MADRAS CHRISTIAN COLLEGE(AUTONOMOUS)

SELF FINANCED STREAM

BCA., DEGREE EXAMINATION APR-2017

GROUP/BRANCH:BCA

TITLE OF THE PAPER:SYSTEM MANAGEMENT-II(134CS4A03)

Time:3 hrs Max Marks:100

19/AN

SECTION-A (10x2 =20)

Answer all Questions

1. What is E-Commerce?
2. Mention any two advantages of E-commerce.
3. Define M-Commerce.
4. What is wireless LAN?
5. Explain B2B.
6. Expand EDI.
7. What is cyberspace?
8. Write one step to implement security in cyberspace.
9. Explain E-money.
10. Explain M-payment.

SECTION-B (5x8=40)

Answer any FIVE Questions

11. Discuss about benefits and limitations of internet.
12. Explain role of E-commerce.
13. Explain how wireless technology is employed.
14. Write a note on wireless application protocol.
15. How EDI works? Explain.
16. What is the role of biometrics?
17. Write a note on security and terrorism.
18. Explain the requirements for internet based systems.

SECTION-C

Answer any TWO Questions (2x20=40)

19. a. Discuss about the advantages of E-commerce.
    b. Explain VIRUS
20. Explain
    a. Supply chain management & B2B
    b. B2B models & tools
21. a. Discuss about Electronic Money and Requirements for Internet Based Payments (12)
    b. Write the General Guidelines to E – Payment (8)

MADRAS CHRISTIAN COLLEGE (Autonomous)
SELF FINANCED STREAM
BCA DEGREE END OF SEMESTER EXAMINATIONS,
CLASS & GROUP: BCA-COMPUTER APPLICATIONS April/May-2017
TITLE OF PAPER: DIGITAL CIRCUITS

TIME: 3 Hrs **Max.Marks:100**

19/AN

SECTION-A (10*2=20)

Answer ALL the Questions

1. Convert $(255)_{10}$ to its equivalent Binary Number.
2. Give the 1's and 2's complements forms for the following binary numbers.
   a) 10101110 b) 11001
3. Define Commutative law.
4. What is meant by Minterms and Maxterms?
5. Define PLA.
6. What is meant by Decoder?
7. List out any two types of flip-flops.
8. Draw truth table for T flip-flop.
9. What is meant by Registers?
10. What is Ripple Counter?

SECTION-B (5*8=40)

Answer any FIVE Questions. Each Question carries Eight Marks

11. Convert the following decimal numbers to Octal numbers.
    a) $(99)_{10} = (?)_8$ b) $(186)_{10} = (?)_8$
12. Explain basic theorems and properties of Boolean algebra.
13. Simplified expressions in sum of product.
    $F(A, B, C) = \sum (3, 4, 5, 6, 7)$
14. With neat diagram and explain Full Subtractor.
15. Explain Binary parallel adder.
16. Write short notes on D-Flip-Flop.
17. Explain Triggering of flip-flops.
18. Discuss on Synchronous Counters and Memory Unit.

SECTION-C (2*20=40)

Answer any TWO of the following. Each question carries 20 marks.

19. Simplify the following Using K-Map
    $F(A, B, C, D) = \sum (0, 1, 2, 3, 4, 6, 8, 10, 11, 12, 14)$
20. Draw a neat diagram and explain Half Adder and Full Adder.
21. Explain Shift Register and Timing Sequence with neat diagram.

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
B.C.A. DEGREE EXAMINATION APRIL 2017
TITLE: ALLIED MATHEMATICS I (084CS1A01)
CLASS & GROUP: B.C.A.

TIME: 3 HOURS SEMESTER : I MAX: 100 MARKS

03/AN

SECTION- A (10 x 2 = 20 marks)

Answer All Questions

1. Find the value of the determinant $\begin{vmatrix} 1 & 2 & 3 \\ -2 & -4 & -6 \\ 8 & 6 & 2 \end{vmatrix}$ using properties of determinants.

2. Find the rank of the matrix $\begin{pmatrix} 1 & 2 & 3 \\ 2 & 4 & 6 \\ 3 & 6 & 9 \end{pmatrix}$.

3. Form a quadratic equation one of whose root is i.

4. Define reciprocal equation.

5. If $y = ax^n + \frac{b}{x^n}$, Find $\frac{dy}{dx}$.

6. Find the nth derivative of e^{4x}.

7. Evaluate $\int \frac{dx}{x^2 + 4x + 13}$

8. Evaluate $\int \log x dx$

9. Form a differential equation by eliminating the arbitrary constant a from $y = ax$.

10. Solve $\frac{dy}{dx} + 3 = 0$.

SECTION- B (5 x 8 = 40 marks)

Answer Any Five Questions

11. Find the rank of the matrix $\begin{pmatrix} 1 & 1 & 1 & 3 \\ 2 & -1 & 3 & 4 \\ 5 & -1 & 7 & 11 \end{pmatrix}$.

12. Solve the system of equations $2x + y + z = 5$, $x + y + z = 4$, $x - y + 2z = 1$, using Cramer's rule.

13. Solve the equation $2x^3 - 9x^2 + 12x - 4 = 0$ given that it has two equal roots.

14. If α, β, γ are the roots of $x^3 + px^2 + qx + r = 0$, Find the value of

(i) $(1+\alpha)(1+\beta)(1+\gamma)$

(ii) $\sum \frac{\beta+\gamma}{\gamma}$

15. Find the nth derivative of $\frac{x}{(x+3)(2x-1)}$.

16. Evaluate $\int \frac{dx}{\sqrt{1-x-x^2}}$

17. Evaluate $\int (\log x)^3 dx$.

18. Solve $e^x \sqrt{1-y^2}\, dx + \frac{y}{x} dy = 0$.

SECTION- C

(2x 20 = 40 marks)

Answer Any Two Questions

19. a) Show that the system of equations $3x - 4y = 2$, $5x + 2y = 12$, $-x + 3y = 1$ is consistent.

b) Verify Cayley Hamilton theorem for the matrix $\begin{pmatrix} 2 & -1 & 1 \\ -1 & 2 & -1 \\ 1 & -1 & 2 \end{pmatrix}$ and hence find its inverse.

(8+12)

20. a) Solve the equation $6x^5 - x^4 - 43x^3 + 43x^2 + x - 6 = 0$.

b) If $y = \sin(m \sin^{-1} x)$, Prove that

$$(1-x^2)y_{n+2} - (2n+1)xy_{n+1} + (m^2 - n^2)y_n = 0.$$

(10+10)

21. a) Evaluate $\int \frac{dx}{12 + 13\cos x}$

b) Solve $(x^3 + 3xy^2)dx + (y^3 + 3x^2 y)dy = 0$.

(10+10)

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
B.C.A. DEGREE EXAMINATIONS APRIL-2017
CLASS & GROUP: B.C.A.

TITLE OF THE PAPER : COMPUTING ENVIRONMENT(084CS1M02)

TIME: 3HRS SEMESTER-I MARKS:100

02/FN

PART – A

Answer all the questions (10 X 2 = 20)

1. Write the salient features of UNIX.
2. Write the command to create a directory in UNIX.
3. What is the difference between internal command & external command in UNIX?
4. What is the use of pwd command?
5. What is the use of word art?
6. What is a tool bar?
7. What is the use of live preview in power point?
8. What is the use of $\sum$ in MS-Excel?
9. What is IP address?
10. Define www.

PART – B

Answer any five questions (5 X 8 = 40)

11. Discuss the structure of the UNIX system.
12. Explain the File Permissions in UNIX.
13. Write the essentials of ls command with options in UNIX.
14. Explain the use of footers & headers in MS-Word.
15. Explain the use of conditional formatting in spread sheet.
16. Write the procedure for playing the presentation
17. Discuss the various types of charts in Spread sheets.
18. Discuss about the modem and physical connection of internet.

PART – C

Answer any Two questions (2 X 20 = 40)

19. a) Write the steps involved in mail merge operation. (12)
    b) How to create a template (8)
20. Discuss the following
    a. Types of charts in Spread sheets. (20)
21. Discuss the following
    a. Procedure to create Power Points Presentation.
    b. Web browsers

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
B.C.A DEGREE END OF SEMESTER EXAMINATION APR 17
CLASS AND GROUP : B.C.A – COMPUTER APPLICATION
TITLE OF PAPER : DIGITAL CIRCUITS (114CS1M01)

TIME : 3 HRS **SEMESTER – I** **MAX MARKS : 100**

26/FN

SECTION A

Answer all Questions **10 x 2 = 20**

1. Define binary numbers.
2. What are Universal Gates?
3. Draw the logic diagram of XOR.
4. Find 1's complement and 2's Complement for 11100010101.
5. Define Flip Flop.
6. Define multiplexer.
7. Give example for sequential Logic.
8. Draw a logic diagram for ab'c + a'c' + bc'
9. Define register.
10. Define Counters.

