UNIVERSITY COLLEGE OF ENGINEERING & TECHNOLOGY [UCET]

Vinoba Bhave University, Hazaribag

Mid Sem - CSE 6th Semester 2022

Soft computing

Time: 1:30 hour **Total Marks:20**

Instruction: All questions carry equal marks. Solve any four questions.

1. a. Define Artificial neural Network.
   b. Draw the structure of a biological neuron.
2. a. Define activation function.
   b. Define threshold, bias and sigmoid function.
3. a. What are the different types of Learning.
   b. Explain various types of architecture of neural network.
4. a. Write algorithm of Mc- Culloch- pitts neural network.
   b. Generate OR function using Mc- Culloch pitts neuron model.

X1	X2	Y
1	1	1
1	0	1
0	0	1
0	0	0

5. a. Write algorithm of hebbian rule.
   b. Implement Hebb rule to generate AND function with bipolar with given inputs and targets.

Input		Output	
X1	X2	B	Y
1	1	1	1
1	-1	1	-1
-1	1	1	-1
-1	-1	1	-1

6. a. What is perception. Explain with suitable example.
   b. Write training algorithm for single layer perception.

****

UNIVERSITY COLLEGE OF ENGINEERING & TECHNOLOGY (UCET)

VBU, HAZARIBAG

MID-SEMESTER EXAMINATION (**VI** SEMESTER) 2022

SUBJECT – **Computer Network (CSE)**

Full Marks:- 20 Duration: 1 Hour 30 minute

Instruction

1. Answer any four questions.

---

1. Explain layers of OSI model.
2. Describe CRC with example.
3. Describe Ethernet.
4. Differentiate CSMA/CD and CSMA/CA.
5. An ISP is generated a block of addresses starting with 190.100.0.0/16. The ISP needs to distribute these addresses to three groups of customers as follows:

a) The first group has 64 customers, each need 256 addresses.

b) The second group has 128 customers, each need 128 addresses.

c) The third group has 128 customers, each need 64 addresses.

d) Design the sub-blocks and find out how many addresses are still available after these allocations.

****

UNIVERSITY COLLEGE OF ENGINEERING AND TECHNOLOGY

Department of Computer Science Engg. And Information Technology

B.Tech 6th Semester

MID SEMESTER EXAMINATION, 2022

Branch – CSE + IT Image Processing (CS633)

Note: Be brief and to the point

Time: 1.5-hour M.M:20

This Question Paper Consists of 2 Questions and 1 Page.

Note: Question 1 is compulsory. Attempt any three questions from Question 2.

1.) (a) Find the number of bits required to store 256×256 image with 32 gray levels. {CO 1} [1]

(b) Find DCT Transform and its inverse for given 2×2 image matrix $\begin{bmatrix} 3 & 6 \\ 6 & 4 \end{bmatrix}$ {CO 1} [2]

(c) Why Interpolation required in image rotation, explain with suitable example? {CO 1} [2]

(d) Perform concatenation operation in geometric transform of pixel. Assume pixel coordinate in x y plane, use angle 45 degree and shift 1 unit in positive x and y direction. {CO 1} [3]

(e) Why basis image used in transformation, write 2x2 basis image and if V is an input image having matrix $\begin{bmatrix} 3 & 6 \\ 6 & 4 \end{bmatrix}$. Evaluate output image U= A*V. {CO 3} [3]

2.) (a) In DFT (in 2D form) explain on following points a) definition of inverse transform b) Kronecker product c) convolution Property? {CO 3}[3]

(b) Explain the various types of connectivity present in image pixels neighborhood. {CO 2} [3]

(c) Give Distance ~~distence~~ measurement methods for pixels in image processing. {CO 2} [3]

(d) Draw typical block diagram of image processing and explain it? {CO 1} [3]

UNIVERSITY COLLEGE OF ENGINEERING & TECHNOLOGY (UCET)

VBU, HAZARIBAG

MID-SEMESTER EXAMINATION (**VI** SEMESTER) 2022

SUBJECT – **Computer Network (CSE)**

Full Marks:- 20 Duration: 1 Hour 30 minutes

Instruction

1. Answer any four questions.

---

1. Explain layers of OSI model.
2. Describe CRC with example.
3. Describe Ethernet.
4. Differentiate CSMA/CD and CSMA/CA.
5. An ISP is generated a block of addresses starting with 190.100.0.0/16. The ISP needs to distribute these addresses to three groups of customers as follows:

   a) The first group has 64 customers, each need 256 addresses.

   b) The second group has 128 customers, each need 128 addresses.

   c) The third group has 128 customers, each need 64 addresses.

   d) Design the sub-blocks and find out how many addresses are still available after these allocations.

****

University College of Engineering and Technology
Vinoba Bhave University, Hazaribag-825319

Mid Semester Examination-2022

Time: 1 Hr 30 Min. *Full Marks: **20***
*Subject: **Cloud Computing*** *Semester: **6th (CSE)***

Instructions: -

- This Question paper contains 5 Questions each carrying 5 marks, ***answer any 4 Questions.***
- The marks for each individual bit are mentioned in the right column.
- The rightmost column represents the course outcome for the respective question.

Q.No.	Answer any 4 Questions from below: -	Marks	Course Outcome
01.	What is cloud computing? Discuss the different types and their applications.	05	CO-1
02.	What is the cloud service model, discuss its types and compare each service with others.	05	CO-2
03.	What risks are associated with the cloud? also, discuss the architecture design of cloud security.	05	CO-3
04.	Explain Virtualization, virtual machines, and their need in the cloud.	05	CO-4
05.	What is CASB, discuss its application and types.	05	CO-5

*****All the Best! *****

UNIVERSITY COLLEGE OF ENGINEERING & TECHNOLOGY (UCET)

VBU, HAZARIBAG

MID-SEM EXAM (SIXTH SEMESTER) 2022

Full marks: - 20 **Entrepreneurship (CSE)** **Duration: 1 hour 30 minutes**

Instructions:

1. Attempt any five questions.
2. All questions carry equal marks.

Q1. What is the need of entrepreneurship in an economy? Explain the Indian Perspective. [CO1]

Q2. Describe entrepreneurial, managerial and promotional functions of an entrepreneur. [CO1]

Q3. Starting a venture is not an easy task. A series of activities needs to be planned and undertaken to create an enterprise. Discuss them briefly. [CO2]

Q4. Innovation is the key of Entrepreneurship. Explain. [CO2]

Q5. What do you mean Feasibility Study? Explain the differences between Feasibility Study and Business Plan? [CO4]

Q6. What are the limitations faced by women entrepreneurs? [CO1]

Q7. What is 'Brainstorming'? How it is used in idea generation? [CO4]