

**Government of Karnataka
Department of Technical Education
Board of Technical Examinations, Bengaluru**

Course Title : Organisational Management and Entrepreneurship	Course Code: 15EC51T
Semester : 5	Course Group: Core
Teaching Scheme in Hrs (L:T:P) : 4:0:0	Credits : 4
Type of course: Lecture + Activity	Total Contact Hours: 52
CIE : 25 Marks	SEE : 100 Marks

Prerequisites

Knowledge of English communication and professional ethics.

Course Objectives

1. To learn basic management skills required for Technicians who are normally expected to work middle-level management.
2. To learn skills for optimum utilization of the resources to achieve higher productivity is essential for any electronic industry. Further, learn to practice quality control & cost control, and Safety standards.
3. To focus on Entrepreneurships and employment.

Course Outcomes

On completion of the course, students will be able to-

1. Develop and acquire Inter-personal skills, management skills, familiarize with different leadership styles and team building.
2. Understand the stages in production, production types, productivity, purchasing and PPC functions, Manage stores, logistics and Inventories.
3. Explain the different types of Plant maintenance. Explain the need of Total Quality Management and appreciate the usage of TQM tools in quality control.
4. Understand Industrial safety, accidental causes and preventive measures, role of safety officers; know the Indian factory act 1948.
5. Develop Entrepreneurship ideas in young minds, ability to present good project reports.
6. Create awareness about employment opportunities, sources of recruitment, methodology and psychometric tests.

Course Outcome		CL	Linked PO	Teaching Hrs
CO1	Develop and acquire Inter-personal skills, major management skills, familiarize with different leadership styles and team building.	R/U/A	5,7,8,9,10	06
CO2	Understand the stages in production, production types, productivity, purchasing and PPC functions, Manage stores, logistics and Inventories	R/U/A	1,4,6,8,10	12
CO3	Explain the different types of Plant maintenance. Explain the need of Total Quality Management and appreciate the usage of TQM tools in quality control	R/U/A	4,6,7,8,10	10
CO4	Understand Industrial safety, accidental causes and preventive measures, role of safety officers, know the Indian factory act 1948	R/U/A	3,5,7,8,9,10	08
CO5	Develop Entrepreneurship ideas in young minds, ability to present good project reports	R/U/A	2,5,7,8,9,10	10

		/E		
CO6	Create awareness about employment opportunities, sources of recruitment, methodology and psychometric tests.	R/U/A /C	1,2,7,8,9,10	06
Total sessions				52

Legends: PO-Program Outcome, CO-Course Outcome, CL-Cognitive Level, R-Remember, U-Understand, A-Apply, E- Evaluation, C-Creation

Mapping Course Outcomes with Programme Outcomes

Course Outcomes	Programme Outcomes									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	--	--	--	--	*	--	*	*	*	*
CO2	*	--	--	*	--	*	--	*	--	*
CO3	--	--	--	*	--	*	*	*	--	*
CO4	--	--	*	--	*	--	*	*	*	*
CO5	--	*	--	--	*	--	*	*	*	*
CO6	*	*	--	--	--	--	*	*	*	*

Legend: * Linked, -- No link

P01-Basic Knowledge P02-Discipline knowledge P03-Experiments and practice P04-Engineering tools P05-Engineer and society P06- Environment and sustainability P07-Ethics P08-Individual and team work P09-Communication P10-life-long learning

Course-PO Attainment Matrix

Course	Programme Outcomes									
	1	2	3	4	5	6	7	8	9	10
Organisational Management and Entrepreneurship	2	2	1	3	3	3	3	3	3	3

Legend: Addressing levels: 1-Slight, 2-Moderate, 3-Substantial, -- Not addressed

Quantification Method: This is to relate the level of PO with the number of hours devoted to the COs which address the given PO. If $\geq 40\%$ of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3; if 25 to 40%, Level 2; if 5 to 25%, Level 1; and if $< 5\%$, not addressed.

