

GOVERNMENT POLYTECHNIC COLLEGE, KOTA (RAJ.)

SYLLABUS BREAK-UP (SESSION 2015-16)

SUBJECT C **EE 210**

SUBJECT NAME : **ENTREPRENEURSHIP AND MANAGEMENT**

FACULTY N **Hitendra Kumar Sharma**

DESIGNATION : **Sr. Lecturer(Elecrical)**

TOPIC	LECTURE / PRACTICAL CLASSES REQUIRED TO COVER TOPIC	MONTHS IN WHICH THE TOPIC WILL BE COVERED	ACTUAL DATE OF COVERING OF THE TOPIC	REASON FOR NOT COVERING THE TOPIC IN DUE TIME	E-CONTENTS PROVIDED TO STUDENTS RELATED TO TOPIC
Principles of					
Management,	1	Aug-15			
Scientific management :	1	Aug-15			
Types of ownership,	1	Aug-15			
Types of organisation,	1	Aug-15			
Importance of human	1	Sep-15			
Entrepreneurship :					
Role of entrepreneurship	1	Sep-15			
New industrial	1	Sep-15			
Product identification/	1	Sep-15			
Institutional support	1	Sep-15			
Entrepreneurship					
Role of District	1	Sep-15			
Function of NSIC, SISI,	2	Sep-15			
Role of state finance	1	Oct-15			
Setting up SSI :					
Registration of	1	Oct-15			
Structure of	1	Oct-15			
Raw Material	1	Oct-15			
Allotment of iron and	1	Oct-15			
Allotment of other	1	Oct-15			
Allotment of imported	1	Oct-15			
Marketing Facilities :					
	1	Oct-15			
Supply of product to	1	Oct-15			
Participation in	1	Nov-15			
Quality consciousness	1	Nov-15			
Financial Sources for					
Various institutions providing loans for industries, Various types of loans Subsidies	1	Nov-15			
Contracts and Tenders :					
Type of contracts, Necessity of contract and	1	Nov-15			
Tendering procedure	1	Nov-15			
Project Report :					
Procedure of preparing a	1	Nov-15			

Preparation of project	1	Nov-15		
ISO : 9000 Series of				
Definition of few	1	Nov-15		
Various models for	1	Nov-15		
Various elements of ISO	1	Dec-15		
Benefits by becoming an	1	Dec-15		
Human Resources				
Introduction, object and	1	Dec-15		
Recruitment, sources	1	Dec-15		
Wages and Incentives :				
Definition and	1	Jan-16		
Wage incentives - type	1	Jan-16		
Marketing Management				
Concept of	1	Jan-16		
Distribution channels	1	Jan-16		
Tax System and				
Idea of income tax, sales	1	Jan-16		
Industrial and fire	1	Jan-16		
Labour Legislation and	1	Jan-16		
Industrial acts : factory	1	Jan-16		
Apprentices act	1	Feb-16		
Water pollution contract	1	Feb-16		
Environmental	2	Feb-16		
Revision	14	Feb-mar-16		

GOVERNMENT POLYTECHNIC COLLEGE, KOTA (RAJ.)

SYLLABUS BREAK-UP (SESSION 2015-16)

SUBJECT CODE : **EE310**

SUBJECT NAME : **Energy management**

FACULTY NAME : **Hitendra kumar Sharma**

DESIGNATION : **Sr. Lecturer.(Electrical)**

TOPIC	LECTURE / PRACTICAL CLASSES REQUIRED TO COVER TOPIC	MONTHS IN WHICH THE TOPIC WILL BE COVERED	ACTUAL DATE OF COVERING OF THE TOPIC	REASON FOR NOT COVERING THE TOPIC IN DUE TIME	E-CONTENTS PROVIDED TO STUDENTS RELATED TO TOPIC
Energy Management and Energy Planning :					
Definitions and Significance, Energy Strategy, Energy Policy and Energy Planning	1	Aug-15			
Two Sides of Energy Management, Sectors of Supply Side Energy Management	1	Aug-15			
Objectives of Energy Management, Hierarchical Levels of Supply Side Energy Management	2	Aug-15			
Trade-off between Energy and Environment, Finery- and Energy Planning	1	Sep-15			
Energy and Economy, Essential Imperatives and Steps in Supply Side Energy Planning	1	Sep-15			
Energy Planning Flow for Supply Side, Essential Data for Supply-side Energy Planning, Per Capita Energy Consumption	1	Sep-15			
Essential Imperatives and Steps in User Side Energy Planning	1	Sep-15			
Energy Management and Control Systems (EMCs or EMS) for Demand Side	1	Sep-15			
Energy Management in End-User Plan, Seven Principles of Energy Management, Energy Policy of a Supply Organization and Demand Side Organization	2	Sep-15			
Energy Policy of a Demand Side Organization (Energy Consumer), Organization for Energy Management	2	Sep-15			
Energy and Power Management :					
Overview of India's Energy and Power Sector, National Energy Strategies of India, National Energy Strategies of India	1	Sep-15			
Primary Energy Sources for Power Generation and Electric Power Sector Planning in India	1	Oct-15			