SECTION B

Answer any Five Question **5 x 8 = 40**

11. Convert the following numbers (2 marks each)
    i. $(7096)_{10}$ to binary
    ii. $(110110011)_2$ to Decimal
    iii. $(376)_8$ to binary
    iv. $(F76)_{16}$ to octal
12. State and Prove Demorgan's Law.
13. Explain Universal Gates.
14. Simplify the following function and state its truth table and logic diagram (A+BC)'(A'B+B")
15. Explain Encoder.
16. Explain Binary parallel adder.
17. Explain Mater Slave Flip Flop.
18. Differentiate Synchronous and Asynchronous counters.

SECTION C

Answer any two Questions. **2 x 20 = 40**

19. a. Explain various Logic Gates
    b. Differentiate Multiplexer and Demultiplexer.
20. a. Simplify the Boolean function using K map.
    $F(ABCD) = \sum(0,2,3,10,11,14) + \sum_d(1,8,13,15)$
    b. Explain with Circuit diagram Half Adder.
21. a. Explain Register with Parallel load
    b. Explain Triggering of Flip Flop..

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

SELF FINANCED STREAM

B.C.A DEGREE END SEMESTEREXAMINATION, APRIL 2017

CLASS AND GROUPS: B.C.A COMPUTER APPLICATIONS.

TITLE OF THE PAPER: PROGRAMMING USING C (114CS2MO1)

TIME: 3HRS SEMESTER-II MAX.MARKS:100

24/AN

SECTION – A 10 * 2 = 20

ANSWER ALL QUESTIONS:

1. List all the rules that should be followed while naming a Variable.
2. Write down the structure of a 'C' program.
3. What will be the value of x when the following segment is executed?

   int x=15, y=25;

   x = (x<y) ? (y+x) : (y-x);
4. Write the syntax of for statement.
5. Define Recursion.
6. What is prototyping?
7. State the rules for initializing structures.
8. What is Union ?
9. Define a Pointer.
10. How does an append mode differ from a write mode?

SECTION – B 5 * 8 = 40

ANSWER ANY FIVE QUESTIONS:

11. Explain decision making with if statement using suitable example.
12. Write a C program to determine whether a given integer is even or odd.
13. Write about different data types used in C.
14. Explain break and continue statements with example.
15. How to Define, declare and Initialize a pointer.
16. Differentiation between a structure and a Union .
17. Describe the two ways of passing parameters to functions with examples.
18. What is a Command line argument? Explain.

SECTION – C 2 * 20 = 40

ANSWER ANY TWO QUESTIONS:

19. List and explain the various operators used in 'C' language. (10)

20. a) Discuss about macro substitution (10)

b) With suitable example explain the concept of call by value and call by reference. (8)

21. a)Explain in detail about any two of the file operations (12)

b) Write a C program to add two matrices A and B and print it.

MADRAS CHRISTIAN COLLEGE (Autonomous)
B.C.A. Degree Examination April 2017
Allied Mathematics II (084CS2A01)

Time: 3 Hours **Semester: II** **Max: 100 Marks**

22/AN

Section A (10 x 2 = 20 marks)

Answer ALL Questions

1. If $A = \{1, 2, 3, 4\}$, $B = \{1, 2, 5, 7\}$, Find $A \oplus B$.

2. Construct the truth table for $\sim P \wedge \sim Q$

3. In how many ways the letters of English alphabet be arranged so that there are exactly five letters between the letters a and b.

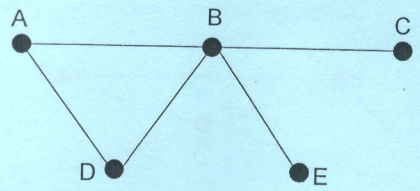
4. Solve the recurrence relation $a_r - 5a_{r-1} + 6a_{r-2} = 0$.

5. Define semigroup isomorphism.

6. Draw the Hassee diagram for (D_6 , |) if D_n denotes the set of all divisors of n where n is a positive integer and | denotes a dives b.

7. When do you say that two nodes in a graph are adjacent.

8. Write the adjacency structure representation of the following graph.



9. Define leaf and branch nodes.

10. What is a binary tree.

Section B (5 x 8 = 40 marks)

Answer any FIVE questions

11. State and prove Demorgan's laws for complement of sets.

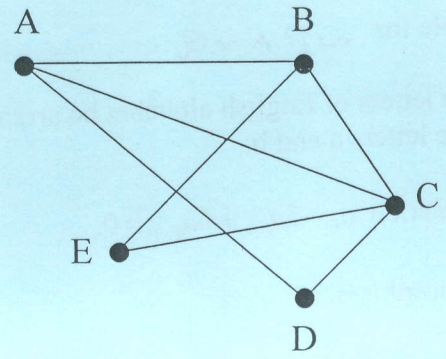
12. Prove by mathematical induction that $1^3 + 2^3 + 3^3 \ldots + n^3 = \frac{n^2(n+1)^2}{4}$.

13. How many 6-digit numbers, without repetitions of digits, are there such that the digits are all non-zero and 1 and 2 do not appear consecutively in either order?

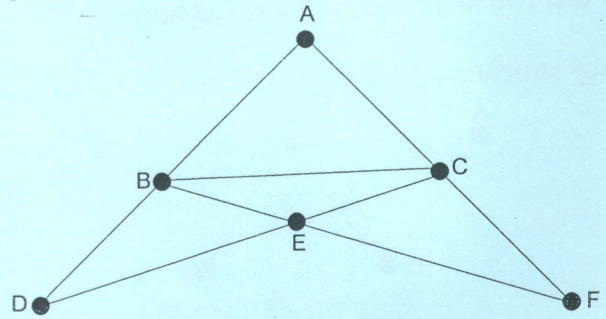
14. Solve the recurrence relation $a_r - 3a_{r-1} - 4a_{r-2} = 3^r$ given that $a_0 = 1, a_1 = 2$.

15. State and prove the fundamental theorem of semigroup homomorphism.

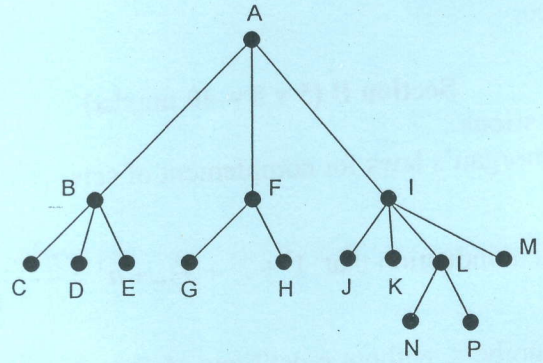
16. Find the adjacency matrix of the following graph.



17. Write Fluery's algorithm and construct an Eulerian trial for the following graph using Fluery's algorithm



18. Construct the binary tree representation for the following graph.



Section C (2 x20 = 40 marks)

Answer any TWO questions

19. (a) In a survey of 60 people it is found that 25 like to drink milk, 26 coffee and 26 tea. Also 9 like both milk and tea, 11 like milk and coffee, 8 like coffee and tea and 8 like none of the three. Using Venn diagram
    (i) Find the number of people who like all the three drinks.
    (ii) Find the number of people who like exactly one of the three drinks.

    (b) Obtain the CNF and DNF for $(\sim P \vee \sim Q) \rightarrow (P \rightleftarrows \sim Q)$

(10+10)

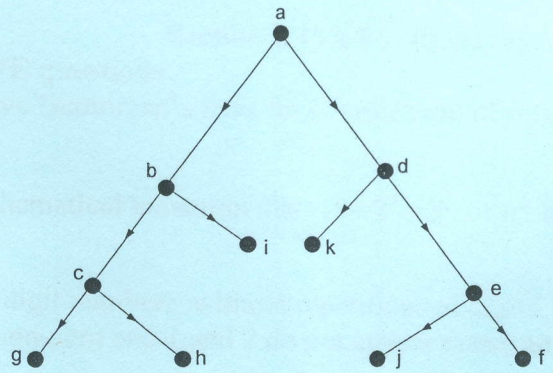
20. (a) Solve $a_r - 2a_{r-1} = (r+1)2^r$ given that $a_0 = 1, a_1 = 2$.

    (b) Let $f : S \rightarrow T$ be a homomorphism of the semigroup $(S, \square)$ onto the semigroup $(T, *)$. and let R be a relation definied on S by aRb if and only if $f(a) = f(b), a, b \in S$. Prove that
    (i) R is a congruence relation.
    (ii) $(S/R, \square)$ is isomorphic to $(T, *)$.

(10+10)

21. (a) Define the following and give an example of each.
    (i) Bipartite graph
    (ii)Circuit
    (iii)Complete graph
    (iv)Hamilton path
    (v)Connected graph

    (b) Write the preorder, postorder and inorder search algorithms and search the following tree in preorder, postorder and inorder.



