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C16-MET-405

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BOARD DIPLOMA EXAMINATION, (C-16)
OCTOBER—2020
D.MET—FOURTH SEMESTER EXAMINATION
STEEL MAKING

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer all questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Write any three disadvantages of crucible process.
2. List the main parts of open heart furnace.
3. Draw the cross section of an oxygen lance.
4. State the principle of arc furnace.
5. List the different degassing process.
6. State the objectives of secondary steel making.
7. List the ingot defects.
8. State the purpose of using ferro alloys in steel making.
9. Mention the advantages of using pure oxygen in steel making.
10. List the disadvantages of electric arc furnace.

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PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. Explain the acid bessemer process with chemistry and with a legible sketch.
12. Explain the chemistry of basic open hearth process.
13. Explain the operation of LD process with chemical reactions.
14. Explain the stainless steel making by electric arc furnace (Rustless process).
15. Explain R-H degassing process.
16. Explain A.O.D. process of steel making.
17. Explain the curved mould horizontal discharge type of continuous casting machine with legible sketch.
18. Explain the manufacturing process of ferro-silicon.
