Hall Ticket Number :										

R-19

Code: 19DE11T

M.C.A. I Semester Supplementary Examinations July 2021

Accounting and Financial Management

Max. Marks: 60 Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 12 = 60 Marks)

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UNIT–I

1. What is meant by double entry system? Explain its advantages and limitations?

OR

2. Prepare journal entries from the following.

   Jan1 2019 started business with cash Rs 10000
   Jan 2 paid into bank Rs 2000
   Jan 5 purchased goods from bhartat Rs 5000
   Jan 10 sold goods for cash Rs 50000
   Jan 15 paid telephone charges Rs 1000
   Jan 20 goods distributed by way of free samples Rs 1500
   Jan 25 payment made to ram Rs1000 he allowed a cash discount of Rs 100
   Jan 30 with draw goods for personal use Rs 2000

UNIT–II

3. Elaborate the cost volume profit analysis?

OR

4. Explain the advantages and limitations of BEP?

UNIT–III

5. What is ratio analysis? Explain advantages and disadvantages of ratio analysis.

OR

6. From the following information calculate

   a) Current ratio b) Gross profit ratio c) Working capital ratio d) debt equity ratio e) stock turnover ratio

Net sales Rs 3000000	Paid up share capital Rs 5000000
Cost of goods sold Rs2000000	Debenture Rs 250000
Current assets Rs 600000	Loan Rs 125000
Current liabilities Rs 200000	Stock Rs 3000000

UNIT–IV

7. Define Financial Management? Explain its objectives.

OR

8. Discuss about sources of finance?

UNIT–V

9. What are the techniques of capital Budgeting and explain briefly?

OR

10. Elaborate the capital budgeting process?

END

Hall Ticket Number :										

R-19

Code: 19DC11T

M.C.A. I Semester Supplementary Examinations July 2021

Probability and Statistics

Max. Marks: 60 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x12 = 60 Marks)

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		Marks	CO	BL
	UNIT–I			
1.	There are 12 cards numbered 1 to 12 in a box, if two cards are selected, what is the probability that sum is odd (i) With replacement (ii) without replacement	12M	CO1	L2
	OR			
2.	A sample of 4 items is selected at random from a box containing 12 items of which 5 are defective. Find the expected number E of defective items.	12M	CO1	L2
	UNIT–II			
3.	Fit a binomial distribution to the following data.			

x	0	1	2	3	4	5
Frequency(f)	2	14	20	34	22	8

12M CO2 L3

	OR					
4.	10 cards are drawn from a deck of 52 cards. Find the probability of getting 2 to 5 diamonds using normal distribution.	12M	CO2	L3		
	UNIT–III					
5.	The mean height of students in a college is 155cms and standard deviation is 15. What is the probability that the mean weight of 36 students is less tha157 cms.	12M	CO3	L2		
	OR					
6.	Find 95% confidence limits for the mean of a normality distributed population from which the following sample was taken 15, 17, 10, 18, 16, 9, 7, 11, 13, and 14.	12M	CO3	L2		
	UNIT–IV					
7.	A random samples of 10 bags of pesticides are taken whose weights are 50, 49, 52, 44, 45, 48, 46, 45, 49 and 45 (in kgs). Test whether the average packing can be taken to be 50 kgs.	12M	CO4	L4		
	OR					
8.	Fit a Poisson distribution to the following data and for its goodness of fit at level of significance 0.05 level of significance					

x	0	1	2	3	4
f	419	352	154	56	19

12M CO4 L4

	UNIT–V			
9.	The mean rate of arrival of planes at an airport during the peak period is 20 per hour. The number of arrivals in any hour follows a Poisson distribution. When there is congestion the planes are forced to fly over the field the stack awaiting the landing of other planes that arrived earlier. 60 planes per hour can land in good weather and 30 planes per hour can land in bad weather. (a) How many planes would be flying over the field in the stack on an average in good weather and in bad weather? (b) How long a plane would be in the stack in the process of landing in good and bad weather?	12M	CO5	L3
	OR			
10.	Customers arrive at a one window drive-in bank according to a Poisson distribution with mean 10 per hour. Service time per customer is exponential with mean 5 minutes. The car space in front of the window including that for the serviced can accommodate a maximum of 3 cars. Other cars can wait outside the space. (a) What is the probability that an arriving customer can drive directly to the space in front of the window? (b) What is the probability that an arriving customer will have to wait outside the indicated space? (c) How long is arriving customer expected to wait before starting service.	12M	CO5	L3

