Reg. No.														

B.Tech. DEGREE EXAMINATION, NOVEMBER 2023
Seventh Semester

18CEE312T – ENVIRONMENTAL IMPACT ASSESSMENT & LIFE CYCLE ANALYSIS
(For the candidates admitted from the academic year 2020-2021 & 2021-2022)

Note:
(i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.
(ii) **Part - B & Part - C** should be answered in answer booklet.

Time: 3 hours

Max. Marks: 100

PART – A (20 × 1 = 20 Marks)
Answer ALL Questions

		Marks	BL	CO	PO
1. The major components in hydrosphere is _____.		1	1	1	7

   (A) Plant and animal (B) Nitrogen and oxygen
   (C) Soil and rock (D) Water and glacier

		Marks	BL	CO	PO
2. Which among the following does not has 'cycle' in biosphere?		1	1	1	1

   (A) Carbon (B) Nitrogen
   (C) Sulphur (D) Rock

		Marks	BL	CO	PO
3. Which among the following is not an ecological disturbance?		1	1	1	1

   (A) Cyclone (B) Tsunami
   (C) Mutation (D) Forest fire

		Marks	BL	CO	PO
4. Unit of biocapacity is _____.		1	1	1	7

   (A) hectare/ capita (B) Global hectare/ capita
   (C) Gross demand/ capita (D) Global demand/ capita

		Marks	BL	CO	PO
5. Which among the following is not a 'core value' of EIA?		1	1	2	1

   (A) Integrity (B) Development
   (C) Sustainability (D) Utility

		Marks	BL	CO	PO
6. Implementation of proposed project starts after approval for _____.		1	1	2	1

   (A) Screening (B) Scoping
   (C) EIA process (D) Implementation

		Marks	BL	CO	PO
7. Among the following steps, which one does not exist in ERA but present in EIA?		1	2	2	1

   (A) Screening (B) Public participation
   (C) Mitigation (D) Management

		Marks	BL	CO	PO
8. Among the following which is not a type of EIA?		1	1	2	1

   (A) REIA (B) CEIA
   (C) SEIA (D) Screening

9. According to 'Arnstein ladder', the public participation is divided into _____ sub-categories.
   (A) 6   (B) 7
   (C) 8   (D) 9

10. Which among the following is not an expert system?
    (A) Artificial intelligence   (B) Remote sensing & GIS
    (C) Models   (D) Subject experts

11. A model considers input is the summation of output and storage in the reservoir. The model falls in which of the category?
    (A) Box   (B) Mass balance
    (C) Air quality dispersion   (D) Air quality diffusion

12. Capacity building aims in the development of _____.
    (A) Local area   (B) District
    (C) State   (D) Nation

13. The best practice to reduce carbon footprint is
    (A) Use eco-friendly products   (B) Recycle
    (C) Use less- buy less   (D) Wear smaller size dress and shoes

14. Among the following ISO standard which is used for environmental auditing?
    (A) ISO 9001   (B) ISO 14001
    (C) ISO 18001   (D) ISO 19011

15. ISO 14001 is used for _____.
    (A) Environmental management systems   (B) LCA
    (C) ERA   (D) LCIA

16. Among the following food items which has high carbon footprint?
    (A) Meat   (B) Milk
    (C) Cereals   (D) Fruits

17. The EIA report is termed as _____.
    (A) EIA draft   (B) Environmental impact assessment
    (C) EIA report   (D) Environmental management plan statement

18. Among the following which step is used decide whether EIA is required or not?
    (A) Screening   (B) Scoping
    (C) Mitigation   (D) Management

19. Major disadvantage of checklist method is _____.
    (A) It is not structured   (B) Tough
    (C) It does not have an interdisciplinary approach   (D) Do not link direct and indirect impact

20. Among the following which is not a methods in EIA?   1   1   5   1
    (A) Checklist   (B) Network
    (C) Matrix   (D) Scoping

PART – B (5 × 4 = 20 Marks)
Answer ANY FIVE Questions

	Marks	BL	CO	PO
21. Draw and label the rock cycle.	4	2	1	1
22. Compare 'Rapid environmental assessment' and 'Comprehensive environmental impact assessment'.	4	3	2	1
23. Write short notes on evolution of EIA.	4	2	2	1
24. Explain briefly 'Quality of life'.	4	3	3	1
25. Write briefly about the impacts caused on biological components.	4	2	3	1
26. State the limitations of LCA.	4	2	4	1
27. Explain very briefly the overlay method.	4	2	5	1

PART – C (5 × 12 = 60 Marks)
Answer ALL Questions

	Marks	BL	CO	PO
28. a. Explain in detail 'ecological succession' and its types.	12	2	1	1
(OR)				
b. Explain in detail about structure of ecosystem with a neat sketch.	12	1	1	1
29. a. Explain in detail various types of EIA adopted for projects.	12	2	2	1
(OR)				
b. Explain in detail on 'world bank environmental agenda'.	12	2	2	1
30. a. Explain in detail the impacts caused due to a project on biological components.	12	3	3	1
(OR)				
b. Explain in detail about the public participation process.	12	3	3	1
31. a. Explain in detail on the review process employed in LCA process.	12	2	4	1
(OR)				
b. Explain in detail on environmental audit with salient features.	12	2	4	1
32. a. Explain the various methods employed in EIA process.	12	2	5	1
(OR)				
b. Explain the various types of Alternatives employed in EIA process.	12	2	5	1

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