H.T No: | | | | | | | | | | | **R18** | Course Code: A30157

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)
B.Tech VIII Semester Advanced Supplementary Examinations June-2024
Course Name: Ground Improvement Techniques
(Civil Engineering)

Date: 10.06.2024 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.	List out various applications of Ground Improvement Techniques.	2 M
2.	Explain in-situ tests to characterize problematic soils.	2 M
3.	Summarize mechanical modification methods.	2 M
4.	What is compaction?	2 M
5.	List out dewatering techniques.	2 M
6.	Outline well pump system.	2 M
7.	What is shot creating?	2 M
8.	List different grouting materials.	2 M
9.	Enumerate soil reinforcement.	2 M
10.	Explain the rock bolting Ground Improvement Technique.	2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A).	Analyze the need and objectives of ground modification.	10M
	OR	
11. B).	Make use of in situ laboratory test methods to densify soils.	10M
12. A).	Identify the densification of cohesionless soil with the help of the vibro compaction technique.	10M
	OR	
12. B).	Explain the various electrical methods of densifying cohesive soils.	10M
13. A).	Classify the well-point system and also explain the procedure of conducting this system with the help of a neat sketch.	10M
	OR	
13. B).	What is a vertical drain explain the design of a vertical drain.	10M
14. A).	What is Grouting and the objects of Grouting?	10M
	OR	
14. B).	Classify the grouting methods and also explain the procedure of injection grout methods.	10M
15. A).	Summarize the advantages of using the reinforced earth technique.	10M
	OR	
15. B).	Interpret the types and functions of Geotextile materials.	10M

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H.T No: | | | | | | | | | | | R18 | Course Code: A30246

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Electrical Energy Conservation & Auditing
(Electrical & Electronics Engineering)

Date: 10.06.2024 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 the Energy Conservation Act 2001? 2 M
2. Discuss the energy policy. 2 M
3. Write the factors that indicate if a boiler is being run to maximize its efficiency. 2 M
4. What is heat transfer? 2 M
5. List the objectives of energy management. 2 M
6. Evaluate the role of energy manager. 2 M
7. Differentiate between 'contract demand' and 'maximum demand'. 2 M
8. Define the motor efficiency. 2 M
9. Discuss the types of lighting. 2 M
10. Explain the significance of Power factor correction. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Discuss various principles of energy Conservation. 10M

OR

11. B). Explain in detail about the Present Nonrenewable Energy Scenario of India. 10M

12. A). Elaborate the Electricity tariff methods in India. 10M

OR

12. B). Explain the boiler types and classifications. 10M

13. A). Explain the methodology for detailed Energy Audit Process. 10M

OR

13. B). Elaborately explain about various instruments and monitoring systems used for energy auditing. 10M

14. A). Explain how the Electricity billings are carried out in India. 10M

OR

14. B). Explain the best location for installing capacitor banks for providing power factor improvement from energy conservation point of view. 10M

15. A). Explain all the possible energy conservation measures in lighting system. 10M

OR

15. B). Write a short notes on: 10M
i) Automatic power factor controllers.
ii) Energy efficient transformers.

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30366**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Tools Design

(Mechanical Engineering)

Date: 10.06.2024 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. How can you classify cutting tools? 2 M
2. Discuss in brief the essential requirements of a tool material. 2 M
3. List various forces acting on a chip. 2 M
4. Write the tool signature of single point cutting tool. 2 M
5. Define the terms "Drilling" and "Drill" 2 M
6. What is the primary function of a twist drill in machining operations? 2 M
7. What are the main applications of reamers in machining operations? 2 M
8. What is the main function of a blanking punch and die? 2 M
9. How do jigs and fixtures help improve the efficiency of machining processes? 2 M
10. What is the main purpose of a fixture? 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). What are the characteristics of an ideal cutting tool material? 10M

OR

11. B). Describe the basic elements in metal cutting with a neat sketch. 10M

12. A). What are the main geometric parameters that define the design of a single point cutting tool? 10M

OR

12. B). What is the effect of rake and angel and clearance angle on cutting tools and mention the effect of negative rake angle on tools? 10M

