



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

III SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : 18UMA3A

Title of the Paper : **Financial Accounting**

DATE : 08.01.2021 FN

Time : 3 Hours

Maximum Marks : 75 Marks

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What is accounting?
2. Distinguish between 'Journal' and 'Ledger'.
3. When do you prepare a 'Manufacturing account'?
4. What do you understand by Liquidity order of balance sheet?
5. Write short note on Error of Principle.
6. What is Suspense Account?
7. Define Depreciation.
8. State the formula for calculating the amount of Depreciation under Straight Line Method.
9. Explain Single Entry System.
10. Mention the procedure for calculating profit by statement of affairs method of single entry system.
11. Give the adjustment entry for closing stock in Final Accounts.
12. What do you mean by Annuity method of Depreciation?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. What is Double entry system of book keeping? Give the rules for debit and credit.
14. Briefly explain the purpose of preparation of final accounts.
15. Rectify the following errors
 - a. Sales book overcast by Rs.500
 - b. Credit sales to Ramu Rs.1,500 wrongly credited to his account.
16. An asset is purchased for Rs.52,500. Depreciation is to be provided annually according to the straight line method. The useful life of the asset is 10 years and the residual value is Rs.2,500. You are required to prepare the Asset A/c. for the first three years.
17. Calculate the capital at the beginning of the year
 - a. capital at the end of the year Rs.3,50,000
 - b. drawings during the year Rs.50,000
 - c. capital introduced during the year Rs.25,000
 - d. profit during the year Rs.1,00,000
18. How do you prepare a 'Three columnar Cash book'? Explain its utility.
19. State the features and defects of single entry system.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Briefly explain the basic accounting concepts and conventions.

21. From the following balances as at 31st December 2019 of a trader. Prepare a Trading and Profit & Loss Account for the year 2019 and a Balance Sheet as on that date

	Rs.		Rs.
Salaries	5,500	Creditors	9,500
Rent	1,300	Sales	32,000
Cash	1,000	Capital	30,000
Debtors	40,000	Loans	10,000
Trade expenses	600		
Purchases	25,000		
Advances	2,500		
Bank balance	5,600		
Total	81,500	Total	81,500

Adjustments

- The closing stock amounted to Rs.9,000
- one month salary is outstanding
- one month rent has been paid in advance
- Provide 5 % for doubtful debts.

22. Find out the average due date for the following bills

Date of drawing of the bill	Amount Rs.	Period
2019 January 15	250	3 Months
2019 March 4	400	5 Months
2019 April 10	500	1 Month
2019 April 22	200	2 Months

23. A firm purchases a 5 years lease for Rs.80,000 on 1st January. It decides to write off depreciation on the Annuity Method, presuming the rate of interest to be 5% per annum. The Annuity table shows that a sum of Rs.18,478 should be written off every year. Show the Lease account for five years. Calculations are to be made to the nearest rupee.

24. A trader commenced business as a cloth merchant on 1-4-18 with a capital of Rs.20,000. On the same day he purchased furniture and fixtures for Rs.4,000. From the following particulars obtained from his books which do not conform to strict double entry principles, you are required to prepare Trading and Profit and Loss Account and Balance Sheet as on 31-3-2019.

- sales (including cash sales Rs.10,000) – Rs.25,000
- purchases (including cash purchases Rs.6,000) – Rs.20,000
- drawings – Rs.1,000
- salaries – Rs. 2,400
- bad debts written off – Rs.200
- trade expenses – Rs.800

The trader has used cloth worth Rs.600 for private purposes and gave Rs.1,000 to his son which are not recorded anywhere. On 31-3-2019 his debtors were worth Rs.7,000 and creditors were Rs.4,000. Stock on that date was valued at Rs.8,000.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

III SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : **18UMM3A**

Title of the Paper : **Data Structures And Algorithms**

DATE : **23.12.2020 FN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. Define Data structure.
2. What is meant by asymptotic notation?
3. What are the types of queue?
4. Define stack.
5. What is binary tree?
6. What is linked list?
7. What is meant by polynomial equation?
8. What is binary search tree?
9. What is a directed graph?
10. Define out degree of a graph
11. Define array.
12. Define sorting.

