

Reg. No. : .....

Name : .....

Fifth Semester B.Tech. Degree Examination, November 2015

(2013 Scheme)

13. 506.3(Elective-I) : FOUNDRY TECHNOLOGY(MPU)

Time: 3 Hours

Max. Marks:100

PART-A

Answer all questions

1. Differentiate between green sand mould and dry sand mould.
2. Explain draft allowance.
3. What are the factors affecting the selection of pattern materials.
4. What are core prints
5. Write short note on core baking
6. What are the requirements of core sand.
7. Explain the importance of good gating system in moulding.
8. List out the need for providing risers.
9. Explain about modern trends in cupola
10. Explain CO<sub>2</sub> process.

(10x2=20 Marks)

PART –B

Answer any one question from each module

**Module-I**

- 11 a) Explain the colour codes of pattern and identify the need for colour codes. 8
- b) With neat sketches explain the different types of patterns . 12

OR

- 12 a) What are the basic steps in casting 8
- b) Explain different types of moulding process based upon moulding methods 12

**Module-II**

- 13 a) What are the functions of sand preparation. 8  
b) Explain the steps involved in preparation of sand. 12

OR

- 14 ) Describe any 5 tests conducted on moulding sand. 20

**Module –III**

- 15) a) What are top gates? Explain with neat sketches the different types of top gates. 12  
b) List out the advantages and disadvantages of top gating system. 8

OR

- 16 a) Write short notes on padding and chills. 8  
b) Describe the mechanism of solidification of pure metals and alloys. 12

**Module –IV**

- 17 a) With a neat sketch explain the centrifugal casting process. 10  
b) Explain the step by step procedure of investment casting. 10

OR

- 18 a) With a neat sketch explain the working of Cupola furnace. 10  
b) Explain any two types of moulding machines. 10