****END***

Hall Ticket Number :										

R-19

Code: 19DF11T

M.C.A. I Semester Supplementary Examinations July 2021

Mathematical Foundations of Computer Science

Max. Marks: 60 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x12 = 60 Marks)

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			Marks	CO	BL
		UNIT–I			
1.	a)	Explain Conjunction , Disjunction and Conditional Proposition with example	6M	1	L1
	b)	Obtain disjunctive normal form of P V (~ P→ (Q V (Q →~ R)))	6M	1	L5
		OR			
2.	a)	If p, q and r be the propositions P : you have the flee q : you miss the final examination r : you pass the course. Write the following propositions into statement form. (i) ~p→ r (ii) p ∨ q ∨ r (iii) (p→ ~r) ∨ (q→ ~r) (iv) (p ∧ q) ∨ (~q ∧ r).	6M	1	L3
	b)	Show that RVS is valid conclusion from the premises: C∨D, (C∨D)→ ~H , ~H→ (A∧~B), (A∧~B) → R∨S	6M	1	L3
		UNIT–II			
3.	a)	Define a Relation? Explain Reflexive, Symmetric and Transitive relations with an example	6M	2	L1,L2
	b)	Let A = { 1, 2, 3, 4, 6, 12 }. On A, define the relation R by a R b if and only if a divides b. Prove that R is a partial order on A. Draw the Hasse diagram for this relation.	6M	2	L1,L5
		OR			
4.	a)	Define Compatibility Relation. Let X = { ball, bed, dog, let, egg } and let the relation R be given by R = { <x, y> / x, y € X ∩ x R y if x and y contain some common letter} and also draw maximal compatibility block for the given relation.	6M	2	L1,L4
	b)	Explain the following by giving a suitable example i) Totally ordered set ii) Lattice	6M	2	L2
		UNIT–III			
5.	a)	Find the number of permutations of the letters of the word MASSASAUGA. In how many of these, all four A' s are together ? How many of them begin with S?	6M	3	L3,L5
	b)	Woman has 11 close relatives and he wishes to invite 5 of them to dinner. In how many ways can she invite them in the following situations i) There is no restrictions on the choice ii) Two particular persons will not attend separately iii) Two persons will not attend together.	6M	3	L5
		OR			
6.	a)	Determine the number of positive integers ≤ 100 which are divisible by 3 or 7?	6M	3	L3
	b)	Show that if any 30 dictionaries in a library contain a total of 61,327 pages, then one of the dictionaries must have at least 2045 pages.	6M	3	L3

UNIT–IV

7.	a)	Find the generating function for the sequence $0^2, 1^2, 2^2, 3^2, 4^2, \ldots\ldots\ldots$	6M	4	L4
	b)	The number of virus affected files in a system is 1000 (to start with) and this increases 250% every two hours. Use a recurrence relation to determine the number of virus affected files in the system after one day.	6M	4	L5

OR

8.		Find the generating function for the recurrence relation $a_{n+1} - a_n = n^2$, $n \geq 0$ and $a_0 = 1$. Hence solve it.	12M	4	L3

UNIT–V

9.		Explain the following i) Complete Graph ii) Complete Bipartite Graph iii) Planar Graph. iv) Euler's graph	12M	5	L2

OR

10.	a)	What is graph coloring? What is chromatic number? Explain them with suitable examples.	6M	5	L1,L2
	b)	Explain kruskal's algorithm with an example	6M	5	L2

****END****

Hall Ticket Number :										

R-19

Code: 19DF12T

M.C.A. I Semester Supplementary Examinations July 2021

Problem Solving with 'C'

Max. Marks: 60 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x12 = 60 Marks)