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. How do you find the complexity of an algorithm? Explain.
14. What is circular queue? Explain.
15. What is doubly linked list? Explain the insertion operation of doubly linked list.
16. Describe searching in binary search tree.
17. Explain linear search.
18. Explain primitive data types.
19. Describe bubble sort algorithm.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Describe the various operations performed on Arrays.
21. Describe the operations on stack.
22. Elaborate the operations on single linked list.
23. Explain the binary tree traversals with algorithms and examples.
24. Describe merge sort with an example.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

III SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : **18UMM3B**

Title of the Paper : **Programming In C++**

DATE : **28.12.2020 FN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. Define OOP.
2. What is Data Abstraction?
3. Write down the advantages of inline functions.
4. What is the return type of main ()?
5. Define Objects.
6. List the operators that cannot be overloaded.
7. What is an inheritance?
8. What is run-time polymorphism?
9. What is Stream?
10. How do you open a file?
11. What is function prototyping?
12. What is command line argument?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Compare Object Oriented Programming with procedural programming languages.
14. Explain Virtual Function.
15. Explain type conversion with examples.
16. Write short notes on Copy Constructors.
17. Discuss File Formatted I/O operations.
18. Write a C++ program to evaluate the Sine series upto 'n' terms.
19. Explain Error Handling during File operations.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Explain the basic concepts of Object Oriented Programming.
21. Write a C++ program to add two complex numbers using Friend function.
22. What is Function Overloading? Explain with an example program.
23. Explain Multiple Inheritance with an example program.
24. Describe the various classes for File Stream operations.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

III SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : 18UMM3C

Title of the Paper : Computer Graphics

DATE : 31.12.2020 FN

Time : 3 Hours

Maximum Marks : 75 Marks

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. Write a note on computer Graphics.
2. What do you mean by hard copy devices? Give example.
3. Define: “Resolution”.
4. Write a note on Pixel.
5. Write down the use of inter-dot distance.
6. What is a dot size?
7. What do you mean by transformation?
8. What is a scaling?
9. Define the term “Clipping”.
10. What is surface patch?
11. What you mean by parallel projection?
12. Define: “View Port”.

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Summarize the steps for DDA line drawing algorithm.
14. Elaborate the organization of a simple random-scan system.
15. Describe the character attributes inquiry function.
16. Explain the window to view port co-ordinate transformation.
17. What are the logical classifications of input devices? Explain.
18. Distinguish between the parallel and perspective projection.
19. What is back face removals? Explain.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Draw and explain the complete architecture of raster scan system.
21. Illustrate the composite transformation with simple example.
22. Explain the interactive picture construction methods.
23. Discuss the any two three-dimensional display methods.
24. Compare the functions of hidden surface and hidden line removal.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com

**PART – A (10 X 2 = 20 Marks)**Answer Any **TEN** Questions from the following

1. Find an iterative formula to find \sqrt{N} , where N is a positive integer.
2. Solve $2x + y = 3$; $7x - 3y = 4$, by Gauss – Jordan method.
3. Evaluate $\int_0^1 \frac{dx}{1+x^2}$ by trapezoidal rule with $h = 0.2$.
4. State Newton's backward difference formula to compute the first order derivative.
5. Find the arithmetic mean of the following set of observations : 25, 32, 28, 34, 24, 31, 36, 27, 29, 30
6. Find the median of the set of observations :27, 36, 28, 18, 35, 26, 20, 35, 40, 26.
7. A random variable X has the following probability function:

x	-2	-1	0	1
P(x)	0.4	K	0.2	0.3

8. Show that the function $f(x) = \begin{cases} \frac{x^2}{3} & , -1 < x < 2 \\ 0, & otherwise \end{cases}$ is a probability density function.
9. The two lines of regression are $8x - 10y + 66 = 0$; $40x - 18y - 214 = 0$. Find the mean values of X and Y .
10. If $\bar{x} = 970$, $\bar{y} = 18$, $\sigma_x = 38$, $\sigma_y = 2$ and correlation coefficient $r = 0.6$. Find the line of regression.
11. The function $x^3 = 6x - 4$ is to be solved using Newton – Raphson method. If the initial value x_0 is taken 1.0, then find absolute error observed at 2nd iteration.
12. Write down the probability mass function of the poisson distribution with $n = 100$, $p = 0.02$.