(10+10)

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
B.C.A DEGREE END OF SEMESTER EXAMINATION APRIL - 2017
CLASS AND GROUP : B.C.A – COMPUTER APPLICATION
TITLE OF PAPER : MICROPROCESSORS (084CS3M02)

TIME : 3 HRS SEMESTER – III MAX MARKS : 100

27/AN

SECTION A

Answer all Questions 10 x 2 = 20

1. What is a microprocessor?
2. Define assembler.
3. Define system bus.
4. Define flags.
5. What is continuous loop?
6. Define debugging.
7. Define subroutine.
8. Define counter.
9. List priority of interrupts.
10. Define interrupts.

SECTION - B

Answer any FIVE questions: 5 X 8 = 40

11. Explain instruction data format.
12. Explain block diagram programming model.
13. Write short note on flags contents & its conditions
14. Explain branch operation.
15. Write an assembly language program for 8bit addition.
16. Discuss on restart instruction.
17. Explain time delay using one register.
18. Explain 8255A programmable peripheral interface.

SECTION

Answer any TWO questions in detail: 2 X 20 = 40

19. Draw the 8085 pin diagram and explain its functions in detail.
20. Explain all the data transfer and branch instruction.
21. Explain Interrupts in detail.

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
BCA DEGREE EXAMINATION APR-2017

GROUP/BRANCH: BCA COMPUTER APPLICATION

TITLE OF THE PAPER-SYSTEMS MANAGEMENT-I (084CS3AO2)

TIME: 3HRS SEMESTER-III MAX MARKS: 100

03/FN

SECTION-A

Answer **ALL** the Questions. 10 x2=20

1. What is system analysis and design?
2. What is a prototype?
3. Define interview.
4. What is a decision table?
5. What is a data dictionary?
6. What is data name?
7. What is output?
8. What is capacity?
9. Define Pie Chart.
10. What is record?

SECTION-B

Answer any **FIVE** Questions. 5 x8=40

11. Write a note on standard analysis development method.
12. Explain the five categories of application suitable for End-user development.
13. Write a note on decision tables.
14. Write the general rules for drawing logical data flow diagram.
15. Discuss the objectives in designing an information system.
16. How to identify computer output needs? Explain.
17. Explain the methods available for checking the transaction.
18. Write a note on basic file terminology.

SECTION-C

Answer any **TWO** Questions. 2 x20=40

19. Explain the system development life cycle.
20. Explain the features of a data dictionary.
21. a) Explain the different types of files. (10)
    b) What features must be considered in designing an information system (10)

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
B.C.A DEGREE EXAMINATION, APRIL- 2017
CLASS & GROUP: B.C.A.

TITLE: COMPUTER INTEGRATED STATISTICAL METHODS AND OPTIMIZATION TECHNIQUES-I (084CS3AO1)

DURATION : 3 HRS SEMESTER : III MAX. MARKS:100

28/FN

Section – A

Answer all Questions. **10*2=20 Marks**

1. What is a histogram?
2. Define Ogive.
3. What are the main objectives of averaging?
4. What is simple arithmetic mean? Give its formula.
5. Write the properties of correlation coefficient.
6. Write the equations of regression lines.
7. What is interpolation?
8. Write the formula for Newton's divided difference.
9. What is numerical differentiation?
10. Give the formula for Simpson's 3/8 rule.

Section – B

Answer any FIVE. **5*8=40 Marks**

11. Draw a multiple bar diagram from the following data.

Year	:	2008	2009	2010	2011
Sales (Rs)	:	120	135	140	150
Gross Profit (Rs)	:	40	45	55	60
Net Profit (Rs)	:	20	30	35	40

12. Draw a histogram for the following data.

Variable	: 100-110	110-120	120-130	130-140	140-150	150-160	160-170
Frequency:	11	28	36	49	33	20	8

13. What are the objectives of Averaging?

14. From the following data of marks obtained by 60 students of a class calculate the Arithmetic mean.

Marks	:	20	30	40	50	60	70
No. of Students	:	8	12	20	10	6	4

15. The joint probability of X and Y is given. Find the correlation coefficient between X and Y.

Y\X	-1	1
0	1/8	3/8
1	2/8	2/8

16. Find a cubic polynomial which takes the following values.

x	:	0	1	2	3
F(x)	:	1	2	1	10

17. Use Lagrange's formula to find f(6) for the following data.

X	:	1	2	7	8
F(x)	:	4	5	5	4

18. Evaluate $_0\int^{10} dx / 1+x^2$ using trapezoidal rule.

Section – C

Answer any Two. **2*20=40 Marks**

19. Calculate the mean and standard deviation for the following data giving the age distribution of 542 members.

Age(yrs)	:	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No. of members	:	3	61	132	153	140	51	2

20. The IQ's of a group of 6 persons and their exam marks are as follows. Calculate the rank correlation.

X	:	75	88	95	70	60	80	81	50
Y	:	120	134	150	115	110	140	142	100

21. (a) Using Newton's divided difference formula evaluate f(8) given that

X	:	4	5	7	10	11	13
f(x)	:	48	100	294	900	1210	2028

(b)Evaluate $_0\int^{6} dx/1+x$ using Simpson's 3/8 rule.

MADRAS CHRISTIAN COLLEGE (Autonomous)

SELF FINANCED STREAM

BCA DEGREE EXAMINATIONS- APRIL/MAY-2017

CLASS & GROUP: BCA-COMPUTER APPLICATIONS

TITLE OF PAPER: DATA STRUCTURES AND ALGORITHMS (084CS3M01)

TIME: 3 Hrs SEMESTER-III Max.Marks:100

OQ/PN

SECTION-A (10*2=20)

Answer ALL the Questions

1. What is an Algorithm?
2. Give two example of divide and conquer algorithm.
3. What is Circular Queue?
4. Define Linked List.
5. What is an ADT?
6. List out basic operations in a singly linked list.
7. What is greedy algorithms.
8. What is meant by selection sort.
9. Define binary search.
10. What is meant by Quick Sort?

SECTION-B (5*8=40)

Answer any **FIVE** Questions. Each Question carries Eight Marks

11. Discuss Asymptotic notation with an example.
12. Explain the Problem solving phases.
13. How to represent linear queues using array? Discuss.
14. Write an algorithm to stack using array.
15. Explain inert operation in a doubly linked list.
16. Exemplify the binary search tree with example.
17. Write an algorithm for Bubble sort
18. Explain the linear search with example.

SECTION-C (2*20=40)

Answer any TWO of the following. Each question carries 20 marks.

19. Describe about the operations of stack using linked list.
20. What is meant by binary tree? Explain the Binary Tree traversal algorithms.
21. Discuss on Merge sort Algorithm with an example.

MADRAS CHRISTIAN COLLEGE (Autonomous)
SELF FINANCED STREAM
BCA DEGREE END OF SEMESTER EXAMINATIONS, April/May-2017
CLASS & GROUP: BCA-COMPUTER APPLICATIONS

TITLE: COMPUTER INTEGRATED STATISTICAL METHODS AND OPTIMIZATION TECHNIQUES-II (084CS4A01)

TIME 3HRS SEMESTER : IV MAX. MARKS: 100

26/AN

SECTION – A

Answer all Questions. 10*2=20

1. Define O.R.
2. Define optimal solution.
3. What is a slack variable?
4. What is a replacement ratio in simplex procedure?
5. Which method is Mention any two methods for finding the initial solution of a transportation problem.
6. What is an unbalanced transportation problem?
7. How is the first modified matrix obtained in solving an assignment problem?
8. Define a sequencing problem?
9. What is a dummy activity in a network?
10. What are the different time estimates in a PERT network?

SECTION – B

Answer any FIVE. 5*8=40

11. Write a brief note on models in OR.

12. Two brands of fertilizers A and B are available. A field requires 16Kg of nitrogen and 24 Kg of phosphate. Brand A costs Rs.6/Kg and B costs Rs.3/Kg. Formulate to minimize the total cost of fertilizer.

	Chemical Composition	
	Nitrogen	Phosphate
Brand A	2	4
Brand B	4	3

13. Reduce the following LPP to its standard form.

Max $Z=x_1-3x_2$, s.t $-x_1+2x_2 \leq 15$, $x_1+3x_2=10$, x_1,x_2 unrestricted.

14. Find the initial basic feasible solution using North West corner rule.

Destinations

	A	B	C	D	Demand
W1	11	13	17	14	250
Source W2	16	18	14	10	300
W3	21	24	13	10	400
Requirement	200	225	275	250	

15. Solve the following Assignment problem

Machines

		1	2	3	4
	A	11	17	8	16
Jobs	B	9	7	12	6
	C	13	16	15	12
	D	14	10	12	11

16. There are 5 jobs each of which go through 2 machines A and B in the order A, B. The processing time (hrs) are given. Determine the optimum sequence.

