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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Ground Improvement Techniques

(Civil Engineering)

Date: 09.06.2025 AN | **Time: 3 hours** | **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Outline the scope of Ground Improvement Techniques.	2 M
2.	List out various methods of Ground Improvement Techniques.	2 M
3.	What are the various mechanical modification methods?	2 M
4.	Summarize Deep compaction.	2 M
5.	Explain Sump and Ditch in dewatering.	2 M
6.	Outline the electro-osmosis process.	2 M
7.	What is jet grouting?	2 M
8.	Explain the concept of ground freezing.	2 M
9.	Outline soil reinforcement.	2 M
10.	Explain soil nailing in the Ground Improvement Technique.	2 M

PART-B

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

11.A).	Explain briefly the need and scope of Ground Improvement Technique.	10M
	OR	
11. B).	Analyze the need of dynamic compaction for densifying cohesionless soils.	10M
12. A).	Classify the densification of cohesionless soil with the help of the vibro compaction technique?	10M
	OR	
12. B).	Interpret the types of pre- loading technique in stabilizing loose clay deposits?	10M
13. A).	Explain the Electro osmosis with the help of a neat sketch.	10M
	OR	
13. B).	What are vacuum well points? Explain their importance in ground improvement.	10M
14. A).	Explain briefly different types of grouting techniques. Mention the merits and demerits of grouting methods.	10M
	OR	
14. B).	Differentiate between compaction grouting and displacement grouting.	10M
15. A).	Summarize the soils nailing technique was discovered and write the importance of this technique.	10M
	OR	
15. B).	Outline types Geo-synthetics materials. And functions of Geogrid.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Electrical Energy Conservation & Auditing

(Electrical & Electronics Engineering)

Date: 09.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1. What are the energy needs of growing economy? 2 M
2. What is energy pricing? 2 M
3. Define the term power factor. 2 M
4. What do you understand by humidity? 2 M
5. What is energy audit? 2 M
6. Give various types of energy audits. 2 M
7. What are the losses in transformers? 2 M
8. Define the motor efficiency. 2 M
9. What are the effects of poor power factor on energy efficiency? 2 M
10. List out two benefits of energy conservation. 2 M

PART-B

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

11.A). Explain the i) Energy security ii) Energy sector reforms. 10M

OR

11. B). Discuss the energy conservation Act 2001 in detail. 10M

12. A). Explain the i) Electricity tariff ii) Improvement of power factor. 10M

OR

12. B). What are the modes of transfer of heat, explain the different types of electric heating methods and method to measure its performance? 10M

13. A). Explain the need for an energy audit in detail. 10M

OR

13. B). Discuss the i) Energy audit instruments ii) energy measurement approach understanding energy costs. 10M

14. A). Discuss the energy conservation opportunities in induction motor and its need. 10M

OR

14. B). Explain the performance assessment of PF capacitors. 10M

15. A). Explain the benefits of maximum demand controller as energy conserving device. 10M

OR

15. B). Outline any four features of energy efficient transformer. 10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Tool Design

(Mechanical Engineering)

Date: 09.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	List out the advantages of coated tools over uncoated cutting tools.	2 M
2.	Define cutting tool? Write its necessity in mechanical industries.	2 M
3.	Tell the elements in single point cutting tool.	2 M
4.	What is principle of broaching?	2 M
5.	Name the various types of shanks?	2 M
6.	Compare differences between Taps and Dies.	2 M
7.	List out the types of press tools (or) Dies?	2 M
8.	Write the merits and demerits of plastic tools?	2 M
9.	Define Jig and Fixtures.	2 M
10.	Name the various clamping devices.	2 M