13. A). How does the design of multi-point cutting tools vary for different machining processes, such as milling, drilling, tapping, or reaming? 10M

OR

13. B). What are the advantages and disadvantages of different types of multi-point cutting tools, such as milling cutters, drills, reamers, and broaches? 10M

14. A). Differentiate between bending and forming. Describe the various methods of bending with the help of simple sketches. 10M

OR

14. B). Explain the construction and working of progressive die with a neat sketch. 10M

15. A). Sketch a Slab – milling fixture used in practices & mention its location and clamping. 10M

OR

15. B). List the various types of jigs. Describe any two of them with suitable sketches. 10M

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H.T No: | | | | | | | | | | | **R18** | **Course Code: A30453**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Wireless Communication Networks

(Electronics & Communication Engineering)

Date: 10.06.2024 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 cell splitting? 2 M
2. Define Frequency reuse. 2 M
3. Define Brewster angle. 2 M
4. Define the terms Reflection, Diffraction 2 M
5. What is fading and Classify types of fading? 2 M
6. What is Channel Sounding? 2 M
7. What is Equalization and Why is it important in communication? 2 M
8. What is Diversity and Classify its types. 2 M
9. Explain Hiper LAN. 2 M
10. Summarize the advantages of WLANs. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). What is Handoff and explain various types of Handoff processes available in communications. 10M

OR

11. B). Categorize and explain different techniques used for improving coverage and capacity in cellular systems. 10M

12. A). i) Explain knife Edge Diffraction Model. 5M
ii) With neat diagrams explain the Free Space Propagation Model. 5M

OR

12. B). Explain in detail about Ground Reflection Model. 10M

13. A). Analyze the Impulse response model of a Multipath channel. 10M

OR

13. B). i) Distinguish between frequency selective fading and flat fading? 5M
ii) Explain two-ray Rayleigh fading model in detail. 5M

14. A). Explain LMS and Recursive Least Square algorithm. 10M

OR

14. B). i) Explain the algorithms for adaptive equalization. 5M
ii) What are the different receiver diversity combining techniques? Explain. 5M

15. A). i) Draw the configuration of IEEE802.11 architecture. 5M
ii) Explain the physical layer specifications of IEEE802.11 using infrared. 5M

OR

15. B). i) Write short notes on WLAN Topologies. 5M
ii) When does a WLAN become a personal area network (PAN)? Explain. 5M

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H.T No: | | | | | | | | | | | **R18** | Course Code: A36624

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)
B.Tech VIII Semester Advanced Supplementary Examinations June-2024
Course Name: Artificial Intelligence in Healthcare
(Common for CSM)

Date: 10.06.2024 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.	List the types of medical images.	2 M
2.	Define MRI.	2 M
3.	Recall neural networks.	2 M
4.	Compare semi-supervised and unsupervised learning.	2 M
5.	Define expert systems.	2 M
6.	List different methods for quantitative image analysis.	2 M
7.	Why do we use radiomics?	2 M
8.	What is histopathology?	2 M
9.	List the factors affecting performance in SaMD.	2 M
10.	Define mark-labeling criteria.	2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A).	Explain in detail about the types of medical images with neat sketch.	10M
	OR	
11. B).	Discuss in detail about the cardiovascular and interventional radiology.	10M
12. A).	Apply the concept of neural networks for diagnostics of the medical images.	10M
	OR	
12. B).	Apply semi-supervised and unsupervised learning techniques used for medical image analysis.	10M
13. A).	Illustrate the usage of expert systems and deep learning in medical image analysis.	10M
	OR	
13. B).	Explain in detail about the concept of quantitative image analysis.	10M
14. A).	Analyze the steps involved in the process of radiomics to extract features from medical images.	10M
	OR	
14. B).	Analyze the working and detection of breast cancers using digital breast tomosynthesis CAD system.	10M
15. A).	Describe the steps involved in developing the Software as a medical device.	10M
	OR	
15. B).	Explain about the clinical valuation of imaging biomarkers and radiomics.	10M

