

**VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)**

**Department of Foundry Technology (B.VOC.)**

**Course Outcomes (CO)**

**Advance Diploma in Foundry Technology (B.Voc. II)**

<b>B.Voc Part II Sem IV</b>	<b>Course Name : FUNDAMENTALS OF FINANCIAL ACCOUNTING-I</b>
CO1	Perform the basic accounting functions.
CO2	Perform the journal entries and leaguer accounts.
CO3	Use various meaning methods effectively.
CO4	Prepare Final Accounts of Sole Traders and partnership firms.
<b>B.Voc Part II Sem III</b>	<b>Course Name : Physical Metallurgy-I</b>
CO1	Understand crystallography completely.
CO2	Draw equilibrium diagram using cooling curves.
CO3	Identifying types of Phases.
CO4	Study effect of alloying elements on Iron- Iron Carbide Diagram
<b>B.Voc Part II Sem III</b>	<b>Course Name : Machine Drawing</b>
CO1	Know conventional representation of engineering materials, components.
CO2	Methods of dimensioning, symbolic representation of welds and surface finish.
CO3	Sketch various machine components like thread, nuts, bolts, washers, flange, gear drives etc.
CO4	Understand the concept of various tolerances and fits used for component design.
<b>B.Voc Part II Sem III</b>	<b>Course Name : Fuels, Furnaces and Refractories.</b>
CO1	Solve calorific value, speed and combustion problems
CO2	Select type of furnace required based on heating method and Refractories used.
CO3	Select type of fuel according to furnace and Refractories used.
CO4	Know uses of Refractories according to their need in foundry industries.

<b>B.Voc Part II Sem III</b>	<b>Course Name : Iron Casting Production</b>
CO1	Identify type of cast iron.
CO2	Select Charges, melting units for manufacturing various grades and types of cast iron.
CO3	Recommend the appropriate design of gating systems.
CO4	Identify/Control possible defects of manufacturing process, so as to remove them.

<b>B.Voc Part II Sem IV</b>	<b>FUNDAMENTALS OF FINANCIAL ACCOUNTING-II</b>
CO1	Know importance and utilization of computerized accounting system.
CO2	Create company group, ledger accounts, feeding of accounting, data receipts.
CO3	Prepare income and expenditure account and balance sheets
CO4	Convert single entry system into double entry system.

<b>B.Voc Part II Sem IV</b>	<b>Course Name : Physical Metallurgy- II</b>
CO1	Acquire the skills of selecting and designing appropriate heat treatments for microstructure control and property optimization.
CO2	Understand/ Predict the behavior of metallic material and their effect on their properties
CO3	Behavior of a metallic material to a certain application.
CO4	Select heat treatment furnaces according to their required operations

<b>B.Voc Part II Sem IV</b>	<b>Course Name : Steel Casting Production</b>
CO1	Identify type of Steel.
CO2	Select Charges, melting units for manufacturing various grades and types of Steel.
CO3	Recommend the appropriate design of gating systems.
CO4	Identify/Control possible defects of manufacturing process, so as to remove them.

<b>B.Voc Part II Sem IV</b>	<b>Course Name : Non-Ferrous Casting Production</b>
CO1	Identify uses of aluminum, magnesium, copper and zinc.
CO2	Calculate charge calculations, hardeners; oxidation and gas absorption in non ferrous alloys
CO3	Design gating and feeding practices for non ferrous alloys.

CO4	Defect analysis, salvaging of non-ferrous alloy castings.
<b>B.Voc Part II Sem IV</b>	<b>Course Name : Testing and Inspection Techniques</b>
CO1	Take tests like tensile, compression, hardness and impact
CO2	Perform visual inspection, radiography, ultrasonic, magnetic particle, eddy current, dye Penetrant
CO3	Perform Optical metallography techniques
CO4	Perform Optical emission spectrometer

*S. Khan*

**HEAD**

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