PART – B (5 X 5 = 25 Marks)Answer Any **FIVE** Questions from the following

13. Find a real root of the equation $\cos x = 3x - 1$ correct to 4 places of decimals by iteration method.
14. Evaluate $\int_0^6 \frac{dx}{1+x}$ by (i) Simpson's one third rule and (ii) Simpson's three eighths rule.
15. Find the mean deviation about the mean for the following data : 18, 20, 12, 14, 19, 22, 26, 16, 19, 24.
16. A continuous random variable X that can assume any value between $x = 2$ and $x = 5$ has a density function given by $f(x) = k(1+x)$. Find $P(X < 4)$.

17. Find the rank correlation coefficient from the following data:

Rank in X	1	2	3	4	5	6	7
Rank in Y	4	3	1	2	6	5	7

18. By Gaussian elimination, find the inverse of $A = \begin{pmatrix} 0 & 1 & 1 \\ 1 & 2 & 0 \\ 3 & -1 & -4 \end{pmatrix}$.

19. Given the following probability distribution of X compute (i) $E[X^2]$ and (ii) $Var[2X \pm 3]$.

X	-3	-2	-1	0	1	2	3
P(x)	0.05	0.10	0.30	0	0.30	0.15	0.10

PART – C (3 X 10 = 30 Marks)

Answer Any **THREE** Questions from the following

20. Solve the following system by triangularization method:

$$x + y + z = 1;$$

$$4x + 3y - z = 6;$$

$$3x + 5y + 3z = 4$$

21. Find the first two derivatives of $(x)^{\frac{1}{3}}$ at $x = 50$ and $x = 56$ given the table below:

X	50	51	52	53	54	55	56
$y = x^{\frac{1}{3}}$	3.6840	3.7084	3.7325	3.7563	3.7798	3.8030	3.8259

22. Find the Pearson's coefficient of skewness for the following frequency distribution:

Annual Sales (in '000 Rs)	Number of items
0 – 20	20
20 – 40	50
40 – 60	59
60 – 80	30
80 – 100	25
100 - 120	16

23. The mean and variance of a binomial variate are 8 and 6. Find $P(X \geq 2)$.

24. Calculate the correlation coefficient for the following heights (in inches) of fathers X and their sons Y .

X	65	66	67	67	68	69	70	72
Y	67	68	65	68	72	72	69	71

E - Mail Id for Uploading Answer Sheet
bcadepartment@lmgovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : **18UMM5A**

Title of the Paper : **Visual Programming**

DATE : **24.12.2020 FN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What is the use of Label control?
2. Define Variable.
3. What statement is used to display the information? Give an example.
4. List any four Built-in-functions.
5. Write difference between list box and combo box.
6. What is control array in vb?
7. How will view the Debugging toolbar?
8. Define MDI.
9. Write three types of Mouse event?
10. Define OLE.
11. List out the types of Errors.
12. What is the use OLE Drag and Drop?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Write a simple program for Addition of two numbers?
14. Discuss briefly about Indeterminate loops with syntax and example.
15. Define Array. Explain the different types of Arrays with example.
16. Discuss about Menu Editor with an example.
17. Explain about DLL Servers.
18. Write short notes on Project with multiple forms.
19. Explain about Passing by reference and value with an example.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Explain any five controls in toolbox with their properties and events.
21. Discuss briefly about Conditional Statements with syntax and example.
22. Explain Linear Search with example.
23. Discuss about the Common Controls in VB.
24. Explain the File system controls.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204
NOVEMBER - 2020 SEMESTER EXAMINATIONS
V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : **18UMM5B**