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H.T No: | | | | | | | | | | | **R18** | Course Code: A30544

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Internet of Things

(Common for CSE & IT)

Date: 10.06.2024 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. Explain Internet of Things in contrast with traditional Internet. 2 M
2. What are the two types of IoT? 2 M
3. What is Data aggregation? 2 M
4. What are the Routing Protocols in IOT network? 2 M
5. What are the main Challenges associated with the implementation of the IoT? 2 M
6. What is scale challenge in IoT? 2 M
7. What are the top IoT Applications in India? 2 M
8. List majorly used IoT controllers by industries. 2 M
9. Explain the functionality of MQTT Sensor simulator to implement IoT in Python. 2 M
10. What is an embedded system on an IoT device? 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Outline the Evolution of IOT. 10M

OR

11. B). Describe the classification of IOT Boards. 10M

12. A). Explain in Detail Wireless Medium Access issues. 10M

OR

12. B). Explain the importance of Data Dissemination Methods in Wireless Sensor Network in Detail. 10M

13. A). What are the main IoT Challenges and How to solve them Explain? 10M

OR

13. B). Describe the Challenges in IoT Data Collection and Management. 10M

14. A). Analyze and Describe the Infrastructures and Buildings development of an IOT. 10M

OR

14. B). Define the concept of Industry 4.0. Explain. 10M

15. A). Briefly Describe most popular tools used for IOT application Development. 10M

OR

15. B). Discuss the Python packages which we used for developing IoT Application in Python. 10M

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H.T No: | | | | | | | | | | | **R18** | **Course Code: A36224**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: OS Security

(Common for CSC)

Date: 10.06.2024 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 goals of Secure OS. 2 M
2. Explain about Access Control. 2 M
3. Outline regarding the Multics Vulnerability Analysis. 2 M
4. Summarize the Advantages of Multics. 2 M
5. Elaborate UNIX Security. 2 M
6. Categorize Coverts Channels. 2 M
7. Discuss the need of Commercial OS. 2 M
8. How can you adapt Secure Communication? 2 M
9. Define Trusted Extensions. 2 M
10. Illustrate Solaris Compatibility. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Show the Threat Model of Secure OS. 10M

OR

11. B). Demonstrate Lampson's Access Matrix. 10M

12. A). Elaborate the need of Multics Security. 10M

OR

12. B). Can you build Multics Reference Model. 10M

13. A). i) Discuss about Information Flow Secrecy 5M
ii) Identify the Challenges of Trusted Systems. 5M

OR

13. B). Determine the usage of Information Flow Integrity Model. 10M

14. A). Compare the Micro Kernel era and UNIX era. 10M

OR

14. B). i) Summarize Processor Scomp. 5M
ii) Elaborate about domain and type enforcement. 5M

15. A). Summarize Trusted Extension Administrations. 10M

OR

15. B). How do you analyze Mediation Process Right Management? 10M

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H.T No: | | | | | | | | | | | R18 | Course Code: C30166

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Business Ethics & Corporate Governance

(Common for CE, EEE, ECE, CSE, IT, CSC & CSM)

Date: 11.06.2024 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. Define Ethics. 2 M
2. What are the Levels of Business Ethics? 2 M
3. What do you mean by Professional Ethics? 2 M
4. What are the Ethics to be followed in Production Process? 2 M
5. What is Cyber Crime? 2 M
6. What do you mean by Psychological Crime? 2 M
7. What are the issues of Corporate Governance? 2 M
8. Outline the structure of Corporate Governance in India. 2 M
9. What are the models of Corporate Governance? 2 M
10. What are the Principles of Corporate Governance? 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). What is Moral Development? Explain the stages involved in Moral Development. 10M