Course content and pattern of marks for SEE

Unit No	Unit Name	Hour	Questions to be set ForSEE					Marks Weightage	Weightage (%)
			R	U	A	E	C		
1	Management Skills	06	05	05	05	--	--	15	10.34
2	Production and Material Management	12	05	20	10	--	--	35	24.15
3	TPM and TQM	10	05	10	15	--	--	30	20.69
4	Organisational Safety	08	05	05	10	--	--	20	13.79
5	Entrepreneurship	10	05	10	10	05	--	30	20.69
6	Employment	06	--	05	05	--	05	15	10.34
Total		52	25	55	55	05	05	145	100

Legend: R- Remember, U-Understand A-Application, E- Evaluation, C-Creation

Course Content

Unit 1: Management Skills

Duration:06Hrs

Interpersonal skills-Know yourself and know others. SWOT analysis and its features. Intergroup communications. Art and barriers of communication. Functions, qualities and styles of leadership, Team and group- team building, comparison of team and group. Management - Definition, Henry-Fayol's principles of management, functions of management, managerial qualities. Management skills applicable to private, public and Govt. sectors.

Unit 2: Production and Material Management

Duration:12Hrs

Product- Stages and factors to be considered in product design, types of production and their characteristics. Productivity-Factors to improve productivity, "Six lines of attack" to improve productivity. Production, Planning & Control (PPC). Make or Buy Decision-Simple cost analysis and break-even analysis. Purchasing-Purchasing methods, steps involved in purchasing. Stores management- Methods of storing and tools required. Codification System. Logistics management-Different means of transportation, routing and delays, insurance. Inventory management- Techniques, functions of inventory control, inventory management software's. Introduction to MRP and ERP.

Unit 3: TPM and TQM

Duration:10Hrs

Total Preventive Maintenance (TPM) - Concept, techniques and benefits of TPM. Components of maintenance. Economics of preventive maintenance and breakdown maintenance.

Inspection-types of inspection. TQM- Quality, factors affecting quality, relation between quality and cost. Quality control. TQM Tools-Flow-chart, control charts, histograms, Pareto charts, Kaizen and six-sigma. Quality circle and objectives of quality circle. ISO 9000- series quality standards, procedure to attain ISO registration, characteristics of ISO 9000, and areas covered by ISO 9000 series.

Unit 4: Organisational Safety

Duration:08Hrs

Organisational safety – Accident, causes for industrial accident, direct and indirect losses due to an accident, and personal protective devices for preventions of accidents. Safety

organization- Duties of safety inspector, safety supervisor, general safety rules, accident reporting and crisis management. Fire- Prevention, protection and types of fire extinguishers. Safety provisions under Indian Factories Act - 1948. Safety Management System- OSHAS 18001. Features of 'Restriction of Hazardous Substances Directive (RoHS)'.

Unit 5: Entrepreneurship

Duration: 10Hrs

Concept of entrepreneur and entrepreneurship, need and qualities of an entrepreneur, factors influencing entrepreneurship, successful entrepreneurship, and entrepreneur motivation. Training for entrepreneurship development. Financing of enterprise, source of finance, market survey, market risk, project planning, project capacity, and preparation of project report. Industries- Classification of industries and their features, scope and role of small-scale industries, list of items reserved for small-scale sectors, procedure to start small-scale industry.

Unit 6: Employment

Duration: 06Hrs

Introduction to employment. Causes of unemployment, Employment opportunities- Govt. sector, public sector, private sector and MNCs. Areas- Technical, management, marketing and general. Employment- Searching, sources of recruitment- internal and external, application process, scientific selection process, written tests- objective and descriptive, group discussion, interviews- technical and personal, offers, promotions, transfers. Psychometric tests: Reasoning- verbal, numerical, logical and puzzles.

References

1. Industrial Organization and Engineering Economics, T.R. Banga & S C Sharma, Khanna Publishers
2. Industrial management and organizational behaviour, K.K. Ahuja
3. Industrial management and engineering economics, O.P. Khanna, Khanna publishers
4. Industrial Engineering and Production Management, M Mahajan, Dhanpat Rai and Co
5. Production and operations management, Dr.K. Aswathappa and Dr. Sreedhar Bhatt, Himalaya publishers
6. Safety Management in Industry, Krishnan. N V, Jaico Publishing House, Bombay, 1997
7. Total Quality Management, S Raja Ram, M Shivashankar
8. Soft Skills, Dr. K. Alex, S Chand & Company Ltd.
9. How to pass psychometric tests, Andrea Shavick, Howto books, ISBN: 97-1-84528-447-3
10. www.timesjobs.com/candidate/careerresources/htmls/interviewpreparing.jsp

