



TAMIL NADU OPEN UNIVERSITY
Chennai - 15
School of Computer Science

Programme Code No : 146
Programme Name : B.Sc- Computer Science
Course Code & Name : BSCS-07 & Applied Operations Research
Batch : BEFORE CY 2020
No. of Assignment : 2
Maximum CIA Marks : 25(Average of Total No. of Assignments)

Assignment-1

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Explain about the different phases of OR.
2. Use simplex method to solve the following LPP.

$$\begin{aligned} \text{Maximize } Z &= 4x_1 + 10x_2 \\ \text{Subject to} \\ 2x_1 + x_2 &\leq 50 \\ 2x_1 + 5x_2 &\leq 100 \\ 2x_1 + 3x_2 &\leq 90 \\ x_1, x_2 &\geq 0. \end{aligned}$$

3. How to do the same effectively and efficiently?
Explain its components.

Assignment-2

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Find the sequence that minimizes the total elapsed time required to complete the following tasks on the machines in the order 1-2-3. Find also the minimum total elapsed time (hours) and the idle times on the machines.

Task A B C D E F G

Time on

Machine 1 38 7 4 9 8 7

Machine 2 4 3 2 5 1 4 3

Machine 3 6 7 5 11 5 6 12

2. The cost of a machine is Rs. 6100 and its scrap value is Rs 100. The maintenance costs found from experience are as follows.

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|-----|-----|-----|-----|-----|------|------|------|
| Maintenance | 100 | 300 | 400 | 600 | 900 | 1300 | 1600 | 2000 |

When the machine should be replaced?

3. Explain about the Group replacement and individual policy.



TAMIL NADU OPEN UNIVERSITY
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Programme Code No : 146
Programme Name : B.Sc Computer Science
Course Code & Name : BSCS-08 & Design and Analysis of Algorithms
Batch : BEFORE CY 2020
No. of Assignment : 2
Maximum CIA Marks : 25 (Average of Total No. of Assignments)

Assignment-1

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Explain in detail about the Jeep Problem.
2. Briefly explain about the Branch and Bound with suitable example.
3. Discuss about the Linear Search with suitable example.

Assignment-2

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Discuss about the correctness of the algorithm.
2. Elaborate about the Growth of function.
3. Discuss about the Recurrences Master method.



TAMIL NADU OPEN UNIVERSITY
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Programme Code No : 146
Programme Name : B.Sc Computer Science
Course Code & Name : BSCS-09 & Object Oriented Programming with C++
Batch : BEFORE CY 2020
No. of Assignment : 2
Maximum CIA Marks : 25 (Average of Total No. of Assignments)

Assignment-1

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Explain the following.
2. Explain the storage classes with example.
 - a. Friend function.
 - b. Inline function.
3. Explain in detail about function overloading with an example.

Assignment-2

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Write a C++ program to find the factorial.
2. Explain about C++ function with an example in detail.
Explain Exception handling with an example.



TAMIL NADU OPEN UNIVERSITY
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Programme Code No : 146
Programme Name : B.Sc Computer Science
Course Code & Name: BSCS-10 & Introduction to Database Management Systems
Batch : BEFORE CY 2020
No. of Assignment : 2
Maximum CIA Marks : 25 (Average of Total No. of Assignments)

Assignment-1

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Discuss about any two file organization methods.
2. Explain in details First Normal Form and Second Normal Form.
3. Discuss on converting a class diagram to Normalized tables with example.

Assignment-2

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Explain about SQL Data Definition Language statements.
2. Explain the structure of distributed database.
3. Explain the various elements of DBMS.