OR

11. B). "Can Business Ethics Be Taught and Trained?" – Comment on your answer. 10M

12. A). How can ethics be implemented in advertising? Explain in detail. 10M

OR

12. B). "Planned obsolescence of the products is unethical" – Comment. 10M

13. A). What are the precautions to be taken for company mails and internet facility? Explain. 10M

OR

13. B). Discuss the ethical issues to be followed in Social Media. 10M

14. A). What are the objectives of Corporate Governance? 10M

OR

14. B). What is Indian model of corporate governance? Explain it comprehensively. 10M

15. A). Discuss Irani Committee report on Corporate Governance. 10M

OR

15. B). Explain the OECD principles of Corporate Governance 10M

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30164**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)
B.Tech VIII Semester Advanced Supplementary Examinations June-2024
Course Name: Basics of Civil Engineering
(Common for MECH & CSE)

Date: 11.06.2024 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. Define substructure. 2 M
2. What are the components in industrial buildings? 2 M
3. Define the plinth area. 2 M
4. Name some instruments used in surveying. 2 M
5. What is benchmark in surveying? 2 M
6. Discuss the types of steel used in construction. 2 M
7. What is deep foundation? 2 M
8. Explain the functions of foundation. 2 M
9. What is chimney? 2 M
10. Name some decorative finishes used in buildings. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Explain the various components of a residential building with neat sketch. 10M

OR

11. B). What are the significant factors to be considered while planning for a industrial buildings. 10M

12. A). Explain the principles of surveying and write the objectives of surveying. 10M

OR

12. B). Demonstrate the method of making horizontal measurements with tapes and ranging rods. 10M

13. A). Explain any one modern surveying equipment with neat sketch. 10M

OR

13. B). Describe the various types of cement and specify the application of each. 10M

14. A). Classify the foundations and discuss shallow foundation with neat sketch. 10M

OR

14. B). Enumerate various types of roofs and explain any one of them in detail. 10M

15. A). What is air conditioning? How is it planned in a multistoried building? 10M

OR

15. B). Explain (i) Intelligent buildings (ii) Sound proofing. 10M

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H.T No: | | | | | | | | | | | R18 | Course Code: A30378

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Waste to Energy

(Civil Engineering)

Date: 12.06.2024 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. Define Moving Grate incinerator. 2 M
2. What is MSW? 2 M
3. Define Syngas? 2 M
4. List out applications of Charcoal. 2 M
5. Define gasifier. 2 M
6. Write the two differences between downdraft and updraft Gasifiers. 2 M
7. What do you mean by Combustion? 2 M
8. Compare the Fixed bed and Fluidized bed. 2 M
9. List out the Advantages of Bio-diesel production. 2 M
10. Write the applications of biogass plants. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Explain the importance of Industrial waste utilization with neat sketches. 10M

OR

11. B). Briefly explain about the agriculture waste materials and its applications. 10M

12. A). Explain the following gasifies with neat sketches.
(i) Updraft (ii) Down draft gasifier 10M

OR

12. B). Discuss various applications and yields of pyrolytic oils – in detail. 10M

13. A). Explain the design, construction and operation of Downdraft gasifier. 10M

OR

13. B). How gasifier output is utilized in Electrical Power Plants – Justify. 10M

14. A). What is Biomass stove? Explain about any one of the Biomass stoves. 10M

OR

14. B). Explain the operation of Fluidized bed combustor with neat sketches. 10M

15. A). What is meant by Biomass resources? Classify based on their application. 10M

OR

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

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H.T No: | | | | | | | | | | | R18 Course Code: A30166

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Environmental Protection and Management

(Common for EEE, ME, ECE, IT & CSM)

Date: 12.06.2024 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. List out the unique characteristics of environmental problems. 2 M
2. What do you mean by sustainability? 2 M
3. Outline environmental quality objectives. 2 M
4. What is cleaner production technology? 2 M
5. What is an Environmental Management System? 2 M
6. What is initial environmental review 2 M
7. Outline Environmental Audit. 2 M
8. What is environmental due Diligence Audit? 2 M
9. Explain the applications of EMS. 2 M
10. Illustrate transboundary movement of hazardous waste. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Classify and explain environmental impact reduction efforts. 10M