Special Instructional Strategies

Unit No	Unit Name	Strategies
1	Management Skills	Teaching, presentations, Video movies
2	Production and Material Management	Presentations, Video movies, Expose to real life industries situation, industrial visits
3	TPM and TQM	Discussions, real life industries situation, industrial visits. Expose to practiced procedures
4	Organisational Safety	Teaching, Presentations, Industrial visits, movies.
5	Entrepreneurship	Teaching, Industrial visits, videos and movies

6	Employment	Teaching, Discussions, Practice sessions
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Suggested List of Student Activities

Duration: 4hrs

Note: The following activities or similar activities for assessing CIE (IA) for 5 marks (Any one)

Sl. No.	Activity
1.	Each student shall given an activity to prepare comparative statement, placing the purchase order with necessary terms and conditions
2.	SWOT analysis case study / Example for industry/establishment
3.	Given the data, prepare the scheduling using Gantt chart.
4.	Identify any one product, being manufactured in local industry, Study the process they are following for manufacturing the product, submit hand written report.
5.	Visit a nearby industry, make a report on Plant layout, type of production, quality system is put in practice and quality tools they are using in work place
6.	Motivate student to take case study on plant maintenance of nearby industry, observe what type of maintenance they undertake in their industry
7.	Each student should prepare a detailed project report on selected product
8.	Visit a local industry and list the safety precautions carried out there
9.	Visit the local fire brigade station and prepare a suitable report.
10.	Meet a local Entrepreneur and prepare a report on his success story
Execution Mode	
1.	Maximum of 4 students in each batch should do any one of the following type activity or similar activity related to the course and before take up, get it approved from concerned Teacher.
2.	Each batch should conduct different activity and no repeating should occur.
3.	Submit a brief report on the activity done on 4-6 pages, A4 size handwritten paper. Papers should be simple stapled or tagged. Avoid plastic based files for submitting of reports.
4.	Activities can be carried off-class or in the laboratory, as the case may be.
5.	Assessment shall be made based on quality of activity/presentation/demonstration and report.

Institutional Activities

Note: One activity every month.

Sl. No.	Activity
1	Organize Seminar or Lecture from experts on Organisational Behaviour
2	Invite local Entrepreneurs and ask them to share their initial struggle and success story.
3	Invite experts to conduct Mock interviews, Group discussions and Psychology tests.

Course Delivery

The course will be delivered through lectures, presentations and support of modern tools.

Course Assessment and Evaluation Scheme

Assessment Method	What		To Whom	Assessment mode /Frequency /timing	Max. Marks	Evidence Collected	Course Outcomes
Direct assessment	CIE	IA	Students	Three tests ⁺	20	Blue Books	1 to 6
				Activity*	05	Activity Sheets	1 to 6
	SEE	End exam		End of the course	100	Answer Scripts at BTE	1 to 6
				Total	125		
Indirect assessment	Student feedback on course		Students	Middle of the Course	Nil	Feedback Forms	1 to 3& Delivery of course
	End of course survey			End of the Course	Nil	Questionnaires	1 to 6, Effectiveness of delivery instructions & assessment methods

Legends: CIE-Continuous Internal Evaluation, SEE- Semester End-exam Evaluation

⁺ Every I.A. test shall be conducted for 20 marks. Average of three tests, by rounding off any fractional part thereof to next higher integer, shall be considered for IA.

*Students should do activity as per the list of suggested activities/ similar activities with prior approval of the teacher. Activity process must initiate well in advance so that it can be completed well before the end of the term and assessed through appropriate Rubrics.

Questions for CIE and SEE will be designed to evaluate the various CLs as per the weightage shown in the following table.

Sl. No.	Cognitive Levels (CL)	Weightage (%)
1	Remembering	18
2	Understanding	38
3	Applying	38
4	Evaluation	03
5	Creation	03
Total		100

(i) Model of rubrics for assessing student activity (for every student)

Dimension	Scale					Marks (Example)
	1 Unsatisfactory	2 Developing	3 Satisfactory	4 Good	5 Exemplary	
1. Research and gathering information	Does not collect information relate to topic	Collects very limited information, some relate to topic	Collects basic information, most refer to the topic	Collects more information , most refer to the topic	Collects a great deals of information , all refer to the topic	3
2. Full-fills	Does not	Performs	Performs	Performs	Performs all	2

team roles and duties	perform any duties assigned to the team role	very little duties	nearly all duties	almost all duties	duties of assigned team roles	
3. Shares work equality	Always relies on others to do the work	Rarely does the assigned work, often needs reminding	Usually does the assigned work, rarely needs reminding	Always does the assigned work, rarely needs reminding.	Always does the assigned work, without needing reminding	5
4. Listen to other team mates	Is always talking, never allows anyone to else to speak	Usually does most of the talking, rarely allows others to speak	Listens, but sometimes talk too much,	Listens and talks a little more than needed.	Listens and talks a fare amount	3
Total marks						ceil(13/4)= 4

(iii) CIE/IA Tests (20 Marks)

Three tests have to be conducted in accordance with the test pattern given below and average marks of them are considered for CIE/IA with specified schedule.

