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BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2013

DMET—FOURTH SEMESTER EXAMINATION

FOUNDRY TECHNOLOGY

Time : 3 hours ]

[ Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **three** marks.  
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define the terms 'foundry', 'casting' and 'pattern'.
2. State the advantages and limitations of wood as a pattern material.
3. State the ingredients of core sand.
4. Distinguish between true centrifugal and semicentrifugal castings.
5. State the uses of facing sand, backup sand and parting sand.
6. State the functions of cores.

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7. Draw the neat sketches of Rammers and Trowel and state their uses.
8. List the types of shrinkage and state how it can be compensated.
9. State the functions of a riser.
10. Draw a neat sketch of mold blower.

**PART-B**

Instructions : (1) Answer any five questions.

(2) Each question carries ten marks.

(3) Answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.

11. Explain various pattern allowances.
12. Explain the effects of the following on the properties of moulding sands :
  - (a) Moisture content
  - (b) Clay content
  - (c) Grain size
13. Explain the lost wax process with a neat sketch and state its advantages and limitations.
14. Explain with a neat sketch the operation of sand slinger.
15. (a) Distinguish between laminar flow and turbulent flow.  
(b) State Bernoulli's equation and its applications.