

SUBJECT CODE: 16VS/VM/FC16

B.Voc. DEGREE EXAMINATION, NOVEMBER 2019

SUSTAINABLE ENERGY MANAGEMENT

FIRST SEMESTER

COURSE : MAJOR CORE

PAPER : FORMS OF ENERGY AND ENERGY CRISIS

TIME : 6 HOURS

MAX.MARKS:100

(Theory: 50 marks + Practical: 50 marks)

SECTION- A

ANSWER ALL QUESTIONS

(20 x 1 = 20)

I. CHOOSE THE CORRECT ANSWER

- The equation for gravitational potential energy is  
(a)  $mgh$  (b)  $mg/h$  (c)  $mh/g$  (d)  $mgh^2$
- Which of the following countries consumes electric energy least?  
(a) Sweden (b) Japan (c) India (d) Sudan
- About 80% of India's electricity generation is from  
(a) Hydroelectric energy (b) Wind energy  
(c) Fossil fuels (d) Solar energy
- Which of the following is used to power the home?  
(a) Roof top solar panels (b) Wind turbines  
(c) Solar oven (d) All the above
- Mechanical energy storage systems include  
(a) Pumped storage hydropower (b) Fly wheels  
(c) Pressurized gas storage systems (d) All the above

II. FILL IN THE BLANKS

- \_\_\_\_\_ is considered a major figure in the discovery of nuclear energy
- The higher an appliance's power rating in watts, \_\_\_\_\_ it will cost to run.
- The maximum of energy demand is from emerging economies and developing countries as a consequence of \_\_\_\_\_.
- An energy crisis is any great \_\_\_\_\_ in the supply of energy resources to an economy.
- One joule is \_\_\_\_\_ kilowatt hour.
- Biomass is a \_\_\_\_\_ energy source.

III State whether True or False:

- A Television will consume more energy than a dishwasher.
- Geothermal energy is a non-renewable energy source.
- There are no reserves in India.
- Population is also a factor for energy crisis.

**IV Answer in a sentence or two**  
**Give one example**

16. Renewable energy source
17. Commercial energy source
18. Hydro electric power station in India.
19. Safety equipment
20. Thermal Energy

**SECTION B**

**ANSWER ANY SIX QUESTIONS:**

**(6×3=18)**

21. Give any three examples for elastic energy.
22. Lightening and thundering occur during rainy season in the atmosphere.
  - (a) Name the energies related to the occurrence.
  - (b) How much amounts can be generated in an average?
  - (c) Can we store the energies generated? Explain.
23. What do you mean by primary energy demand?
24. Write a note on energy consumption.
25. How do you determine the of renewals?
26. What are the advantages of electrical energy?
27. List the steps to be followed for the conservation of energy.
28. Give an account on the unexplored renewable energy options.
29. Explain the energy calculations.
30. What kinds of safety measures should be at a nuclear power station?

**SECTION C**

**ANSWER ANY TWO QUESTIONS:**

**(2×6=12)**

31. Explain the utilization of energy by human activities in the modern world.
32. Write an essay on “Technology upgradation and Strategies to meet energy requirements”.
33. Describe the renewable and non-renewable energy sources in India.
34. Discuss different forms energies in detail.

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