(iv) Format of CIE/IA test question paper

CIE Question Paper					
Institution Name and Code					
Course Co-ordinator/Teacher					
<i>Program Name</i>		<i>Test No.</i>		<i>Units</i>	
<i>Class/Sem</i>		<i>Date</i>		<i>CL</i>	
<i>Course Name</i>		<i>Time</i>		<i>COs</i>	
<i>Course Code</i>		<i>Max. Marks</i>		<i>POs</i>	
Note to students: Answer all questions					
Question No.	Question	Marks	CL	CO	PO
1					
2					
3					
4					

Legends: PO-Program Outcome, CO-Course outcome, CL-Cognitive Level, R-Remember, U-Understand, A-Apply

Note: Internal choice may be given in each CO at the same cognitive level (CL).

(v) Model question paper for CIE

CIE Question Paper					
Institution Name and Code					
Course Co-ordinator/Teacher					
<i>Program Name</i>	Electronics & Communication	<i>Test No.</i>	1	<i>Units</i>	1 & 2
<i>Class/Sem</i>	5 th Sem	<i>Date</i>	1/1/2017	<i>CL</i>	R/U/A
<i>Course Name</i>	Organisational Management and Entrepreneurship	<i>Time</i>	10-11AM	<i>COs</i>	1 & 2
<i>Course Code</i>	15EC51T	<i>Max. Marks</i>	20	<i>POs</i>	1, 2 & 3
Note to students: Answer all questions					
No.	Question	Marks	CL	CO	PO

1	Identify the barriers for effective communication OR List the advantages and limitations of planning	05	R	1	2,7,8,9 ,10
2	Explain with line diagram how Functional organisation will suit for pharmaceutical industry	05	A	1	2,7,8,9 ,10
3	Explain batch production and mention its advantages and disadvantages OR Explain routing procedure	05	U	2	2,7,8,9 ,10
4	Explain how the productivity of an organisation can be increased	05	A	2	2,7,8,9 ,10

Semester End-exam Evaluation (SEE)

(i) End-exam question-paper pattern

Unit No.	Unit Name	Study Duration (Hrs.)	No. Questions for End-exam	
			5 marks Part - a	10 marks Part - b
1	Management Skills	06	01	01
2	Production and Material Management	12	01	03
3	TPM and TQM	10	02	02
4	Organisational Safety	08	02	01
5	Entrepreneurship	10	02	02
6	Employment	06	01	01
Total		52	09 (45 Marks)	10 (100 Marks)

(ii) Model question paper

Course Title : **Organisational Management and Entrepreneurship**
Course Code : **15EC51T** Time : **3 Hrs**
Semester : **Fifth** Max. Marks: **100**

Instructions: 1. Answer any **SIX** question from **Part A** (5x6=30 Marks)
2. Answer any **SEVEN** full questions from **Part B** (7x10=70 Marks)

Part A

- List the various barriers of communication.
- What is batch production and mention its advantages.
- What are the benefits of TPM?
- Discuss ISO 9000 series for quality management.
- What are the different causes for industrial accidents?
- Describe the duties of a safety supervisor.
- List the qualities of an Entrepreneur.
- Define Industry and classify it.
- Write a note on employment opportunities.

Part B

1. What are the functions of leadership? Explain briefly.
2. Explain the various factors to improve the productivity.
3. Describe PPC technique.
4. What is store management? Explain the different tools used for stores management.
5. What is TQM? Explain Kaizen and Six sigma tools of TQM.
6. List the types of Inspection and explain.
7. Explain the safety provisions act under Indian factories act 1948.
8. What is financing? Explain sources of finance for starting an enterprise.
9. Explain the steps in preparation of a project report of an industry.
10. What are the different employment sectors? Explain them briefly.

