R8409	Sub. Code
	540401

M.Sc. DEGREE EXAMINATION, APRIL – 2023

Fourth Semester

Energy Science

ENERGY AUDIT AND MANAGEMENT

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Energy Management.
2. What are the objectives of Energy Management?
3. Define Energy audit.
4. List two steps involved in pre-audit phase.
5. Name any four requirements for energy action planning.
6. What is the significance of an Energy policy?
7. Mention the benefits of Bench marking.
8. What are the components of Energy Monitoring?
9. Point out the Energy audit instruments.
10. Why Energy audit is required?

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain the general principles of Energy Management.

Or

(b) Write down the need of Energy audit and management.

12. (a) Write a short note on (i) Benchmarking (ii) Energy management approach.

Or

(b) Briefly explain with examples on fuel and energy substitution.

13. (a) Elaborate an importance of "Energy Information Systems" in Energy action planning.

Or

(b) Explain the role and responsibilities of Energy Manager.

14. (a) Briefly explain the materials and Energy balance diagram.

Or

(b) List down the various guidelines request for material and energy balance.

15. (a) What are the types and accuracy of the Energy Audit Instruments?

Or

(b) Draw a process flow chart for any product manufacture.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Write down the steps involved in Energy Management Strategy.

17. Distinguish between preliminary energy audit and detailed energy audit.

18. How Sankey diagram is useful for energy analysis?

19. List down the major energy audits instruments and explain any four.

20. Write a short note on (a) Energy Balance sheet (b) Management Information System.

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R8410	Sub. Code
	540507

M.Sc. DEGREE EXAMINATION, APRIL – 2023

Fourth Semester

Energy Science

CLIMATE CHANGE AND CO_2 EMISSION ASSESSMENT

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A $(10 \times 2 = 20)$

Answer **all** questions.

1. Define energy?

2. Mention any three social implementations of Energy uses?

3. Whit is the greenhouse effect?

4. How does global warming affect the climate change

5. What are the different resources used for energy conversion?

6. What are the main contributors of carbon foot print?

7. Mention the limitation of carbon credit?

8. What is fossil fuel?

9. What is the mitigation efforts in climate change?

10. Define carbon credit?

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain in brief about renewable energy resources.

Or

(b) Explain in details about the Energy consumption process.

12. (a) Elaborate the theory and proof of climate change impacts.

Or

(b) Write a short note on (i) global climate change (ii) Mechanism of greenhouse gas emission.

13. (a) What are the alternative resources on reduction of CO_2 emission?

Or

(b) Briefly discuss about the fundamental concept on combustion of CO_2 gas emission.

14. (a) What is carbon foot print? How do reduce the carbon foot print?

Or

(b) Explain the concept of fuel to energy conversion.

15. (a) List down the future prospect of carbon credit.

Or

(b) Discuss about the importance of the National and International market scenario of the carbon credit

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Explain in the details about the social and economic implementations of energy uses.

17. Elaborate the International concern on climate change and mitigation efforts.

18. Briefly discuss about the emission from major sectors with case studies.

19. Describe the overview of current efforts and future prospect limitation of carbon trading mechanism.

20. Write a short note on (a) Theory of global climate change (b) Mechanism of greenhouse gases emission.

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