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R18

Course Code: A36608



CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: DEEP LEARNING

(CSM)

Date: 08.05.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. What is a derivative and why is it important in machine learning? 2 M
2. Recall Gradient-based optimization and how is it used in machine learning. 2 M
3. Explain how stochastic gradient descent is used to optimize the model's parameters. 2 M
4. List out the evaluation measures used to evaluate the performance of Deep Learning models. 2 M
5. Define data augmentation. 2 M
6. What is hyperparameter tuning? 2 M
7. What is the purpose of Long Short-Term Memory (LSTM) networks in RNN applications? 2 M
8. Compare Supervised and unsupervised learning. 2 M
9. What is the main difference between Q-Learning and Deep Q-Learning? 2 M
10. Compare Variational Auto-encoders and traditional Auto-encoders. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). What is Bayes Theorem, and how is it used in machine learning? Explain the difference between prior probability, posterior probability, and likelihood, and how these concepts are used in Bayesian inference. 10M

OR

11. B). Explain Singular Value Decomposition (SVD). Illustrate how SVD is used to analyze and manipulate data? 10M

12. A). Discuss the concept of a multilayer perceptron (MLP) in Deep Learning. Explain how forward propagation works in an MLP, and how it is used to make predictions. 10M

OR

12. B). Analyze the concept of optimizers. Illustrate how optimizers improve the efficiency of stochastic gradient descent. 10M

13. A). Discuss the concept of convolution in Convolutional Neural Networks (CNNs). Inspect, how it is used to process image data? 10M

OR

13. B). Apply the concept of dropout regularization in Machine Learning and explain how does it help to improve the model performance? 10M

(P.T.O..)

14. A). What is the purpose of Recurrent Neural Networks (RNNs), and discuss how are they used for time-series data analysis? 10M

OR

14. B). Outline the purpose of Long Short-Term Memory (LSTM) networks in RNN applications. Examine how do they work to address the vanishing and exploding gradient issues? 10M

15. A). What is GAN? Explain Generative Adversarial Neural Network architecture components and its applications with an example. 10M

OR

15. B). Elaborate the concepts of states, actions, and rewards, and how they are used in the decision-making process. 10M

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Course Code: A36610



CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: **INTERNET TECHNOLOGIES**

(CSM)

Date: 10.05.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Demonstrate the structure of PHP script with an example. 2 M
2. Show a code that reads data from "form-control" like Check box. 2 M
3. Demonstrate an image tag that has alternate text. 2 M
4. Define DOM. What purpose does it serve? 2 M
5. Distinguish Generic Servlet and HTTP Servlet. 2 M
6. Demonstrate the Life Cycle of Servlet. 2 M
7. JSP and HTML are contrasted. Support your answer. 2 M
8. Show an example of JSP directive. 2 M
9. Java script is not used for server programming. Justify your answer. 2 M
10. Write a short note on scope of a variable in java script. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Define and Demonstrate session and cookies with a PHP example. 10M
- OR**
11. B). Distinguish With an example, get and post form submission techniques. 10M
12. A). Construct an example of embedded Cascading Style Sheets in HTML. 10M
- OR**
12. B). Demonstrate various XML constraints to accept data from user. 10M
13. A). Build an example for external and internal linkages of HTML. 10M
- OR**
13. B). What is JDBC? Summarize the various JDBC drivers available to connect Data base. 10M
14. A). Illustrate the JSP expressions and code snippet with an example. 10M
- OR**
14. B). Construct a JSP application to insert and retrieve the employee details of a company from the data base and display: Employee ID, First name, Last name, and Age. 10M
15. A). Define Event and Demonstrate handling of events in JavaScript. 10M
- OR**
15. B). Illustrate how to embed Java script in a HTML page. 10M

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Course Code: A36611



CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: **SOFT & EVOLUTIONARY COMPUTING**

(CSM)

