

Code No: RR310301

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SET-1

B. Tech III Year I Semester Examinations, December-2011

**PRODUCTION TECHNOLOGY
(MECHANICAL ENGINEERING)**

Time: 3 hours

Max. Marks: 80

**Answer any five questions
All questions carry equal marks**

- 1.a) List out different types of patterns.
- b) What are the basic requirements of the moulding sand in order to achieve a fine finished casting? [8+8]
2. Briefly describe the Cupola furnace. Describe the other operations and zones related to the melting of metals in Cupola furnace. [16]
3. What is the purpose of gate in foundry? How the gates are classified. Illustrate with the help of diagrams? [16]
- 4.a) What are the different types of welded joints?
- b) Classify the welding process and describe the characteristics of groove and fillet weld. [7+8]
5. How resistance welding is performed? Describe various resistance welding processes in detail. [16]
- 6.a) What are the various welding defects? Explain its causes and remedies.
- b) List out the differences between TIG Welding and MIG welding with the help of diagrams and its applications. [7+8]
- 7.a) List the differences between hot working and cold working?
- b) Describe the different stages of recovery, recrystallization and grain growth. [7+8]
- 8.a) Classify and explain all the estimation processes and sub-processes.
- b) How the forging defect can be minimized? [7+8]

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SET-2

B. Tech III Year I Semester Examinations, December-2011

PRODUCTION TECHNOLOGY

(MECHANICAL ENGINEERING)

Time: 3 hours

Max. Marks: 80

Answer any five questions

All questions carry equal marks

1. What is the purpose of gate in foundry? How the gates are classified. Illustrate with the help of diagrams? [16]
- 2.a) What are the different types of welded joints?
b) Classify the welding process and describe the characteristics of groove and fillet weld. [7+8]
3. How resistance welding is performed? Describe various resistance welding processes in detail. [16]
- 4.a) What are the various welding defects? Explain its causes and remedies.
b) List out the differences between TIG Welding and MIG welding with the help of diagrams and its applications. [7+8]
- 5.a) List the differences between hot working and cold working?
b) Describe the different stages of recovery, recrystallization and grain growth. [7+8]
- 6.a) Classify and explain all the estimation processes and sub-processes.
b) How the forging defect can be minimized? [7+8]
- 7.a) List out different types of patterns.
b) What are the basic requirements of the moulding sand in order to achieve a fine finished casting? [8+8]
8. Briefly describe the Cupola furnace. Describe the other operations and zones related to the melting of metals in Cupola furnace. [16]

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SET-3

B. Tech III Year I Semester Examinations, December-2011
PRODUCTION TECHNOLOGY
(MECHANICAL ENGINEERING)

Time: 3 hours

Max. Marks: 80

Answer any five questions
All questions carry equal marks

1. How resistance welding is performed? Describe various resistance welding processes in detail. [16]
- 2.a) What are the various welding defects? Explain its causes and remedies.
b) List out the differences between TIG Welding and MIG welding with the help of diagrams and its applications. [7+8]
- 3.a) List the differences between hot working and cold working?
b) Describe the different stages of recovery, recrystallization and grain growth. [7+8]
- 4.a) Classify and explain all the estimation processes and sub-processes.
b) How the forging defect can be minimized? [7+8]
- 5.a) List out different types of patterns.
b) What are the basic requirements of the moulding sand in order to achieve a fine finished casting? [8+8]
6. Briefly describe the Cupola furnace. Describe the other operations and zones related to the melting of metals in Cupola furnace. [16]
7. What is the purpose of gate in foundry? How the gates are classified. Illustrate with the help of diagrams? [16]
- 8.a) What are the different types of welded joints?
b) Classify the welding process and describe the characteristics of groove and fillet weld. [7+8]

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SET-4

B. Tech III Year I Semester Examinations, December-2011

PRODUCTION TECHNOLOGY

(MECHANICAL ENGINEERING)

Time: 3 hours

Max. Marks: 80

Answer any five questions

All questions carry equal marks

- 1.a) List the differences between hot working and cold working?
- b) Describe the different stages of recovery, recrystallization and grain growth. [7+8]
- 2.a) Classify and explain all the estimation processes and sub-processes.
- b) How the forging defect can be minimized? [7+8]
- 3.a) List out different types of patterns.
- b) What are the basic requirements of the moulding sand in order to achieve a fine finished casting? [8+8]
4. Briefly describe the Cupola furnace. Describe the other operations and zones related to the melting of metals in Cupola furnace. [16]
5. What is the purpose of gate in foundry? How the gates are classified. Illustrate with the help of diagrams? [16]
- 6.a) What are the different types of welded joints?
- b) Classify the welding process and describe the characteristics of groove and fillet weld. [7+8]
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- b) List out the differences between TIG Welding and MIG welding with the help of diagrams and its applications. [7+8]

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