PART-B

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

11.A).	Explain the Ferrous and Non-Ferrous cutting tool materials with their properties.	10M
	OR	
11. B).	Classify the different types of coated cutting tools with their properties.	10M
12. A).	Briefly Explain the major elements to be considered while designing peripheral and end milling cutters.	10M
	OR	
12. B).	Explain the common procedures carried out during the design of circular form cutting tools.	10M
13. A).	Explain the various types of reaming allowances and their specific applications.	10M
	OR	
13. B).	Describe the nomenclature of twist drill with the help of a neat sketch.	10M
14. A).	Explain the procedure for designing a die set for a piercing operation.	10M
	OR	
14. B).	Explain the procedure for designing a die set for a blanking operation.	10M
15. A).	Classify drill jigs and explain the working principles, along with the advantages and disadvantages, of any two types.	10M
	OR	
15. B).	Explain the fixture design procedure for turning and milling operation.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Wireless Communication Networks

(Electronics & Communication Engineering)

Date: 09.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	What are prioritizing handoffs?	2 M
2.	Define Co-channel Interference.	2 M
3.	Summarize about Hata model.	2 M
4.	Explain about Site specific modelling.	2 M
5.	Explain Doppler spread.	2 M
6.	Explain about level crossing.	2 M
7.	Write review about Zero forcing algorithm.	2 M
8.	Explain about frequency diversity.	2 M
9.	List types of WLAN topologies.	2 M
10.	What are the disadvantages of WLANs?	2 M

PART-B

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

11.A).	i) Explain briefly about frequency reuse.	5M
	ii) Summarize on channel assignment strategies.	5M
	OR	
11. B).	Explain in detail about Trunking and Grade off Service.	10M
12. A).	Determine the equation of the Path loss using Two-Ray Model with neat diagrams.	10M
	OR	
12. B).	i) Write about Brewster angle.	5M
	ii) Explain about Longley- Ryce model.	5M
13. A).	Analyse in detail about the factors that influence small scale fading.	10M
	OR	
13. B).	Explain how the two-ray model is used when a single ground reflection dominates the multipath effect.	10M
14. A).	Explain in detail about Decision Feedback Equalization.	10M
	OR	
14. B).	Evaluate the expression for Maximal Ratio Combining Improvement.	10M
15. A).	Compare and contrast IEEE 802.11 a, b, g and n standards.	10M
	OR	
15. B).	Draw and explain the various fields in a IEEE 802.11 MAC frame.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Natural Language Processing

(Common for CSE & AID)

Date: 09.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Analyze the usage of feature structures in NLP.	2 M
2.	List out the morphological models.	2 M
3.	What is a lexeme? List its categories?	2 M
4.	List out the two approaches to construct treebank.	2 M
5.	Define system paradigm.	2 M
6.	What is Coreference resolution?	2 M
7.	What is Argument identification?	2 M
8.	Define structure management.	2 M
9.	Write reference resolution.	2 M
10.	Define discourse cohension.	2 M

PART-B

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

11.A).	Analyse how statistical methods can be used in machine Translation.	10M
	OR	
11. B).	Describe the key components of a word and their respective roles in its structure. Provide examples to illustrate your explanation.	10M
12. A).	i) Construct Shift reduce parsing N-> N 'and' N N->N 'or' N N->'a'|'b'|'c'	6M
	ii) Give an overview of parsing algorithms.	4M
	OR	
12. B).	i) How can we resolve parsing challenges.(CKY)	7M
	ii) Explain the Multilingual issues.	3M
13. A).	Describe how semantic parsing differs from syntactic parsing and other language processing tasks.	10M
	OR	
13. B).	Compare the performance of rule-based, statistical, and machine learning-based approaches in different linguistic contexts.	10M
14. A).	Define predicate-argument structure and its significance in linguistic analysis.	10M

(P.T.O..)

