**Roll No……..** **Total No. of Printed Pages: [01]**
**Total No. of Questions: [09]**

**BBA (Semester – 6th)**
**NON-CONVENTIONAL ENERGY RESOURCES**
**Subject Code: BEEE-0F94**
**Paper ID: [OE2150105]**

**Time: 03 Hours** **Maximum Marks: 60**

**Instruction for candidates:**

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

**Section – A** **(2 marks each)**

Q1. Attempt the following:

a) Define Solar constant.
b) Define conventional energy source
c) What is basic principle of wind energy generation?
d) Write two applications of solar batteries.
e) What is photosynthesis?
f) What do you understand by geothermal energy?
g) Define low head hydrometer.
h) What is conversion efficiency?
i) Write two properties of thermo electric materials.
j) What is MHD?

**Section – B** **(5 marks each)**

Q2. What is the need for alternative energy sources? How have these sources grown over the past few years?

Q3. Describe with neat diagram construction of biogas plant.

Q4. What are different types of photovoltaic cells? Discuss anyone with neat diagram.

Q5. What are various types of prime movers used for geothermal energy?

Q6. What do you understand by Tidal energy? Discuss tidal electric generator.

**Section – C** **(10 marks each)**

Q7. a) What are various biomass conversion technologies? What are their applications? 5
b) Write a note on history of wind power. Cite its relevance in present day scenario. 5

Q8. a) Differentiate between concentrated and flat plate solar collectors. 5
b) How can solar energy be used for space heating? 5

Q9. a) How is energy produced from hydrogen? How can it be stored? 5
b) Discuss working of thermo ionic generator. 5