International Islamic University Chittagong

Department of Computer Science & Engineering

B.Sc. in CSE, 8th Semester, Final Examination, Spring 2022

Course Code: CSE-4875 **Course Title:** Pattern Recognition and Image Processing

Total Marks:50 Time: 2 Hours 30 Minutes

[Answer all the *five* questions. Separate answer scripts must be used for Group A and Group B. Figures in the right-hand margin indicate full marks.]

CO Description

CO1 **Understand** basic image processing techniques for solving real problems

CO2 **Apply and demonstrate** image processing techniques for solving problems in computer science

CO3 **Evaluate** algorithms for higher level image processing.

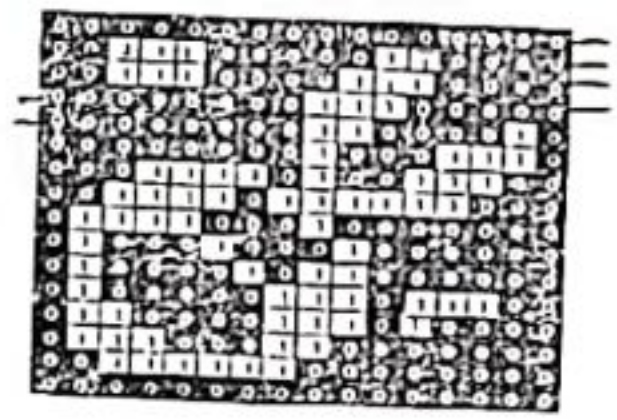
Group - A

1(a)	"Data is a combination of information and redundant data" – do you agree? Justify your answer with proper example.	3	CO1	D2
1(b)	Encode the following 4 × 4, 8-bit image using LZW coding:	4	CO3	D3

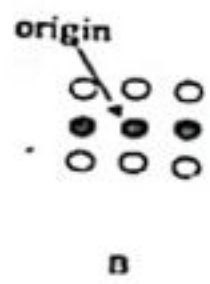
200	200	129	129
200	200	129	129
200	200	129	129
200	200	129	129

OR

1(b)	Describe in details how color based segmentation can be used in an attempt to segment "same-colored" object in real color images. What problems arise? What are some ways of dealing with them?	4	CO3	D3
1(c)	What is Bit Plane decomposition? Write the benefit of bit-plane decomposition with necessary example.	3	CO1	D1
2(a)	Binary Image X and Structuring element B are given below.	4	CO4	D3



X



B

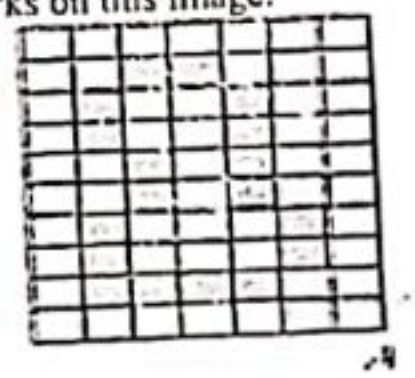
i) Calculate $A \circ B = (A \ominus B) \oplus B$ Where $A \circ B$ denotes morphological opening operation

ii) What is pruning? Why it is important in many image processing applications? 2 CO1 D1

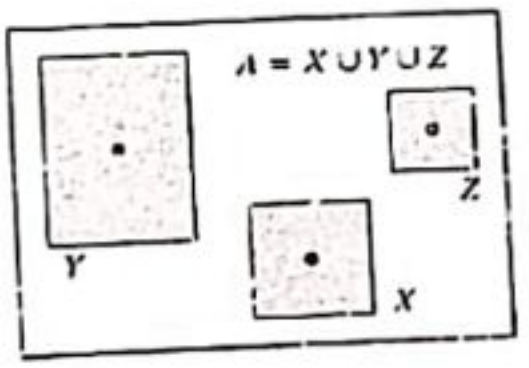
OR

2(a) i) In the pattern recognition and classification there are four basic steps involved, which are sensing an image, segmenting the image, extracting the features from the segmented objects, and classification to recognize the specific object. Based on this procedure explain how you can segment and classify a specific object from an 3 bit color image. 4 CO1 D3

ii) Perform the region filling algorithm on the following image. Explain step by step how this algorithm works on this image. 2 CO1 D1