Title of the Paper : **RDBMS and Oracle**

DATE : **29.12.2020 FN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. Define Database.
2. What is normalization?
3. What is SQL?
4. Does SQL*Plus also have a PL/SQL Engine?
5. What is a join?
6. What is CLAUSE?
7. What is PL/SQL?
8. Differentiate between % ROWTYPE and TYPE RECORD.
9. What is user defined functions?
10. What is the location of Pre-defined-functions?
11. What is the difference between DELETE and TRUNCATE commands?
12. What is meant by RAW datatype?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. What are integrity rules? Explain with example.
14. Describe an Oracle table with an example.
15. What is the use of Aggregate functions in Oracle?
16. What are the data types available in PL/SQL? Explain.
17. What are the attributes of the Cursor? Explain.
18. What are the uses of a database trigger
19. Explain Commit, Rollback and Savepoint.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Discuss in detail about different normalizations.
21. Discuss in detail about various constraints used in Oracle.
22. What are the different types of joins? Explain.
23. Explain in detail about Exception handling in PL/SQL.
24. Explain in detail about the benefits of PL/SQL packages

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : 18UMM5C

Title of the Paper : **Operating Systems**

DATE : 02.01.2021 FN

Time : 3 Hours

Maximum Marks : 75 Marks

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What is an Operating System?
2. Define Thread.
3. What is Monitor?
4. Define Semaphore.
5. What is Address Binding?
6. Define Fragmentation.
7. What is Virtual Memory?
8. What is Thrashing?
9. What do you understand by Threat?
10. What is Encryption?
11. State on I/O Hardware.
12. What is Deadlock?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Bring out different type of Systems.
14. Write short notes on Synchronization Hardware.
15. Discuss about Dynamic Loading and Linking.
16. Discuss on Demand Paging.
17. Discuss about Kernel I/O subsystem.
18. Write short notes on Inter process communication.
19. Discuss about Free space management.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Explain FCFS scheduling algorithm in detail.
21. Discuss on Deadlock prevention and avoidance.
22. Illustrate on Paging in detail.
23. Explain the LRU page replacement algorithm.
24. Describe the significances of Domain Access matrix.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : **18UMM5D**

Title of the Paper : **Software Engineering**

DATE : **06.01.2021 FN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. Write down any two characteristics of Software.
2. What is the objective of software project planning?
3. Define: “Computer Based System”.
4. What do you mean by Prototyping?
5. What is fundamental goal of software design?
6. What is the use of Architectural design?
7. What are the attributes of a good test?
8. What is unit testing?
9. Define the term “Debugging”.
10. Write a note on quality assurance.
11. What are the four types of tests that a software product must satisfy?
12. What is fundamental goal of software design?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. What are the project size categories for software products? Describe.
14. Summarize the structured analysis and design technique (SADT).
15. Explain the structure of PSL/PSA.
16. What is Data Flow Diagram? Explain with example.
17. Elaborate the concept of configuration management.
18. How the programmers spend their time? Explain.
19. Describe the need of source code metrics.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. List out the factors that influence software quality and programmer productivity and explain any four of them.
21. Illustrate the need of staffing level estimation.
22. What are the properties that software requirements specifications should possess? Describe.
23. Discuss the structured design in design technique.
24. Explain the managerial aspects of software maintenance.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com

**PART – A (10 X 2 = 20 Marks)**Answer Any **TEN** Questions from the following

1. Write the condition for the convergence for the iteration method for solving $x = \varphi(x)$.
2. Solve $x + y = 2$; $2x + 3y = 5$ by Gauss – elimination.
3. Using trapezoidal rule, find $\int_0^5 f(x)dx$.

X	0	1	2	3	4	5
$f(x)$	1.56	3.64	4.62	5.12	7.08	9.22

4. Given $y' = x + y$, $y(0) = 1$ find $y(0.1)$ by Euler's method.
5. Given $Q_1 = 18$, $Q_3 = 25$, Mode = 21, Mean = 18 find the co-efficient of skewness.
6. Find the mean for the following data : 18, 20, 12, 14, 19, 22, 26, 16, 19, 24.
7. If x is a random variable taking the values 3, 4 and 7 with probabilities $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{7}$, then find the Expectation of x .
8. If in a poisson distribution $P(X = 1) = P(X = 2)$ then find the variances .
9. Two regression lines of a sample are $x + 6y = 6$ and $3x + 2y = 0$. find the correlation co-efficient .
10. The means of two single large samples of 1000 and 2000 members are 67.5 inches and 68.0 inches respectively. Can the samples be regarded as drawn from the same population of standard deviation 2.5 inches (test at 5% level of significance)?
11. State Newton – Raphson iteration formula.
12. A die is thrown six times. Find the probability of obtaining an odd number at least five times .

