

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

Term-End Examination

00374 June, 2017

BET-026 : WORKSHOP TECHNOLOGY

Time : 2 hours

Maximum Marks : 70

Note : *Question no. 1 is compulsory. Answer any four from the remaining seven questions.*

1. Answer the following questions : 7×2=14

- (a) Choose the correct statement.
- (i) A rip saw cuts along the grains.
 - (ii) A rip saw cuts across the grains.
 - (iii) A rip saw cuts along and across the grains.
 - (iv) None of the above
- (b) Dowels are used in woodwork to strengthen two pieces or joints. These are usually _____.

- (c) A multi piece pattern is
- (i) two or more piece pattern
 - (ii) more than two piece pattern
 - (iii) three piece pattern
 - (iv) All of the above
- (d) Refractoriness of a moulding sand means the
- (i) ability of the metal to flow
 - (ii) ability to withstand high temperatures
 - (iii) ability of sand particles to stick together
 - (iv) All of the above
- (e) Vices are generally specified according to
- (i) width of jaws
 - (ii) ability of holding the job
 - (iii) Both (i) and (ii)
 - (iv) None of the above
- (f) In sheet metal work, a hem is
- (i) a common type of joint prepared by means of soldering
 - (ii) a joint prepared by fastening two edges to each other
 - (iii) Both (i) and (ii)
 - (iv) None of the above

- (g) Oxy-acetylene gas welding is a
- (i) pressure welding technique
 - (ii) non-pressure welding technique
 - (iii) high pressure welding technique
 - (iv) None of the above
2. How are carpentry tools classified ? Name five measuring, five marking and five cutting tools. 14
3. Name five types of patterns. Sketch three types of patterns and explain their working. 14
4. What is a core ? Explain with suitable sketches the working and uses of cores in different types of core boxes. 14
5. How are fitting tools classified ? Discuss the construction, working and uses of the following tools : 14
- (a) Surface plate
 - (b) Try square
6. What is soldering ? How is soldering different from brazing ? What are 'soft' solders and 'hard' solders ? 14

7. What is arc welding ? How are arc welding processes classified ? Describe the submerged arc welding process. 14
8. Define the term heat treatment. Give a list of all heat treatment processes. Discuss the reasons for heat treatment processes. 14