2(b) Apply $(A \ominus X) \cap (A^c \ominus (W - X))$ morphological operation on the following image. 4 CO3 D3



Group - B

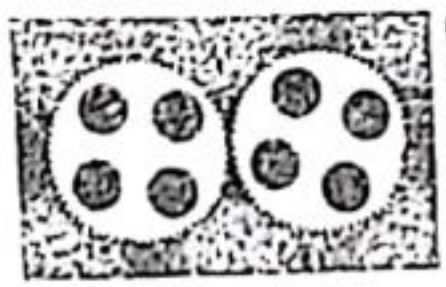
3(a) An analytics produce a decision boundary with the equation $5.1x_1 - 0.3x_2 - 8.45$. The first and second decision functions are produced as $6.6x_1+1.2x_2-28.33$ and $5.6x_1+3.8x_2-10.0$ respectively. Determine the two mean vector (m_1, m_2) from the above information. 5 CO2 D3

3(b) Proof the equation $P(R_i) = TRUE$ for region. 2 CO2 D2

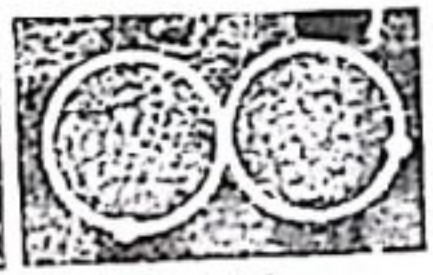
$P(R_i)$ is a logical predicate defined over the points in set R_i and $\emptyset$ is the null set 3 CO1 D1

3(c) Describe Canny edge detection algorithm. 5 CO2 D3

4(a) Shown below A is an original binary image which has some defects. How would you detect the defects of the original image using morphological operators with different structural elements? Explain each structural element with proper example. The detected defects sample is also given below.



A Binary image



Detected defects

5 CO3 D3

4(b) i. Evaluate the chain code of Figure 1 (use 8-direction).
ii. Chain code has some limitations? Make the chain code in a rotational invariant.
iii. Find the area of the figure 1.

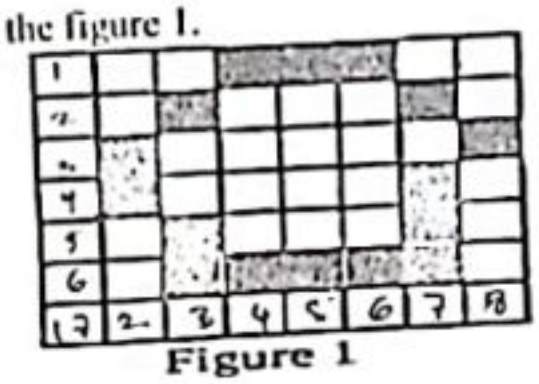


Figure 1

OR

4(b) i) Describe your method of computing the skeleton of the images. What kind of structural elements will you be using? What happens when you change the size of the structuring element? 5 CO3 D3

ii) Define Local Binary Pattern (LBP) with example. 5 CO3 D5

5(a) In the pattern recognition we have to extract the features from the object and that features are needed to recognize through recognizing algorithm. For recognizing a specific object, is it possible to recognize the object features through neural network that features are extracted from the object through local binary pattern? Justify your answer with a 4x4 8 bit color image. 5 CO2 D3

5(b) "Template matching is a popular way to identify patterns from images"

i. Explain the formulation of correlation based algorithm with example.
ii. Describe Pattern recognition model.

OR

5(b) Describe minimum distance classifier. Build the decision boundary for two pattern classes w1 and w2. Where two mean vectors $R1^T = (5.6, 1.2, 6.2)$ and $R2^T = (1.4, 0.3, 3.7)$. Explain how decision boundary works on classification stage. 5 CO2 D3

MGT-3601

Chittagong

Engineering

Semester: Spring

Course Title: **Industrial Manageme**

Time: **2 Hours 30 Minu**

(i) Answer all the questions. The figures in the right-hand margin indicate full marks.