OR

14. B). i) What kind of softwares are available for semantics in NLP. 4M
ii) Explain the usage of PropBank in semantic parsing. 6M

15. A). i) Make a comparison of syntax based language model and factored language model. 6M
ii) Give some examples for early NLP systems. 4M

OR

15. B). i) Differentiate Bilingual and Cross lingual Language Models. 7M
ii) How Parameter Estimation supports Language Modelling? 3M

*****

H.T No: | | | | | | | | | | | **R18** Course Code: A30456

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Artificial Neural Networks

(Electronics & Communication Engineering)

Date: 09.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	What are Artificial Neural Networks (ANNs)?	2 M
2.	Difference between Biological Neurons and Artificial Neurons.	2 M
3.	Define the term "back propagation".	2 M
4.	Define unsupervised learning.	2 M
5.	What are Radial Basis Functions Neural Networks?	2 M
6.	What Are Radial Basis Functions?	2 M
7.	What is Associative Memory?	2 M
8.	Applications of SOM.	2 M
9.	Define Hamming Network.	2 M
10.	Applications of Hopfield Network.	2 M

PART-B

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

11.A).	Identify and illustrate different activation functions used in neural networks.	10M
	OR	
11. B).	Discuss briefly about competitive learning.	10M
12. A).	State few activation functions which are used in single and multilayer networks to calculate the output.	10M
	OR	
12. B).	Write the flowchart of error back-propagation training algorithm.	10M
13. A).	Write about performance of back propagation learning? What are the limitations of back propagation learning? Explain in detail.	10M
	OR	
13. B).	Explain the concept of regularization in neural networks and compare different regularization techniques.	10M
14. A).	Discuss briefly about learning vector quantization.	10M
	OR	
14. B).	Describe about Bidirectional Associative Memory with its architecture.	10M
15. A).	With architecture and algorithm explain about Discrete Hopfield Network.	10M
	OR	
15. B).	Explain in detail about neuro dynamical models.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Artificial Intelligence in Healthcare

(CSM)

Date: 09.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Define radiology.	2 M
2.	What is the role of AI in breast imaging?	2 M
3.	Recall hyperparameter search.	2 M
4.	Compare transfer learning and multitask learning.	2 M
5.	State the need for CAD in medical imaging.	2 M
6.	Differentiate qualitative and quantitative image analysis.	2 M
7.	What is the role of radiomics?	2 M
8.	What is CT colonography?	2 M
9.	Define clinical validation.	2 M
10.	How to establish clinical utility for AI application?	2 M

PART-B

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

11.A).	Explain in detail about the physics of medical images with neat sketch.	10M
	OR	
11. B).	Discuss in detail the role of AI in nuclear medicine.	10M
12. A).	Apply the concept of data augmentation techniques used for medical imaging.	10M
	OR	
12. B).	Apply transfer learning and multitask learning techniques used for medical image analysis.	10M
13. A).	Illustrate the usage of Artificial Intelligence in medical image analysis.	10M
	OR	
13. B).	Explain in detail about the concept of computer aided detection and diagnosis.	10M
14. A).	Analyze the usage of machine learning in radiology to achieve applications beyond image interpretation.	10M
	OR	
14. B).	Analyze the working and detection of intestine cancers using CT colonography CAD system.	10M
15. A).	Describe the steps involved in clinical validation of SaMD.	10M
	OR	
15. B).	Summarize the concept of establishing clinical utility for AI application.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Internet of Things

(Common for CSE & IT)

Date: 09.06.2025 AN | **Time: 3 hours** | **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	What are the characteristics of IoT?	2 M
2.	Mention the components of a logical design of IoT.	2 M
3.	What is a MAC protocol?	2 M
4.	What is data aggregation in IoT?	2 M
5.	Mention any two development challenges in IoT.	2 M
6.	List the security challenges faced in IoT.	2 M
7.	List three industry applications of IoT	2 M
8.	Name two surveillance applications of IoT.	2 M
9.	What is an embedded system platform?	2 M
10.	What is the role of Python in IoT development?	2 M

PART-B

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

11.A).	Explain the physical and logical design of IoT with examples.	10M
	OR	
11. B).	Compare IoT and M2M in terms of communication models and applications.	10M
12. A).	Discuss various routing protocols used in IoT networks.	10M
	OR	
12. B).	Describe how data is aggregated and disseminated in an IoT network.	10M
13. A).	Explain in detail the various security challenges in IoT systems.	10M
	OR	
13. B).	Discuss about the development challenges in IoT.	10M
14. A).	Explain how IoT is used in home automation and surveillance systems.	10M
	OR	
14. B).	Discuss domain-specific IoT applications in detail with real-world examples.	10M
15. A).	Explain about the Different IoT tools in detail.	10M
	OR	
15. B).	Design an IoT application using an embedded system and Python programming.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Basics of Civil Engineering

