

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Winter 2017 - 18 Examination

Semester: 1
Subject Code: 03208102
Subject Name: Advanced Casting Technology

Date: 28/12/2017
Time: 2:00PM to 4:30 PM
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1** A) What is casting? Discuss Pros and Cons of different types of Casting Processes. (05)
B) Classify moulding sands. Explain any three with its application. (05)
C) Define Pattern. List out the different types of pattern and explain any two with neat sketch. (05)

Q.2 Answer the following questions. (Attempt any three) (Each five mark) (15)

- A) Explain the core with its types. Define its important in the manufacturing of cylinder block.
B) Define the characteristics of moulding sand.
C) Discuss about high pressure die casting process with its process parameter.
D) State the difference between CO₂ - Silicate casting and wax casting process

- Q.3** A) Discuss Importance of Pattern allowance. Explain any three of them. (07)
B) Write down about electric arc furnace in detail. (08)

OR

- B) Discuss the process parameter of die casting process. (08)

- Q.4** A) Enlist various parts for gating system with neat sketch. Also mention the important equation for gating system for steel casting. (07)

OR

- A) Enlist the types of centrifugal casting process. Discuss any one of them in details (07)

- B) Explain construction of Cupola furnace with neat sketch. (08)