

**Diploma in Civil Engineering / Diploma
in Electrical & Mechanical Engineering**

Term-End Examination

June, 2008

BET-026 : WORKSHOP TECHNOLOGY

Time : 2 hours

Maximum Marks : 70

Notes : Question no. 1 is **compulsory** from Part A.
Answer any **seven** questions from Part B. All
questions carry equal marks in Part B.

PART A

1. Answer any **seven** questions. Answers should be short and
to the point. 7×2=14

- (a) Mention any two marking tools used in wood working.
- (b) Name the wood cutting saw to cut (i) along the grains, and (ii) across the grains.
- (c) What do you call the following ?
 - (i) Making rectangular hole right through the depth
 - (ii) Reducing the section to fit into the rectangular hole

Note : In questions (d) to (h) choose the correct answer

- (d) Wood-working operations are carried out by holding workpiece in
- (i) C-clamp
 - (ii) Carpenter's vice
 - (iii) Bench vice
 - (iv) Bar clamp
- (e) The part which is not common between iron jack plane and wooden jack plane is
- (i) wedge
 - (ii) cap iron
 - (iii) handle
 - (iv) iron cutter
- (f) To facilitate the withdrawal of the pattern from the mould the tapering on vertical side of pattern is called
- (i) rapping allowance
 - (ii) distortion allowance
 - (iii) draft allowance
 - (iv) shrinkage allowance
- (g) A core which hangs vertically from the cope is called
- (i) vertical core
 - (ii) cover core
 - (iii) balanced core
 - (iv) horizontal core

(h) A reamer carries

- (i) parallel flutes on its body
- (ii) lip at the end
- (iii) straight flutes on its body
- (iv) taper shank

(i) In gas welding practice name the flame which has

- (i) excess oxygen.
- (ii) excess acetylene.

PART B

Attempt any seven questions. All questions carry equal marks.

7/1000

2. Describe various properties of moulding sand. How is permeability tested?
3. What is a gating system in moulds? Describe functions and types of gates.
4. What do you understand by single cut and double cut files? Mention their applications. Explain the meaning of grades of file and mention the various names given to files according to grades.
5. With the help of sketch explain following pipe joints used in plumbing :
 - (i) Socket joint
 - (ii) Expansion joint
6. Giving range of temperature differentiate between soft soldering and hard soldering. Give various compositions in lead-tin solder and name them. What is the role played by flux in soldering?
7. Name various sheet-metal working machines and identify operations that are performed on these machines.
8. Describe the MIG and TIG processes of welding with the help of sketches.

9. Make a list of tools and equipment used in forging and describe any two tools with diagram.
10. What operations of machining are performed on lathe ? Describe different types of lathe.
11. What are the constituents of paint ? Describe their functions.
12. How are threads cut on the surface of a cylinder ? Explain thread cutting on lathe. What is thread chasing dial ?