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			Marks	CO	BL
		UNIT–I			
1.	a)	Discuss the advantages of algorithms and flowcharts. Draw a flow chart for the prime number program.	6M	CO1	L2
	b)	Write a short note on (i) Bitwise operator (ii) Conditional operator (iii) sizeof operator.	6M	CO2	L2
		OR			
2.	a)	What are the steps involved in program development process? Explain.	6M	CO1	L2
	b)	Write an algorithm, flowchart and Program to swap of two values using two variables.	6M	CO2	L2
		UNIT–II			
3.		Explain the following a) break b) continue c) goto statements with example.	12M	CO2	L4
		OR			
4.	a)	Explain formatted input / output functions used in C programming with suitable examples	6M	CO2	L2
	b)	Differentiate between else-if and switch? Explain with an example.	6M	CO4	L3
		UNIT–III			
5.		Explain the concept of passing strings to functions as dynamic arrays with a program.	12M	CO3	L2
		OR			
6.		With the help of syntax and example program explain the various string handling functions.	12M	CO2	L2
		UNIT–IV			
7.	a)	How is a structure variable different from an array with respect to its use as a function parameter?	6M	CO5	L2
	b)	What is recursion? Write a program to print first 10 numbers of Fibonacci Series.	6M	CO2	L2
		OR			
8.	a)	What are Structures? How they are different from Unions, explain with an example.	12M	CO5	L2
		UNIT–V			
9.	a)	What is a pointer, pointer to a pointer and explain the advantages of using pointers?	6M	CO5	L2
	b)	Write in detail about the various dynamic memory allocation functions	6M	CO5	L3
		OR			
10.	a)	Discuss about file I/O operations.	6M	CO5	L3
	b)	Describe different forms of Macro Substitutions	6M	CO5	L2

****END****

Hall Ticket Number :										

R-19

Code: 19DC12T

M.C.A. I Semester Supplementary Examinations July 2021

Technical Communication

Max. Marks: 60 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x12 = 60 Marks)

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			Marks	CO	BL
		UNIT–I			
1.		Define Communication and explain the process of Communication.	12M	CO1	L3
		OR			
2.	a)	Elucidate the concept of communication with principles and strategies.	6M	CO1	L3
	b)	"Response of the receiver is feedback" - Explain the feedback mechanism with examples.	6M	CO1	L3
		UNIT–II			
3.		"Effective Non-Verbal communication is the base of personal & professional development" – Elucidate with exampls.	12M	CO2	L2
		OR			
4.	a)	Give a detailed account of Kinesics in Non-Verbal Elements, with suitable examples.	6M	CO2	L2
	b)	What are the tips for effective Oral Presentations?	6M	CO2	L3
		UNIT–III			
5.	a)	Describe the strategies of Effective Presentation.	6M	CO4	L2
	b)	Write a complaint letter to P&G Company on a received product which ordered one item but received another, failed to have a warranty honored. You want to write letter of complaint to solve these problems.	6M	CO4	L2
		OR			
6.	a)	Imagine you are a manager of a company; one of your team members had done improper communication with fellow teammates. You have to suspend him/her based on his/her under company disciplinary action. Write a suspension memo with proper reasons.	6M	CO4	L2
	b)	Write the structure & styles of Memos.	6M	CO4	L2
		UNIT–IV			
7.	a)	List out the types of Repots and mention its significance.	6M	CO5	L3
	b)	A fire accident took place in a unit of your company which damaged the machinery costing Rs. 2 lakh. You are asked submit a detailed Report on the accident by analyzing the incident and suggest recommendations.	6M	CO5	L3
		OR			
8.	a)	Imagine you are a coordinator of the blood donation camp which recently held in your campus regarding that you have to prepare a report by using needy credentials and submit your district collector same.	6M	CO5	L3
	b)	Elucidate the objectives and characteristics of Report.	6M	CO5	L3
		UNIT–V			
9.	a)	Dress code and body language play a vital role in successful Interview – Explain.	6M	CO3	L3
	b)	Write a note on the following: I. HR interview II. Telephone interview	6M	CO3	L3
		OR			
10.	a)	Group Discussion is a very important process for campus recruitment – Elucidate.	6M	CO3	L3
	b)	Draft a sample Resume of your profile as per the standard Resume Format.	6M	CO3	L3

END