

**Goa Vidyaprasarak Mandal's  
GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE AND  
ECONOMICS FARMAGUDI, PONDA-GOA**

**B.C.A. UGC-CCFUP (SEMESTER-I) REGULAR EXAMINATION, OCTOBER 2024  
VAC-113 GREEN ENERGY SYSTEMS**

**Duration – 1 hour**

**Total Marks – 40**

**Instructions:**

- 1) All questions are compulsory.
- 2) To the right CO, BT and M indicates Course Outcomes, Bloom's Taxonomy Levels and Marks, respectively.

		CO	BT	M
Q.1	Answer the following:			
i)	How would you explain the environmental impact of solar power?	01	01	02
ii)	Can you recall Betz Limit?	02	01	02
iii)	Spell out OTEC and give suitable examples?	03	01	02
iv)	What is an energy efficient motor?	04	01	02
Q.2.A) i)	Define green manufacturing with suitable examples.	05	01	03
<b>OR</b>				
Q.2.A) i)	What are the benefits of green manufacturing systems?	05	01	03
Q.2.B) i)	What is the structure of the sun?	01	01	03
Q.2.C) i)	Define Biomass energy.	02	01	02
Q.3.A) i)	How would you contrast between advantages and disadvantages of geothermal energy?	03	02	03
<b>OR</b>				
Q.3.A) i)	Explain how tidal energy can be harvested by constructing a tidal barrage.	03	02	03
Q.3.B) i)	Summarize various types of fuel cells.	04	02	03
Q.3.C) i)	Summarize sustainable green production systems.	05	02	02

Q.4.A) i) How would you classify concentrating collectors? **01 02 03**

**OR**

Q.4.A) i) Illustrate solar energy storage. **01 02 03**

Q.4.B) i) State in your own words the working of a wind turbine. **02 02 03**

Q.4.C) i) Summarize wave energy devices. **03 02 02**

Q.5.A) i) How would you use HVAC? **04 03 03**

**OR**

Q.5.A) i) Demonstrate reduction in carbon footprint using energy efficient compressors. **04 03 03**

Q.5.B) i) How would you apply what you have learnt on zero waste manufacturing? **05 03 03**

Q.5.C) i) How would you show your understanding of solar applications? **01 03 02**

**===XXXXXXXXXXXXXXXXXXXXX BEST OF LUCK XXXXXXXXXXXXXXXXXXXXXXXX===**