

# GOVERNMENT POLYTECHNIC KORAPUT

## Th1.ENTREPRENEURSHIPANDMANAGEMENT &SMARTTECHNOLOGY

NameoftheCourse: DiplomainElectricalEngineering		date-01/08/2023 to-	
Faculty: MaheshKumarBiswal			
Course code:	Th1	Semester	5 <sup>th</sup>
Total Period:	60	Examination	3hrs
Theory periods:	4P/week	Internal Assessment:	20
Maximum marks:	100	End Semester Examination:	80

### DEPARTMENT OF ELECTRICAL

#### Vision: -

To create competent and industry ready Electrical diploma engineers with professional and social values to meet future challenges.

#### Mission: -

- To prepare diploma holders through "qualitative competency-based education system" to compete with national requirement along with core values
- To produce dynamic Electrical Engineers to serve the society and industry.
- To develop leadership qualities, communication skills, critical thinking and attitude for Lifelong learning.

#### Program educational objectives: -

PEO1:	Apply technical knowledge and skills learned in the field of Electrical Engineering to excel in professional and/or higher education.
PEO2:	to provide students an excellent academic environment and make them aware the needs of Society and Industry to become a successful Professional/Entrepreneur.
PEO3:	To engage in lifelong learning, career enhancement to adopt emerging technologies

#### Course outcomes: -

Co1	To create entrepreneurial and managerial skills.
Co2	Lunch startup and new business ventures
Co3	Develop leadership qualities and sprit of team man ship.
Co4	Develop and sustainable and conducive work culture, TQM and safety with the help of smart technology.



# GOVERNMENT POLYTECHNIC KORAPUT

## TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	Topics	Periods
1.	Entrepreneurship	10
2.	Market Survey and Opportunity Identification (Business Planning)	8
3.	Project report Preparation	4
4.	Management Principles	5
5.	Functional Areas of Management	10
6.	Leadership and Motivation	6
7.	Work Culture, TQM & Safety	5
8.	Legislation	6
9.	Smart Technology	6
	<b>TOTAL</b>	<b>60</b>

Week	Day	Theory topic
1 <sup>st</sup>	1 <sup>st</sup>	<b>Entrepreneurship:</b> Concept/Meaning of Entrepreneurship
	2 <sup>nd</sup>	Need of Entrepreneurship, Characteristics, Qualities and Types of entrepreneur, Functions
	3 <sup>rd</sup>	Barriers in entrepreneurship, Entrepreneurs vs. Manager
	4 <sup>th</sup>	Forms of Business Ownership: Sole proprietorship, partnership forms and others
2 <sup>nd</sup>	1 <sup>st</sup>	Types of Industries, Concept of Start-ups
	2 <sup>nd</sup>	Entrepreneurial support agencies at National, State, District Level (Sources): DIC, NSIC, OSIC, SIDBI, NABARD, Commercial Banks, KVIC etc.
	3 <sup>rd</sup>	Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks
	4 <sup>th</sup>	<b>Market Survey and Opportunity Identification (Business Planning):</b> Business Planning
3 <sup>rd</sup>	1 <sup>st</sup>	SSI, Ancillary Units, Tiny Units, Services sector Units
	2 <sup>nd</sup>	Time schedule Plan, Agencies to be contacted for Project Implementation
	3 <sup>rd</sup>	Assessment of Demand and supply and Potential areas of Growth
	4 <sup>th</sup>	Identifying Business Opportunity
4 <sup>th</sup>	1 <sup>st</sup>	Final Product selection
	2 <sup>nd</sup>	<b>Project report Preparation</b> Preliminary project report
	3 <sup>rd</sup>	Detailed project report, Techno-economic Feasibility
	4 <sup>th</sup>	Project Viability
5 <sup>th</sup>	1 <sup>st</sup>	<b>Management Principles:</b> Definitions of management
	2 <sup>nd</sup>	Principles of management
	3 <sup>rd</sup>	Functions of management (planning, organizing, staffing, directing and controlling etc.)
	4 <sup>th</sup>	Level of Management in an Organization
6 <sup>th</sup>	1 <sup>st</sup>	<b>Functional Areas of Management:</b> Production management
	2 <sup>nd</sup>	Functions, Activities, Productivity
	3 <sup>rd</sup>	Quality control, Production, Planning and control
	4 <sup>th</sup>	Inventory Management
7 <sup>th</sup>	1 <sup>st</sup>	Need for Inventory management, Models/Techniques of Inventory management
	2 <sup>nd</sup>	Financial Management
	3 <sup>rd</sup>	Functions of Financial management
	4 <sup>th</sup>	Management of Working capital Costing (only concept)