India's Nonconventional, Renewable and Alternate Energy Planning, Rural Electrification Programs in India	1	Oct-15			
Economic Reforms in Energy and Power Sector, Energy Consumption Trends in India, Integrated Estimates	1	Oct-15			
Energy Conservation Measures under 9th Five Year Plan, Per Capita Availability of Commercial Energy Resources, Reserve to Production Ratio (R/P)	2	Oct-15			
Per Capita Availability of Commercial Energy Resources, Reserve to Production Ratio (R/P)	1	Oct-15			
Energy Audit :					
Aim of Energy Audit, Energy flow diagram, Strategy of Energy Audit	1	Oct-15			
Comparison with Standards, Energy Management Team, Considerations in Implementing Energy Conservation programmes	1	Oct-15			
Periodic progress review, Instruments for energy audit, Energy Audit of illumination system	2	Oct-15			
Energy audit of electrical system, Energy audit of Heating, ventilation and Air conditioning systems	2	Nov-15			
Energy audit of compressed air system, Energy audit of buildings, Energy Audit of steam Generation, Distribution and utilization system, Economic analysis	2	Nov-15			
Energy Conversation :					
Introduction, Motivation for Energy Conservation, Principles of Energy Conservation	1	Nov-15			
Energy Conservation planning, Energy Conservation in following sectors Industries, Electrical Generation, Transmission and distribution	2	Nov-15			
Household and commercial sectors, Transport, Agriculture	1	Nov-15			
Energy Conservation Legislation,	1	Nov-15			
Environmental Aspects of Energy and Pollution Control :					
Introduction, Motivation for Energy Conservation, Principles of Energy Conservation	1	Dec-15			

Terms and Definitions,Pollution from use of energy,Combustion products of fossil fuels	1	Dec-15			
Particulate matter,Fabric filter and Baghouse,Electro-static precipitator (ESP),Carbon Dioxide	2	Dec-15			
Green house effect and Global warming,Emission of Carbon Monoxide	2	Dec-15			
Pollution by Sulphur dioxide (SO ₂) and Hydrogen Sulphide H ₂ S	1	Jan-16			
Emission of Nitrogn Oxides,Acide Rains, Acid Snow, Acidic Fog and Dry Acidic Deposits,Acid Fog	2	Jan-16			
Dry Acidic Deposition,FGD and SCR Systems of Cleaning Flue Gases	2	Jan-16			
Energy and Sustainable Development :					
Introduction,Motivation for Energy Conservation,Principles of Energy Conservation,Energy problems	2	Jan-16			
Energy use trends in Developing countries,Prospects of changes in Energy supply,Agenda for Sustainable development	2	Jan-16			
Revision	12	Mar-16			

GOVERNMENT POLYTECHNIC COLLEGE, KOTA (RAJ.)

SYLLABUS BREAK-UP (SESSION 2015-16)

SUBJECT CODE : **EE304**

SUBJECT NAME : **ELECTRICAL DESIGN AND DRAWING**

FACULTY NAME : **Hitendra kumar Sharma**

DESIGNATION : **SR LECTURER**

TOPIC	LECTURE / PRACTICAL CLASSES REQUIRED TO COVER TOPIC	MONTHS IN WHICH THE TOPIC WILL BE COVERED	ACTUAL DATE OF COVERING OF THE TOPIC	REASON FOR NOT COVERING THE TOPIC IN DUE TIME	E-CONTENTS PROVIDED TO STUDENTS RELATED TO TOPIC
Transformer Design :					
Single phase and three-phase core type distribution transformer	1	Aug-15			
Single phase shell type transformer	2	Aug-15			
Output equation	1	Aug-15			
Main dimension of frame	2	Sep-15			
Core design and winding design	2	Sep-15			
Design of Winding :					
Definition of -Single and double layer winding	2	Sep-15			
Full pitch and short pitch winding	1	Sep-15			
Integral and fractional winding	1	Oct-15			
Developed winding diagrams of single phase and three-phase induction motors	2	Oct-15			
Developed winding diagrams of alternators	2	Oct-15			
D.C. Machine Design :					
Choice of specific magnetic and specific electric loading	1	Oct-15			
Output equation (Armature Design)	2	Oct-15			
Calculation of main dimensions, Output coefficients	2	Nov-15			
Choice of number of poles, Design of shunt field winding	1	Nov-15			
3-Phase Induction Motor Design :					
4.1 Choice of specific magnetic and specific electric loading	1	Nov-15			
4.2 Output equations	1	Nov-15			
4.3 Calculation of main dimensions	2	Nov-15			
4.4 Relation between D and L	1	Nov-15			
4.5 Effect of length of air gap on motor performance	1	Dec-15			
4.6 Calculation of no load current	2	Dec-15			

Simple Alarm and Signal Circuits :						
Using contactors, designing and drawing schematic and wiring diagrams of alarm and signal circuits. Circuits should involve use of switches, push buttons, bells, indicating light which are used in offices, hospitals, hotels and buses etc.	4	Jan-16				
Contactor Control Circuits :						
The circuit should incorporate remote control, interlocking,	1	Jan-16				
D.O.L starter,Star-Delta starter,Rotor resistance and reversing starters.	2	Jan-16				
Contactor control schematic and wiring diagram for speed reversing of motors.	1	Jan-16				
Contactor control schematic and wiring diagram for fast and slow speeds of motors.	1	Jan-16				
Contactor control schematic and wiring diagram of sequential operation of motors.	1	Feb-16				
Control of pump motor with water level indicators.	1	Feb-16				
panel wiring diagram for the following with usual protective devices and showing the various equipment with suitable ranges -Synchronization and parallel operation of 3-phase alternators	2	Feb-16				
A.C. 3-phase squirrel cage induction motor.A.C. 3-phase slip ring induction motor.	2	Feb-16				
Parallel operation of three phase transformers,D.C. compound generator	1	Feb-16				
Parallel operation of D.C. compound generators	1	Feb-16				
Revision	12	Mar-16				