PART – B (5 X 5 = 25 Marks)Answer Any **FIVE** Questions from the following

13. Find the real root of $x - \cos x = 0$ by bisection method (correct to three decimal places).
14. Evaluate $\int_0^6 \frac{dx}{1+x^2}$ by (i) Trapezoidal rule (ii) Simpson's three – eighths rule
15. Calculate : (i) Quartile deviation (Q.D.), and (ii) Mean Deviation (M.D.) from mean, for the following data:

Marks	0 – 10	10 – 20	20 – 30	30 - 40	40 - 50	50 - 60	60 - 70
No. of students	6	5	8	15	7	6	3

16. A random variable X has the following probability function :

X	0	1	2	3	4	5	6	7
$p(x)$	0	K	$2k$	$2k$	$3k$	k^2	$2k^2$	$7k^2+k$

- (i) Find k (ii) $P(X < 6)$ (iii) Determine the distribution function of X .

17. Calculate rank correlation coefficient from the following data :

x	10	15	14	25	14	14	20	22
y	6	2	12	18	25	40	10	7

18. Solve the system by Gauss – Elimination method $2x + 3y - z = 5$; $4x + 4y - 3z = 3$ and

$$2x - 3y + 2z = 2.$$

19. X is a normal variate with mean 30 and S.D. 5. Find the probabilities that (i) $26 \leq X \leq 40$ (ii) $X \geq 45$
(iii) $|X - 30| > 5$.

PART – C (3 X 10 = 30 Marks)

Answer Any **THREE** Questions from the following

20. Solve the following system of equations by using Gauss – Seidel method, $8x - 3y + 2z = 20$;
 $4x + 11y - z = 33$; $6x + 3y + 12z = 35$.

21. Apply the fourth order Runge – Kutta method, to find an approximate value of y when $x = 2$, given that
 $y' = x + y$, $y(0) = 1$.

22. Obtain Karl Pearson's measure of skewness for the following data :

Values	0 – 10	10 – 20	20 – 30	30 - 40	40 – 50	50 – 60	60 – 70	70 - 80
Frequency	5	6	11	21	35	30	22	11

23. The probability of a man hitting a target is $\frac{1}{4}$.

- (i) If he fires 7 times what is the probability of his hitting the target at least twice.
- (ii) How many times must he fire so that the probability of his hitting the target at least once is greater than $2/3$?

24. In a locality 100 persons were randomly selected and asked about their educational achievements. The results are given as follows :

Sex	Middle	High School	College	Total
Male	10	15	25	50
Female	25	10	15	50
Total	35	25	40	100

Can you say that education depends on sex ?

E - Mail Id for Uploading Answer Sheet
bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

IV SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : UMA4B

Title of the Paper : Cost and Management Accounting

DATE : 08.01.2021 AN

Time : 3 Hours

Maximum Marks : 75 Marks

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. Define 'Cost Accounting'.
2. What is Bin card? Write about VED analysis.
3. Write short note on "Labour Turnover".
4. What is abnormal loss?
5. Explain – Machine Hour Rate.
6. Calculate EOQ. Also state the number of orders to be placed in a year.
Consumption of Material per annum 10,000 Kgs. Cost of Material per Kg. `2.
Order placing costs per order `50. Storage costs 8 % on Average Inventory.
7. What is meant by ratio?
8. Define Management Accounting.
9. Calculate the earnings of a worker from the following information under Halsey Plan:
Standard Time 30 Hours Time taken 20 Hours
Hourly rate of wage is `1 per hour plus a D.A. at 50 paise per hour worked.
10. What is working capital?
11. Ascertain gross profit ratio from the following particulars

Gross profit	Rs.27,000
Cost of sales	Rs.33,000
Opening stock	Rs.12,000
Closing stock	Rs.16000
12. Calculation funds flow statement:

Funds from operations	Rs. 531200
Net increase in working capital	Rs. 381200
Purchase of fixed assets	Rs. 150000

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. What are the controls over wastage?
14. Explain 'cost' and 'Profit' centers.
15. From the following particulars, find out the selling price per unit if B.E.P is to be brought down to 9,000 units:

Variable cost per unit	Rs. 75
Selling price per unit	Rs. 100
Fixed expenses	Rs. 2,70,000

16. From the following data relating to the manufacture of a standard product during the month of September, prepare a statement showing the cost and profit per unit:

Raw Materials used	`40,000	Direct Wages	`24,000
Machine Hours worked	9,500 Hours	Machine Hour Rate	`4 per hour
Office Overheads	20% on Works Cost	Selling Overheads	`1 per unit
Units produced	20,000 units	Units sold	18,000 @ `10 per unit.