(ii) Course Outcomes (COs) and Bloom's Levels are mentioned in additional Columns

Group A

Q1.	a)	What is the purpose of organizational control? Why is it important?	CO1	An
	b)	Describe how a budget is created in most organizations. How does a budget help a manager with financial control?	CO2	An
Q2.	a)	Write short note: i) Needs, wants and demand ii) Integrated marketing iii) Target market, positioning and segmentation	CO2	R
	b)	Compare profit and sales variation with the change of time in different stages of Product Life Cycle.	CO2	An

OR

Q2.	a)	Compare between social media advertising and television advertising.	CO3	E
	b)	What should be the considering factors in selecting media for advertising?	CO2	An

Group B

Q3.	a)	Discuss the term Operation Management? Explain five P's of operation management.	CO2	An
	b)	Distinguish between product and service.	CO2	C
Q4.	a)	Define Contract. Discuss the essential elements of a contract.	CO2	An
	b)	Explain when does an agreement become a legal contract.	CO2	E
		Write a short note on: i). Express, implied and quasi contract ii). Valid, void and voidable contract.		
Q5.		Write short notes on: Oil crisis due to Ukraine War, Importance of Padma Bridge, Chattogram Trade Fair and Karnofuli Tunnel.	CO1	U

OR

Q5.		Bench Marking, ISO, Social Media Advertising and Management by Shura.	CO1	U

International Islamic University Chittagong
Center for General Education (CGED)

Semester End Examination: Spring 2022 | **Program: Undergraduate**

Course Code: URBS 4802 | **Course Title: Bangladesh Studies and History of Independence**

Time: 2 hours and 30 minutes. | **Full Marks: 50**

Instructions:

i. All Questions are Compulsory.
ii. Figures in the right margin indicate full marks.
iii. Course Learning Outcome (CLO) and Bloom's levels are mentioned in additional columns.

Bloom's Levels of the Questions.						
Letter of Symbol	R	U	App	An	E	C
Meaning	Remember	Understand	Apply	Analyze	Evaluate	Create

		Text of the Questions	Marks	Bloom's Level	CLO
1	a	Analyze the perspectives of Permanent Settlement in 1793 as a British policy to strengthen British colonization.	5	U	CLO1
	b	Explore socio-economic impact of Permanent Settlement on Bengal.	5	E	CLO1
2		Briefly evaluate the contributions of intellectual reform movements led by Nawab Abdul Latif and Syed Ameer Ali to the educational and political regeneration in the society of Bengal.	10	An	CLO2
		Or			
	a	Explain the historical context of the Partition of Bengal in 1905.	5	E	CLO2
	b	How did the Partition severely affect the communal politics in the subsequent political developments of Bengal?	5	App	CLO2
3		Analyze the key factors behind the partition of India and the emergence of Pakistan in 1947.	10	An	CLO3
4	a	Assess the pragmatic causes of the War of Liberation of Bangladesh in 1971.	6	An	CLO3
	b	Elucidate the significance of 7th March historic speech of Bangabandhu Sheikh Mujibur Rahman.	4	E	CLO3
5	a	What are the basic characteristics of the Constitution of Bangladesh?	5	U	CLO3
	b	Explain the fundamental principles of state policy in the light of the Constitution of Bangladesh.	5	U	CLO3
		Or			
	a	Draw up the administrative structure of Bangladesh and identify its challenges?	5	U	CLO3
	b	Explain the basic principles of foreign policy of Bangladesh	5	An	CLO2

International Islamic University Chittagong

Department of Computer Science and Engineering

B. Sc. in CSE Final Examination, Spring 2022

Course Code: CSE-4805

Course Title: Social, Professional and Ethical Issues in Computing

Total marks: 50 *Time: 2 hours 30 minutes*

[Answer all the questions;
Figures in the right hand margin indicate full marks.]

Group A

		CO	DL	
1.				
a)	Find several provisions of the Software Engineering Code of Ethics and Professional Practice that were violated in the Therac-25 case.	CO1	U	5
b)	Suppose you are on a consulting team to design a voting system for your district in which people can vote by logging on to a website (from a computer, smartphone, or other Internet-connected device). What are some important design considerations? Discuss some pros and cons of such a system.	CO3	C	5

OR (of 1b only)

Discuss few current cases similar with Therac-25. Give some remedies to overcome from such cases in future.

