- 7. Explain the direct type solar dryer.
- 8. Explain the pragati biogas plant with neat sketch. 10

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B. Tech Odd Semester Examination, February, 2023

Agricultural Engineering

(5th Semester)

Course No.: AE-505 (Renewable Energy Technologies)

> Full Marks: 50 Pass Marks: 25

Time: 2 hours

- Note: 1. Attempt any five questions.
 - 2. Begin each answer in a new page.
 - 3. Answer parts of a question at a place.
 - 4. Assume reasonable data wherever required.
 - 5. The figures in the right margin indicate full marks for the question.
 - 6. All the mathematical symbols and abbreviations have their usual meanings.
- Define biomass, hydrolysis, retention time, solar hour angle, solar zenith angle and suns declination (Solve any 5). 2x5=10
- 2. Explain the downdraft gasifier with neat sketch. 10
- 3. (a) Explain the piston press briquetting machine with neat sketch. 7
 - (b) Write down applications of briquettes. 3
- 4. Explain the solar distillation unit. 10
- 5. Explain the parabolic solar cooker. 10
- 6. Write down the advantages and disadvantage of biomass. 10