Job	:	J1	J2	J3	J4	J5
A	:	5	1	9	3	10
B	:	2	6	7	8	4

17. Draw the network and find the critical path.

Activity	:	A	B	C	D	E	F
Predecessor	:	-	-	A	A	B, C	D,E
Duration(days):		16	20	8	10	6	12

18. Differentiate PERT and CPM.

SECTION – C

Answer any Two. **2*20=40**

19. Solve using Big-M method. Max $Z = 2x_1+x_2$
    s.t $3x_1+x_2 = 3$, $4x_1+3x_2 \geq 6$, $x_1+2x_2 \leq 3$, $x_1,x_2 \geq 0$.

20. Solve the following transportation problem.

		To				
		D	E	F	G	Available
	A	6	4	1	5	14
From	B	8	9	2	7	16
	C	4	3	6	2	5
		6	10	15	4	35

21. The time estimates of a PERT network are as follows.
    (i)Draw the network and determine the critical path.
    (ii)Find the probability that the project will be completed atleast 4 weeks earlier.

Activity	1-2	1-3	1-4	2-5	3-5	4-6	5-6
T0	1	1	2	1	2	2	3
Tm	1	4	2	1	5	5	6
Tp	7	7	8	1	14	8	15

MADRAS CHRISTIAN COLLEGE(AUTONOMOUS)

SELF FINANCED STREAM

B.C.A. DEGREE EXAMINATION APR-2017

TITLE OF THE PAPER:OPERATING SYSTEMS(084CS4MO1)

Time:3 hrs SEMESTER-IV Max Marks:100

24/FN

PART-A

Answer all the questions 10×2=20 marks

1. Define a Process
2. What is Process Control Block?
3. What is critical section?
4. Define semaphore.
5. What is Deadlock?
6. What is meant by unsafe state?
7. What is preemptive scheduling?
8. Define turnaround time.
9. What is swapping?
10. Define Demand paging.

PART – B

Answer any five questions 5× 8 =40 marks

11. Discuss about the various operations on a process.
12. Explain about the process synchronization with semaphore.
13. Describe about Peterson's algorithm in detail.
14. Write about the four necessary conditions for deadlock in detail.
15. Discuss about the deadlock detection in detail.
16. Explain in detail about the RR scheduling.
17. Write about scheduling Criteria.
18. Explain about the Strategies of storage management.

PART – C

Answer any two questions 2×20=40marks

19. Discuss about deadlock avoidance and bankers algorithm.

20. Write in detail about FIFO scheduling and SJF scheduling.

21. Explain Page replacement algorithms with example.

MADRAS CHRISTIAN COLLEGE(AUTONOMOUS)
SELF FINANCED STREAM
BCA DEGREE EXAMINATIONS APRIL - 2017
GROUP/BRANCH:BCA
TITLE OF THE PAPER: SYSTEM MANAGEMENT-II (134CS4A03)

Time:3 hrs **SEMESTER:IV** **Max Marks:100**

26/AN

SECTION-A (10x2=20)

Answer all questions

1. Define E-commerce
2. Mention any two limitations of internet
3. What do you mean by M-commerce
4. Explain LAN
5. What is supply chain?
6. Define EDI
7. What is cybercrime?
8. Expand VIRUS
9. What is electronic money?
10. What is a Smart card?

SECTION –B (5x8=40)

Answer any five questions

11. Write in detail about the role of E-strategy
12. Explain the different business models
13. Explain wireless application protocol
14. Write a note on supply chain management
15. Explain B2B Tools.
16. Discuss about VIRUS
17. Explain security protection & recovery of your system.
18. Briefly discuss about B2B and E-payment

SECTION-C (2x20=40)

Answer any two of the following

19. a. Mention the advantages and disadvantages of E-commerce
    b. Role of biometrics
20. Discuss about B2B models in detail
21. Explain in detail about M-Commerce & M-Payment

MADRAS CHRISTIAN COLLEGE(AUTONOMOUS)

SELF FINANCED STREAM

B.C.A. DEGREE EXAMINATION APR-2017

Class & Group: B.C.A.

TITLE: PROGRAMMING USING C# (084CS5MO4)

SEMESTER-V

PART – A

Answer all the questions 10×2=20 marks

1. Define managed code.
2. What is meant by Literals?
3. List out the relational operators in C#.
4. Write the purpose of GOTO statement.
5. Define Jagged Array.
6. What is recursion?
7. Define Structures.
8. What is Inheritance?
9. Write the purpose of throwing an exception.
10. Define Binary stream.

PART – B

Answer any five questions 5× 8 =40 marks

11. Write notes on C# family tree.
12. Explain about executing program in IDE and Command line compiler.
13. Describe about the Constructor and Destructor in detail.

14. Describe about the arrays and strings in C# with an example.

15. Explain about Inheritance

16. Discuss about how interfaces can be inherited.

17. Explain in which situation abstract classes could be used with suitable example

18. Discuss console I/O stream classes.

PART – C

Answer any two questions 2×20=40marks

19. Discuss the operators in C# with suitable example.

20. Describe about the operator overloading in C# with example.

21. Explain in detail about exception handling mechanism in C#.

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

SELF FINANCED STREAM

B.C.A. DEGREE EXAMINATION APRIL-2017

TITLE: VISUAL BASIC.NET (084CS5M02)

TIME:3HRS SEMESTER-V MARKS:100

19/AN

SECTION – A 10 * 2 = 20

ANSWER ALL QUESTIONS:

1. Differentiate between VB.NET with VB.
2. How are variables declared in VB.NET?
3. What is a form in VB.NET?
4. Write a short note on Polymorphism.
5. Write the syntax of for statement.
6. Define Overriding.
7. List out some guidelines to be follow when naming your namespace.
8. Define Class.
9. What is namespace in .NET?
10. What is Checkbox?

SECTION – B 5 * 8 = 40

ANSWER ANY FIVE QUESTIONS:

11. Briefly explain Looping statements in VB.NET.
12. What is Object Oriented Programming Language? Explain its various features.
13. What are the special properties of Textbox? Explain.
14. How to create a window form application in VB.NET?
15. What are the classes and objects? Discuss how to add properties, events and methods to a class module.
16. Explain the following terms with example a) Private b) Protected c) Public.
17. Describe the concept of Overloading in VB.NET.
18. Explain the Constructor with example.

SECTION – C 2 * 20 = 40

ANSWER ANY TWO QUESTIONS:

19. Describe .NET framework architecture.
20. What is Array? Explain the creation and using of different type of Array.
21. What are common controls in VB.NET? Explain any five with example.

MADRAS CHRISTIAN COLLEGE (Autonomous)
SELF FINANCED STREAM
BCA DEGREE EXAMINATIONS- APRIL/MAY-2017
CLASS & GROUP: BCA-COMPUTER APPLICATIONS
TITLE OF PAPER: DATABASE MANAGEMENT SYSTEMS (084CS5M01)

TIME: 3 Hrs SEMESTER-V Max.Marks:100

21/A1

SECTION-A (10*2=20)

Answer ALL the Questions

1. Compare file systems and DBMS.
2. What is role of transaction management in Database Systems?
3. List Out various relationship in ER Model.
4. What is usage of Database Design?
5. List the different types of constraints.
6. Define relational algebra.
7. Differentiate COUNT and SUM.
8. What is meant by trigger?
9. What is Normalization?
10. Define Schema.

SECTION-B (5*8=40)

Answer any **FIVE** Questions. Each Question carries Eight Marks

11. Bring out advantages of a DBMS.
12. Explain the queries in a DBMS.
13. Describe about additional features of ER model.
14. Discuss on Attribute, Entity set, Relationship and Relationship Sets.
15. What is View? How do you create, alter table and view? Explain of them.
16. Explain triggers with an example.
17. Explain Nested queries with an example.
18. Explain the multivalued dependencies.

SECTION-C (2*20=40)

Answer any TWO of the following. Each question carries 20 marks.

19. a) Draw a neat diagram and explain the Structure of a DBMS. (10)
    b) Discuss on Conceptual design with the ER Model. (10)
20. a) Explain the Relational Calculus with suitable example. (10)
    b) Write in detail about DDL and DML commands. (10)
21. Explain in detail about BCNF (20)

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
B.C.A. DEGREE END SEMESTER EXAMINATION APR 2017
CLASS & GROUP: B.C.A. (Computer Application)
TITLE: JAVA PROGRAMMING (084CS6M03)

Time: 3 Hrs | SEMESTER: VI | Max Marks: 100

SECTION A

Answer **ALL** the questions **(10 * 2 = 20 Marks)**

1. What is JVM?
2. What do you mean by variable?
3. What is conditional operator?
4. What is the use of break statement?
5. Which function is used for extracting substring?
6. What is the use of finalize method?
7. Define Method Overriding.
8. How will you set the priority of a thread?
9. Define exception.
10. Define Applet.

