



# GOVERNMENT POLYTECHNIC KORAPUT

## Th1. ENTREPRENEURSHIP AND MANAGEMENT & SMART TECHNOLOGY

Name of the Course: Diploma in Electrical Engineering			
Faculty: Mahesh Kumar Biswal		SEMESTER W E F- 14/09/2022 -21/01/2023	
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 spirit of team man ship.
Co4	Develop and sustainable and conducive work culture, TQM and safety with the help of smart technology.





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## 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: Concept/Meaning of Entrepreneurship</b>
	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): Business Planning</b>
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: Preliminary project report</b>
	3 <sup>rd</sup>	Detailed project report, Technoeconomic Feasibility
	4 <sup>th</sup>	Project Viability
5 <sup>th</sup>	1 <sup>st</sup>	<b>Management Principles: Definitions of management</b>
	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: Production management</b>
	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



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	3 <sup>rd</sup>	FunctionsofFinancialmanagement
	4 <sup>th</sup>	ManagementofWorking capital, Costing(onlyconcept)
8 <sup>th</sup>	1 <sup>st</sup>	BreakevenAnalysis
	2 <sup>nd</sup>	BriefideaaboutAccountingTerminologies: BookKeeping
	3 <sup>rd</sup>	Journalentry, PettyCashbook, P&LAccounts, BalanceSheets(only Concepts)
9 <sup>th</sup>	4 <sup>th</sup>	MarketingManagement: Conceptof MarketingandMarketingManagement
	1 <sup>st</sup>	MarketingTechniques(onlyconcepts)
	2 <sup>nd</sup>	Conceptof4Ps(Price, Place, Product, Promotion)
	3 <sup>rd</sup>	HumanResourceManagement
10 <sup>th</sup>	4 <sup>th</sup>	Functionsof PersonnelManagement
	1 <sup>st</sup>	ManpowerPlanning, Recruitment, Sources ofmanpower
	2 <sup>nd</sup>	Selectionprocess, MethodofTesting, MethodsofTraining&Development
	3 <sup>rd</sup>	Payment ofWages

	4 <sup>th</sup>	<b>Leadership and Motivation:</b> LeadershipDefinitionandNeed/Importance ofleaderQualitiesofaleader
11 <sup>th</sup>	1 <sup>st</sup>	functionsof aleader, Manager VsLeader
	2 <sup>nd</sup>	StyleofLeadership(Autocratic, Democratic, Participative)
	3 <sup>rd</sup>	Motivation: Definitionandcharacteristics
	4 <sup>th</sup>	Importanceofmotivation
12 <sup>th</sup>	1 <sup>st</sup>	Factorsaffectingmotivation
	2 <sup>nd</sup>	Theoriesofmotivation(Maslow), MethodsofImprovingMotivation
	3 <sup>rd</sup>	ImportanceofCommunication inBusiness
	4 <sup>th</sup>	TypesandBarriersofCommunication
13 <sup>th</sup>	1 <sup>st</sup>	<b>WorkCulture, TQM&amp;Safety:</b> Human relationshipandPerformanceinOrganization . RelationswithPeers, SuperiorsandSubordinates
	2 <sup>nd</sup>	TQMconcepts: QualityPolicy, QualityManagement, Qualitysystem
	3 <sup>rd</sup>	Accidents and Safety, Cause, preventive measures, General Safety Rules , PersonalProtectionEquipment(PPE)
	4 <sup>th</sup>	<b>Legislation:</b> IntellectualPropertyRights(IPR), Patents, Trademarks, Copyrights
14 <sup>th</sup>	1 <sup>st</sup>	FeaturesofFactoriesAct1948withAmendment(onlysalientpoints)FeaturesofPay mentofWagesAct1936(onlysalientpoints)
	2 <sup>nd</sup>	<b>SmartTechnology:</b> ConceptofIOT, HowIOTworksComponentsofIOT, CharacteristicsofIOT, Ca tegoriesofIOT
	3 <sup>rd</sup>	ApplicationsofIOT- SmartCities, SmartTransportation, SmartHome, SmartHealthcare, SmartIndustry, SmartA griculture, Smart EnergyManagementetc.
	4 <sup>th</sup>	Revision:chapter1,2,3
15 <sup>th</sup>	1 <sup>st</sup>	Revision:chapter4,5,6
	2 <sup>nd</sup>	Revision:chapter7,8,9
	3 <sup>rd</sup>	Discussofpreviousyearpaperquestionandanswers
	4 <sup>th</sup>	Discussofpreviousyearpaperquestionandanswers

*[Handwritten Signature]*  
14/09/22  
Signature of HDD(electrical)

*[Handwritten Signature]*  
14/9/2022  
Signature of faculty