2.				
a)	Suppose, there is a very large social media network. And Mr. X has a son named Y, aged of 15 years. He wants to join the social medial network. How does privacy issue will be managed? Explain it.	CO1	E	5
b)	How privacy will be managed if the age of Y is above 18 years? Explain it with appropriate arguments.	CO1	E	5

Group B

3.				
a)	List some job categories where the number of jobs declined drastically as a result of computerization and list some job categories where the number of jobs increased drastically with increasing use of computers. Do you agree computerization increased unemployment? Why? Why not?	CO3	E	5

b) Consider an automated system that large companies can use to process job applications. For jobs such as truck drivers, cleaning staff, and cafeteria workers, the system selects people to hire without interviews or other involvement of human staffers. Describe advantages and disadvantages of such a system. CO3 5

4.

a) Do we have an ethical responsibility to maintain up-to-date antivirus protection and other security software on our personal computers to prevent our computer from being infected with remotely controlled software that harms others? Should a law require that everyone install such software? Consider analogies from several other technologies or areas. CO3 E 5

OR (of 4a only)

Debate whether software should be copyrightable or should be freely available for copying. Do you have any other better option? Explain.

b) We saw that hackers and identity thieves use many techniques and continually develop new ones. Think up a new scheme for obtaining passwords or some type of personal information that might be useful in identity theft. Then describe a possible response to protect against your scheme. CO4 C 5

OR (of 4b only)

Write computer crime related acts from ICT act of Bangladesh and discuss how this act can reduce computer crime in Bangladesh.

5.

a) Suppose, Mr. X is shopping some product from any e-commerce site and given his credit card number unconditionally. The e-commerce site is less protected in case of security issue. Can there be any chance of identity theft? If there, how to solve the problem? CO4 E 5

b) To secure the financial transaction which method should be introduced to get rid of identity theft? Explain with appropriate assumption. CO4 E 5

OR (of 5b only)

How Mr. X can ensure much protected service from Credit card with strong password?

International Islamic University Chittagong

Department of Computer Science and Engineering

B. Sc. in CSE Final Examination, Spring 2022

Course Code: CSE-4877 Course Title: Machine Learning and Data Mining

*Total marks: **50*** *Time: **2 hours 30 minutes***

The figures in the right hand margin indicate full marks.
Course Outcomes and Bloom's Taxonomy Levels are mentioned in additional columns

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Group A

1. a) Draw the layered architecture of a data warehouse and explain the purpose of each layer. CO1 U 6

   b) When Fact-constellation schema should be chosen over the other schemas. Explain with an example. CO1 U 4

2. a) Apply the FP-growth algorithm with a minimum support threshold of 3 to the following transaction database TDB:

TID	Items
100	{a, b, c, d, e}
200	{a, b, c, d, e, f}
300	{a, b, c, e}
400	{a, b, d}

i. Show the global FP-tree for the TDB, CO3 Ap 2.5
ii. List all the frequent 1-itemsets returned by the FP-growth algorithm. CO3 Ap 2.5
iii. Show all FP-trees for subsequent projected databases. CO3 Ap 2.5
iv. List all other frequent k-item sets (where $k \geq 2$) returned by the FP-growth algorithm. CO3 Ap 2.5

OR

2. a)

	Predicted 0	Predicted 1
Actual 0	45	5
Actual 1	5	45

CO3 Ap 4

For the above confusion matrix, calculate accuracy, error rate, precision, and recall.

b) Write the Pseudo-code of the Apriori algorithm. Apply the algorithm with a minimum support threshold of 50% to the following transaction database: CO3 Ap 6

TID	Items
T1	{M,O,N,K,E,Y}
T2	{D,O,N,K,E,Y}
T3	{M,A,K,E}
T4	{M,U,C,K,Y}

Find all frequent item sets showing each step.