SECTION B

Answer Any **Five** Questions **(5 * 8 = 40 Marks)**

11. Explain in detail about the various data types available in Java.
12. Discuss about the type conversion with an example.
13. Explain bitwise operators with an example.
14. Write a Java program to find the sum of even series 2+4+6+…+n.
15. Explain the life cycle of a thread.
16. Define Package. Discuss how you will define user defined Package.
17. Write briefly about the skeleton of applet.
18. Discuss the methods of catching exceptions.

SECTION C

Answer Any **Two** Questions **(2 * 20 = 40 Marks)**

19. Discuss about the looping constructs with examples.

20. Explain in detail about the string operations with an example

21. Define Inheritance. Explain how you will inherit methods in Java

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

SELF FINANCED STREAM

B.C.A DEGREE END SEMESTEREXAMINATION, APRIL 2017

CLASS AND GROUPS: B.C.A COMPUTER APPLICATIONS.

TITLE OF THE PAPER: WEB PROGRAMMING

SUB CODE: 084CS6M02

TIME: 3HRS SEMESTER VI MAX.MARKS:100

21/FN

SECTION – A (10*2=20)

Answer ALL questions.

1. Which tag is used to bold the text?
2. Define frame.
3. What is browser?
4. How to write function in Java Script?
5. What is meant by event capturing?
6. What is server object?
7. What do you mean by request object?
8. What is response object?
9. What is meant by input box function?
10. Define form.

SECTION – B (5*8=40)

Answer Any FIVE questions.

11. Write a detailed note on scripting languages.
12. How can you incorporate Java Script into an HTML page?
13. Explain events in JavaScript.
14. What is meant by server side scripting? Explain.
15. Explain msg box with an example.
16. Discuss about different heading tags in HTML.
17. Write a java script Program to find factorial of given number.
18. Discuss the methods of session object.

SECTION – C (2*20=40)

Answer Any TWO questions.

19. What are different list tags available in HTML? Explain each.
20. Explain operators and expressions in java script
21. A. Explain about ActiveX controls with suitable example.
    B. What is cookie? Explain the application of cookies.

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MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
[SELF-FINANCED STREAM]
B.C.A DEGREE END OF SEMESTER EXAMINATIONS APRIL 2017

GROUP/BRANCH: COMPUTER APPLICATIONS

TITLE OF THE PAPER: [084CS6M05] DATA COMMUNICATIONS AND NETWORKING

Time: 3 Hours SEMESTER - VI Max.:100 Marks

27/FN

PART-A (10 × 2=20)

Answer *ALL* the questions.

1. Define the term: Data Communications.
2. What is Mesh Topology?
3. Define: Bandwidth.
4. Define analog signal.
5. Define: Circuit Switching.
6. What is meant by ARQ?
7. What are bridges?
8. Define: Protocol.
9. What is telnet?
10. What is http?

PART-B (5 × 8 =40)

Answer any *FIVE* questions.

11. Write short note on Line configuration.
12. Discuss briefly on Transmission modes.
13. Write short note on packet switching.
14. Discuss about Network devices.
15. Discuss briefly on World Wide Web.
16. Write short note on Categories of networks.
17. What is Multiplexing? Explain.
18. Write note Domain Naming System.

PART-C (2 × 20 = 40)

Answer any *TWO* questions.

19. Discuss in detail about OSI Model.
20. Briefly explain about Guided Media used in Computer Networks.

21. a . Discuss in detail about any **one** Routing Algorithms. (12)

    b. Explain about routers (8)

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
B.C.A. DEGREE END SEMESTER EXAMINATION APR 2017
CLASS & GROUP: B.C.A. (Computer Application)
TITLE: JAVA PROGRAMMING (084CS6M03)

Time: 3 Hrs | SEMESTER: VI | Max Marks: 100

SECTION A

Answer **ALL** the questions **(10 * 2 = 20 Marks)**

1. What is JVM?
2. What do you mean by variable?
3. What is conditional operator?
4. What is the use of break statement?
5. Which function is used for extracting substring?
6. What is the use of finalize method?
7. Define Method Overriding.
8. How will you set the priority of a thread?
9. Define exception.
10. Define Applet.

SECTION B

Answer Any **Five** Questions **(5 * 8 = 40 Marks)**

11. Explain in detail about the various data types available in Java.
12. Discuss about the type conversion with an example.
13. Explain bitwise operators with an example.
14. Write a Java program to find the sum of even series 2+4+6+…+n.
15. Explain the life cycle of a thread.
16. Define Package. Discuss how you will define user defined Package.
17. Write briefly about the skeleton of applet.
18. Discuss the methods of catching exceptions.

SECTION C

Answer Any **Two** Questions **(2 * 20 = 40 Marks)**

19. Discuss about the looping constructs with examples.

20. Explain in detail about the string operations with an example

21. Define Inheritance. Explain how you will inherit methods in Java

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM
BCA DEGREE EXAMINATION APR-2017
GROUP/BRANCH: BCA COMPUTER APPLICATION

TITLE OF THE PAPER-SOFTWARE ENGINEERING(084CS6MO1)

TIME: 3HRS SEMESTER-VI MAX MARKS: 100

SECTION-A

Answer **ALL** the Questions. 10 x2=20

1. What is the fundamental principle of software engineering?
2. What is prototyping model?
3. Give the role of system analyst.
4. Define Correctness.
5. What is logical cohesion?
6. What is data dictionary?
7. Define window.
8. What is unit testing?
9. What is statistical testing?
10. Define CASE.

SECTION-B

Answer any **FIVE** Questions. 5 x8=40

11. Discuss various innovations and technologies that led to the emergence of software engineering discipline.
12. Write a note on Spiral model?
13. What are the properties of a good SRS document?
14. Give the difference between function-oriented and object-oriented design.
15. Write a note on Transform Analysis in structured design.
16. Explain the types of user interfaces.
17. Discuss the various Integration test approaches.
18. Explain the Estimation of maintenance cost.

SECTION-C

Answer any **TWO** Questions. 2 x20=40

19. Explain the different phases of waterfall life cycle model.
20. Write a note on.
    a) Differentiate black box and white box testing.
    b) Software quality management system.
21. Write a note on.
    a) Software reverse engineering.
    b) Architecture of a CASE environment.

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
TAMBARAM, CHENNAI-600 059.
B.Sc DEGREE EXAMINATION April - 2017
B.Sc Visual Communication

TITLE OF THE PAPER:INTRODUCTION TO VISUAL COMMUNICATION (084VC1M01)

TIME: 3 HOURS **SEMESTER – I** **MAX MARKS: 100**

27/FN

SECTION – A

Answer ALL the questions: **10 X 2 = 20**

1. Intra group communication.
2. Noise
3. Non Verbal communication
4. Symbols
5. Signs
6. Visual illusions
7. Narrowcast
8. Mass media
9. Codes
10. Semiotics

SECTION – B

Answer any FIVE of the following: **10 X 2 = 20**

11. Define Visual Communication and it's importance in current scenario.
12. Briefly Explain Osgood's theory of communication.
13. What are the characteristics of mass media?
14. Write the difference between connotations and denotations with appropriate examples.
15. Write a detailed note on barriers of communication.
16. Explain the visual cycle with illustrations.
17. Explain colour psychology.
18. Explain the levels of communication.

SECTION - C

Answer any TWO of the following: **2 X 20 = 40**

19. Analyze the importance of non verbal communication in films and ads.
20. Explain how culture, code, signs generate meaning to mass audiences?
21. Explain with examples any two western model of communication.

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MADRAS CHRISTIAN COLLEGE AUTONOMOUS (AUTONOMOUS)
TAMBARAM, CHENNAI-600 059.
B.Sc DEGREE EXAMINATION November 2017
BRANCH B.Sc Visual Communication

TITLE OF THE PAPER: The Internet and New Technologies (084UC4F05)

TIME: 3 HOURS MAX MARKS: 100

19/AN

SECTION – A

ANSWER ALL THE QUESTIONS: 10 X 2 = 20

1. IP address
2. HTML
3. Internet
4. Podcasting
5. Silicon Valley
6. Webcast
7. Online Radio
8. E-commerce
9. Online Advertising
10. SNS

SECTION – B

ANSWER ANY FIVE OF THE FOLLOWING 5 X 8 = 40

11. What is Blog? And it's different types with examples.
12. Define webinar and its importance.
13. Discuss the difference between Television and WebTV.
14. What is Virtual University and explain how it works.
15. Discuss the role of whatsapp and facebook in latest jallikattu protest.
16. Explain the interactive features of the Internet.
17. Define Media convergence with examples.
18. 'PAYTM' – discuss the e-transfer and e-bill.

