KERALA AGRICULTURAL UNIVERSITY

B.Tech (Agrl.Engg) 2014 Admission

II[nd] Semester Final Examination-June/July -2015

Cat. No: Fpme: 1204

Title: Workshop Technology (2+1)

Marks: 50.00

Time: 2 hours

I Fill up the blanks **(10 x 1=10)**

1. The relation between the two parts where one is inserted into the other with a certain degree of tightness or looseness is known as _____
2. _____is measure of the amount of energy a material can absorb before actual failure take place
3. About 85% of nickel production is obtained from _____ores
4. _____is used for measuring temperature of a furnace during heat treatment processes
5. The machinability of a metal is indicated by percentage that is termed as _____

Write true or False

6. The major constituents of gun metal is tin
7. Flux is charged into a blast furnace to lower the melting point of the ore
8. The carbon content varies up to 1.5 % in steels
9. Brass is used in patterns. particularly when metal patterns are large
10. Silica is defined as those particles of sand (under 20 microns in diameter) that fail to settle at a rate of 25 mm per minute ,when suspended in water

II Write short notes on any FIVE questions **(5 x 2=10)**

1. List out varieties of cast iron that are in common use
2. What are the necessary properties of bearing alloy
3. Briefly explain the purposes and methods of heat treatment

Write a note on

4. Arc cutting
5. Bronze welding
6. Copper and its alloys
7. Standards of measurement

III Write short essay on any FIVE questions **(5 x 4=20)**

1. Write the advantages and disadvantages of various types of plant lay outs Also describe the factors influencing lay outs
2. Discuss on hearth furnaces used for heat treatment of metals
3. Write about surface quality

4. Narrate the advantages and limitations of non-pressure welding technology
5. Discuss on classification of timbers
6. Briefly explain elements of interchangeable systems in manufacturing processes
7. Briefly explain various measuring instruments and gauges used in mechanical workshops

IV Write an essay on any ONE **(1 x 10=10)**

1. Explain in detail various moulding processes
2. Discuss on wood working machines

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