

Discipline: <b>Metallurgical Engineering</b>	Semester: <b>3<sup>rd</sup> Semester</b>	Name of the Teaching Faculty: <b>Er. Tushar Das Pattanayak</b>
Subject: <b>EM &amp; ST (TH1)</b>	No of days /week class allotted: <b>04</b>	Semester from Date: 05-10-2021 to 28-01-2022

Month	week	Class Day	Theory topics
Oct	2nd	1st	Concept /Meaning of Entrepreneurship , Concept /Meaning of Entrepreneurship Barriers in entrepreneurship
		2nd	Types of entrepreneur, Need of Entrepreneurship, Entrepreneur v/s manager
		3rd	Characteristics, Qualities ,Functions of entrepreneur
		4th	Forms of business ownership (sole proprietor ship)
	3rd	1st	Forms of business ownership(partnership business)
		2nd	Forms of business ownership (types of partner, Joint Hindu Family business)
		3rd	Forms of business ownership(co-operative society ,joint stock company)
		4th	Types of Industries, Concept of Start-ups
	4th	1st	Entrepreneurial support agencies at National, State, District Level( Sources): DIC, NSIC,OSIC, SIDBI, NABARD, Commercial Banks, KVIC etc. Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks, <b>REVISION</b>
		2nd	Business Planning ,SSI, Ancillary Units
		3rd	Tiny Units, Service sector Units
		4th	Time schedule Plan, Agencies to be contacted for Project Implementation
	5th	1st	Assessment of Demand and supply and Potential areas of Growth
		2nd	Identifying Business Opportunity Final Product selection, <b>REVISION</b>
		3rd	Preliminary project report, Detailed project report
		4th	Techno economic Feasibility,
Nov	1st	1st	Project Viability, <b>REVISION</b>
	2nd	1st	Definitions of management, Principles of management , Functions of management (planning, organizing, staffing, directing and controlling etc.),
		2nd	Level of Management in an Organization <b>REVISION</b>
		3rd	a) Production management ☐ Functions, Activities ☐ Productivity
	3rd	1st	☐ Quality control ☐ Production Planning and control
		2nd	b) Inventory Management ☐
		3rd	Need for Inventory management ☐ Models/Techniques of Inventory management
		4th	c) Financial Management ☐ Functions of Financial management ☐ Management of Working capital

	4th	1st	? Costing (only concept) ? Break even Analysis
		2nd	? ? Brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book, P&L Accounts, Balance Sheets(only Concepts) d) Marketing Management ? Concept of Marketing and Marketing Management
		3rd	? Marketing Techniques (only concepts) ? Concept of 4P s (Price, Place, Product, Promotion)
		4th	e) Human Resource Management ? Functions of Personnel Management
	5th	1st	? Manpower Planning, Recruitment, Sources of manpower, Selection process, Method of Testing, Methods of Training & Development, Payment of Wages <b>REVISION</b>
		2nd	a) Leadership, Definition and Need/Importance,
Dec	1st	1st	Qualities and functions of a leader
	3rd	1st	Manager Vs Leader
		2nd	Style of Leadership (Autocratic, Democratic, Participative)
		3rd	b) Motivation, Definition and characteristics,
		4th	Importance of motivation, Factors affecting motivation,
	4th	1st	Theories of motivation (Maslow))
		2nd	Methods of Improving Motivation
		3rd	, Importance of Communication in Business, Types and Barriers of Communication <b>REVISION</b>
		4th	Human relationship and Performance in Organization,
	5th	1st	Relations with Peers, Superiors and Subordinates
		2nd	TQM concepts: Quality Policy,
		3rd	Quality Management, Quality system
		4th	, Accidents and Safety, Cause, preventive measures
	1st	1st	, General Safety Rules , Personal Protection Equipment(PPE) <b>REVISION</b>
		2nd	a) Intellectual Property Rights(IPR), Patents, Trademarks, Copyrights
		3rd	b) Features of Factories Act 1948 with Amendment (only salient points
	3rd	1st	c) Features of Payment of Wages Act 1936 (only salient points)
		2nd	<b>REVISION</b>
		3rd	Concept of IOT,

Jan		4th	, How IOT works Components of IOT
	2nd	1st	, Characteristics of IOT,
		2nd	Categories of IOT Applications of IOT- Smart Cities, Smart Transportation
		3rd	Smart Home,
		4th	Smart Healthcare,
	3rd	1st	Smart Industry,
		2nd	Smart Agriculture, Smart Energy Management etc.
		3rd	<b>FINAL REVISION</b>
		4th	<b>FINAL REVISION</b>
	4th	1st	<b>FINAL REVISION</b>
		2nd	<b>FINAL REVISION</b>