Printed Pages : 3 **AG – 124**

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 4037 Roll No.

B. Tech.

(SEM. II) EXAMINATION, 2006-07

WORKSHOP TECHNOLOGY

Time : 2 Hours] *[Total Marks : 50*

Note : *(1) Attempts **all 4** questions, choice are there within.*

(2) Marks allotted to each question are indicated in right-hand column.

1 Attempt any **four** parts of the following : **4+4+3+3=14**

(a) Explain in brief the process of applying varnish and polish on wood.

(b) Discuss the economics of each wood finishing process.

(c) Explain in brief properties and uses of glues.

(d) List different types of paints. List the requirements of quality paint. Why thinners are used with paints.

(e) Explain various methods of seasoning timber. Also mention advantage of each process.

(f) Mention the characteristics of a good preservative of wood. What is case hardening of wood?

2 Attempt any **four** parts of the following : **3+3+3+3=12**

(a) Name different types of moulding sand. Also explain the composition of moulding sand. What is permeability ?

(b) List pattern making tools. Name at least six types of patterns and describe any of them.

(c) Explain the functions and importance of Gates and Riser. Also list various types gates.

(d) Explain core making in foundry.

(e) List common sand casting defects and give their causes.

(f) Explain shake-out, fettling, snagging and pickling operations.

3 Attempt any **four** parts of the following : **3+3+3+3=12**

(a) Name different measuring tools used in fitting and indicate the application/purpose of each tool.

(b) Describe in brief method of cutting internal or external thread.

(c) Mention uses of marking tools, surface plate and reamers.

(d) Describe anyone are welding process that uses nonconsumable electrodes.

(e) With the help of a neat sketch explain MIG welding process. Also mention its industrial applications.

(f) Mention various safety precautions, which should be used while welding.

OR

(f) Describe in brief with a neat sketch submerged arc welding process. Also list its industrial applications.

4 Attempt any **two** parts of the following : **6+6=12**

(a) Advantages of CAD/CAM in Agriculture Engineering.

(b) List various components of NC machines. Also give the function of these components. What is APT ?

(c) Differentiate between CNC and DNC machines.

(d) Describe briefly CNC programming languages. Give suitable example for turning of a bar.
