Roll No……..….. **Total No. of Printed Pages: 1**

Total No. of Questions: [09]

B.Sc. (Hons.) Aircraft Maintenance Engineering (Semester-3rd)

AIRCRAFT MATERIALS

Subject Code: BAME3-316

Paper ID: [20131111]

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 Cermets in aircraft materials.
b) What do you mean by heat treatment of aircraft materials?
c) Define Composites in aircraft material.
d) Name different types of woods used in aircraft construction.
e) What do you mean by sandwich structure in composite construction?
f) Define Pitch Pockets and Mineral Streaks in Aircraft wood.
g) Define Salvage edge in Fabric.
h) Write down the applications of Glass Fiber.
i) Define Kiln drying of wood.
j) Define Surface tape in aircraft fabrics.

Section – B **(5 marks each)**

Q2. What are the differences between ferrous and non-ferrous materials?

Q3. Explain the Critical Range and Annealing in detail.

Q4. Explain the different types of fabric covering.

Q5. Explain Fiber orientation.

Q6. Explain the properties of Aramid Fiber.

Section – C **(10 marks each)**

Q7. Explain the different types of dopes and doping in detail.

Q8. Explain the characteristics and properties of ferrous material.

Q9. Explain in detail the case hardening process with its different types.