

M.Tech I Year I Semester Regular Examinations, July/August 2021**COMPUTER SYSTEM DESIGN
(Computer Science and Engineering)****Time: 3 hours****Max Marks: 70****Answer any FIVE questions. All questions carry equal marks****5 * 14 = 70 Marks**

1. (a) What are different types addressing modes of IA-32? Explain. [14]
(b) What is subroutine? How to pass parameters to sub routine? Illustrate with an example.
2. (a) Draw and explain the flowchart of four segment instruction pipelining. [14]
(b) What is data hazard? Explain the methods for dealing with data hazard.
3. What is Cache memory? Analyze the three mapping functions of Cache memory. [14]
4. Discuss deadlock avoidance using banker's algorithm with suitable example. [14]
5. (a) Discuss UNIX File System Mounting. [14]
(b) Discuss about secret-key cryptography with an example.
6. (a) Discuss about logic and shift/rotate instruction of IA-32 with examples. [14]
(b) With a neat sketch, explain the organization of a micro programmed control unit.
7. What do you mean by virtual memory? Explain implementation of virtual memory through Demand Paging. [14]
8. (a) Write the control sequence for an un-conditional branch instruction. [14]
(b) What are semaphores? Explain how mutual exclusion is implemented with semaphores.

M.Tech II Year I Semester Regular Examinations, November 2019

INFORMATION STORAGE AND RETRIEVAL

(Computer Science and Engineering)

Time: 3 hours

Max Marks: 70

Instructions:

1. Question paper comprises of **Part-A** and **Part-B**
2. **Part-A** (for 20 marks) must be answered at one place in the answer book.
3. **Part-B** (for 50 marks) consists of **five questions with internal choice**, answer all questions.

PART – A

(Answer ALL questions. All questions carry equal marks)

10 * 2 = 20 Marks

1. a. What are the differences between data and information? [2]
- b. Write the formulae for Precision and Recall measures in Information Retrieval. [2]
- c. What is the motivation behind indexing the documents in the web? [2]
- d. Is concept indexing be deemed as semantic indexing of the document? Why? [2]
- e. Write down the help that is provided by manually made thesauri for document clustering. [2]
- f. What is the English language grammar for parsing the tokens in the English sentence? [2]
- g. List the major algorithms associated with software text search? [2]
- h. Pen two reasons to evaluate the effectiveness of an Information Retrieval System. [2]
- i. Name the indexing elements when indexing audio? [2]
- j. Write an example of natural language query used in digital library with the help of Boolean operators. [2]

PART – B

(Answer ALL questions. All questions carry equal marks)

5 * 10 = 50 Marks

2. (a) How would you explain the text normalization process? [10]
- (b) What is a canned query? How it helps in refining the search during the later user session?

OR

3. (a) How would you relate Information Retrieval System with the Database Management System? [10]
- (b) How would you describe Contiguous Word Phrases achieve the objective of search capability?
4. (a) Can you explain what is happening in the item indexing process? [10]
- (b) How would you classify the types of automatic indexing? What is the main of statistical indexing?

OR

5. (a) Outline Porter Stemming algorithm with an example. [10]
(b) Recall the error categories useful in spelling errors detection with n-grams.
6. (a) Compile the steps followed in the process of clustering the items. [10]
(b) Write and explain various similarity measures used to calculate similarity between item and search statement.

OR

7. (a) Justify the significance of Relevance Feedback. [10]
(b) Illustrate how Cone Tree helps to visualize and interpret the belongingness in the data.
8. (a) Solve an example using Knuth-Morris-Pratt Algorithm for text search. [10]
(b) Construct finite state automata for the following set of terms: BIT, FIT, HIT

OR

9. (a) How do you describe about the Fast Data Finder Architecture? [10]
(b) Elaborate the use of hardware versus software text search algorithms.
10. (a) Compare the salient features of text IR and multimedia IR? [10]
(b) Defend the need for data modelling for multimedia IR and also explain about MULTOS data model.

OR

11. (a) Model the Online Information Retrieval Systems. Mention their characteristics. [10]
(b) What is the use of OPAC database to the users of the digital library?



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

I M.Tech II Sem – I Mid Examinations

Subject: Machine Learning and its Applications(GR18D5014)

Date: 18-03-2019

Time: 1hr 30 min

Answer any 4 questions. Each question carries 5 marks.

1. Define Supervised Learning? Explain about KNN Classification algorithm (CO1)
2. Describe Naïve Bayes algorithm with example (CO1)
3. Write short notes on Linear Regression. (CO1)
4. Distinguish between PCA and Kernel PCA(CO1)
5. Explain the importance of Matrix Factorization and its applications.(CO2)
6. What is Model Selection? How do you evaluate machine learning algorithms (CO2)



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6. What is Model Selection? How do you evaluate machine learning algorithms (CO2)

Compare Supervised and Unsupervised Learning methods.

Demonstrate various Ensemble methods and apply Statistical Learning Theory to real world problems.

Analyse Deep Learning and Feature Representation techniques.

Categorize the Scalable Machine Learning techniques.

Summarize the recent trends in various machine learning methods for IOT applications



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

[Autonomous]

Department of Computer Science and Engineering

I M.Tech II SEMESTER II MID EXAMINATIONS

MACHINE LEARNING AND APPLICATIONS (Subjective)

Duration: 75 Min

Max Marks: 15 Marks

Code: GR20D5104

Date: 4-10-2021

Answer all the questions. Each question carries 5 Marks.

1. a) What is Deep Learning? Explain its advantages and disadvantages (CO3)

(OR)

b) Discuss about Feature representation learning. (CO3)

2. a) Distinguish between active learning and distributed learning (CO4)

(OR)

b) Describe various classification methods for IOT applications (CO5)

3. a) Summarize the latest trends in machine learning . (CO5)

(OR)

b) Write short notes on Bayesian Learning. (CO4)

Paper Set by V.Srilakshmi, Asst.Professor, CSE



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

[Autonomous]

Department of Computer Science and Engineering

I M.Tech II SEMESTER II MID EXAMINATIONS

MACHINE LEARNING AND APPLICATIONS (Objective)

Duration: 15 Minutes

Max Marks: 5 marks

Code: GR20D5104

Date: 4-10-2021

NAME :	ROLL NO																		
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- In _____, a neural network has three or more layers. ()
a) Statistical learning b) Deep learning
c) Offline learning d) None
- _____ is a better option for dynamic pricing systems ()
a) online learning b) batch learning
c) time based learning d) none
- Which of the following are feature selection techniques ()
a)Filter b) Wrapper
c) Embedded d) All the above
- In _____ learning, algorithm is able to interactively query the user ()
a) Passive learning b) batch learning
c) active learning d) None
- _____ are the models for IOT applications ()
a) smart home b) smart cities
c) smart farming d) All the above
- _____ contain fewer features and hence are easier to train on limited data. ()
a) Sparse models b) Dense models
c) both d) None
- In _____, an agent learn in an interactive environment by trial and error ()
a) Supervised b) Unsupervised
c) Semi supervised d) Reinforcement
- _____ refers to identifying the patterns displayed by the data over period of time ()
a) Classification b) Spatial data analysis
c) Time-Series analysis d) Clustering
- _____ refers to multi-node machine learning algorithms to improve performance ()
a) Online b) Distributed
c) Outlier analysis d) None
- _____ is a mathematical approach to predict events and analyse relationships ()
a) Statistical learning b) offline learning
c) active learning d) passive learning