(Common for ME, ECE, IT, CSC & CSD)

Date: 10.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1. Define Superstructure. 2 M
2. What are industrial buildings? 2 M
3. Define floor area ratio. 2 M
4. Name some instruments used in surveying. 2 M
5. What is leveling? 2 M
6. List the different types of cement. 2 M
7. What are shallow foundations? 2 M
8. Write the functions of foundation. 2 M
9. What are intelligent buildings? 2 M
10. What is sound proofing? Why is it necessary? 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 residential building? 10M

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

OR

12. B). Explain in detail about the method of making horizontal measurements with tapes and ranging rods. 10M

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

OR

13. B). Explain about bricks, cement blocks and their properties with neat sketch. 10M

14. A). List the various types of brick masonry and explain any two with neat sketches. 10M

OR

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

15. A). Illustrate the various facilities to be provided for vertical movement in a multistory building 10M

OR

15. B). Explain about Chimney and Intze water tank with neat sketch. 10M

*****

H.T No: | | | | | | | | | | | **R18** **Course Code: A30358**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Industrial Safety Engineering

(Common for CE, ECE, CSE, IT, CSC & AIM)

Date: 10.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	List out any two accidents investigation techniques.	2 M
2.	What do you know about safety color codes in industrial safety.	2 M
3.	List any two responsibilities of effective maintenance management.	2 M
4.	What are the different maintenance methods that are commonly used in several industries?	2 M
5.	List any two types of lubricants and their applications.	2 M
6.	What do you mean by galvanic corrosion?	2 M
7.	What are the fault-finding activities?	2 M
8.	What is the importance of fault tracing?	2 M
9.	Explain the role of degreasing in maintenance	2 M
10.	Write the importance of repair cycle concept.	2 M

PART-B

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

11.A).	What is Factory Act 1948? Write salient features of it in detail.	10M
	OR	
11. B).	Discuss the steps involved in inspection of Pressure vessels.	10M
12. A).	List the different tools used for maintenance and discuss their applications.	10M
	OR	
12. B).	Explain the primary and secondary functions, responsibilities of maintenance department.	10M
13. A).	Explain the working of wick feed lubrication with neat sketch and write its applications.	10M
	OR	
13. B).	What are the factors affecting corrosion? How to prevent corrosion.	10M
14. A).	Explain the process of fault-finding activities along with the decision tree for Air compressor.	10M
	OR	
14. B).	i) What is fault tracing? Briefly explain its importance. ii) What the different types of failures in machine tools?	5M 5M
15. A).	Explain the process of overhauling of mechanical components.	10M
	OR	
15. B).	Mention types of maintenance and explain features and merits-demerits of Preventive Maintenance.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Business Ethics & Corporate Governance

(Common for EEE, ME, ECE, CSE, CSC, CSM & AID)

Date: 10.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Define Business Ethics.	2 M
2.	Explain the main focus of Gilligan's theory.	2 M
3.	What do you mean by Ethical Dilemma?	2 M
4.	Explain 'Ethics of Reporting'.	2 M
5.	What is software Privacy?	2 M
6.	What do you mean by Cyber Attacks?	2 M
7.	Write about executive and non-executive directors of board.	2 M
8.	List out any two benefits of Corporate Governance.	2 M
9.	What is Risk in corporate governance?	2 M
10.	Define OECD Principles.	2 M