17. Two components A and B are used as follows:

Re-order quantity : A = 3,000 units

B = 4,000 units.

Re-ordering period : A = 4 – 6 weeks.

B = 2 – 4 weeks.

Normal usage : 3,000 units per week each

Minimum usage : 1,500 units per week each

Maximum usage : 4,500 units per week each

You are required to calculate for each of the components.

(a) Maximum stock level

(b) Minimum stock level

(c) Average stock level

(d) Re-order level.

18. You are given the following information:

Particular	Rs.
Cash	18,000
Debtors	1, 42,000
Closing stock	1, 80,000
Bills payable	27,000
Creditors	50,000
Outstanding expenses	15,000
Tax payable	75,000

Calculate (a) Current ratio (b) Liquidity (c) Absolute liquidity ratio.

19. Calculate funds from operations from the following profit and loss A/C.

Particulars	Rs	Particulars	Rs
To Expenses paid	3,00,000	By Gross profit	4,50,000
To Depreciation	70,000	By Gain on sale of land	60,000
To Loss on sale of machine	4,000		
To Discount	200		
To Goodwill	20,000		
To Net profit	1,15,800		
	5,10,000		5,10,000

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Distinguish between Management accounting and Cost accounting.

21. From the particulars given below calculate:

(A) Break even point

(B) Profit when sales are Rs. 1,20,000

(C) Sales required earn a profit of Rs. 40,000

(D) Fixed expenses .

Year	Sales	Profit
2015	1,40,000	15,000
2016	1,60,000	20,000

22. Adarsh company purchased and issued material in the following order:

	units Rs.	unit cost Rs.
1 st January purchases	300	3.00
5 th January purchases	600	4.00
10 th January purchases	500	-
12 th January purchases	700	4.00
15 th January purchases	800	-
20 th January purchases	300	5.00
30 th January purchases	100	-

Ascertain the quantity of closing stock as on 31st January under weighted average method.

23. From the following particulars, calculate earnings of a worker under:

- 1) Time rate system
 - 2) piece wage rate
 - 3) Halsey plan and
 - 4) Rowan plan
- Wage rate - Rs.2 per hour
 Production per hour – 4 units
 Dearness allowance - Re.1 per hour
 Standard time fixed – 80 hours
 Actual time taken – 50 hours
 Production – 250 units

24. The comparative Balance sheet of Mohan & Co. Ltd. Are given below:

Balance sheet					
Liabilities	2005 Rs.	2006 Rs.	Assets	2005 Rs.	2006 Rs.
Share capital	1,80,000	2,00,000	Goodwill	24,000	20,000
P&L A/C	39,000	24,000	Buildings	80,000	72,000
Reserve Fund	28,000	36,000	Debtors	40,000	44,400
Bank overdraft	12,400	2,600	Cash	13,200	30,400
Provision for tax	32,000	34,000	Investment	20,000	22,000
Doubtful debts	3,800	4,200	Inventories	60,000	50,800
Creditors	16,000	10,800	Machinery	74,000	72,000

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

IV SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : UMM4C

Title of the Paper : **Computer Graphics**

DATE : **28.12.2020 AN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What are Random-scan displays?
2. Define Computer Graphics.
3. What are line attributes?
4. What is 2D Rotation?
5. Define: Clipping.
6. Define the term : Viewport
7. What is perspective projection?
8. Define Depth Cueing.
9. What is 3D object?
10. Define projection.
11. Define: Resolution.
12. What is transformation?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Explain any three input devices.
14. Describe reflection in 2D.
15. Explain window to viewport transformations.
16. Explain 3D display methods.
17. Explain about back face removal.
18. Describe circle drawing algorithms.
19. Explain 3D scaling.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Write the steps in Bresenham's line drawing algorithm.
21. Explain the basic transformation of 2D.
22. Explain about logical classification of input devices.
23. Explain 3D translation.
24. Describe Hidden surface and hidden line removal.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

