

Vidya Vikas Mandal's
Shree Damodar College of Commerce & Economics, Margao-Goa
FY BBA(FS), Semester-II, Semester End Assessment, Supplementary June 2025
Course Code: VAC-112 Course: Green Energy Systems

Duration: 1 Hour

Max Marks: 40

Instructions: 1) All questions are compulsory with internal choice

2) Start each question on fresh page

3) Questions of 2 marks to be answered in not more than 40 words

4) Questions of 3 marks to be answered in not more than 60 words

5) Figures to right indicates full marks

- Q1. a) What is diffused radiation? (4 x 2 = 8 marks)
b) Define Extra-terrestrial solar energy.
c) Name two fuels and state their benefits.
d) List two advantages of ocean energy.

- Q2. A) i) First solar pond was constructed at Bhuj in Gujarat. Write three (3 marks) applications of solar pond.

OR

- i) Solar energy can be harnessed using photovoltaic cells. What are three (3 marks) benefits of harnessing solar energy?

- B) i) Wind energy is considered as a sustainable and clean energy source. List (3 marks) two benefits of above energy.

- C) i) What are two disadvantages of ocean energy? (2 marks)

- Q3. A) i) Geographical survey of India has identified 350 high potential sites of (3 marks) geothermal energy potential across the country. Explain in detail about geothermal energy.

OR

- i) Green manufacturing is also called as sustainable manufacturing. (3 marks) Explain key principles of green manufacturing systems.

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B) i) The sun has extremely important influences on our planet. Explain the relationship between sun and earth. (3 marks)

C) i) Pyrheliometers are mounted on a tracker that follows the sun's movement. Interpret two uses of pyrheliometer. (2 marks)

Q4. A) i) Wood is one of the largest resource of biomass. Explain various advantages of biomass energy in detail. (3 marks)

OR

i) Sun has inner as well as outer layers. Explain in detail about any three layers of sun. (3 marks)

B) i) Harnessing geothermal energy finds various applications in industrial processes. Explain some methods of harnessing geothermal energy. (3 marks)

C) i) Environmentally friendly machining techniques are cost effective and eco-friendly. Explain any two examples of environmentally friendly machining. (2 marks)

Q5. A) i) Discuss about the type of well which is used to inject cooled geothermal water back into the underground reservoir. (3 marks)

OR

i) Explain the type of energy efficient mechanical device which is used to increase the pressure of a gas, by reducing its volume. (3 marks)

B) i) Explain the holistic approach that aims to eliminate waste at every stage. (3 marks)

C) i) Discuss briefly about the type of wind turbine in which the rotational axis of rotor is parallel to the wind turbine. (2 marks)