PART-B

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

11.A).	Define Ethical Culture and explore Five Levels of Business Ethics.	10M
	OR	
11. B).	Give the detailed view of Kohlberg's Theory of Moral Development Stages with examples.	10M
12. A).	List out the Ethical Aspects of Financial Management.	10M
	OR	
12. B).	Explain the role of HR Managers to promote ethical behaviour in an organization.	10M
13. A).	Bring out the Ethical Dimensions of Cyber Crimes.	10M
	OR	
13. B).	Outline the challenges faced in protection of IPR in Cyber Space?	10M
14. A).	Explain Corporate Governance. And list out its purpose and importance in Stakeholder's point of view.	10M
	OR	
14. B).	Outline the responsibilities of various board committees including Audit, Remuneration, Nomination and Risk Committee.	10M
15. A).	Elaborate the Recommendations of J.J. Irani Committee on Corporate Governance.	10M
	OR	
15. B).	What are the Five Internal Controls followed for Good Corporate Governance?	10M

*****

H.T No: | | | | | | | | | | | **R18** Course Code: A30162

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Green Buildings

(Common for EEE, ECE, CSE, CSM & CSD)

Date: 10.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Recall the term ecosystem analogy.	2 M
2.	Differentiate between green building and conventional building.	2 M
3.	Recall the term site management.	2 M
4.	Illustrate green construction.	2 M
5.	List some green building materials.	2 M
6.	Illustrate humidity and its effects.	2 M
7.	Define passive solar gain.	2 M
8.	What is the use of insulation in buildings?	2 M
9.	Distinguish between reuse and recycle.	2 M
10.	Mention the uses of clothing insulation.	2 M

PART-B

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

11.A).	Discuss in detail the advantages and short comings of green buildings.	10M
	OR	
11. B).	Draw and explain the components of embodied energy of a building and explain objectives of green building.	10M
12. A).	Discuss the environmental impacts of various materials on the environment in detail.	10M
	OR	
12. B).	Write short notes on i) Renewable energy ii) Water cycle and iii) Optimizing construction.	10M
13. A).	Describe in detail the eco-friendly materials for green buildings with their merits and demerits.	10M
	OR	
13. B).	Discuss the various specifications for walls and roofs in different climates in detail.	10M
14. A).	Describe the heat transfer characteristic of building materials.	10M
	OR	
14. B).	Explain the advantages and disadvantages of Solar Power and also discuss the health benefits from solar power.	10M
15. A).	Discuss any two case studies regarding the Solar Passive design of buildings.	10M
	OR	
15. B).	Discuss the practices, challenges and solutions of urban water development in developed countries.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Marketing Management

(Common for CE, ME, ECE, CSE, IT, CSC, CSD & AID)

Date: 11.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Define Marketing.	2 M
2.	Explain about Marketing mix.	2 M
3.	What is consumer behavior?	2 M
4.	What is brand positioning?	2 M
5.	Define personal selling.	2 M
6.	Write about pricing strategy.	2 M
7.	Explain retailing with example.	2 M
8.	What is wholesaling?	2 M
9.	What is the nature of sales management?	2 M
10.	Explain sales objectives.	2 M

PART-B

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

11.A).	Elaborate on product life cycle with the help of an example.	10M
	OR	
11. B).	Critically examine the customer loyalty relationship.	10M
12. A).	What is market research? Discuss the benefits of conducting it.	10M
	OR	
12. B).	How do we identify market segments? What are target groups?	10M
13. A).	Summarize the process of developing pricing strategy by taking an example.	10M
	OR	
13. B).	Explain the features of digital communication with the help of an example.	10M
14. A).	Discuss the retailing management process with a suitable example.	10M
	OR	
14. B).	Elaborate on the functioning of integrated marketing channels.	10M
15. A).	Elaborate the skills needed by sales manager in the 21st century.	10M
	OR	
15. B).	Discuss the concept of sales organization and explain its types.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Waste to Energy

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

Date: 11.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Define Incineration.	2 M
2.	What is the purpose of a digester?	2 M
3.	Give the applications of pyrolysis.	2 M
4.	What are the factors influence the yield of charcoal?	2 M
5.	How power is generated by a gasifier?	2 M
6.	What are the applications of gasifier?	2 M
7.	What are the different types of biomass stoves?	2 M
8.	What are the factors influence the combustion of biomass?	2 M
9.	Where biogas plants are located in India?	2 M
10.	What are the properties of biogas?	2 M

