

**PLOMA IN CIVIL ENGINEERING / (DCLEG)
DCLEVI/DMEVI/DELVI/DECVI/DCSVI**

Term-End Examination

December, 2013

BET-026 : WORKSHOP TECHNOLOGY

Time : 2 hours

Maximum Marks : 70

*Part-A is compulsory. Answer any seven questions
from Part-B.*

PART - A

Answer any seven questions :

2x7=14

- (a) Which of the following tools is used for checking the squareness of workpiece ?
- (i) Miter Square
 - (ii) Bevel square
 - (iii) Try Square
 - (iv) Marking Gauge
- (b) Tenon saw in woodwork is used to cut :
- (i) Interior profile
 - (ii) Dovetail joint
 - (iii) Curves
 - (iv) In all directions with respect to grains
- (c) In carpentry joint the term bridle means :
- (i) Finishing edges with angle other than right angle
 - (ii) Joint with open tenon
 - (iii) Portion to fit in mortise hole
 - (iv) Creation of two additional surfaces on edge

- (d) Pattern for casting may be made in :
- (i) Deodar wood and white metal
 - (ii) Teak wood and mild steel
 - (iii) Gypsum and glass
 - (iv) Wax and nickel
- (e) Which of the following allowances on pattern is negative ?
- (i) Rapping allowance
 - (ii) Shrinkage allowance
 - (iii) Draft allowance
 - (iv) Machining allowance
- (f) When two halves of a core are not identical in shape and size, the core box to be used is :
- (i) Dump
 - (ii) Split
 - (iii) Half
 - (iv) Loose piece
- (g) The sand which is required to possess high strength and refractoriness is :
- (i) Backing sand
 - (ii) Facing sand
 - (iii) Loam sand
 - (iv) Core sand
- (h) Which part of file carries cutting teeth ?
- (i) Tang
 - (ii) Face
 - (iii) Heel
 - (iv) Point
- (i) A reamer is used for :
- (i) Drilling a hole
 - (ii) Expanding a hole
 - (iii) To correct size of drilled hole
 - (iv) To create internal thread in a hole.
- (j) Which is not an operation in fitting work ?
- (i) Filing
 - (ii) Machining
 - (iii) Drilling
 - (iv) Tapping

PART-B

- (a) What supporting and holding devices are used in fitting work ? Describe one of them with the help of figure. 4
- (b) What are single cut and double cut files ? Define the grade of file and give classification of file based on grades. 4
- (a) What is plumbing ? Make a list of tools used by plumber and describe pipe bending equipment. 4
- (b) Make a list of commonly used pipe joints. Describe spigot and socket joint. 4
- (a) What is a mould ? Mention and describe the constituents of moulding sand. 4
- (b) Describe following tests made on moulding sand : 4
- (i) Content test
 - (ii) Permeability test
 - (iii) Strength test
- (a) Describe the joints in tin smithy. 4
- (b) Distinguish between soldering and brazing. In which operation(s) flux is used and what purpose does it serve ? 4
- (a) What are sheet metal operations ? 4
- (b) Two gas cylinders are used in oxy-acetylene gas welding. Describe their main features. 4
- (a) With the help of sketch, describe atomic hydrogen welding. 3
- (b) Name materials that can be forged. Draw an anvil used for hand forging and name its various features. 5

8. What is a lathe and for what purpose it is used ? Describe various types of lathe and specify their applications.
9. (a) What are different ways to turn taper ? Describe the method of setting over the tail stock.
(b) What different tools are used in lathe turning operations ? Show different angles and describe tool signature.
10. (a) What are main constituents of a paint ? How are they mixed to obtain a paint ?
(b) Describe painting of wood and steel surfaces.
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