OF COURSE COORDINATOR**	**Ms. Anu Priya Sharma**

Please go through the following instructions before the start of the exam:

a. *All questions are compulsory. Explain with diagrams wherever required. More weightage will be given to answers supported with examples and diagrams. Part A carries 10 marks, Part B 10 marks, Part C carries 40 marks and Part D carries 40 marks.*

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	Q1(A)	How are microservices different from Monolytic architecture?	5	CO3	BT4	5.3.1
	Q1(B)	How is Kubernetes different from Docker Swarm?	5	CO4	BT3	5.3.1
PART-B	Q2(A)	Explain the docker commands to: 1. Create a new container 2. Pull an image or a repository from a registry 3. Remove one or more images 4. Start one or more stopped containers 5. docker run	5	CO4	BT1	5.1.2

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DEPARTMENT OF Computer Science & Technology

"End Term Examination,Dec-2022"

SEMESTER	7th(ECE)	DATE OF EXAM	19.12.2022
SUBJECT NAME	THEORY OF AUTOMATA AND COMPILER DESIGN	SUBJECT CODE	CSH 425
BRANCH	CST	SESSION	MORNING
TIME	9:00-12:00	MAX. MARKS	100
PROGRAM	BTECH	CREDITS	4
NAME OF FACULTY	DEEPANSHI GUPTA	NAME OF COURSE COORDINATOR	DEEPANSHI GUPTA

Note: Part A : All questions are compulsory.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	Q1	What is Automata? How it is useful in real life applications? Give formal definition of a Turing Machine. Construct a Turing machine for accepting palindromes.	10	CO1,CO3	BT1	1.1.2
PART-B	Q2	State about left and right tree derivation? Give formal definition of a Push Down Automata(PDA). Construct PDA for $L = \{ WcW^R \mid \lvert W\rvert=2 \text{ over } \Sigma=\{a,b\}\}$	10	CO2,CO3	BT1,BT2	2.2.1
PART-C	Q3	Test whether the following grammar is LL (1) or not. Construct predictive parsing table for it. S→1AB|Є , A→1AC|0C, B→0S, C→ 1	10	CO4	BT3	2.3.1
	Q4	What is first and follow? Why it is important in compiler Design? Explain LR(0) parsing with suitable example.	20	CO4	BT1	1.1.3
	Q5	Explain the analysis synthesis model of compilation. List the factors that affect the design of compiler. Also List major functions done by compiler.	10	CO4	BT1	1.3.1
P	Q6	Explain various code optimization techniques	10	CO5	BT1	1.3.2

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A R T- D	Q7	What is SDD,SDT and Intermediate form of the code? What are the advantages of it? What are generally used intermediate forms? Write N-Tuple notation for: (a+b)*(c+d)-(a+b+c)	20	CO5	BT2	2.1.1
	Q8	What is the difference between parse tree and syntax tree? Write appropriate grammar and draw parse as well as syntax tree for a*(a-a^a)	10	CO5	BT2	1.3.1

********** **END** **********

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DEPARTMENT OF Computer Science & Technology

"T3 Examination,Dec-2022"

SEMESTER	**VII**	**DATE OF EXAM**	**12 Dec 2022**
SUBJECT NAME	**INFORMATION RETRIEVAL**	**SUBJECT CODE**	**CSH414B-T**
BRANCH	**CSE/DSML/DTE**	**SESSION**	**Morning**
TIME	**9:00am -12:00pm**	**MAX. MARKS**	**100**
PROGRAM	**B.Tech 7sem**	**CREDITS**	**5**
NAME OF FACULTY	**Mr. Agha, Mr. Sanjay ,Ms. Dimple, Ms. Meena Chaudhary**	**NAME OF COURSE COORDINATOR**	**Ms. Meena Chaudhary**

Note: All questions are compulsory.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	Q1	Consider the following axioms: Sohani likes all kind of food. Banana and Cucumber are food. Anything anyone eats andis not killed is food. Ayusheats peanuts and still alive Prove by resolution that:Sohani likes peanuts.	10	CO1	BT4	1.4.1
	Q2	Represent by a semantic net the objects and relations described in the sentence: • Every girl loves to party. • Ankita believes that orange is tasty.	10	CO1	BT3	1.3.1
PART-B	Q3	Define Jaccard's coefficient. How it is used for ranking of web documents? .Find the value of Jaccard's coefficient of following set. Query : ides of March. Document1: Marcus and Caesar met in March. Document2: The fabulous March.	10	CO2	BT3	1.4.1

