

**Master of Computer Application**  
**Third Semester Main Examination, December-2021**  
**Web Technology [MCA303 (2)]**

**Time: 3:00 Hrs.**

**Max Marks 70**

**Note : Attempt any five questions. All question carry equal marks.**

- Q.1 (a) What is HTTP? What are HTTP request and response? Give the limitation of HTTP.  
(b) What do you mean by Meta tags? What is its use? Describe with example.
- Q.2 (a) Describe the following :  
(i) HTML  
(ii) Classes of CSS  
(b) What is HTML form? How can you access the form data in php page? Explain with suitable examples.
- Q.3 (a) Explain the Java Script and Data types.  
(b) Explain DTD and schema.
- Q.4 (a) Explain the key components of the XML with suitable example.  
(b) Explain the PHP arrays with example.
- Q.5 (a) Explain XSL and XSLT.  
(b) Explain AJAX components
- Q.6 (a) What is Cookie? Explain the set cookies function in PHP with meaning of all the arguments.  
(b) Write a PERL program to accept the two numbers from the HTML form and display its sum.
- Q.7 Describe the following (Any Three)  
(i) Web Service  
(ii) RSS  
(iii) Object and Arrays  
(iv) DNS  
(v) WWW.

**Master of Computer Application**  
**Third Semester Main Examination, December-2021**  
**Soft Computing [MCA304 (2)]**

**Time: 3:00 Hrs**

**Max Marks 70**

**Note: Attempt any five questions. All questions carry equal marks.**

- Q.1 (a) What is artificial neural networking? Discuss its characteristics.  
(b) Compare between soft and hard computing .
- Q.2 (a) Explain Adeline training model. Also discuss. Adeline network training algorithm.  
(b) Describe back propagation algorithm. List the stages involved in training of back propagation network.
- Q.3 (a) Explain : (i) Bidirectional associative memories (BAM)  
(ii) RBF Neural network  
(b) Write short note on Kohonen Network
- Q.4 (a) What are fuzzy sets. Describe fuzzy set operation with examples.  
(b) What is Fuzzy inference system? describe constravaction and working principle of FIS.
- Q.5 (a) What is Genetic algorithm. What are its applicaton.  
(b) Write a detailed note on parallel Genetic algorithm.
- Q.6 (a) Define : (i) Linguistic variable  
(ii) Linguistic hedges  
(b) Compare between ART network and CPH networks.
- Q.7 Write short note on any three :  
(i) Lambda-cuts for fuzzy sets  
(ii) Madeline Network  
(iii) Fuzz decision making  
(iv) Rough set them.

**Master of Computer Application**  
**Third Semester Main Examination, December-2021**  
**Distributed System [MCA305]**

**Time: 3:00 Hrs.**

**Max Marks 70**

**Note: Attempt any five questions. All questions carry equal marks.**

- Q.1 (a) What are Distributed System? Write advantages and disadvantages of distributed system over centralized system.  
(b) What are the different ways to inter connect hardware in distributed system.
- Q.2 (a) Explain the different types of distributed system.  
(b) What is turned? Differentiate between process and threads.
- Q.3 (a) How physical clocks are different from logical clocks. Why clock synecnoization is necessary in distributed system.  
(b) Describe various communication protocols used for remote procedure cells.
- Q.4 (a) What are the requirements of distribution initial exclusion. Explain.  
(b) Explain Ring Algorithm with example.
- Q.5 (a) Describe user threads and kervel threads. Explain multi thaveading models with examples.  
(b) Explain distributed transaction.
- Q.6 (a) Explain CORBA  
(b) Discuss the SUN networks file system.
- Q.7 Write short note on any three :  
i) DSM servers  
ii) Java RMI  
iii) OLE  
iv) Orbit

**Master of Computer Application**  
**Third Semester Main Examination, December-2021**  
**Data Mining [MCA301]**

**Time: 3:00 Hrs.**

**Max Marks 70**

**Note : Answer any five question. All question carry equal marks.**

- Q.1 (a) What do you mean Data Mining? Explain data type for data mining.  
(b) Explain : -  
(i) Relation Database  
(ii) Data warehouse
- Q.2 (a) What do you mean by Transactional database.  
(b) Explain the advanced data base system and its application.
- Q.3 (a) Distinguish the difference between OLAP and OLTP.  
(b) Write down the application of data ware housing .
- Q.4 (a) Explain in details data preprocessing.  
(b) What is the purpose of apriori algoritrhram.
- Q.5 Explain constrationg based associate mining.
- Q.6 (a) Explain mining single Dimentional Boolean association rules from transational database.  
(b) What do you mean by mining multilevel association rules.
- Q.7 Write a short notes on :  
(i) Clustering method  
(ii) Issue rogation perditiion

**Master of Computer Application**  
**Third Semester Main Examination, December-2021**  
**Artificial Intelligence [MCA302]**

**Time: 3:00 Hrs**

**Max Marks 70**

**Note :** Attempt any five questions.  
All question carry equal marks.

- Q.1 (a) Define Artificial intelligence. Also discuss its application.  
(b) What is LISP? What it is used in AI? Give same example of application built in LISP.
- Q.2 (a) Explain Heuristic function. Give heuristic function for 8- puzzle problem.  
(b) Explain Hill climbing method. Compare with generate and test method.
- Q.3 Explain:-  
(a) A\* Algorithm  
(b) Branch and Bound technique
- Q.4 (a) Discuss various problem in representing knowledge.  
(b) Explain Alpha-beta cutoff's in game playing with example.
- Q.5 Parse the following sentence :  
(a) Bill printed the file  
(b) Sunil is good boy
- Q.6 (a) Compare between recursive transition nets (RNT) and alimented transition net's.  
(b) Explain the Bayes theorem and Bayesian networks.
- Q.7 Write short not on any three :  
(a) Rote learning  
(b) Application of expert system  
(c) Vidwan frame work  
(d) horn's clauses