



C16-MET-403

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BOARD DIPLOMA EXAMINATION, (C-16)
OCTOBER—2020
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. List out the basic steps involved in a casting process.

2. State the functions of pattern.

3. Define the term clay and list different clays.

4. State the composition of a core sand.

5. State any two applications and limitations of green sand molding and dry sand molding.

6. State any three differences between hot chamber and cold chamber process.

7. List out the molding machines.

8. Write the uses of vent wire, swab, gate cutter.

9. Define pressurised and unpressurised gating system.

10. State Caine's principle.

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[Contd....

PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. Explain the pattern allowances given below : 3+3+4
(a) Shrinkage allowance
(b) Distortion allowance
(c) Taper allowance
12. Explain the effects of grain size, moisture content and clay content on the properties of moulding sand.
13. State the functions of cores. State the properties and limitations of a core sand. 4+4+2
14. (a) Distinguish between true centrifugal process and semi-centrifugal casting process. 5
(b) Explain the pit and floor molding process. 5
15. Explain the investment casting-lost wax process.
16. Explain the operation of sand slinger with a neat sketch.
17. Describe the following factors :
(a) Modulus (location of riser)
(b) Size and shape of riser involved in riser design
18. List out the various casting defects and explain any three defects with remedial measures. 2+8
