

2207E111

BACHELOR OF VOCATION

Solar Technology

Subject: Energy Resources and Conversion Processes

Subject Code: OET-604

Semester: Fourth

July 2022

Theory (External): 70 Marks

Time: 03 Hours

Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 02 mark.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 10 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled.

Roll Number

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SECTION –A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x2=20 Marks)

- A. Define flying bird process
- B. Define photovoltaic effect.
- C. Define solar thermal energy
- D. State the energy audit.
- E. Give any one name of bio fuel.
- F. Write the maximum value of FF of any PV module.
- G. Write the value of open circuit voltage for one solar cell.
- H. Define fuel cell
- I. Define tidal energy
- J. Define carbon credits.

SECTION –B (ESSAY TYPE QUESTIONS)
(5x5=50 Marks)

1. Explain the various bio-conversion technologies in detail with diagram?
2. Define Energy Audit, its various instruments and its importance?
3. Define Energy in detail and its various forms?
4. Explain the principle, construction and detailed working of biogas production plant?
5. Explain the detailed construction and working of solar photovoltaic module?
6. Explain the detailed construction and working of PV thermal collector
7. Explain the principle, construction and detailed working of PV integrated solar green house dryer?
8. Discuss life cycle cost analysis for concentrated solar collector.

==END OF THE PAPER==