

SECTION-C

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

- Q.3 What are pyrometallurgical processes? Explain any two such processes?
- Q.4 Explain Hydro metallurgy in detail? Also mention its advantages and disadvantages?
- Q.5 Explain electrometallurgy in detail? Also explain basic arrangement in electrolysis?
- Q.6 Explain various dressing techniques and operations?
- Q.7 Write a short note on any two
- i) Ladle refining
 - ii) Leaching reagent
 - iii) Roasting

No. of Printed Pages : 4

Roll No.

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2nd Year / Mechanical Metallurgy

Subject : Principle of Metallurgical Processes

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1
- a) List some benefits of ores.
 - b) Name any two anti-corrosive metals?
 - c) Define leaching?
 - d) What is the percentage of carbon in steel?
 - e) Define electrolysis?
 - f) What is roasting?
 - g) Name any two type of furnances?
 - h) List two advantages of hydrometallurgy?
 - i) Define Faraday's law

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- j) Name ore of iron
- k) Define smelting
- l) Define hydrometallurgy
- m) Define flux..
- n) Name the furnace used for manufacturing steel?
- o) What is electrolytic media?
- p) Define mineral processing?
- q) What is leaching reagents?
- r) Name any two electrolytic media?

SECTION-B

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

- Q.2
- i) Explain in brief applications of Hydro metallurgical processes of zine metallurgy?
 - ii) What is flux? Also explain brief fire refining fluxes?

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- iii) Explain various types of furnances commonly used?
- iv) Define mineral processing? Give name of different metallic ore in India?
- v) Explain Faraday's law of electrolysis?
- vi) Explain copper smelting process
- vii) Give some advantages and disadvantages of Hydormetallurgy?
- viii) Define electrolytic media? Name any two electrolytic media commonly used?
- ix) Give roles and benefits of ores in mineral processing?
- x) Write a short note on potential and exploitation of metallic ores in India?
- xi) Write a short note on kinetics of leaching?
- xii) Explain hearth furnace in brief.
- xiii) Explain leaching reagents in brief.
- xiv) What is drying calcination?
- xv) Explain basic arrangement in electrolysis process?

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