Code.No: **RR310301** | RR | SET-1

III B.TECH – I SEM EXAMINATIONS, NOVEMBER – 2010
PRODUCTION TECHNOLOGY
(MECHANICAL ENGINEERING)

Time: 3hours **Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks
- - -

1.a) With the help of neat sketch write down the sequence of steps in casting.
b) i) Explain various methods of melting casting.
ii) Write briefly about types of defects in castings. [8+8]

2.a) How the die casting process is classified and state the advantages and disadvantages of each process.
b) i) What are the principle requirements of a gating system in casting.
ii) Explain various stages of solidification of casting. [8+8]

3.a) What is the difference between 'solid state welding' and 'Liquid phase welding'
b) Write down the principle of operation for i) Arc welding and ii)Gas welding. [8+8]

4. With the help of neat diagrams explain the following welding processes. [16]
i) MIG welding ii) Explosive welding iii) Laser welding.

5.a) Differentiate soldering and brazing and explain the effect of HAZ in determining the weld quality.
b) What are the various weld defects and suggest suitable remedies for these defects. [8+8]

6.a) Differentiate between hot working and cold working and what is recrystallisation process.
b) What is bending operation, derive the expression for finding the minimum bend radius. [8+8]

7.a) Explain basic extrusion process and differentiate between forward extrusion and backward extrusion.
b) How tubes are manufactured through extrusion and explain various forces involved in it. [8+8]

8.a) Define forge ability and various forging methods.
b) Write short note on
i) Forging hammers ii) Forces in forging. [8+8]

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Code.No: **RR310301** | RR | SET-2

III B.TECH – I SEM EXAMINATIONS, NOVEMBER – 2010
PRODUCTION TECHNOLOGY
(MECHANICAL ENGINEERING)

Time: 3hours **Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks
- - -

1.a) What is the difference between 'solid state welding' and 'Liquid phase welding'
b) Write down the principle of operation for i) Arc welding and ii)Gas welding. [8+8]

2. With the help of neat diagrams explain the following welding processes. [16]
i) MIG welding ii) Explosive welding iii) Laser welding.

3.a) Differentiate soldering and brazing and explain the effect of HAZ in determining the weld quality.
b) What are the various weld defects and suggest suitable remedies for these defects. [8+8]

4.a) Differentiate between hot working and cold working and what is recrystallisation process.
b) What is bending operation, derive the expression for finding the minimum bend radius. [8+8]

5.a) Explain basic extrusion process and differentiate between forward extrusion and backward extrusion.
b) How tubes are manufactured through extrusion and explain various forces involved in it. [8+8]

6.a) Define forge ability and various forging methods.
b) Write short note on
i) Forging hammers ii) Forces in forging. [8+8]

7.a) With the help of neat sketch write down the sequence of steps in casting.
b) i) Explain various methods of melting casting.
ii) Write briefly about types of defects in castings. [8+8]

8.a) How the die casting process is classified and state the advantages and disadvantages of each process.
b) i) What are the principle requirements of a gating system in casting.
ii) Explain various stages of solidification of casting. [8+8]

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Code.No: **RR310301** | RR | SET-3

III B.TECH – I SEM EXAMINATIONS, NOVEMBER – 2010
PRODUCTION TECHNOLOGY
(MECHANICAL ENGINEERING)

Time: 3hours **Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks
- - -

1.a) Differentiate soldering and brazing and explain the effect of HAZ in determining the weld quality.
b) What are the various weld defects and suggest suitable remedies for these defects. [8+8]

2.a) Differentiate between hot working and cold working and what is recrystallisation process.
b) What is bending operation, derive the expression for finding the minimum bend radius. [8+8]

3.a) Explain basic extrusion process and differentiate between forward extrusion and backward extrusion.
b) How tubes are manufactured through extrusion and explain various forces involved in it. [8+8]

4.a) Define forge ability and various forging methods.
b) Write short note on
i) Forging hammers ii) Forces in forging. [8+8]

5.a) With the help of neat sketch write down the sequence of steps in casting.
b) i) Explain various methods of melting casting.
ii) Write briefly about types of defects in castings. [8+8]

6.a) How the die casting process is classified and state the advantages and disadvantages of each process.
b) i) What are the principle requirements of a gating system in casting.
ii) Explain various stages of solidification of casting. [8+8]

7.a) What is the difference between 'solid state welding' and 'Liquid phase welding'
b) Write down the principle of operation for i) Arc welding and ii)Gas welding. [8+8]

8. With the help of neat diagrams explain the following welding processes. [16]
i) MIG welding ii) Explosive welding iii) Laser welding.

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Code.No: **RR310301** | RR | SET-4

III B.TECH – I SEM EXAMINATIONS, NOVEMBER – 2010
PRODUCTION TECHNOLOGY
(MECHANICAL ENGINEERING)

Time: 3hours **Max.Marks:80**

Answer any FIVE questions
All questions carry equal marks
- - -

1.a) Explain basic extrusion process and differentiate between forward extrusion and backward extrusion.
b) How tubes are manufactured through extrusion and explain various forces involved in it. [8+8]

2.a) Define forge ability and various forging methods.
b) Write short note on
i) Forging hammers ii) Forces in forging. [8+8]

3.a) With the help of neat sketch write down the sequence of steps in casting.
b) i) Explain various methods of melting casting.
ii) Write briefly about types of defects in castings. [8+8]

4.a) How the die casting process is classified and state the advantages and disadvantages of each process.
b) i) What are the principle requirements of a gating system in casting.
ii) Explain various stages of solidification of casting. [8+8]

5.a) What is the difference between 'solid state welding' and 'Liquid phase welding'
b) Write down the principle of operation for i) Arc welding and ii)Gas welding. [8+8]

6. With the help of neat diagrams explain the following welding processes. [16]
i) MIG welding ii) Explosive welding iii) Laser welding.

7.a) Differentiate soldering and brazing and explain the effect of HAZ in determining the weld quality.
b) What are the various weld defects and suggest suitable remedies for these defects. [8+8]

8.a) Differentiate between hot working and cold working and what is recrystallisation process.
b) What is bending operation, derive the expression for finding the minimum bend radius. [8+8]

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