

# Government College of Engineering, Amravati

Mechanical Engineering Department

**Subject: Manufacturing Processes (MEU 404)**

Time: 1 hr.

**CT - I**

Max Marks 15

Date: 23/ 01/ 2018

04.30 pm

Solve any three of the following

Each question carries equal marks

1. Sketch a cross section through a completed mould and indicate on it the various terms related to it and their functions
2. Discuss briefly various defects which occur in sand castings and state their probable causes and remedies.
3. Why Directional solidification is necessary, and how it helps in the production of sound castings?
4. What are the main characteristics which good moulding sand should possess? How these characteristics influence the performance of moulding sand during moulding and casting?
5. Write short notes on the following, giving suitable sketches wherever necessary
  - a. Cope and drag pattern
  - b. Sweep pattern
  - c. Segmental pattern
  - d. Follow board pattern
  - e. Directional solidification

# Government College of Engineering, Amravati

## Mechanical Engineering Department

### Subject: Manufacturing Processes (MEU 404) CT - I

Time: 1 hr.

Max Marks 15

Date: 24/ 01/ 2017

04.30 pm

Solve any three of the following

Each question carries equal marks

1. Write a short note on following :
  - a. Use of padding
  - b. Use of exothermic material
  - c. Use of chills to help proper directional solidification
2. Discuss briefly various defects which occur in sand castings and state their probable causes and remedies.
3. What are the main characteristics which good moulding sand should possess? How these characteristics influence the performance of moulding sand during moulding and casting?
4. What are the common methods used for cleaning the surface of the casting?
5. Write short notes on the following, giving suitable sketches wherever necessary
  - a. Cope and drag pattern
  - b. Sweep pattern
  - c. Segmental pattern
  - d. Follow board pattern
  - e. Directional solidification



**Government College of Engineering, Amravati****Mechanical Engineering Department****Subject: Manufacturing Processes (MEU 404) CT - I**

Time: 1 hr.

Max Marks 15

Date: 29/ 01/ 2016

04.30 pm

Solve any three of the following  
Each question carries equal marks

1. Why Directional solidification is necessary, and how it helps in the production of sound castings?
2. Describe the following plastic processing methods with the help of neat sketches :
  - a. Compression moulding
  - b. Transfer moulding
3. What are the main characteristics which good moulding sand should possess? How these characteristics influence the performance of moulding sand during moulding and casting?
4. Define
  - a. Skin dried mould
  - b. Air dried mould
  - c. Cement bonded sand mould
  - d. Plaster mould
  - e. CO<sub>2</sub> mould
5. Discuss briefly various defects which occur in sand castings and state their probable causes and remedies.

# **Government College of Engineering, Amravati**

## **Mechanical Engineering Department**

### **Subject: Manufacturing Processes (MEU 404)**

*Time: 1 hr.*

*Max Marks 15*

*Date: 24/ 01/ 2014*

*04.30 pm*

**Solve any three of the following**

**Each question carries equal marks**

1. Sketch a cross section through a completed mould and indicate on it the various terms related to it and their functions
2. Why Directional solidification is necessary, and how it helps in the production of sound castings?
3. What are the main characteristics which good moulding sand should possess? How these characteristics influence the performance of moulding sand during moulding and casting?
4. write short notes on the following, giving suitable sketches wherever necessary
  - a. Cope and drag pattern
  - b. Sweep pattern
  - c. Segmental pattern
  - d. Follow board pattern
5. Discuss briefly various defects which occur in sand castings and state their probable causes and remedies.