TAMIL NADU OPEN UNIVERSITY
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Programme Code No : 146
Programme Name : B.Sc Computer Science
Course Code & Name : BSCS-11 & Accounting and Financial Management
Batch : BEFORE CY 2020
No. of Assignment : 2
Maximum CIA Marks : 25 (Average of Total No. of Assignments)

Assignment-1

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. The following information was extracted from the books of M/S Sudha Ltd. Prepare final accounts on 31.3.2019.

| Particulars | Debit /Rs. | Particulars | Credit/Rs. |
|----------------------------|-----------------|----------------------|-----------------|
| Opening stock | 30,000 | Sales | 1,45,000 |
| Sales returns | 5,000 | Purchase returns | 2,500 |
| Purchases | 1,22,500 | Discount received | 300 |
| Carriage inwards | 2,000 | Capital | 1,36,450 |
| Carriage outwards | 3,000 | Bill payable | 7,500 |
| Wages | 6,000 | | |
| Salaries | 9,000 | | |
| Printing and stationary | 450 | | |
| Discount allowed | 450 | | |
| Depreciation | 1,500 | | |
| Building | 1,04,050 | | |
| Trade expenses | 2,800 | | |
| Bills receivables | 10,000 | | |
| | 2,91,750 | | 2,91,750 |

Adjustments

- (a) Closing stock 32,500
(b) Outstanding wages Rs. 1,500

2. From the following profit and loss a/c and Balance sheet of Governor Industries, Prepare a comparative Income statement.

Profit and Loss A/c for the year ending 2016-17

| | Liabilities | | Assets | |
|--------------------------------|-------------|----------|----------|----------|
| | 2016 Rs. | 2017 Rs. | 2016 Rs. | 2017 Rs. |
| To cost of goods sold By sales | 5,00,000 | 6,40,000 | 7,00,000 | 9,00,000 |
| To operating expenses | 20,000 | 20,000 | | |
| Administrative expenses | 30,000 | 40,000 | | |
| Selling expenses | 1,50,000 | 2,00,000 | | |
| To net profit | 7,00,000 | 9,00,000 | 7,00,000 | 9,00,000 |

Assignment-2

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. What is zero base budgeting and its advantages and disadvantages?
2. Explain the factors determining the working capital.
3. The records of a company show the following

| Year | Sales | Profit |
|------|----------|--------|
| 2014 | 1,20,000 | 9,000 |
| 2015 | 1,40,000 | 13,000 |

Find out:

- (a) P/V Ratio
- (b) Break-even point
- (c) Profit when sales are Rs. 1,00,000
- (d) Sales required to earn profit of Rs. 20,000
- (e) Margin of safety for year 2015.



TAMIL NADU OPEN UNIVERSITY
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Programme Code No : 146
Programme Name : B.Sc Computer Science
Course Code & Name : BSCS-12 & Management Information Systems
Batch : BEFORE CY 2020
No. of Assignment : 2
Maximum CIA Marks : 25 (Average of Total No. of Assignments)

Assignment-1

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Explain the following :
(a) Data dictionary (b) Decision trees.
2. Define DSS. Explain the classification of DSS in detail.
3. Explain about executive information system.

Assignment-2

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. What is system design? Explain its types in detail.
2. Discuss the functions Quality information system.
3. What are the functions of the management as a control system?



TAMIL NADU OPEN UNIVERSITY
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Programme Code No : 146
Programme Name : B.Sc Computer Science
Course Code & Name : BSCS-13 & Principles of Management
Batch : BEFORE CY 2020
No. of Assignment : 2
Maximum CIA Marks : 25 (Average of Total No. of Assignments)

Assignment-1

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Briefly explain the types of planning.
2. Elaborate the management by objectives.
3. Illustrate the organisation structure clearly.

Assignment-2

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. With clear explanation explain the line and staff relationship.
2. Describe the sources of recruitment and selection process.
3. Distinguish the budgetary and non budgetary control.



TAMIL NADU OPEN UNIVERSITY
Chennai - 15
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Programme Code No : 146
Programme Name : B.Sc Computer Science
Course Code & Name : BSCS-14 & Managing Information Technology
Batch : BEFORE CY 2020
No. of Assignment : 2
Maximum CIA Marks : 25 (Average of Total No. of Assignments)

Assignment-1

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Discuss about Chief Knowledge Office.
2. Briefly explain about business innovation.
3. Explain construction of information system architecture.

Assignment-2

Max= 25 marks

Answer **any one** of the questions given below in 1000 words each.

1. Discuss about IT process management
2. Explain the advantage of computer security.
3. Discuss about preparation of IT master plans.