

2023

AGS 4th Semester Examination

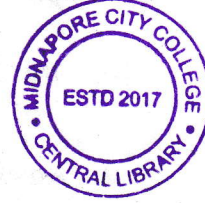
B.Sc. Hons. in Agriculture

Renewable Energy and Green Technology

PAPER — 403

Full Marks : 50

Time : 2 hours



The figures in the right-hand margin indicate marks.

*Candidates are required to give their answers
in their own words as far as practicable.*

Illustrate the answers wherever necessary.

Answer **all** questions.

1. Answer **any five** questions from the following :

2×5=10

(a) What is the composition of pyrolysis?

(b) Write down the types of gasifier.

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(Turn Over)



(2)

- (c) What are the steps of Biogas production?
- (d) What is gasification?
- (e) Name two plants for biodiesel production.
- (f) What is solar pond and its working principle?
- (g) What are the steps of downdraft gasifiers?
- (h) Mention two disadvantages of wind energy.

2. Answer any **four** questions from the following :
5×4=20

- (a) What are the advantages and disadvantages of renewable energy?
- (b) What are the principles of pyrolysis?
- (c) What are the advantages of biogas plants?
- (d) Describe the Janata type biogas plant.
- (e) What are the differences between KVIC type and Janata type biogas plants?

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(Continued)

(3)

Describe the Downdraft Gasifier with diagram.

3. Answer any **two** questions from the following :
10×2=20

- (a) What is gasifier? What are the types of gasifier? What are the processes of gas production and their utilization? 1+3+6=10
- (b) What is briquetting? What are the processes of briquetting? State their advantages and disadvantages? 1+3+6=10
- (c) What is solar photovoltaic system? Write down the working principle of solar photovoltaic system. Why is SPVS important? State whether PV system is DC or AC. 2+3+3+2=10
- (d) What is wind energy? What are the advantages and disadvantages of wind energy? Mention different types of windmills. 2+6+2=10

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