IV SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : **UMM4D**

Title of the Paper : **Programming in Java**

DATE : **23.12.2020 AN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What are the differences between C and C++?
2. Write down the features of Java
3. What is the Conditional Operator?
4. List out the data types available in Java
5. What do you mean by Interface?
6. How do you declare array?
7. Define Exception
8. Write down life cycle of Applet
9. What is Byte-handling Primitive data type?
10. What is Random Access File?
11. Write down the syntax of switch()
12. Write down the various access modifiers implemented in java

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Write short notes on Java Tokens
14. Mention the differences between while() and do..while()
15. What is package? How do you implement it?
16. Write Syntax of try.. Catch statement
17. List out the methods available in File class
18. With suitable programs, Explain decision making statements in java
19. Write short notes on Multithreaded programming

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Explain the Object Oriented Programming Concepts in detail.
21. With suitable program, Explain How do you create class
22. Explain any five String methods in String Class
23. Explain graphics class with an example
24. Explain the concepts of streams in detail

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : UMM5A

Title of the Paper : **Visual Programming**

DATE : 24.12.2020 FN

Time : 3 Hours

Maximum Marks : 75 Marks

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What is the use of Label control?
2. Define Variable.
3. What statement is used to display the information? Give an example.
4. List any four Built-in-functions.
5. Write difference between list box and combo box.
6. What is control array in vb?
7. How will view the Debugging toolbar?
8. Define MDI.
9. Write three types of Mouse event?
10. Define OLE.
11. List out the types of Errors.
12. What is the use OLE Drag and Drop?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Write a simple program for Addition of two numbers?
14. Discuss briefly about Indeterminate loops with syntax and example.
15. Define Array. Explain the different types of Arrays with example.
16. Discuss about Menu Editor with an example.
17. Explain about DLL Servers.
18. Write short notes on Project with multiple forms.
19. Explain about Passing by reference and value with an example.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Explain any five controls in toolbox with their properties and events.
21. Discuss briefly about Conditional Statements with syntax and example.
22. Explain Linear Search with example.
23. Discuss about the Common Controls in VB.
24. Explain the File system controls.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : **UMM5B**

Title of the Paper : **RDBMS and Oracle**

DATE : **29.12.2020 FN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. Define Database.
2. What is normalization?
3. What is SQL?
4. Does SQL*Plus also have a PL/SQL Engine?
5. What is a join?
6. What is CLAUSE?
7. What is PL/SQL?
8. Differentiate between % ROWTYPE and TYPE RECORD.
9. What is user defined functions?
10. What is the location of Pre-defined-functions?
11. What is the difference between DELETE and TRUNCATE commands?
12. What is meant by RAW datatype?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. What are integrity rules? Explain with example.
14. Describe an Oracle table with an example.
15. What is the use of Aggregate functions in Oracle?
16. What are the data types available in PL/SQL? Explain.
17. What are the attributes of the Cursor? Explain.
18. What are the uses of a database trigger
19. Explain Commit, Rollback and Savepoint.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Discuss in detail about different normalizations.
21. Discuss in detail about various constraints used in Oracle.
22. What are the different types of joins? Explain.
23. Explain in detail about Exception handling in PL/SQL.
24. Explain in detail about the benefits of PL/SQL packages

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : UMM5C

Title of the Paper : **Operating Systems**

DATE : **02.01.2021 FN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What is an operating system?
2. What is multiprogramming.
3. Write the significance of cooperating process.
4. Define deadlock.
5. What is overlay?
6. Define fragmentation.
7. What is thrashing?
8. What do you mean by page?
9. Define hardware.
10. What is the use of kernel?
11. What is interrupt?
12. List the various operations performed in Directory.