SECTION - C

ANSWER ANY TWO QUESTIONS 2 X 20 = 40

19. Discuss the pros and cons of digital India with examples.
20. Explain the promotions through internet with suitable explain.
21. Elaborate on the different types of Internet security.

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MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
SELF FINANCED STREAM

B.Sc. DEGREEEND OF SEMESTER EXAMINATION -APRIL 2017
Group/Branch: B.Sc. [Physical Education]

TITLE OF THE PAPER: HEALTH, SAFETY EDUCATION AND PERSONAL HYGIENE

Time: 3 Hours **Max Marks: 100**

PART – A

Answer All the questions: - **(10 x 2 = 20)**

1. Define Health.
2. What is pollution?
3. List the precautionary and emergency equipment at Home.
4. What is a thunder?
5. Principles to be followed during a physical education class.
6. Define First Aid.
7. What is personal hygiene?
8. Define supervision.
9. What are infections?
10. Expand AIDS and STD.

PART – B

Answer any FIVE questions: - **(5 x 8 = 40)**

11. Describe the determinants of health.
12. Write short notes on heredity and environment.
13. Write short notes on safety at school.
14. Explain the policies and practices to prevent accident.
15. Explain need and importance of personal hygiene.
16. Describe the public health measures to combat infection.
17. Enumerate the health impacts of drug abuse.
18. Write a note on health programmes in school.

PART – C

Answer any TWO questions: - **(2 x 20 = 40)**

19. Write an essay on Environmental pollution.
20. Write an essay on communicable diseases.
21. Explain the safety considerations with reference to specific games in schools and colleges.

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

B.Sc. DEGREE END OF THE SEMESTER EXAMINATIONS APRIL – 2017

CLASS & GROUP: B.Sc. VISUAL COMMUNICATION

TITLE OF THE PAPER: MEDIA EFFECT AND CULTURAL STUDIES (084VC2M01)

Semester – II

Time: 3hrs. Max. Marks: 100 marks

24/AN

Section A

Answer all the questions: (10 x 2 = 20)

1. Stereotype.
2. Semiotics.
3. Active audience.
4. Gratification.
5. Two-step flow theory.
6. Popular culture.
7. Audience segmentation.
8. Media effects.
9. Mass media ethics.
10. Electronic media.

Section B

Answer any five questions (5*8 = 40

11. Define mass media. Explain the functions of mass media.
12. Explain the relation between the media and popular culture.
13. Explain in brief how media audience segmentation takes place.
14. Explain the application of content analysis.
15. Briefly explain about economics of media.
16. Discuss in brief about the competition in the media today.
17. Explain the effects of mass media.
18. What is mass media ethics?

SECTION - C

ANSWER ANY TWO QUESTIONS **2 X 20 = 40**

19. Explain semiotic analysis in detail.
20. Explain social learning theory with examples.

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

B.Sc.DEGREE END OF THE SEMESTER EXAMINATION APRIL 2017

CLASS & GROUP: B.Sc. VISUAL COMMUNICATION

TITLE OF THE PAPER: PUBLIC RELATIONS (Optional) (084VC4A01)

SEMESTER II

Time: 3 Hrs **Max.Marks: 100**

021 FN

Section A:

Answer all the questions: **10 x 2 = 20 Marks.**

Define the following:

1. Internal Public
2. Exhibition
3. Press Release
4. PR Research
5. In-house journal
6. Survey
7. Open house
8. Corporate films
9. Newsletter
10. Campaign

Section B:

Answer any five questions: **5 x 8 = 40 Marks**

11. Give the structure of a PR agency.
12. Explain PR as an important communication tool of marketing.
13. Write short notes on a) press conference b) Press kits
14. How is event management an important function in PR?
15. Discuss with an example, how PR helps to reach the local community?
16. Discuss the boon of use of new media in PR, today.
17. Why is media relations considered very crucial function for a PR activity by the corporates and what are the various tools used for media relations?
18. What are the types of press release?

Section C:

Answer any two questions: **2x 20 = 40 Marks**

19. Throw light on the different types and need for research for the PR practitioners.
20. What are the various steps involved in planning a PR campaign? Explain with an example
21. Who are the Publics that a PRO must be concerned about? What are the factors to be kept in mind while preparing a PR activity for publics?

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

B.Sc., DEGREE END OF SEMESTER EXAMINATIONS APRIL/MAY-2017

CLASS AND GROUP: B.Sc. VISUAL COMMUNICATION

TITLE: SCRIPT WRITING (084VC3A02)

TIME: 3 HRS SEMESTER-III MAX MARKS:100

SECTION – A

Answer all the Questions **10 x 2 = 20**

1. Brainstorming
2. One line treatment
3. Treatment
4. Inciting Incident
5. Docudrama
6. Screenplay
7. Dual Column Script
8. Reality Show
9. Plot
10. Motif

SECTION – B

Answer any FIVE questions **5 x 8 = 40**

11. Explain with example: i) Shot ii) Scene iii) Sequence
12. Describe story board with suitable illustrations.
13. What is a shooting script? Explain its importance in TV/Video production.
14. What issues do we need to consider where dialogue writing is concerned?
15. Discuss about the three qualities of the script writer.
16. Examine the significance of research for documentary.
17. How will you differentiate fiction and nonfiction content?
18. Identify the method for writing to special audiences.

SECTION – C

Answer any TWO questions **2 x 20 = 40**

11. Explain various steps in script writing from formulation of an idea to the shooting script.
12. "The writing of good dialogue is an art in itself". Explain.
13. Assume that you have been asked to produce a 15 sec promotional TV commercial about your college, what will be the steps under three production processes.

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MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
TAMBARAM, CHENNAI-600 059.
B.Sc DEGREE EXAMINATION April - 2017
B.Sc Visual Communication

TITLE OF THE PAPER: NEWS GATHERING AND PRESENTATION (084VC3A01)

TIME: 3 HOURS **SEMESTER – III** **MAX MARKS: 100**

SECTION – A

ANSWER ALL THE QUESTIONS: **10 X 2 = 20**

1. Editor
2. News
3. Investigative reporter
4. Lead
5. Inverted pyramid
6. Journalist
7. Print Media
8. Byline
9. Column
10. SanSerif

SECTION – B

ANSWER ANY FIVE OF THE FOLLOWING **5 X 8 = 40**

11. What is News and News Value?
12. Write the role and functions of editors, in the news desk.
13. Explain the role and qualities of a good Reporter.
14. Elucidate on the sources of news gathering.
15. Describe the ethics of photo journalist.
16. Comment on advertorial, and informational.
17. Design a tabloid with Mast Head, and good layout with columns.
18. Explain travel journalism.

SECTION - C

ANSWER ANY TWO QUESTIONS **2 X 20 = 40**

19. What are the types of feature writing? Write a news feature on one topic on any current issue.
20. Explain the significance of headlines and write its types.
21. Explain the 5Ws and 1H of news. Give examples.

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MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

B.Sc., DEGREE END OF SEMESTER EXAMINATIONS APRIL/MAY-2017

CLASS AND GROUP: B.Sc. VISUAL COMMUNICATION

TITLE: FILM STUDIES(084VC3M02)

TIME: 3 HRS SEMESTER-III MAX MARKS:100

02/AN

SECTION – A

Answer all the Questions 10 x 2 = 20

1. Kinetoscope
2. Lumiere Brothers
3. Mise-en-scene
4. Narrative
5. Film Genre
6. Montage
7. Screen time
8. 3 point editing
9. Diegetic sound
10. Parallel Cinema

SECTION – B

Answer any FIVE questions 5 x 8 = 40

11. How is film different from theatre as a medium of communication?
12. What are the elements of a Film?
13. Analyse expressionism with reference to German Cinemas.
14. What are different types of Shots?
15. How is a scene analyzed and executed by the Director?
16. How is Post Production crucial in Film making?
17. Discuss about the fundamentals and dimensions of film sound.
18. Adopting psychoanalytical approach, analyse a film of your choice.

SECTION – C

Answer any TWO questions 2 x 20 = 40

19. Explain the development of Indian Cinema during the last three decades.
20. 'A film script is the back bone of good movie making'. Elucidate
21. Review a recent film you have seen with critical analysis.

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MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
TAMBARAM, CHENNAI-600 059.
B.Sc DEGREE EXAMINATION April - 2017
B.Sc Visual Communication

TITLE OF THE PAPER: VISUAL CULTURE (084VC3M03)

TIME: 3 HOURS **SEMESTER – III** **MAX MARKS: 100**

26/AN

SECTION – A

Answer ALL the questions: **10 X 2 = 20**

1. Elements of Art.
2. Typography
3. Aesthetics
4. Town Planning
5. Sir J.J. School of Art
6. Madurai Meenakshi Temple
7. S.H. Raza
8. Ceiling of Sistine Chapal, Vatican
9. Acropolis
10. Seals of Indus Valley Civilization.

