

Diploma in Civil Engineering / (DCLEG)  
DCLEVI/DMEVI/DELVI/DECVI/DCSVI

Term-End Examination

December, 2012

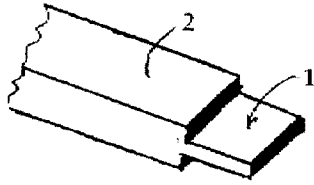
BET-026 : WORKSHOP TECHNOLOGY

Time : 2 hours

Maximum Marks : 70

Note : Answer Question 1 and any four from remaining seven questions.

1. Answer any seven of following questions.
- (a) Following two requirements are very common in wood work. 2x7=14
    - (i) Checking squareness between sides
    - (ii) Setting any angleWhich squares are used for A and B ?
    - (A) Bevel square
    - (B) Try square
  - (b) What are the tooth pitches for ten on saw and dovetail saw ? Choose from following.  
1. 2.5 to 2.8 mm 2. 2 to 2.5 mm 3. 1.75 mm
  - (c) In following figure name part 1 and the part in which it fits.



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- (d) Give the angles at the end of a centre punch and a dot punch.
- (e) Following figures show sections of two files. Name the files.



1

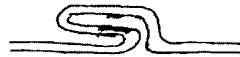


2

- (f) Name pipe joints for :
- (i) large size C.I pipes
  - (ii) piping for steam and hot water
- (g) Following figures show joints in sheet. Name the joints.



1



2

- (h) What are the functions of bick iron and snip in tin smithy ?
- (i) The oxygen and acetylene cylinders used in gas welding weigh differently. What are the weights of these cylinder when full ?
2. What is the difference between soldering and brazing ? How many types of solders are used in practice ? Give brief description. Describe procedure of soldering two wires of small diameters. 14

3. What equipments are needed in gas welding practice ? Describe the gas cylinders for oxygen and acetylene. Why are fluxes used in gas welding ? Name fluxes for welding ferrous metals, copper alloys and aluminium. 14
4. Sketch Smith's hearth and mark various parts. Differentiate between fullers and swage. What is upsetting or jumping in forging practice ? 14
5. What are objectives of heat treatment ? Describe processes of : 14
- (a) Annealing
  - (b) Normalizing and
  - (c) Tempering
6. How are lathe machines specified ? What operations are carried out on lathe ? Describe operation of thread cutting on lathe. 14
7. What are main constituents of paint ? What are the characteristics of a good paint ? What is anticorrosive paint ? 14
8. What is a gating system in sand mould ? Describe functions and types of gates. Label riser, pouring basin, runner and gate on a sketch of a mould. 14