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Explain the Structure of OS.
14. Explain about semaphore.
15. Explain about contiguous memory allocation.
16. Discuss about File system structure.
17. Explain about applications of I/O Interface.
18. Explain the logical and physical address space.
19. Write the uses of having virtual memory.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Explain about process scheduling.
21. Explain the classic problem of Synchronization
22. Discuss about address binding.
23. Explain any page replacement algorithms.
24. Discuss about Kernel I/O Subsystem

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : UMM5D

Title of the Paper : **Visual Programming**

DATE : 24.12.2020 FN

Time : 3 Hours

Maximum Marks : 75 Marks

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What is the use of Label control?
2. Define Variable.
3. What statement is used to display the information? Give an example.
4. List any four Built-in-functions.
5. Write difference between list box and combo box.
6. What is control array in vb?
7. How will view the Debugging toolbar?
8. Define MDI.
9. Write three types of Mouse event?
10. Define OLE.
11. List out the types of Errors.
12. What is the use OLE Drag and Drop?

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Write a simple program for Addition of two numbers?
14. Discuss briefly about Indeterminate loops with syntax and example.
15. Define Array. Explain the different types of Arrays with example.
16. Discuss about Menu Editor with an example.
17. Explain about DLL Servers.
18. Write short notes on Project with multiple forms.
19. Explain about Passing by reference and value with an example.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Explain any five controls in toolbox with their properties and events.
21. Discuss briefly about Conditional Statements with syntax and example.
22. Explain Linear Search with example.
23. Discuss about the Common Controls in VB.
24. Explain the File system controls.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER - 2020 SEMESTER EXAMINATIONS

V SEMESTER – B.C.A., COMPUTER APPLICATIONS

Paper Code : **UMM5F**

Title of the Paper : **Operating Systems**

DATE : **02.01.2021 FN**

Time : **3 Hours**

Maximum Marks : **75 Marks**

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. What is an operating system?
2. What is multiprogramming.
3. Write the significance of cooperating process.
4. Define deadlock.
5. What is overlay?
6. Define fragmentation.
7. What is thrashing?
8. What do you mean by page?
9. Define hardware.
10. What is the use of kernel?
11. What is interrupt?
12. List the various operations performed in Directory.

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. Explain the Structure of OS.
14. Explain about semaphore.
15. Explain about contiguous memory allocation.
16. Discuss about File system structure.
17. Explain about applications of I/O Interface.
18. Explain the logical and physical address space.
19. Write the uses of having virtual memory.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Explain about process scheduling.
21. Explain the classic problem of Synchronization
22. Discuss about address binding.
23. Explain any page replacement algorithms.
24. Discuss about Kernel I/O Subsystem

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com



LOGANATHA NARAYANASAMY GOVT. COLLEGE (Autonomous), PONNERI – 601 204

NOVEMBER 2020 SEMESTER EXAMINATIONS

VI SEMESTER – B.C.A, COMPUTER APPLICATIONS

Paper Code : UMM6D

Title of the paper : **Software Engineering**

DATE : 29.12.2020 AN

Time : 3 Hours

Maximum Marks : 75 Marks

PART – A (10 X 2 = 20 Marks)

Answer any **TEN** Questions from the following

1. Define Software Engineering.
2. List out the Phases in SDLC.
3. Define Expert Judgment?
4. Expand SRS.
5. What do you understand by Distributed System?
6. What is glass box testing?
7. Define Strong Type Checking.
8. What do you mean by Recursion?
9. Define Debugging.
10. Define Symbolic Execution.
11. List out the Software cost Estimations.
12. Define Walkthrough and Inspection.

PART – B (5 X 5 = 25 Marks)

Answer any **FIVE** Questions from the following

13. How programmers spend their time?
14. Discuss about PSL/PSA.
15. Write a note on Modularizing criteria.
16. Explain in detail about Documentation Guidelines.
17. Write a note on Unit testing and System Testing.
18. Discuss about the Desirable properties of SRS
19. Write Short notes about Coding Style.

PART – C (3 X 10 = 30 Marks)

Answer any **THREE** Questions from the following

20. Discuss in Detail Quality and Productivity factors in S/W Engineering.
21. Explain any two Cost Estimation techniques.
22. Write a note on Design Notations.
23. Explain in detail Do's and Don'ts in Coding Style.
24. Explain about Enhancing maintainability during S/W development.

E-Mail Id for Uploading Answer Sheet

bcadepartment@lngovernmentcollege.com