SECTION – B

Answer any FIVE of the following: **10 X 2 = 20**

11. Draw the difference between art and design. Explain it with few examples.
12. Explain the carving of free standing monolithic rathas in Mamallapuram.
13. Write short notes on Bengal School of Art, Calcutta.
14. Elucidate how the belief in life after death influenced the Egypt architecture.
15. Write a short essay about any three artworks of Leonardo da Vinci.
16. What are Doric and Ionic columns of Greek architecture?
17. Write briefly about the sculptures of Indus Valley civilization.
18. Explain about the Gothic architecture.

SECTION - C

Answer any TWO of the following: **2 X 20 = 40**

19. If you were an artist, what would be your concept for painting? Explain it clearly with a concept note. Visualize your painting and describe with words.
20. Write an essay about the significant architecture of Brihadeeshwar temple, Thanjavur.
21. Is art powerful enough to convey and communicate a thought to the current world, which is dominated by social and public media. Explain with examples.

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MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)
TAMBARAM, CHENNAI-600 059.
B.Sc DEGREE EXAMINATION April - 2017
B.Sc Visual Communication

TITLE OF THE PAPER: UNDERSTANDING THE VISUAL (084VC4M03)

TIME: 3 HOURS | SEMESTER – IV | MAX MARKS: 100

24/FN

SECTION – A

ANSWER ALL THE QUESTIONS: 10 X 2 = 20

1. Inter – textuality.
2. Visualization.
3. Genre
4. Semiotics
5. Visual Saturation
6. Virtual Reality
7. Narrative
8. Visual saturation
9. Rhetoric of Images.
10. Perception.

SECTION – B

ANSWER ANY FIVE OF THE FOLLOWING 5 X 8 = 40

11. Explain the Freudian state of mind.
12. How does culture influence visual communication.
13. 'A photograph can be read in time and in motion', Elucidate.
14. What are the social nature of signs.
15. Discuss the visual process that takes place when an image is seen.
16. Analyse a commercial based on semiotics.
17. Explain in detail the types of narratives used in films.
18. Emphasize the importance of text while reading a visual.

SECTION - C

ANSWER ANY TWO QUESTIONS 2 X 20 = 40

19. Choose a Vodafone ad and analyse it using various visual analysis tools.
20. Explain the following: a) Sign and language b) lodes c) Personality structure d) Types of dreams.
21. 'Is media a commodity'? Substantiate.

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MADRAS CHRISTIAN COLLEGE(AUTONOMOUS)

B.Sc., DEGREE EXAMINATION April-2017

TITLE OF THE PAPER :UNDERSTANDING HARDWARE AND NETWORKING

(084VC5M05)

Time:3 hrs SEMESTER:V Max Marks:100

SECTION-A 10 * 2 =20

Answer all the questions

1. What is a Drive?

2. What is the component in the Motherboard that communicates with the IDE and Processor?

3. Mention any two latest Processor?

4. Write down the usage fan in the CPU.

5. Define Network.

6.What is a microcomputer?

7. What is PAN?

8. Define technology in Client & Server.

9. Define Extranet.

10. Define Sub netting.

SECTION- B 5 * 8 = 40

Answer any FIVE questions

11. Explain about RAM.

12. Brief about IDE.

13. Explain the working of North and South Bridge in MotherBoard.

14. Why Mac Address.

15. Write in detail about IP Address.

16. Explain Sytem Restore, Disc clean up and Defragmentation?

17. Write down the steps involved in Partitioning?

18. Explain about any two output devices.

SECTION-C

2 * 20 = 40

Answer any TWO questions

19. How do you create user Profile.

20. Explain in detail about motherboard and its components

21 write about Network Information System.

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MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

B.Sc., DEGREE END OF SEMESTER EXAMINATIONS APRIL/MAY-2017

CLASS AND GROUP: B.Sc. VISUAL COMMUNICATION

25/AN

MEDIA RESEARCH (084VC5M03)

TIME: 3 HRS SEMESTER-V MAX MARKS:100

SECTION – A

Answer all the Questions 10 x 2 = 20

1. What are the characteristics of research?
2. What is explanatory research?
3. What is primary and secondary research?
4. Define research design.
5. Differentiate between denotation and connotation.
6. What is Rhetorical Criticism?
7. What is participant observation?
8. How to do in-depth interviews?
9. Define content analysis.
10. How to do reporting in research?

SECTION – B

Answer any FIVE questions 5 x 8 = 40

11. What are the different elements of research?
12. What is measurement and scaling? Explain.
13. How to define a researchable problem?
14. Explain probability sampling with examples.
15. Define Experimental research? List down the advantages and disadvantages?
16. Explore the importance of ethics in conducting a research.
17. Write a note on the techniques of field observation.
18. Explain the types of hypothesis

SECTION – C

Answer any TWO questions 2 x 20 = 40

19. List down and explain the research procedures in detail.
20. Critically evaluate the trend of Media Research studies in India.
21. How research plays a role in every day events? How does research help you?

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MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

B.Sc.DEGREE END OF THE SEMESTER EXAMINATION APRIL 2017

CLASS & GROUP: B.Sc. VISUAL COMMUNICATION

TITLE OF THE PAPER: CORPORATE COMMUNICATION (084VC5M04)

SEMESTER V

Time: 3 Hrs **Max.Marks: 100**

02/AN

Section A

Answer all the questions: **(10 x 2 = 20)**

Define the following:

1. Employees
2. Corporate culture
3. AGM
4. Marketing
5. In-house journal
6. Reputation management
7. HR
8. Corporate films
9. Newsletter
10. CSR

Section B

Answer any Five questions: **(5 x 8 = 40)**

11. Give the structure of a PR agency.
12. What is SWOT analysis? How is this used in PR?
13. Write short notes on a) survey and image audits b) corporate governance
14. Distinguish between Internal and External Communities.
15. Give the $5C_s$ of event management.
16. Discuss how PR is an important tool of Integrated Marketing Communication?
17. What are the various functions of corporate communication?
18. 'CSR helps to build financial performance'. Justify.

Section C

Answer any Two questions: **(3 x 20 =60)**

19. 'Social media and PR are changing landscapes, today.' Elucidate.
20. Explain Brand management. Detail the ways in which Brand management can be effectively done.
21. Discuss the role and responsibility of a Marketing Communication Manager.

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MADRAS CHRISTIAN COLLEGE (Autonomous)

B.Sc Degree End of Semester Examination – April 2017

CLASS &GROUP :B.Sc MATHEMATICS (SFS) Time : 3 Hours.
TITLE OF THE PAPER : Numerical methods Max. marks:100
28/FN

SECTION A

Answer all questions: (10 × 2 = 20)

1. Define absolute error.
2. Prove that $\Delta = E - 1$.
3. Write down Newton's forward interpolation formula.
4. State Gauss forward central difference interpolation formula.
5. State Newton's forward difference formula to compute derivatives.
6. Write down Trapezoidal rule.
7. Give an example of an algebraic equation.
8. Show that a root of $x^3 - 6x - 13 = 0$ lies between 3 and 4.
9. State improved Euler's formula.
10. Write down Milne's predictor formula.

SECTION B

Answer any FIVE questions: (5 x 8 = 40)

11. If $u_0 = 1$, $u_1 = 5$, $u_2 = 8$, $u_3 = 3$, $u_4 = 7$ and $u_5 = 0$, find $\Delta^5 u_0$.
12. Prove that $\left(\frac{\Delta^2}{E}\right) x^3 = 6x$.
13. Find f(0.2) by suitable formula.

x	0	1	2	3	4	5	6
f(x)	176	185	194	203	212	220	229

14. Construct divided difference table for the following :

x	1	1	4	5
f(x)	8	11	78	123

15.Evaluate $\int_0^1 \frac{dx}{1+x^2}$ using Trapezoidal rule.

16.From the following table obtain $\frac{d^2y}{dx^2}$ at the point x = 0.96.

x	0.96	0.98	1	1.02	1.04
f(x)	0.7825	0.7739	0.7651	0.7563	0.7473

17.Using Newton's method find the root between 0 and 1 if $x^3 = 6x-4$ (correct to 5 decimal places).

18.Given $\frac{dy}{dx} + y - x^2 = 0$, y(0) = 1 , y(0.1) = 0.9052, y(0.2) = 0.8213.
Find y(0.3) using modified Euler's method (correct to 4 decimal places).

