

B.Voc. DEGREE EXAMINATION, NOVEMBER 2019
SUSTAINABLE ENERGY MANAGEMENT
FIRST SEMESTER

COURSE : ALLIED CORE
PAPER : ENERGY ECONOMICS
TIME : 3 HOURS

MAX.MARKS:100

SECTION – A

ANSWER ALL QUESTIONS:

(30x1=30)

I CHOOSE THE CORRECT ANSWER:

1. The most nuclear fuel used in the world is _____
a. Thorium–232 b. Uranium – 238 c. Uranium – 235 d. Plutonium – 239
2. Energy in the form of heat and light is obtained by _____
a. Biomass b. Fossil fuels c. Sun d. Wind
3. Identify the non-renewable energy resource from the following:
a. Coal b. Fuel cells c. Wind power d. Wave power
4. Which of the following gases is the major contributor to global warming?
a. Methane b. Hydrogen c. Nitrogen d. Carbon Dioxide
5. Ratio of maximum demand to connected load is termed as
a. Load factor b. Power factor c. Demand factor d. Form factor
6. The Ozone layer in the atmosphere acts as an efficient filter for
a. X-Rays b. UV Rays c. Gamma Rays d. Infra red Rays
7. The world faces an energy crisis because
a. world demand for energy will increase
b. world oil production will peak and begin to decline
c. shortages and the resulting escalation of prices can shock the economic order
d. all of the above
8. Specific energy Consumption can be expressed in which of the following units.
a. Tone / Kwh b. KCal / Kg c. Kcal / Kwh d. None of the above

II FILL IN THE BLANKS:

9. The gas responsible for global warming is _____.
10. The major source of electrical power generation in India is _____.
11. The fuel which dominates the energy mix in Indian energy scenario is _____.
12. Energy consumption per unit of GDP is called as _____.
13. The main method of natural gas transportation is _____.
14. According to TNEB, 1 unit = _____ W.h.

III GIVE THE FULL FORM OF THE FOLLOWING:

Give a reason

15. Increase in the oil prices
16. The environmental impact of Non-Renewable energy source

Give one example

17. Renewable Energy Sources
18. Non - Renewable Energy Sources
19. Commercial Energy Sources

Expand

20. BEE
21. GWh
22. KWh
23. GDP
24. LPG
25. MNRE

IV STATE WHETHER TRUE OR FALSE :

26. Natural gas is found in reservoirs.
27. A dc line has less corona loss and reduced interference with communication circuits.
28. Ac voltages cannot be conveniently stepped up or stepped down.
29. At present the share of hydro power in the country's total generated units is around 55%.
30. The fourth largest producer of coal and lignite in the world is Russia.

SECTION – B**V ANSWER ANY SIX QUESTIONS:**

(6x5=30)

31. Distinguish between primary and secondary energy resources.
32. Briefly explain the effect of greenhouse gases on ecology and biodiversity
33. What are the causes of energy crisis?
34. Explain the tradeoff advantages of nuclear energy.
35. Explain the tradeoff disadvantages of oil.
36. Elucidate the challenges and opportunities in renewable energy?
37. What is sustainability? What are the three dimensions of sustainability?
38. Elucidate the environmental impacts of Non - Renewable Energy Resources

SECTION – C**VI ANSWER ANY TWO QUESTIONS:****(2x20=40)**

39. Explain the energy trends in the following
- Petroleum consumption
 - Coal consumption
 - Natural gas consumption
40. Distinguish the advantages and disadvantages of Renewable energy resources and Non-Renewable energy resources.
41. Critically analyze the energy policy of India.
42. Calculate the monthly electrical consumption of a 2BHK house having the following specifications. Calculate the monthly bill of the 2BHK assuming tariff to be Rs. 6 / Unit and explain few conservation techniques to save energy.

Appliances	Number of Appliances	Usage in hours	Appliances	Number of Appliances	Usage in hours
Lamp	4	8	Computer	2	4
Fan	4	12	Ac	2	5