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	Q4	Explain extended Boolean model versus Ranked retrieval Model for Information Retrieval .	10	CO2	BT2	1.4.1
PART-C	Q5	Let us have the following set of index terms K = {"Frodo", "Sam", "blue", "sword", "orc", "Mordor"} Let us have the following collection of documents d1: {"Frodo stabbed the orc with the red sword"} d2: {"Frodo and Sam used the blue lamp to locate orcs"} d3: {"Sam killed many orcs in Mordor with the blue sword"} Which documents are relevant for the following queries? Explain with the help of Boolean Retrieval Model	10	CO3	BT4	1.3.1
	Q6	Discuss the significance of Zipf's Law for modeling the distributing of terms. Is there any other application where we can use this law?	10	CO3	BT3	1.4.1
	Q7	Explain the Heap's Law for Estimating the Number of Terms, along with the mathematical model that behind it.	10	CO3	BT3	1.3.1
	Q8	Explain the hypothesis used in vector space model for classification. How document are represented Using Naïve Bayes.	10	CO4	BT2	1.4.1
PART-D	Q9	Suppose the document collection contains two documents: *d*1: Xyzzy reports a profit but revenue is down *d*2: Quorus narrows quarter loss but revenue decreases further The model will be MLE unigram models from the documents and collection, mixed with $l = 1/2$. Suppose the query is *revenue down*. Then: find 1. $P(q\|d1)$ 2. $P(q\|d2)$ What is the final result?	10	CO4	BT4	2.2.4
	Q10	Differentiate between Dictionary compression and Postings file compression with example.	10	CO4	BT3	2.2.4

********** END **********

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

"End Semester Examination, Dec-2022"

SEMESTER	**VII th**	**DATE OF EXAM**	**14.12.2022**
SUBJECT NAME	**SOFTWARE PROJECT MANAGEMENT**	**SUBJECT CODE**	**CSH307B-T**
BRANCH	**DSML**	**SESSION**	**9AM-12PM**
TIME	**3Hrs**	**MAX. MARKS**	**75**
PROGRAM	**CSE**	**CREDITS**	**4**
NAME OF FACULTY	**Mr. Agha Imran**	**NAME OF COURSE COORDINATOR**	**Mr. Agha Imran**

Note: Attempt all questions.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	Q1.	What you understand by Activity Diagram? What is the role of Activity Diagram in any software project? Explain. Draw the Activity Diagram for ERP system.	15	CO1	BT2, BT3	2.2.2
PART-B	Q2.	The following details are available regarding a project: Determine the critical path, the critical activities and the project completion time.	15	CO1	BT3	2.2.2

Activity	Name	Time
1-2	A	5
1-3	B	2
2-4	C	3
3-4	D	2
3-5	E	5
4-9	F	6
5-6	G	3
5-7	H	7
6-8	I	3
7-8	J	3
8-10	K	6
9-10	L	8

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PART-C	Q3 (A)	What would be the basic COCOMO equations form? A project size of 800 KLOC is to be developed. Software development team has average experience on similar type of projects. The project schedule is not very tight. Calculate the Effort, development time, average staff size, and productivity of the project.	15	CO2	BT3	3.2.2
	Q3 (B)	Define contract management, What are the advantages & disadvantages of fixed price contracts?	10	CO3	BT2	3.2.4
PART -D	Q4 (A)	Write a short note on SEI capability maturity model (CMM).	10	CO4	BT2	4.1.2
	Q4 (B)	Explain Quality Characteristics and ISO 9126.	10	CO5	BT2	4.2.2

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DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

"T3 Examination, December -2022"

