

xiv) Describe the function of squeeze role.

xv) Define laminated sheets. Give any 4 applications of them.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Explain embossing process and coining process with their applications.

Q.4 Explain different causes, effects and remedies of various defects in pipe manufacturing.

Q.5 Give specifications and compositions of different grades of steel.

Q.6 Write short note on :

a) Shape rolling process.

b) Gear rolling process.

Q.7 Describe the effects of different mechanical properties of materials on rolling process.

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Roll No.

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6th Sem. / (Mech. Metallurgy)

Subject : Special Manufacturing Processes

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Define thermo mechanical treatment.

b) What are concast products?

c) What is Coil forming?

d) Write the steps of produce wheel.

e) What do you mean by transformer grade steel?

f) What is shape rolling?

g) Define tube.

h) What is stringer inclusion?

i) Define the structural shapes.

(40)

(4)

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- j) What is fretz-moon process of pipe manufacturing?
- k) What is flanging?
- l) Define lancing process.
- m) What is the purpose of colour coatings?
- n) Define hydrostatic extrusion.
- o) What is Ring rolling?
- p) How cross rolling is done while manufacturing pipes?
- q) Explain the purpose of epoxy coating.
- r) What do you mean by skelp?

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) What is the purpose of pickling process in rolling? Explain.
 - ii) Differentiate between a pipe and a tube.

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- iii) What are super plastic forming processes? Explain.
- iv) Write the application areas where the rolling processes are preferred to casting process and why?
- v) Explain wrought structures. How these are produced and used?
- vi) Explain spiral tube forming process.
- vii) Explain isotropic structures with examples.
- viii) Describe the advantages of upsetting process.
- ix) Explain hemming process with block diagram.
- x) What is the method of manufacturing pipes by welding? Explain.
- xi) Define neutral point in rolling. Explain its importance.
- xii) Sketch and explain the ring rolling equipment.
- xiii) Explain the step by step hemming process with block diagram.

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