Group B

3.	a)	Draw the SVM model and explain why support vectors are named so. Write the key difference between Support Vector Machine (SVM) with other classification algorithms.	CO1	U	4
3.	b)	Suppose we are given the following positively labeled data points in 2D space: {(3,1), (3,-1), (6,1), (6,-1)} and the following negatively labeled data points in 2D space: {(1,0), (0,1), (0,-1), (-1,0)}. In addition, three support vectors are {(1,0), (3,1), (3,-1),} Apply Support Vector Machine to classify data objects (2,1).	CO3	Ap	6

OR

3.	a)	What is hierarchical clustering? Explain it with the help of a suitable example.	CO1	U	4
3.	b)	Suppose that the machine learning task is to cluster the following four points (with (x,y) representing location) into two clusters: A(1,1), B(2,1), C(4,3), D(5,4). The distance function is Euclidian distance. Suppose initially we assign A and B as the center of each cluster, respectively. Use k-means algorithm to produce proper clusters, step by step.	CO3	Ap	6
4.	a)	Define a deep neural network. Describe different types of neural network architecture.	CO1	U	5
4.	b)	Suppose that the machine learning task is to cluster the following six points (with (x,y) representing location) into two clusters: A(2,10), B(2,5), C(5,8), D(8,5), E(4,9), F(3,2). The distance function is Manhattan distance. Suppose initially we assign A and C as the center of each cluster, respectively. Use the k-median algorithm to produce proper clusters, step by step.	CO3	Ap	5
5.	a)		CO4	Ap	10

RID	age	income	student	credit_rating	Class: buys_computer
1	youth	high	no	fair	no
2	youth	high	no	excellent	no
3	middle_aged	high	no	fair	yes
4	senior	medium	no	fair	yes
5	senior	low	yes	fair	yes
6	senior	low	yes	excellent	no
7	middle_aged	low	yes	excellent	yes
8	youth	medium	no	fair	no
9	youth	low	yes	fair	yes
10	senior	medium	yes	fair	yes
11	youth	medium	yes	excellent	yes
12	middle_aged	medium	no	excellent	yes
13	middle_aged	high	yes	fair	yes
14	senior	medium	no	excellent	no

Build a Decision Tree for the given data using information gain.

International Islamic University Chittagong

Department of Computer Science and Engineering

B. Sc. in CSE

Final Exam, Spring-2022

Course Code: **CSE 4845** Course Title: **Distributed Database**

Time: 2 hours 30 minutes Full Marks: 50

(i) The figures in the right-hand margin indicate full marks

(ii) Course Outcomes and Bloom's Levels are mentioned in additional Columns

Bloom's Levels of the Questions						
Letter Symbols	R	U	App	An	E	C
Meaning	Remember	Understand	Apply	Analyze	Evaluate	Create

Part A

[Answer the questions from the followings]

1.	a)	Discuss about the Normalization of Query Decomposition. What do you know about the Query Optimization?	CO1	R
1.	b)	Write down the steps of process that transforms a high-level query (of relational calculus/SQL) into an equivalent and more efficient lower-level query (of relational algebra).	CO2	U
2.	a)	Indicate whether the following schedules can produce anomalies; the symbols **ci** and **ai** indicate the result (commit or abort) of the transaction: a. r1(x); w1(x); r2(x); w2(x); r2(y); w2(y); a1; c2 b. r1(x); r2(y); w1(x); w2(y); a1; c2 c. r1(x); r2(x); r2(y); w2(y); r1(z); a1; c2 d. r1(x); r2(x); r3(x); w2(x); w1(x); c1; c2;a3 e. r1(x); w1(x); r2(x); w2(x) ;w3(x);; c1; c2;c3	CO4	App
2.	b)	Write down the processing issues of Transactions. What do you know about the Formalization of Transactions?	CO2	E

OR

2.	a)	Consider the following 2 (two) Transactions, where initially x=50:-	CO4	App

T1: r(x)	T2: r(x)
x=x+1	x=x+1
w(x)	w(x)
Commit	Commit

Given the following execution sequences:-

Sequence 1: r1(x), w1(x), c1, r2(x), w2(x), c2

Sequence 2: r1(x), r2(x), w1(x), w2(x), c1,c2

What will be the result for the Serial Execution (Sequence 1) and the Concurrent Execution (Sequence 2)? Explain the result.

