Tamil Nadu Open University
School of Computer Science
Chennai – 15

Programme Code No : 171
Programme Name : Bachelor of Computer Applications
Course Code & Name : BCA-13 & TCP / IP Programming
Batch : AY 2019-20 (3rd Year)
No. of Assignment : One Assignment for Each 2 Credits
Maximum CIA marks : 25 (Average of Total No. of Assignments)

ASSIGNMENT – 1   Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. Explain in detail about TCP/IP layering.

2. Explain in detail about Subnet Addressing.

3. Illustrate the features of TCP in detail.

ASSIGNMENT – 2   Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. Explain in detail Client Server Model.

2. Discuss the different classes of IP address with examples.

3. Explain in detail UDP Port Numbers.

ASSIGNMENT – 3   Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. How is connection established in TCP? Discuss the same briefly.

2. What is RARP? Discuss.

3. Write short notes on the following :

    i. Features of UDP.

    ii. Internet Multi Casting.

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Programme Code No   : 171
Programme Name   : Bachelor of Computer Applications
Course Code & Name   : BCA-14 & C++ and Object Oriented Programming
Batch   : AY 2019-20 (3rd Year)
No.of Assignment   : One Assignment for Each 2 Credits
Maximum CIA marks   : 25 (Average of Total No. of   Assignments)

<u>**ASSIGNMENT – 1**</u>   Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. What is a manipulator? Explain the use of I/O manipulators with example.
2. Explain the different types of Arrays in detail.
3. Describe the various file stream classes.

<u>**ASSIGNMENT - 2**</u>

Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. List out the various control structures available in C++. Give an example
2. What is a constructor? Explain the different types of constructors.
3. Explain Unified Modeling Language in detail.

<u>**ASSIGNMENT – 3**</u>

Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. What is inheritance? Explain with an example
2. Discuss about command-line arguments with an example.
3. How is polymorphism achieved at
   (a) Compile time
   (b) Run time – Discuss.

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Programme Code No   : 171
Programme Name   : Bachelor of Computer Applications
Course Code & Name   : BCA-15 & Theory of Computer Science
Batch   : AY 2019-20 (3rd Year)
No.of Assignment   : One Assignment for Each 2 Credits
Maximum CIA marks   : 25 (Average of Total No. of   Assignments)

ASSIGNMENT – 1   Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. Explain the Various Functions in detail.

2. Explain the various Forms in detail.

3. Explain Turing Machines with examples.

ASSIGNMENT - 2

Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. Discuss about the different Statement in detail.

2. Discuss about Grammar and its types in detail.

3. Explain digraph with example.

ASSIGNMENT - 3

Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. Explain the WARSHALL Algorithm in detail.

2. What is an equivalence class? Explain.

3. Construct an FA for a*/ba*b

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Programme Code No   : 171
Programme Name   : Bachelor of Computer Applications
Course Code & Name   : BCA-16 & Introduction to Internet Programming
Batch   : AY 2019-20 (3rd Year)
No.of Assignment   : One Assignment for Each 2 Credits
Maximum CIA marks : 25 (Average of Total No. of   Assignments)

Max : 25 marks

ASSIGNMENT - 1

Answer any one of the question not exceeding 1000 words

1. Discuss the various operators available in java.

2. What is a constructor? Explain the different types of constructors with examples.

3. What is meant by Multithreading? Explain with an example.

ASSIGNMENT - 2

Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. Explain the various control structures implemented in Java with illustrations.

2. Explain Wrapper classes and Inner classes in detail.

3. What are the two ways of creating threads? Give example.

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Programme Code No   : 171
Programme Name   : Bachelor of Computer Applications
Course Code & Name : BCA-17 & Intranet Administration
Batch   : AY 2019-20 (3rd Year)
No.of Assignment   : One Assignment for Each 2 Credits
Maximum CIA marks : 25 (Average of Total No. of Assignments)

Max : 25 marks

ASSIGNMENT - 1

Answer any one of the question not exceeding 1000 words

1. Explain briefly hardware and software requirements for intranet and list out its application areas.

2. Explain in detail about firewalls.

3. Write in detail about intranet administration.

ASSIGNMENT - 2

Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. Explain in detail web servers.

2. Briefly describe the working of service protocols.

3. Discuss how the technology works in mobile phones.

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Programme Code No   : 171
Programme Name   : Bachelor of Computer Applications
Course Code & Name : BCA-18 & Management Principles and Techniques
Batch   : AY 2019-20 (3rd Year)
No.of Assignment   : One Assignment for Each 2 Credits
Maximum CIA marks : 25 (Average of Total No. of Assignments)

<u>ASSIGNMENT – 1</u>   Max : 25 marks

Answer any one of the question not exceeding 1000 words

1.   Solve the following LPP Graphical method

Maximize $Z = 40x_1 + 100x_2$

subject to

$$12x_1 + 6x_2 \le 3000$$
$$4x_1 + 10x_2 \le 2000$$
$$2x_1 + 3x_2 \le 900$$
$$x_1, \ x_2 \ge 0.$$

2.   Solve the Transportation problem by Vogels method and Modi method

	Destination	1	2	3	4	Availability
	1	21	16	25	13	11
Sources	2	17	18	14	23	13
	3	32	27	14	41	19
Requirement		6	10	12	15	43

3.   Explain the Dual Simplex algorithm in detail.

ASSIGNMENT - 2

Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. The cost of a machine is Rs. 6,100 and its scrap value is Rs. 100. The maintenance costs bound from experience are as follows

Year	1	2	3	4	5	6	7	8
Maintenance cost (Rs.)	100	250	400	600	900	1200	1600	2000

When should the machine be replaced?

2. Solve the following LPP by Simplex method

Maximize $Z = x_2 - 3x_3 + 2x_5$

subject to

$$3x_2 - x_3 + 2x_5 \leq 7$$
$$-2x_2 + 4x_3 \leq 12$$
$$-4x_2 + 3x_3 + 8x_5 \leq 10$$
$$x_2,\ x_3,\ x_5 \geq 0.$$

3. Explain about Group Replacement policy.

ASSIGNMENT – 3

Max : 25 marks

Answer any one of the question not exceeding 1000 words

1. Discuss about Replacement situations.

2. Explain the procedures in PERT/CPM.

3. Explain the formulation of Linear Programming Model.