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F 3485 (Pages : 2) **Reg. No**.....

Name.....

SAINTGITS COLLEGE OF ENGINEERING * KOTTAYAM * LIBRARY

B.TECH. DEGREE EXAMINATION, NOVEMBER 2014

Seventh Semester

Branch : Mechanical Engineering

FOUNDRY TECHNOLOGY (Elective–I) [M]

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *questions.*
Each question carries 4 *marks.*

1. What are the pattern allowances ?
2. List the moulding sand properties.
3. Describe directional solidification.
4. What is the use of chills ?
5. Brief "degassing".
6. What is the composition of SG Iron ?
7. What is meant by inoculation ?
8. Sketch a crucible furnace.
9. What is meant by salvaging ?
10. Brief shear testing of casting.

(10 × 4 = 40 marks)

Part B

Answer **all** *questions.*
Each full question carries 12 *marks.*

11. Explain the various requirements of core sand.

Or

12. (i) Explain different pattern types.
    (ii) Explain different pattern materials.
13. Sketch and explain a gating system.

Or

14. Explain riser and its functions.

Turn over

15. What are the composition and properties of SG Iron ?

Or

16. Write a note on white heart and black heart malleable iron.

17. Explain the change calculations in cupola.

Or

18. Explain non-ferrous foundry metallurgy.

19. Explain various non-destructive testing methods.

Or

20. Explain various sand conditioning methods.

(5 × 12 = 60 marks)

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