2. b) Briefly describe the properties of transactions. CO2 E

Part B

[Answer the questions from the followings]

3. a) Write down the algorithms of 2PL (two phase locking) protocol? What do you know about the Strict-2PL? CO5 C

3. b) Classify the following schedule as Non-VSR, VSR or CSR:- CO2 E

i. r1(x); r2(y); w3(y); r5(x); w5(u); w3(s); w2(u); w3(x); w1(u); r4(y); w5(z); r5(z)

ii. r2(u); w2(s); r1(x); r2(y); w3(y); r5(x); w5(u); w3(s); w2(u); w3(x); w1(u); r4(y); w5(z); r5(z)

iii. r1(x); r2(y); w3(y); r5(x); w5(u); w3(s); w2(u); w3(x); w1(u); r4(y); w5(z); r5(z); r2(u); w2(s)

4. a) What is Reliability and In-place Update? What do you know about the Commit Protocols? CO5 Apr

4. b) What is concurrency control? What do you know about the locking based concurrency algorithms? CO2 U

5. a) What is the concept of conceptual design and the logical design? What is the difference between star schema and snow flake schema design? CO3 Ar

b) Discuss about the architecture of the local recovery management system. CO3 Ar

OR

5. Let us consider the case of a real estate agency whose database is composed by the following tables:- CO3 Ar

- OWNER (**IDOwner, Name, Surname, Address, City, Phone**)
- ESTATE (**IDEstate, IDOwner, Category, Area, City, Province, Rooms, Bedrooms, Garage, Meters**)
- CUSTOMER (**IDCust, Name, Surname, Budget, Address, City, Phone**)
- AGENT (**IDAgent, Name, Surname, Office, Address, City, Phone**)
- AGENDA (**IDAgent, Data, Hour, IDEstate, ClientName**)
- VISIT (**IDEstate,IDAgent, IDCust, Date, Duration**)
- SALE (**IDEstate,IDAgent, IDCust, Date, AgreedPrice, Status**)
- RENT (**IDEstate,IDAgent, IDCust, Date, Price, Status, Time**)

Goal:

Provide a supervisor with an overview of the situation. The supervisor must have a global view of the business, in terms of the estates the agency deals with and of the agents' work.

Questions:

i. Design a conceptual schema for the Data Warehouse (DW).
ii. What facts and dimensions do you consider?
iii. Design a Star Schema or Snowflake Schema for the DW.

International Islamic University Chittagong

Department of Computer Science and Engineering

B. Sc. in CSE Final Examination, Spring 2022

Course Code: CSE 4871Course Title: Neural Network and Fuzzy System

Total marks: 50

Time: 2 hours 30 minutes

(i) The figures in the right hand margin indicate full marks.
Course Outcomes and Bloom's Levels are mentioned in additional Column

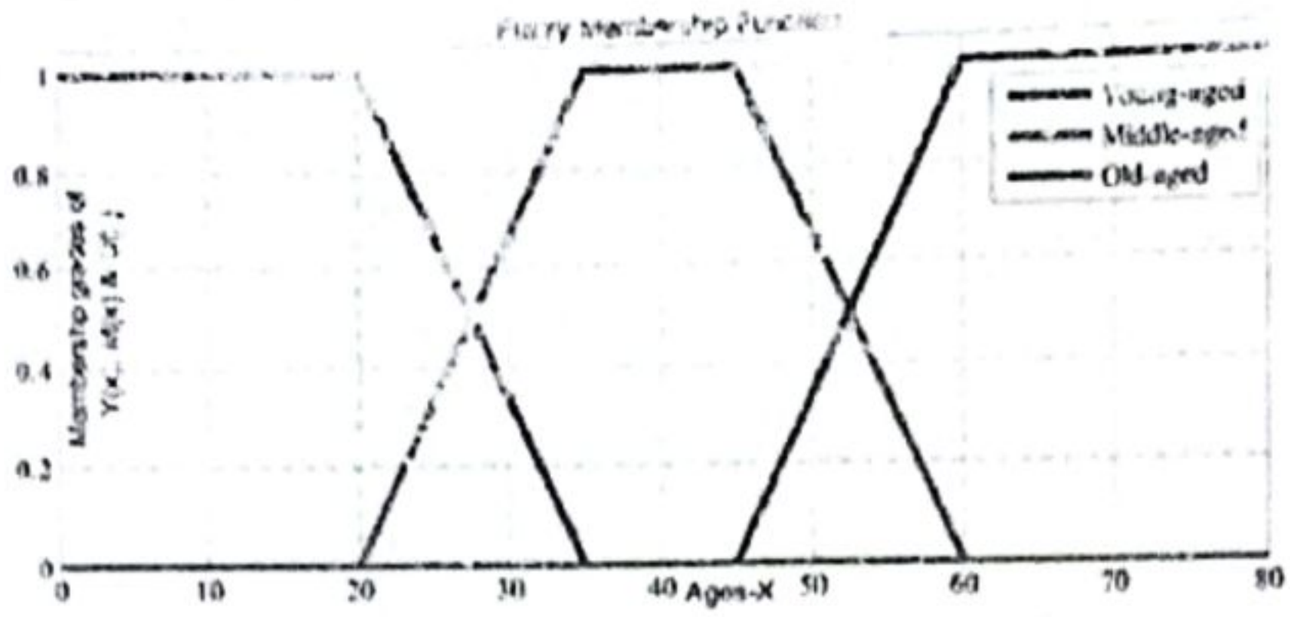
Course Outcomes (COs) of the Questions	
CO1	**Explain** the basics, characteristics, applications of neural network
CO2	**Demonstrate** theoretical and practical aspects of Feed Forward Back Propagation & Counter Propagation Neural Network, CNN, RNN
CO3	**Understand** the principle of competitive neural networks and Adaptive resonance theory, and Hopfield Network.
CO4	**Analyze** the architecture and algorithm of associative memory networks and fuzzy systems.
CO5	**Understand** the basic concept of fuzzy sets, fuzzy logic &defuzzification and generic algorithms.

