

Reg. No.

B.Tech. DEGREE EXAMINATION, MAY 2024

Fourth to Seventh Semester

18CEO406T – GLOBAL WARMING AND CLIMATE CHANGE

(For the candidates admitted during the academic year 2018-2019 to 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)

Marks BL CO PO

Answer ALL Questions

- The biosphere consist of _____ components that are all necessary for life to sustain on earth.
(A) 3 (B) 2
(C) 4 (D) 5
- Which one of the following component of climate system specify the glaciers, sea ice and permafrost?
(A) Atmosphere (B) Cryosphere
(C) Biosphere (D) Lithosphere
- Which of the following determines the amount of water vapour in the atmosphere?
(A) Clouds (B) Gas
(C) Temperature (D) Humidity
- The industrial emission of green house gases are classified under _____.
(A) Brown carbon (B) Blue carbon
(C) Green carbon (D) Yellow carbon
- Climate can be defined as
(A) Long term changes in atmosphere (B) Short term changes in atmosphere
(C) Long term changes in earth (D) Short term changes in earth
- Trade winds located in
(A) Equator (B) Temperature
(C) South pole (D) North pole
- Paleoclimate can be interpreted from
(A) Formulae (B) Derivations
(C) Software (D) Proxies
- Global warming is accelerated due to
(A) More sea ice (B) Moderate sea ice
(C) Less sea ice (D) Manageable sea ice

9. Acid deposits on soil causes which nutrient deficit? 1 2 5 2
 (A) Calcium (B) Aluminium
 (C) Sulphur (D) Nitrogen
10. The value of pH is 8.1 for _____. 1 1 4,5 1
 (A) Distilled water (B) Sea water
 (C) Acid rain (D) Liquid paint
11. Identify the type of disease which caused due to change in temperature? 1 1 5 2
 (A) Water borne (B) Food borne
 (C) Vector borne (D) Animal borne
12. An instrument which measures relative humidity is called 1 2 4,5 2
 (A) Hygrometer (B) Anemometer
 (C) Barometer (D) Thermometer
13. The goal of climate change adaption is to 1 2 5 1,7
 (A) Reduce harmful effects of climate change (B) Increase harmful effects of climate change
 (C) Stabilize harmful effects of climate change (D) Neutralize harmful effects of climate change
14. The United Nations framework convention on climate change is also known as 1 1 2,3 1,6,7
 (A) Earth summit (B) Vienna convention
 (C) Rio convention (D) Kyo protocol
15. EPA was framed by 1 1 6 1,7
 (A) Government of India (B) Government of USA
 (C) Government of Japan (D) Government of China
16. Sea level rise in 2030 is about _____. 1 1 1,3 6,7
 (A) 10 cm (B) 30 cm
 (C) 20 cm (D) 40 cm
17. Future prospective of removable energy resources in India having more scope in 1 1 2,4 6,7
 (A) Solar (B) Wind
 (C) Tidal (D) Bio
18. During the energy audit of a building, the following basic steps are considered 1 2 5 1,7
 (A) Check heating and cooling system - inspect electric installation-account for electric waste
 (B) Check only heating system - inspect electric insulation - account for electric waste
 (C) Improving heating and cooling system - deinstallation - account for electric waste
 (D) Decease the heating - uninstall -check

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|--|---|---|---|-----|
| 19. What is the main element in fossil fuel? | 1 | 2 | 5 | 6&7 |
| (A) Hydrogen | | | | |
| (B) Oxygen | | | | |
| (C) Carbon | | | | |
| (D) Nitrogen | | | | |
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- | | | | | |
|---|---|---|---|-----|
| 20. IREDA has been awarded _____ (category-I) status in 2015 by Ministry of New and Renewable Energy. | 1 | 1 | 5 | 6&7 |
| (A) Mini Ratna | | | | |
| (B) Global energy | | | | |
| (C) Best renewable energy | | | | |
| (D) Bharat Ratna | | | | |

PART – B (5 × 4 = 20 Marks)

Answer **ANY FIVE** Questions

Marks BL CO PO

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|--|---|---|---|-----|
| 21. Explain about the global warming and its impact. | 4 | 1 | 1 | 1,7 |
| 22. List the types of climatology proxies and explain any two of them. | 4 | 1 | 2 | 1,7 |
| 23. State the important gases in the earth atmosphere. | 4 | 1 | 3 | 1,6 |
| 24. Write short notes on Kyoto protocol. | 4 | 2 | 4 | 1,7 |
| 25. Write the concept of sustainable development. | 4 | 2 | 5 | 6,7 |
| 26. Explain briefly on the green house gas and its effect. | 4 | 2 | 3 | 1,7 |
| 27. Write about carbon sequestration. | 4 | 1 | 5 | 6,7 |

PART – C (5 × 12 = 60 Marks)

Answer **ALL** Questions

Marks BL CO PO

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| 28. a. Explain in detail about the atmosphere composition and its different strata with neat sketch. | 12 | 1 | 1 | 1,7 |
| (OR) | | | | |
| b. Explain in detail on hydrological cycle with neat sketch. | 12 | 2 | 1 | 1,6 |
| 29. a. Describe the classification of climatic region of India. | 12 | 1 | 2 | 1,6 |
| (OR) | | | | |
| b. Explain about Milankovitch theory on climate change. | 12 | 1 | 2 | 6,7 |
| 30. a. Explain the process of climate change impact in different sectors. | 12 | 2 | 3 | 1,7 |
| (OR) | | | | |
| b. Write short notes on the following | | | | |
| (i) Rain gauge | 6 | 1 | 3 | 1,6 |
| (ii) Climate feedback | 6 | 1 | 3 | 1,7 |
| 31. a. Describe the action plan of United Nation frame work convention on climate change. | 12 | 1 | 4 | 1,6 |

(OR)

b. Discuss in detail on the intragovernmental panel on climate change.	12	2	4	1,7
32. a. Explain in detail about				
(i) Wind energy	6	2	5	1,7
(ii) Tidal energy	6	1	5	6,7

(OR)

b. Explain the clean development mechanics and its project cycle.	12	2	5	1,7
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