OR

11. B). Explain in detail environmental management principles. 10M

12. A). Discuss about rationale of environmental standards. 10M

OR

12. B). What is cleaner production and clean technology explain with examples. 10M

13. A). Explain benefits and barriers of an environmental management program. 10M

OR

13. B). Discuss the Concept of continual improvement and pollution prevention of an environmental management program. 10M

14. A). Explain different stages in Environmental Audit. 10M

OR

14. B). Explain about environmental performance indicators and their evaluation. 10M

15. A). Discuss pollution prevention and control opportunities in pulp paper and sugar industries. 10M

OR

15. B). Explain the classification and characteristics of Hazardous waste. 10M

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H.T No: | | | | | | | | | | | R18 | Course Code: C30167

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Marketing Management

(Common for ME, CSE, IT, CSC)

Date: 12.06.2024 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. Define marketing management. 2 M
2. How do describe the place in marketing mix? 2 M
3. Illustrate the methods building strong brands. 2 M
4. How do you identify the target market for your product? 2 M
5. Brief on the importance of digital communication in the current era. 2 M
6. Examine methods of advertising an industrial product. 2 M
7. Compare role of retailers and wholesalers in delivering value. 2 M
8. Illuminate the value delivery system in brief. 2 M
9. Describe the nature of sales management in brief 2 M
10. What is the skill of sales manager? 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Examine the strategies for creating long term loyalty relationships in the current economic era. 10M

OR

11. B). Elaborate the product lifecycle and examine different strategies adopted at different stages with suitable example. 10M

12. A). Examine the role of marketing research in marketing decisions and briefly illustrate the marketing research process with suitable example. 10M

OR

12. B). Discuss the process of market segmentation and illustrate the strategies for crafting brand positioning. 10M

13. A). Classify the pricing strategies and programmes suitable for Indian rural markets with a suitable example. 10M

OR

13. B). Explain the importance of integrated marketing communications in determining the promotional plans and brief on personal selling strategies. 10M

(P.T.O..)

14. A). What Integrated Logistics System and Illustrate the process of market logistics planning with an example? 10M

OR

14. B). How do you design integrated marketing channels and examine the components of a channel strategy. 10M

15. A). Illustrate the concepts of sales organization and describe the types of sales organization structures suitable for Indian marketing firms. 10M

OR

15. B). Explain the purpose of setting the sales objectives and examine the modern trends in sales management. 10M

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H.T No: | | | | | | | | | | | R18 | Course Code: A30543

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2024

Course Name: Natural Language Processing

(Computer Science & Engineering)

Date: 13.06.2024 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.	Define "morphology".	2 M
2.	What is Natural Language Processing (NLP)?	2 M
3.	Define parsing in NLP briefly.	2 M
4.	Summarize Treebank.	2 M
5.	Define the term homonym.	2 M
6.	What is meant by Semantic Translation?	2 M
7.	List the applications of Semantic Role Labeling.	2 M
8.	What is meant by Propbank?	2 M
9.	Define the N-gram model in NLP.	2 M
10.	Define reference resolution.	2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A).	Discuss the applications of NLP and explain its components.	10M
	OR	
11. B).	Explain the morphological models of Natural Language Processing (NLP).	10M
12. A).	Discuss about the syntax analysis using phrase structure trees with an example.	10M
	OR	
12. B).	Elaborate on Probabilistic Context-Free Grammar with an example.	10M
13. A).	Discuss various types of Semantic Parsers.	10M
	OR	
13. B).	Explain the various categories of Word Sense Systems.	10M
14. A).	Illustrate the Framenet concept using suitable examples.	10M
	OR	
14. B).	Explain the concept of Semantic Role Labeling with suitable examples.	10M
15. A).	Elaborate on the language models employed within NLP.	10M
	OR	
15. B).	Discuss about cross lingual and multilingual models architectures.	10M

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