

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. Hons. (Agriculture) (Sem-4)
RENEWABLE ENERGY AND GREEN TECHNOLOGY
Subject Code : BSAG-403-19
M.Code : 79742
Date of Examination : 23-06-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) What is biomass?
- b) Define HRT.
- c) Which salts are used in solar pond?
- d) What are the disadvantages of using paddy straw in briquetting?
- e) What is desalination recovery ratio?
- f) What is equivalence ratio?
- g) Why screw press briquettes are considered better than piston press briquettes?
- h) Why downdraft gasifier produce less tar than others?
- i) What is the function of solar collector?
- j) Enlist two main disadvantages of wind energy.

SECTION-B

2. Explain briefly the different steps involved in manufacturing of briquettes.
3. Compare water and air as heat transport medium in solar collectors.
4. Explain the working of solar fencing with the help of a neat and labelled diagram.
5. Explain the different thermochemical reactions in gasification.
6. A 40 m diameter wind turbine rotating at a wind speed of 14 m/s. The density of air is 1.225 kg/m^3 . Determine the rotational speed and tip speed of rotor at a tip speed ratio of 5.

SECTION-C

7. Explain briefly the different classifications of energy sources.
8. Explain briefly about working of vertical axis wind turbines.
9. Explain the working of KVIC biogas plant with a labelled diagram.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.