Bloom's Levels of the Questions						
Letter Symbols	R	U	Ap	An	E	C
Meaning	Remember	Understand	Apply	Analysis	Evaluate	Create

Part A

[Answer the following questions]

1.	a)	What is a radial basis function (RBF) network? Explain the main features of RBF networks.	CO1	R	4
1.	b)	Define the following two terms i) Fuzzification iii) Defuzzification	CO1	U	2
1.	c)	As you train your model, you realize that you do not have enough image data. Mention three image data augmentation techniques that can be used to overcome the shortage ofdata.	CO1	U	1
1.	d)	How does splitting a dataset into the train, dev, and test sets help identify overfitting?	CO2	R	2
2.	a)	Explain the differences between CNN and RNN.	CO2	R	
2.	b)	How does LSTM Overcome the Limitations of RNN? Briefly Explain with the necessary diagram.	CO2	U	
2.	c)	How does Transfer Learning contribute to the Progression of Neural Information Processing?	CO1	U	
		OR			
2.	a)	After visually inspecting the dataset, you realize that the training setonly contains pictures taken during the day, whereas the dev set only has picturestaken at night. Explain what is the issue and how you would correct it.	CO2	R	
2.	b)	Use the following figure to write the membership function.	CO2	U	

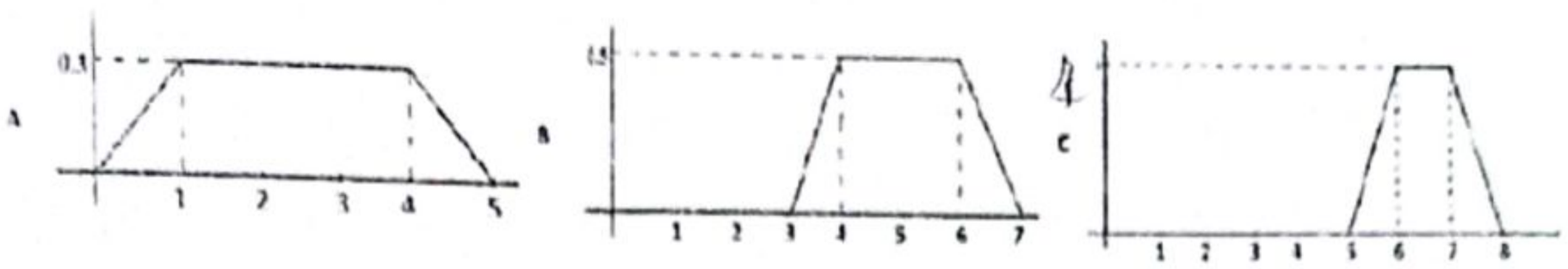


2.	c)	Imagine you were requested to create a system that would provide suitable outputs for inputs that the system has never seen before using a set of real-world data. Describe the primary criteria you would use to decide between using an MLP network and an RBF network.	CO1	U	4