Date: 12.05.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Identify the difference between the Tolerance and equivalence relations. 2 M
2. Outline the Characteristics of ANN. 2 M
3. What is Associative Memory Network? 2 M
4. Show the Function for Hopfield Networks. 2 M
5. Summarize the Extension principle. 2 M
6. Discuss the need of Defuzzification. 2 M
7. Determine the Benefits of ANFIS. 2 M
8. Distinguish between Hybrid Learning algorithms. 2 M
9. Classify the Fitness function. 2 M
10. How to use Crossover properties? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). i) Identify the applications of Soft Computing Techniques. 5M
ii) Outline the importance of Genetic Algorithms and its biological background. 5M
- OR**
11. B). Summarize in detail about i) Crisp and fuzzy relations and ii) Soft and Hard Computing. 10M
12. A). Outline the Iterative Auto associative and Associative Memory networks. 10M
- OR**
12. B). Determine the importance of BPN & RBF. 10M
13. A). i) Demonstrate the Aggregation of Fuzzy rules. 5M
ii) Illustrate the Fuzzy Arithmetic and Measures. 5M
- OR**
13. B). i) Discuss about Formation and Decomposition of fuzzy rules. 5M
ii) Show the working of Fuzzy Inference Systems. 5M
14. A). i) Classify the Inverse Kinematic problem. 5M
ii) Elaborate the ANFIS as a Universal Approximator. 5M
- OR**
14. B). i) Construct the Architecture of ANFIS. 5M
ii) How does Printed Character Recognition work? 5M

(P.T.O..)

15. A). i) Can you categorize the basic Operators for genetic algorithms?
ii) Show the Applications of genetic algorithms.

5M
5M

OR

15. B). i) Explain the Mutation properties in detail.
ii) How to Develop Particle Swarm Optimization?

5M
5M

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Course Code: A36612



CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: NATURAL LANGUAGE PROCESSING

(CSM)

Date: 15.05.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. What is Natural Language Processing? What are the components of NLP? 2 M
2. Give some differences between Indian languages and English. 2 M
3. What is the purpose of research corpora? 2 M
4. What is POS tagging? Give an example of POS tagger? 2 M
5. What are different approaches to extract word level information in a sentence? 2 M
6. State the advantages of bottom-up chart parser compared to top-down parsing. 2 M
7. Distinguish between semantics, pragmatics and discourse. 2 M
8. Define discourse cohesion. 2 M
9. List the problems in machine translation. 2 M
10. State the characteristics of Indian languages. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Discuss any two applications of NLP in detail and also discuss various challenges in processing natural language. 10M

OR

11. B). Discuss about various grammar-based language models. 10M

12. A). Discuss in detail about non-classical model of Information Retrieval. 10M

OR

12. B). Briefly discuss the following: 10M

i) Word Net ii) Frame Net iii) Stemmers

13. A). Explain why CFG is used to represent natural language in parsing. Perform parsing using simple top down parsing for the sentence "The dogs cried" using the grammar given below: 10M

S→NP VP
NP→ART N
NP→ART ADJ N
VP→V
VP→V NP

OR

13. B). What is the role of regular expression and automata in the development of NLP system? Explain. 10M

(P.T.O..)

14. A). Analyze the significance of Word Sense Disambiguation in NLP. Explain any one WSD method. 10M

OR

14. B). Describe Text Coherence. Discuss the significance of Text Coherence in Discourse Segmentation. 10M

15. A). Is machine translation possible? Explain the issues of machine translation. 10M

OR

15. B). Discuss the architecture of NLG systems and discuss the applications of NLG systems. 10M

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Course Code: A30542



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VI Semester Regular/Supplementary Examinations May-2023

Course Name: CLOUD COMPUTING

(CSM)

