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| **Program: - B. Tech**  | **Faculty Name:- Abid Khan** | **Sem :- 6th** |
| **Course Name:- cryptography & network security** | **Course Code: - C000619(022)** | **Max Marks:-20** |

**Assignment- 1**

 **Note: - Each Question carries 4 marks.**

1. Describe network security model in details. (CO-1, PO-2, Level-3) **[4]**

2. Encrypt the following using the play fair cipher using the keyword MONARCHY. “SWARAJ IS MY BIRTH RIGHT”. Use X for blank spaces. (CO-1, PO-1, Level-3) **[4]**

3. Describe DES algorithms in detail . (CO-1, PO-2,Level-2) **[4]**

4. Short notes on group, ring ,field and modular arithmetic. (CO-2, PO-2, Level-3) **[4]**

5. Using Euclidean algorithm calculate GCD (125, 20) (CO-2, PO-2, Level-3) **[4]**

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| **Program: - B Tech**  | **Faculty Name:-Mrs Shikha Agrawal** | **Sem:- 6th** |
| **Course Name:- soft computing**  | **Course Code: - :** **C022633(022)**  | **Max Marks:-20** |

**Note: - Each Question carries 4 marks**

**1.** What is neural network and define its architecture in detail (CO-1, PO-2, Level-1) **[4]**

2. Expalin hard computing and soft computing in detail and its characteristics.

(CO-1, PO-3, , Level-2) **[4]**

3. Define Learning and also explain types of learning method used in neural network.

(CO-2, PO-2, , Level-2) **[4]**

4. Explain Error back propagation training algorithm with their example.

 (CO-1, PO-3, Level-2) **[4]**

5. Explain single layer and multilayer perceptron in detail. (CO-2, PO-2, Level-2) **[4]**

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| **Program: - BE** | **Faculty Name:-**Dr. Archana Chowdhury | **Sem:-6th** |
| **Course Name:-**Artificial Intelligence and Expert System  | **Course Code: - C022611(022)** | **Max Marks:- 20** |

**Assignment- 1(Even Sem 2022)**

**Note: - Each Question carries 4 marks.**

1. Describe the heuristic implemented through constraint satisfaction and propagation. Solve the crypt arithmetic problem:

 CROSS +ROAD=DANGER

 (CO-1, PO-1,2,3, Level-2,5)[4]

2.Explain the A\*algorithm. Discuss the effect of heuristic value on the nature of search.

(CO-1, PO-1, 2,3, Level-4)[4]

3. Explain AO\* algorithm with suitable example.

(CO-1, PO-1, 2,3, Level-2)[4]

4.Explain Dempster Shafer Theory.

(CO-2, PO-1, 2,3 Level-2)[4]

5.What do you understand by Totally ordered planning and Partially ordered planning.

 (CO-2, PO-1, 2, 3, Level-2)[4]

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| **Program: -B.Tech** | **Faculty Name:-**Dr. Archana Chowdhury | **Sem:- 6** |
| **Course Name:-**Compiler  Design  | **Course Code: -C022611(022)** | **Max Marks:-20** |

**Assignment- 1(Even Sem 2022)**

**Note: - Each Question carries 4 marks.**

1. Consider the following program:

 void main()

 {

int x, y;

float s , z;

 y = x+1;

 z = s+1;

 }

List down the lexemes, tokens and the attributes of the tokens, at the end of the Lexical analysis of

the above program. Also find the number of tokens.

 (CO-1, PO-1,2,3, Level-4) [4]

2.Elaborate the importance of bootstrapping and backpatching?

 (CO-1, PO-1,2,3 Level-2) [4]

3Illustrate the various compiler construction tools? (CO-1, PO-1,2,3, Level-2) [4]

4. Comment whether the given grammar is LL(1) grammar

 E ->TEl , El->+TEl /Є , T ->FTl ,Tl ->\*FTl /Є , F-> (E)/id (CO-2, PO-1,2,3, Level-5) [4]

5. Trace the steps of shift reduce parser to parse the string **id+id\*id ,** according to the grammar

 E->E+E , E -> E\*E , E-> (E) , E-> id (CO-2, PO-1,2,3, Level-3)**[4]**

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| **Program: - B. Tech** | **Faculty Name:- Mrs. Lincy Mendonza** | **Sem:- 6th Sem** |
| **Course Name:- SEPM** | **Course Code: - C022612(022)** | **Max Marks:-20** |

**Assignment- 1**

**Even Session (Jan-June 2022)**

**Note: - Each Question carries 4 marks.**

1.Explain the project phase and project life cycle. (CO-1, PO-1, Level-2) [4]

2.Explain the prototype and spiral model. (CO-1,2, PO-1,2,3, Level- 2) [4]

3. Explain the terms:

A. Three R

B.Waterfall model (CO-1, PO- 2,3, Level-2) [4]

4.Explain the COCOMO model (CO-2, PO- 2, Level-2) [4]

5.Explain

1.Warnier orr diagram

2.DFD (CO-1,2 PO- 1,2, Level-2) [4]