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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 : 17-12-22

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) Briquetting
 - b) Bio-gas plant
 - c) Forest wastes
 - d) Solar constant
 - e) Solar salt ponds
 - f) Principles of combustion
 - g) Solar azimuth angle
 - h) Anaerobic digestion
 - i) Producer gas
 - j) Indirect energy sources.

SECTION-B

2. Discuss reverse absorber solar air heater along with its diagram.
3. What is an evacuated tube collector and how it works?
4. Describe the working of natural circulation non-pressurized solar water heater along with its neat diagram.
5. Write the operating principle of forced circulation solar water heater.
6. What are the reasons that justifies the development of bio-diesel?

SECTION-C

7. Compare the fixed dome type and floating dome type bio-gas plants.
8. Discuss the factors that effect the trans-esterification reaction.
9. Compare the piston press and screw press briquetting machine.

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.