PART-B

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

11.A).	What is Municipal solid waste? Give the sources of Municipal solid waste with examples and their properties.	10M
	OR	
11. B).	Explain about waste to fuel conversion devices.	10M
12. A).	Explain the process of pyrolysis with neat sketch.	10M
	OR	
12. B).	What are the characteristics of pyrolytic oil and what are the applications?	10M
13. A).	Explain about Fluidized bed gasifier with a neat sketch.	10M
	OR	
13. B).	What are the factors influencing the performance of gasifier? Give the advantages of gasifiers.	10M
14. A).	What are the different types of biomass combustors? Explain about inclined grate combustor.	10M
	OR	
14. B).	Explain about the construction and operation of fixed bed combustor.	10M
15. A).	Give the classification of biogas plants and explain briefly.	10M
	OR	
15. B).	Explain the factors effecting the biogas generation.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Environmental Protection and Management

(Common for ME, ECE, CSE, CSC, CSM, CSD, AID & AIM)

Date: 11.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Write a note on national policies on environment.	2 M
2.	How many types of environmental impact assessments are there?	2 M
3.	What is the objective of environmental resources management?	2 M
4.	Explain environmental impact indicators.	2 M
5.	How Does the ISO 14001 Standard Support Environmental Compliance?	2 M
6.	How will objectives and targets help any organization?	2 M
7.	Explain the Phases of Environmental Audit	2 M
8.	What are the contents of the environmental statement?	2 M
9.	What are the 4 types of waste how to conduct a waste audit?	2 M
10.	What are the 4 roles of consultant?	2 M

PART-B

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

11.A).	Explain the classification of environmental impact reduction efforts.	10M
	OR	
11. B).	What are the fundamental objectives of the National Environment Policy which contemporaneous perception of the environmental challenges?	10M
12. A).	Explain the Strategy for conservation of freshwater resources – River, Wetland and ground water	10M
	OR	
12. B).	i) Explain the environmental quality objectives with example.	5M
	ii) Explain clean technology implemented in conducting wastewater testing in the textile industry.	5M
13. A).	i) What are the parameters of ambient air monitoring?	5M
	ii) Explain the National Ambient or Outdoor air quality standards (NAAQS Standards) which are used in ambient air testing.	5M
	OR	
13. B).	Explain with an example on different stages of continuous improvement.	10M
14. A).	Explain how audit activities are conducted in audit management system ISO19011	10M
	OR	
14. B).	What are waste audits? How to conduct a waste management audit?	10M

(P.T.O..)

15. A). What are the advantages and disadvantages of environmental management systems in pulp and paper? 10M

OR

15. B). i) What are different skills required for consulting? 5M

ii) What is the daily task of a consultant? 5M

*****

H.T No: | | | | | | | | | | | R18 Course Code: A36715

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Block Chain Technologies

(CSD)

Date: 12.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	Define Distributed Consensus.	2 M
2.	List the differences between private and public blockchain.	2 M
3.	How to create coins?	2 M
4.	What is a block in blockchain technology?	2 M
5.	Describe how blockchain is helpful for e-commerce.	2 M
6.	What is a cross-border payment?	2 M
7.	What are the strategic questions for financial services.	2 M
8.	List out the market challenges of blockchain technologies.	2 M
9.	What are the projects under Hyperledger umbrella?	2 M
10.	What are different types of tokens used in Blockchain?	2 M

