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**BET-026**

**DIPLOMA IN CIVIL ENGINEERING (DCLE(G)) /  
DCLEVI / DMEVI / DELVI / DECVI / DCSVI**

**Term-End Examination**

**June, 2016**

**BET-026 : WORKSHOP TECHNOLOGY**

*Time : 2 hours*

*Maximum Marks : 70*

*Note : Part A is compulsory. Attempt any six questions  
from Part B and two questions from Part C.*

**PART A (Compulsory)**

1. Attempt any *seven* questions. *7×2=14*
- (a) Name the three allowances provided on a pattern.
- (b) Tenon Saw is used in
- (i) Plumbing
  - (ii) Fitting
  - (iii) Carpentry work
  - (iv) None of the above

- (c) Cutting angle of cold chisel is
- (i)  $30^\circ$
  - (ii)  $60^\circ$
  - (iii)  $120^\circ$
  - (iv) None of the above
- (d) Black coloured gas cylinder contains which of the following gases used in a welding shop ?
- (i) Acetylene gas
  - (ii) Oxygen gas
  - (iii) Helium gas
  - (iv) None of the above
- (e) Dovetail joint is associated with
- (i) Welding
  - (ii) Sheet metal
  - (iii) Carpentry
  - (iv) Fitting
- (f) Name three joints used in sheet metal works.
- (g) For increasing fluidity of a paint, \_\_\_\_\_ is added to the paint.
- (i) Filler
  - (ii) Vehicle
  - (iii) Solvent
  - (iv) Drier

(h) Large sizes of symmetrical moulds are generally prepared by means of \_\_\_\_\_ .

(i) Loose Piece Pattern

(ii) Sweep Pattern

(iii) Gated Pattern

(iv) None of the above

(i) Centre Punch is used as a marking tool in a fitting shop. The tapered point of punch has an inclined angle of \_\_\_\_\_ .

(i)  $20^\circ$

(ii)  $50^\circ$

(iii)  $90^\circ$

(iv) None of the above

## PART B

*Attempt any six questions.*

6×6=36

2. Write three differences between Hand Reamer and Machine Reamer.
3. How many types of files are used in a fitting shop ? Describe any one with a neat diagram.
4. Distinguish between 'Cutting' and 'Bending' of pipes. Explain any one pipe joint.
5. Sketch and describe the joints used in sheet metal works.
6. Explain the working principle of Metal Arc Welding. Sketch any two welding joints.
7. Differentiate between Gated Pattern and Match Plate Pattern. Give their uses.
8. Describe in brief any two processes of heat treatment of metals.
9. What are the common types of Lathe ? How is Lathe specified ?

## PART C

*Attempt any two questions.*

*2×10=20*

10. Differentiate between Painting and Polishing of surfaces. Enlist various types of varnishes with their applications.
  11. Define 'Moulding Process'. What are the main characteristics which a good moulding sand should possess ?
  12. What do you understand by the term 'Joinery' in carpentry work ? Explain any two types of carpentry joints with their uses.
  13. Classify the cutting tools used on a Lathe machine. What do you mean by 'Tool Signature' ?
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