

Roll No.

www.ululu.in

DEC 2010

Total No. of Questions : 09]

[Total No. of Pages : 02

B. Tech. (Sem. - 3rd)
MANUFACTURING PROCESSES - I
SUBJECT CODE : PE - 209 (2k3 & Onwards)
Paper ID : [A0806]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) Classify the electrodes.
- b) Write down the stages of casting.
- c) What is arc stability?
- d) Write down the reasons of providing shrinkage and machining allowances.
- e) Define directional solidification.
- f) Name the different types of arc welding processes.
- g) Write down the principle of submerged arc welding.
- h) Define modulus of a casting.
- i) Write down the products of die casting, centrifugal casting, shell moulding and full mould casting processes.
- j) Name the different types of furnaces with their field of applications.

www.ululu.in

- Q2)** State the similarities and dissimilarities of casting and welding process.
- Q3)** What are the functions of gating? Write down the steps of gating design.
- Q4)** Explain briefly the principle of gas welding. Also state the advantages and limitations of gas welding.
- Q5)** Explain the term from the point view of welding : arc blow, heat affected zone, soldering.
- Q6)** Name any three moulding sand properties. How these properties are controlled.

Section - C

(2 × 10 = 20)

- Q7)** Explain briefly the principle of resistance welding. Write down the applications of different resistance welding processes. Differentiate between flash and butt welding processes.
- Q8)** Compare centrifugal and continuous casting processes from the point view of method and applications.
- Q9)** Write short notes on :
- (a) Welding defects.
 - (b) Casting defects.