PART-B

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

11.A).	What is relation between bitcoin and cryptocurrency? With a neat diagram explain the architecture and lifecycle of bitcoin.	10M
	OR	
11. B).	What is Digital Signature, Hash Pointer and Merkle trees? Discuss their importance in blockchain?	10M
12. A).	Explain Proof-of-work v/s Proof-of-stake protocol.	10M
	OR	
12. B).	Illustrate the creation of coins in bitcoin and explain the working of bitcoin transactions.	10M
13. A).	Summarize the challenges along the supply chain and explain how these challenges are addressed through block chain.	10M
	OR	
13. B).	What is blockchain enabled trade? How block chain can improve the trade finance.	10M
14. A).	Explain technological challenges that an organization may face when implementing a blockchain solution.	10M
	OR	
14. B).	List the barriers to adopting blockchain-based systems in education and business.	10M
15. A).	Discuss the security principles of bitcoin and explain the challenges that blockchain technology must overcome.	10M
	OR	
15. B).	Explain the architecture of Hyperledger Fabric and its transaction flow. Discuss the benefits and limitations of Hyperledger Fabric.	10M

*****

H.T No: | | | | | | | | | | | **R18** Course Code: A30545

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: Block Chain Technologies

(AI&ML)

Date: 12.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1.	What is blockchain protocol?	2 M
2.	List any two characteristics of cryptocurrency.	2 M
3.	Define blockchain neutrality.	2 M
4.	What is the significance of the block environment?	2 M
5.	What is FoldingCoin and how is it different from Gridcoin?	2 M
6.	What are blockchain MOOCS? Give examples.	2 M
7.	What is currency multiplicity?	2 M
8.	State the purpose of using Campuscoin in educational institutions.	2 M
9.	What are blockchain-related scandals you are aware of?	2 M
10.	How does government regulation affect blockchain growth?	2 M

PART-B

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

11.A).	Describe how a cryptocurrency transaction works end-to-end.	10M
	OR	
11. B).	Analyze how distributed trust and protocols contribute to the success of blockchain systems.	10M
12. A).	Explain how digital identity is verified using blockchain.	10M
	OR	
12. B).	Illustrate the application of blockchain neutrality with examples from art and media.	10M
13. A).	Explain Contribution of blockchain to decentralized scientific computing (e.g. Gridcoin)	10M
	OR	
13. B).	Analyze the use of blockchain in open education via MOOCs.	10M
14. A).	Differentiate tokens and currencies. Explain their use in real-world applications.	10M
	OR	
14. B).	Evaluate demurrage currency model with respect to public incentive.	10M
15. A).	Explain the effect of business model failures and scandals on blockchain public image.	10M
	OR	
15. B).	Discuss how governments around the world are responding to cryptocurrency regulation.	10M

*****

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

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VIII Semester Advanced Supplementary Examinations June-2025

Course Name: OS Security

(CSC)

Date: 13.06.2025 AN **Time: 3 hours** **Max.Marks: 70**

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions

Each question carries TWO marks. **10x2=20M**

1. List out the Goals of Security in OS. 2 M
2. Discuss about Protection System. 2 M
3. Describe the Access Control List. 2 M
4. Write a short note about Multics. 2 M
5. Interpret about Information Flow Secrecy. 2 M
6. Illustrate the Covert Channels. 2 M
7. Assess the Processor Scomp use in OS security. 2 M
8. Write a short note about Retrofitting. 2 M
9. Summarize the Role based Access Control. 2 M
10. Discuss about Trusted extensions. 2 M

PART-B

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

11.A). Demonstrate the working process of Lampson's Access Matrix with an example. 10M

OR

11. B). Interpret how Mandatory protection system works in detail. 10M

12. A). Summarize the Multics protection system model in OS. 10M

OR

12. B). Discriminate the Multics vulnerability analysis. 10M

13. A). Describe the following: 10M
i) Information Flow ii) Process Channels.

OR

13. B). Discuss how Information Flow Integrity model works. 10M

14. A). Describe the following: 10M
i) Retrofitting Commercial era ii) Retrofitting Microkernel era.

OR

14. B). Generalized explain about the Gemini Secure OS. 10M

15. A). Formulate the Solaris Extensions Trusted Extensions in OS. 10M

OR

15. B). Analyze the Mediations process rights management process. 10M

*****