Date: 17.05.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. What do you mean by High Performance Computing? 2 M
2. Define Parallel Computing. 2 M
3. List down the properties of cloud computing. 2 M
4. What are the deployment models of the cloud? 2 M
5. What is public cloud access networking? 2 M
6. What are the drawbacks of a web application? 2 M
7. Define Infrastructure as a Service (IaaS). 2 M
8. List the responsibilities of cloud service providers. 2 M
9. List the tools/services provided by Microsoft. 2 M
10. What is Google Cloud Print? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Will mobile computing play a dominant role in the future? Analyze. 10M
- OR**
11. B). Compare and contrast Grid Computing and Cloud Computing. 10M
12. A). Explain a real-life example to illustrate the concepts behind cloud computing. 10M
- OR**
12. B). Illustrate the concept of private cloud with an example. 10M
13. A). Analyze how cloud anatomy is different from cloud architecture. 10M
- OR**
13. B). List and explain the phases of cloud migration. 10M
14. A). Examine the Platform as a service concept with a diagram. 10M
- OR**
14. B). Identify the two SaaS service provider in industry and examine the unique advantage of that industry. 10M
15. A). Explain the Amazon Elastic Compute Cloud (EC2). 10M
- OR**
15. B). Explain the following: 10M
 - i) Google App Engine
 - ii) Google Web Tool Kit
 - iii) Microsoft Azure Services Platform

H.T No:

R18

Course Code: C30167



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VI Semester Regular/Supplementary Examinations May-2023

Course Name: **MARKETING MANAGEMENT**

(Common for CSE, IT, CSC & CSM)

Date: 19.05.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. What is marketing? 2 M
2. What are objectives of marketing? 2 M
3. Define brand. 2 M
4. Define market segmentation. 2 M
5. Importance of social media. 2 M
6. Define public relations. 2 M
7. Define marketing channels. 2 M
8. What is wholesale Marketing? 2 M
9. Importance of sales management. 2 M
10. What are the objectives of sales? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Define market. Explain the functions of marketing Management. 10M
- OR**
11. B). Explain different stages of product life cycle (PLC). 10M
12. A). Describe the consumer behaviour and explain the models of consumer behaviour. 10M
- OR**
12. B). Define market segmentation. Explain the steps involved in market segmentation. 10M
13. A). What do you mean by sales promotion? State its major objectives. 10M
- OR**
13. B). Explain how online selling is different from offline selling. 10M
14. A). What are the four steps to require to designing marketing channels in their correct order? 10M
- OR**
14. B). Briefly state the factors to be considered in selecting channels. 10M
15. A). Explain the nature and importance of sales management. 10M
- OR**
15. B). Explain different types of sales organizations. 10M

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R18

Course Code: A30378



CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: **WASTE TO ENERGY**

(Common for ECE, CSE & CSM)

Date: 19.05.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. What is agro based waste? 2 M
2. Classification of waste as fuel. 2 M
3. What is meant by pyrolysis? 2 M
4. List any 4 applications of charcoal. 2 M
5. Classify gasifiers used for biomass gasification. 2 M
6. Define thermal heating. 2 M
7. List different types of biomass stoves. 2 M
8. Define biomass combustors. 2 M
9. List type of biogas plants 2 M
10. List any 4 applications of biogas plant. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Write short notes on the following conversion devices with respect to waste management. 10M
i) Incinerator, ii) digestors
- OR**
11. B). Explain classification of waste in detail. 10M
12. A). Distinguish between slow and fast biomass pyrolysis. 10M
- OR**
12. B). Discuss various applications and yields of pyrolytic oils – in detail 10M
13. A). Draw Gasifier engine arrangement for production of Electric power and explain the methodology. 10M
- OR**
13. B). How gasifier output is utilized in Electrical Power Plants – Justify? 10M
14. A). Explain Design, Construction and Operation of Fixed bed combustor. 10M
- OR**
14. B). Explain the operation of Inclined Grate Combustors. 10M

(P.T.O..)

15. A). Explain the following in detail. 10M
i) Biomass gasification, ii) Pyrolysis & Liquefaction.

OR

15. B). Explain the following in detail with respect to biomass plants. 10M
i) Bio-Chemical Conversion, ii) Anaerobic digestion