SECTION – C

Answer any TWO questions: (2 x 20 = 40)

19.a) Prove that $\Delta \log f(x) = \log(1 + \frac{\Delta f(x)}{f(x)})$.

b) Use Lagrange's formula to find the value of y at x = 6 from the following:

x	3	7	9	10
y	168	120	72	63

20.a)Evaluate $\int_4^{5.2} \log_e x \, dx$ using simpson's $\frac{1}{3}$rd rule.

b)Find the root which lies between (2,3) of $x^3 - 2x - 5 = 0$ by Regula Falsi Method.

21.By applying fourth order RungeKutta method, find y(0.2) from y' = y – x, y(0) = 2 taking h = 0.1.

MADRAS CHRISTIAN COLLEGE (Autonomous)
B. SC. Mathematics April 2017
Algebra and Trigonometry – 084MT1M01

Time: 3 Hours **Semester : I** **Max: 100 Marks**

25/AN

Section A (10 x 2 = 20 marks)

Answer All Questions

1. Form an equation of second degree, given that $1+i$ is a root of the equation.

2. If α, β, γ are the roots of the equation $x^3 - 8x + 8 = 0$, Find the value of $\sum \alpha^2$.

3. Define reciprocal equation.

4. Find the number of negative roots of the equation $x^3 + 2x + 3 = 0$ by Descartes rule.

5. Write the expansion of $\sin n\theta$.

6. Prove that $\cosh^2 x - \sinh^2 x = 1$.

7. Write the expansion of $\tan\theta$ in terms of θ.

8. If $\tan\frac{x}{2} = \tanh\frac{x}{2}$, Show that $\cos x \cosh x = 1$.

9. Show that $\frac{e+e^{-1}}{2} = 1 + \frac{1}{2!} + \frac{1}{4!} + \frac{1}{6!} + \ldots$

10. Write the expansion of log2.

Section B (5 x 8 = 40 marks)

Answer Any Five Questions

11. Solve $x^3 - 12x^2 + 39x - 28 = 0$ given that the roots are in arithmetic progression.

12. If α, β, γ are the roots of the equation $ax^3 + bx^2 + cx + d = 0$, Find the equation whose roots are $\alpha^2, \beta^2, \gamma^2$.

13. If $-2 + \sqrt{-7}$ is a root of the equation $x^4 + 2x^2 - 16x + 77 = 0$, Find the remaining roots.

14. Express $\frac{\sin 6\theta}{\sin\theta}$ in series of powers of $\cos\theta$

15. If $\sin(x+iy) = \tan\theta + i\sec\theta$, Prove that $\cos 2x \cosh 2y = 3$.

16. Sum the series $1+\frac{2}{6}+\frac{2\cdot 5}{6\cdot 12}+\frac{2\cdot 5\cdot 8}{6\cdot 12.18}+...\infty.$

17. Prove that $\frac{3}{10}\left\{\log_e^{10}+\frac{1}{2^7}+\frac{1}{2}\cdot\frac{3}{2^{14}}+\frac{1}{3}\cdot\frac{3^8}{2^{21}}+...\infty\right\}=\log 2.$

18. If $\tan\log(x+iy)+a+ib$ where $a^2+b^2\neq 1$, Show that $\tan log(x^2+y^2)=\frac{2a}{1-a^2-b^2}$.

Section C(2x 20 = 40 marks)

Answer Any Two Questions

19. a) Solve the equation $x^3-4x^2-3x+18=0$ given that two of its roots are equal.

b) Solve $4x^4-20x^3+33x^2-20x+4=0$.

(10+10)

20. a) Find a positive root of $x^3+24x-50=0$ correct to 4 decimal places using Newton's method.

b) Prove that $\sin^4\theta\cos^2\theta=\frac{1}{32}(\cos 6\theta - 2\cos 4\theta - \cos 2\theta + 2)$

(10+10)

21. a) Sum to infinity the series $\tan^{-1}\frac{4}{4\cdot 1^2+3}+\tan^{-1}\frac{4}{4\cdot 2^2+3}+\tan^{-1}\frac{4}{4\cdot 3^2+3}+...$

b) Sum to infinity the series $1+1+\frac{1+2}{2!}+\frac{1+2+2^2}{3!}+\frac{1+2+2^2+2^3}{4!}+...$

(10+10)

MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)

ALL U.G. END OF THE SEMESTER EXAMINATIONS APRIL-2017

TITLE OF THE PAPER: MATHEMATICS FOR COMPETITIVE EXAMINATIONS

Paper code: UG-084UC3107

21/AN

Time: 3 hrs. **Max. Marks: 100**

SECTION-A (10x2=20)

Answer all the questions:

1. A does a work in 1o days and B does the same work in 15 days. In how many days they together will do the same work?
   a) 6 b)4 c)2 d)8
2. If a radio is purchased for Rs.490 and sold for Rs.465.50, find the loss percent.
   a) 4% b)5% c)2% d)10%
3. Find the domain for which the functions $f(x) = 2x^2-1$ and $g(x)=1-3x$ are equal.
   a) {-2,1/2} b) {2,1/2} c) {3,1/2} d) {5,1/2}
4. Find the next term of the series, 48,24,72,36,108,---
   a) 22 b) 54 c) 62 d)56
5. If four – fifth of a number is 10 more than two third of it. Then the number is
   a) 110 b) 115 c) 75 d) 54

6. If the first three letters of word 'COMPREHENSION' are reversed. Then last letters are reversed and added then which letter will be fifth from red

   a) S b) E c) R d) N

7. If 'MOTEL' is coded as 13. Then the code for 'FORE' is

   a) 15 b) 12 c) 11 d) 18

8. If BAT=40, AT=20 then 'CAT' will be equal to

   a) 60 b) 80 c) 90 d) 50

9. Find the average of first 20 multiples of 7.

   a) 73.5 b) 71.5 c) 75.5 d) 72.5

10. If x:y=3:4, find (4x+5y):(5x-2y)

    a) 32/7 b) 23/5 c) 22/4 d) 33/7

SECTION-B (5X8=40)

Answer any FIVE questions:

11. A ship sails to a certain city at the speed 15 knots per hour and sails back to the same point at the rate of 30 knots per hour. What is the speed per hour for the whole journey?

12. A book was sold for Rs.27.50 with a profit of 10%. If it were sold for 25.75, then what would have been the percentage of profit or loss?

13. Show that $f(x)=x^{4/3}$ is differential x=0 and hence find f'(0).

14. Differentiate $\log_e(x^2+1)/(x^2-1)$ with respect to x. Also find the derivative of $\frac{1}{\sqrt{x}}$.

15. If Simplify $\frac{(\sqrt{405}+\sqrt{243})}{(\sqrt{500}-\sqrt{192}+\sqrt{363}-\sqrt{245})}$

16. In how many different ways can the letters of the 'SOCIETY' be arranged so that the vowels always come together?

17. The probability of A winning a game is ½ and that of B is 1/3. What is the probability that only one of them wins the game?

18. Two numbers are in the ratio of 3:4. If 5 is subtracted to both, the ratio becomes 5/7. What is the smallest number?

SECTION-C (2X20=40)

Answer any TWO questions:

19. a) A takes twice as much time as B and thrice as much time as C takes to complete a certain job. Together they finish in 2 days. How much time does C takes to complete it alone?

b) When a producer allows 36% commission on the retail price of his product, he earns a profit of 8.8%. What would be his profit percent if the commission is reduced by 24%?

20. a) $\frac{2}{3}$ is subtracted from a number and the result is divided by $\frac{5}{3}$. From this 5 is subtracted. The resulting value is multiplied by $4\frac{1}{3}$. The final result is found to be equal $4\frac{1}{3} \times \frac{1}{3}$. What is the starting number?

b) Two integers are selected at random from integers 1 to 11. If the sum is even, find the probability that both the numbers selected odd.

21. Study the following table carefully and answer the question given below:

Marks out of 50 / Subject	40 and above	30 and above	20 and above	10 and above	0 and above
Physics	9	32	80	92	100
Chemistry	4	21	66	81	100
(Aggregate) Average	7	27	73	87	100

1. The number of students scoring less than 40% marks in aggregate is :
   a) 13 b) 19 c) 20 d) 27 e) 34
2. If at least 60% marks in physics are required for pursuing higher studies in physics, how many students will be eligible to pursue higher studies in physics ?
   a) 27 b) 32 c) 34 d) 41 e) 68
3. What is the difference between number of students passed with 30 as cut – off marks in chemistry and those passed with 30 as cut – off marks in aggregate?

a) 3 b) 4 c) 5 d) 6 e) 7

4. The percentage of the number of students getting at least 60% marks in chemistry over those getting at least 40% marks in aggregate , is approximately :

   a) 21% b) 27% c) 29% d) 31% e) 34%

5. If it is known that at least 23 students were eligible for a symposium on chemistry , the minimum qualifying marks in chemistry for eligibility to symposium would lie in the range :

   a) 40 – 50 b) 30 – 40 c) 20 – 30 d) below 20 e) cannot be determined