

**Diploma in Civil Engineering / Diploma
in Electrical & Mechanical Engineering
DCLEVI/DMEVI/DELVI/DECVI/DCSVI/
ACCLEVI/ACMEVI/AELVI/ACECVI/ACCSVI**

Term-End Examination

December, 2011

BET-026 : WORKSHOP TECHNOLOGY

Time : 2 hours

Maximum Marks : 70

Note : Question No. 1 is compulsory. Attempt *any six* questions from *Part A* and *two* questions from *Part B*.

1. Attempt *any seven* questions. **2x7=14**

- (a) Which Carpenter's tools are used for ?
- (i) Marking two parallel lines at a time on a wooden surface.
 - (ii) Cuts the wood along the grains.
- (b) Select the correct answer related with Gated pattern :
- (i) Used for producing small sizes of castings in Mass, Scale and are made of metal.
 - (ii) Used for producing a No. of castings in a single multicavity mould by joining a Group of Patterns.

- (c) Name the allowances which are given during making of a pattern ?
- (i) For easy and early withdrawal of pattern from the mould without injury.
 - (ii) To compensate the amount of metal during casting as the metal usually shrink and contract due to solidification and cooling.
- (d) Binders and Additives are the constituents of moulding sand. Mention two examples of each.
- (e) Name four types of files which are used in fitting workshop.
- (f) What operations are performed by the following :
- (a) TAP (b) DIE
- (g) Name three types of joints used in sheet metal works.
- (h) In Gas-welding which type of flame is to be obtained by supplying an excess of Acetylene gas.
- (i) Mention three constituents of an oil-paint.

PART - A

Attempt *any six* questions. All questions *carry equal* marks.

6x6=36

2. What do you understand by the term "JOINERY" in carpentry work ? Sketch any one type of Carpentry Joint and name it.
3. Enlist different types of patterns. Explain with neat sketch the use of "sweep-pattern".
4. What is moulding ? What are the main characteristics for a good sand of moulding ? Explain any one.
5. Name the different operations performed in fitting work. Describe any two.
6. Explain in brief with sketches any three types of Joints, used in sheet-metal work.
7. Define welding process. Explain with the help of neat sketches the three types of Oxy-Acetylene-Flame.
8. State the difference between Smithying and Forging. Describe any one smithying or forging operation with sketches.
9. Define the Terms "Hardening and Tempering". For what reasons may steel be heat-treated ?

PART - B

Attempt *any two* questions. All the questions carry equal marks.

10x2=20

10. Make a list of main constituents of an oil-paint. What are the characteristics of an good oil-paint ?
 11. Name the main parts of lathe machine. Explain any two operations performed on lathe machine with neat sketches.
 12. Give a list of different "HEAT-TREATMENT" processes. What is the purpose of annealing and how is it done ?
 13. Distinguish between Low-pressure and High-pressure Gas-welding. List out the tools and equipments required for Oxy-Acetylene welding.
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