Part B
[Answer the following questions]

3.	a)	Explain adaptive resonance theory (ART).Describe the ART-1 architecture.	CO3	R	5
3.	b)	Consider a simple Hopfield network made up of four neurons. The synaptic weight matrix of the network is given as: $W = \begin{vmatrix} 0 & 1 & 1 & -1 \\ 1 & 0 & 1 & -1 \\ 1 & 1 & 0 & -1 \\ -1 & -1 & -1 & 0 \end{vmatrix}$ * Now, for a given input vector (0, 0, 1, 0) enumerate the procedure of how the vector (1, 1, 1, 0) will be stored in the Hopfield net.	CO3	An	3.5
3.	c)	Define Genetic Algorithm (GA).	CO3	R	1.5
4.	a)	Name at least four strengths and weaknesses of fuzzy expert systems.	CO5	U	3
	b)	Let, $\tilde{A} = \{(x1,1.0), (x2,0.5), (x3,0.3), (x4,0.2)\}$ and $\tilde{B} = \{(x1,0.5), (x2,0.7), (x3,0.2), (x4,0.4)\}$, Find i) $(\tilde{A} \cup \tilde{B})^c$ ii) $\tilde{A} \oplus \tilde{B}$ iii) $\tilde{A} - \tilde{B}$	CO5	Ap	3
	c)	Let, $\tilde{A} = \{(x1,0.1), (x2,0.5), (x3,1.0)\}$, $\tilde{B} = \{(x1,0.3), (x2,0.8)\}$, and $\tilde{C} = \{(x1,0.4), (x2,0.7), (x3,1.0)\}$Find fuzzy Cartesian product $\tilde{P} = \tilde{A} \times \tilde{B}$ and $\tilde{Q} = \tilde{B} \times \tilde{C}$	CO5	Ap	2
	d)	Let $R1 = \begin{vmatrix} 1.0 & 0.6 & 0.7 \\ 0.3 & 0.2 & 0.0 \\ 0.6 & 0.5 & 1.0 \end{vmatrix}$, $R2 = \begin{vmatrix} 0.6 & 0.6 & 0.0 \\ 0.0 & 0.6 & 0.1 \\ 0.0 & 0.1 & 0.0 \end{vmatrix}$. Find R1 o R2	CO5	Ap	2

5. a) Consider the three different fuzzy sets as shown below, estimate D = A U B U C CO5 An 5
and then calculate the defuzzified value using the centroid method.



b) Let, $\tilde{P}$: Rahim is efficient, $T(\tilde{P}) = 0.8$ and $\tilde{Q}$: Karim is efficient, $T(\tilde{Q}) = 0.65$ CO5 Ap 3
Now, estimate the value of the following propositions:
(i) Either Rahim or Karim is efficient.
(ii) Rahim is efficient and so is Karim.
(iii) If Rahim is efficient then so is Karim.

c) Let, $X = \{a, b, c, d\}$, $Y = \{1, 2, 3, 4\}$ and $\tilde{A} = \{(a, 0), (b, 0.8), (c, 0.6), (d, 1)\}$, CO5 Ap 2
$\tilde{B} = \{(1, 0.3), (2, 1), (3, 0.8), (4, 0)\}$. Now, determine the following implication relation: IF x is $\tilde{A}$ THEN y is $\tilde{B}$

OR

5. a) The following real-world factors from daily life should be taken into account: CO5 An 5

- Speed calculated in meters per hour while taking the weather into account.
- Consider the restaurant's interior while leaving a tip.
- Assess your health by taking your height and weight into account.
- The status of a traffic light is indicated by its color.

Suggest a fuzzy variable that corresponds to each of these real variables. Which of these four variables doesn't truly require the use of a fuzzy variable? Why?

b) How does Transfer Learning contribute to the Progression of Neural Information Processing? CO5 Ap 3

c) Explain the differences between CNN and RNN. CO5 Ap 2