# GOVERNMENT POLYTECHNIC KORAPUT

8 <sup>th</sup>	1 <sup>st</sup>	Breakeven Analysis
	2 <sup>nd</sup>	Brief idea about Accounting Terminologies: Book Keeping
	3 <sup>rd</sup>	Journal entry, Petty Cashbook, P&L Accounts, Balance Sheets (only Concepts)
	4 <sup>th</sup>	Marketing Management: Concept of Marketing and Marketing Management
9 <sup>th</sup>	1 <sup>st</sup>	Marketing Techniques (only concepts)
	2 <sup>nd</sup>	Concept of 4Ps (Price, Place, Product, Promotion)
	3 <sup>rd</sup>	Human Resource Management
	4 <sup>th</sup>	Functions of Personnel Management
10 <sup>th</sup>	1 <sup>st</sup>	Manpower Planning, Recruitment, Sources of manpower
	2 <sup>nd</sup>	Selection process, Method of Testing, Methods of Training & Development
	3 <sup>rd</sup>	Payment of Wages
	4 <sup>th</sup>	<b>Leadership and Motivation:</b> Leadership Definition and Need/Importance of leader Qualities of a leader
11 <sup>th</sup>	1 <sup>st</sup>	functions of a leader, Manager Vs Leader
	2 <sup>nd</sup>	Style of Leadership (Autocratic, Democratic, Participative)
	3 <sup>rd</sup>	Motivation: Definition and characteristics
	4 <sup>th</sup>	Importance of motivation
12 <sup>th</sup>	1 <sup>st</sup>	Factors affecting motivation
	2 <sup>nd</sup>	Theories of motivation (Maslow), Methods of Improving Motivation
	3 <sup>rd</sup>	Importance of Communication in Business
	4 <sup>th</sup>	Types and Barriers of Communication
13 <sup>th</sup>	1 <sup>st</sup>	<b>Work Culture, TQM &amp; Safety:</b> Human relationship and Performance in Organization Relationship with Peers, Superiors and Subordinates
	2 <sup>nd</sup>	TQM concepts: Quality Policy, Quality Management, Quality System
	3 <sup>rd</sup>	Accidents and Safety, Cause, preventive measures, General Safety Rules, Personal Protection Equipment (PPE)
	4 <sup>th</sup>	<b>Legislation:</b> Intellectual Property Rights (IPR), Patents, Trademarks, Copyrights
14 <sup>th</sup>	1 <sup>st</sup>	Features of Factories Act 1948 with Amendment (only salient points) Features of Payment of Wages Act 1936 (only salient points)
	2 <sup>nd</sup>	<b>Smart Technology:</b> Concept of IOT, How IOT works Components of IOT, Characteristics of IOT, Categories of IOT
	3 <sup>rd</sup>	Applications of IOT - Smart Cities, Smart Transportation, Smart Home, Smart Healthcare, Smart Industry, Smart Agriculture, Smart Energy Management etc.
	4 <sup>th</sup>	Revision: chapter 1, 2, 3
15 <sup>th</sup>	1 <sup>st</sup>	Revision: chapter 4, 5, 6
	2 <sup>nd</sup>	Revision: chapter 7, 8, 9
	3 <sup>rd</sup>	Discussion of previous year paper question and answers
	4 <sup>th</sup>	Discussion of previous year paper question and answers

*Prakash Kumar Bhandari*  
 01/08/23  
 Signature of faculty

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 01/08/23  
 HOD Electrical



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