B. Tech.

(SEM. II) EXAMINATION, 2006-07

WORKSHOP PRACTICE

Time : 2 Hours] [Total Marks : 50

Note : Attempt all 5 questions as instructed. Marks are indicated therein.

1 Part (a) is compulsory. Attempt three more parts from the rest of the following:

(a) Write short notes on any two of the following: 4
   (i) Classification of manufacturing process
   (ii) Machinery process
   (iii) Stiffness
   (iv) Toughness.

(b) Differentiate between “Malleability” and “Ductility”. 3

(c) Explain the term “Fatigue”. 3

(d) How cast iron differs from steel. 3

(e) What is nodular cast iron? Give its applications. 3

(f) What are plain carbon steels? How are they classified? 3

[Contd...]
2 Part (a) is compulsory. Attempt three more parts from the rest of the following:
(a) Write short notes on any two of the following:
   (i) High speed steel
   (ii) Brass
   (iii) Bronze.
(b) What are the influences of other elements in plain carbon steels?
(c) Discuss main characteristics of non-ferrous alloys due to which they are preferred over ferrous alloys inspite of their high costs.
(d) What are the common defects found in timber?
(e) What are the differences between hard and soft wood.
(f) What are the common auxiliary materials used in carpentry work?

3 Attempt any three parts of the following:
(a) What are the different types of wood working machines used in modern wood work?
(b) With the help of suitable sketch explain the construction and working of any one of the following:
   (i) ‘V’ Block
   (ii) Surface Plate
   (iii) Hand vice.
(c) What is a bevel square and where it is used?
(d) What are the advantages of twist drills over flat drills?
(e) What are the different process done in bench work?
4 Attempt any two parts of the following:

(a) Give a comprehensive list of the different operations performed in sheet metal work and describe any two of them.

(b) Explain and describe any one of the following:
(a) Arc welding
(b) Resistance welding.

(c) Describe the method of any acetylene cutting.