SEMESTER	7th Sem	**DATE OF EXAM**	14/12/2022
SUBJECT NAME	Software Requirement Engineering	**SUBJECT CODE**	CSH412B-T
BRANCH	CSE	**SESSION**	First
TIME	3 Hour	**MAX. MARKS**	75
PROGRAM	B.Tech	**CREDITS**	04
NAME OF FACULTY	Dr Prinima, Mr Narender Gautam	**NAME OF COURSE COORDINATOR**	Dr Prinima

***Note**: Part A: Each Question carries 5 marks.*
Part B: Each Question carries 10 marks.

Q.NO.		QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
PART-A	1(A)	What issues might arise when a requirements engineer, who is not a subject matter expert, enlists a subject matter expert to assist in defining requirements?	5	CO1	BT2	3.1.2
	1(B)	Differentiate between Requirement validation and verification?	5	CO2	BT2	1.4.1
	1(C)	Why can it be difficult for agile methodologies to cover nonfunctional requirements?	5	CO3	BT2	1.4.1
	1(D)	What are the advantages and risks of having requirements engineering conducted (or assisted) by an outside firm or consultants?	5	CO2	BT2	3.1.2
	1(E)	When selecting an open-source tool, what characteristics should you look for?	5	CO4	BT2	3.1.2
PART-B	Q2	Create and describe a Rich picture diagram for the airline reservation system.	10	CO1	BT3	2.3.1
	Q3	For the airport baggage handling system, generate the user story and use case for dealing with a lost piece of baggage.	10	CO4	BT3	2.3.1
	Q4	Draw a Use case diagram for a Social Networking Site.	10	CO2	BT3	2.3.1
	Q5	Here are some examples of vague and ambiguous requirements that have actually appeared in real	10	CO2	BT3	2.3.1

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		requirements specifications. Discuss why they are vague, incomplete, or ambiguous. Provide improved versions of these requirements (make necessary assumptions). a) The engineer shall manage the system activity, including the database. b) The system will provide an effective means for identifying and eliminating undesirable failure modes and/or performance degradation below acceptable limits.				
	Q6	Explain 3 Objections, 4 Myths, and 3 Limitations of Formal methods?	10	CO3	BTl-	1.4.1
		********** **END** **********				

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DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

Even SEMESTER (Jul-Dec 2022)

FACULTY NAME: Dr Neelu Chaudhary			NAME OF COURSE COORDINATOR: Dr Neelu Chaudhary		
COURSE NAME: Big Data	COURSE CODE: CSH426B/CSH428T	CREDIT: 05	MAX. MARKS: 100	TIME DURATION: 3:00 hrs	DATE OF EXAM: 16-12-22
PROGRAM: B.Tech CSE-DSML/CSE-DTE/ECE		SEMESTER: 7th / Session - I			

Note: All Questions are Compulsory.

Part	Q.NO	QUESTIONS	MARKS	CO ADDRESSED	BLOOM'S LEVEL	PI
A	1(a)	In real-time applications what are the sources of data? Differentiate between various categories of data. Elaborate your answer with valid examples.	5	CO1	BT3	1.4.1
	1(b)	Is Data Science different from big data? Justify your answer	5	CO1	BT2	1.4.1
B	2	What are the configuration parameters in a "MapReduce" program? What are the Daemons of Hadoop? Explain it's working with the help of suitable diagram.	10	CO2	BT2	1.4.1
C	3(a)	Explain the evolution of big data analytics and their advantage in handling real world data.	10	CO1, CO3	BT2	1.4.1
	3(b)	If a client application wants to read or write data on Hadoop system, how it can interact with name node and data node, justify your answer with suitable diagram	10	CO3	BT3	1.4.1
	4(a)	Explain how New SQL is best suited for higher performance. Diffrentiate its features with SQL and No SQL.	20	CO3	BT2	
D	5(a)	Design and explain HIVE architecture. Diffrentiate between HIVE and PIG.	10	CO1,CO4	BT3	1.4.1
	5(b)	Write commands to create and manage databases and tables in hive.	10	CO4	BT2	1.4.1
	6(a)	Write short notes on the following with examples : a. Business Intelligence on Hadoop b. R-Programming and MongoDB	10	CO1,CO4	BT2	1.4.2
	6(b)	Explain the complete Ecosystem of Hadoop with suitable diagrams	10	CO4	BT3	1.4.1
Total Marks			100			

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