Model Question Bank

Course Title : **Organisational Management and Entrepreneurship**

Course Code: **15EC51T**

UNIT-1 Management Skills

05 Marks

Remember

1. State Henry Fayol's principles of management.
2. Write a note on Inter-personal skills.
3. Define Team and Team building.
4. Define management. List the functions of management.
5. List the features of different management sectors.

Understand

1. Compare Team and Group.
2. Explain the features of management in a Govt. Sector?
3. Explain management.
4. Explain qualities of a manager.
5. Explain intergroup communications.

Applying

1. Illustrate the importance of interpersonal skills..
2. Explain the Henry-Fayol's principles of management.
3. Illustrate the different styles of leadership with typical example.

10 Marks

Remember

1. Define Communication and list the art of communication.
2. List the functions of management and explain them.

Understand

1. Differentiate between private, public and Govt. Sector management
2. Explain the different characteristics of a team and group.

Applying

1. Illustrate the importance of intergroup communications and explain it.
2. Demonstrate the significance of Management in different sectors.

UNIT-2 Production and Material Management
05 Marks

Remember

1. Define production and explain the needs for production
2. List the factors to improve productivity
3. Define production-planning and control and mention its needs
4. Define purchasing. list its methods
5. Define Codification and Logistics management
6. Define MRP and ERP
7. List the functions of inventory

Understand

1. Explain factor to improve productivity
2. Explain purchasing methods
3. Explain Logistic management
4. Explain inventory management software
5. Explain simple cost analysis
6. Explain break-even analysis
7. Explain MRP
8. Explain ERP

Applying

1. write the procedure for routing and delays
2. write the steps involved in PPC
3. write the procedure involved make or buy decision

10 Marks

Remember

1. Define transportation, routing, delay and insurance

Understand

1. Explain codification and logistics management system
2. Explain MRP and ERP
3. Explain stores management system
4. Explain PPC

Applying

1. Illustrate the methods of purchasing with an example
2. Using six-lines of attack method to improve the productivity
3. How productivity will improve using six-lines of attack method

UNIT-3 TPM and TQM

05 Marks

Remember

1. Define TPM and TQM.
2. Define Inspection. List the types of inspection.
3. Define planned maintenance and predictive maintenance.
4. List the types of TQM tools.
5. List the characteristics of ISO 9000.
6. List the areas covered by ISO 9000 series.

Understand

1. Explain the concept of TPM.
2. Explain the concept of TQM.

3. Describe the benefits of TPM?
4. Describe the techniques of TPM.
5. Explain Histogram method of TQM.

Applying

1. Write the factors that affect quality.
2. Write the procedure to attain ISO registration.
3. Explain Pareto charts of TQM.
4. Explain ISO 9000 series quality standards.

10 Marks

Understand

1. Describe the TQM tools.
2. Describe the concepts of TPM.
3. Distinguish between Planned maintenance and predictive maintenance.
4. Describe Flowchart and control charts of TQM.
5. Describe Kaizen and six sigma TQM tools.
6. Describe Histogram and Pareto charts of TQM.

Applying

1. Write the factors that affect quality control.
2. Illustrate the different types of inspections.
3. Write the procedure to attain ISO registration and mention the areas covered by it.
4. Explain the use of Quality circle and its objectives.

UNIT-4 Organisational Safety

05 Marks

Remember

1. Define Organisational safety.
2. Define accident and its causes.
3. Mention the direct losses due to accident.
4. Mention the indirect losses due to accident.
5. Mention the duties of safety inspector.
6. Mention the general safety rules.
7. List types of fire extinguishers.

Understand

1. Describe organisational safety and its importance.
2. Explain direct losses due to accident.
3. Explain indirect losses due to accident.
4. Explain the benefits of safety organisation.
5. Describe the method of accident reporting.
6. Discuss Safety management system OSHAS-18001.
7. Discuss the features of RoHS.

Applying

1. Write the duties of safety supervisor.
2. Write the duties of safety inspector.
3. Illustrate the general safety rules.
4. Illustrate Fire prevention and protection.
5. Illustrate the safety provisions under Indian Factories Act – 1948.

10 Marks

Understand

1. Explain Organisational safety.
2. Describe the causes for industrial accidents.
3. Describe the different types of fire extinguishers.
4. Explain OHSAS 18001 and RoHS.

Applying

1. Illustrate the general safety rules.
2. Explain accident reporting and crisis management.
3. Illustrate the different protective devices for preventions of accidents.

**UNIT-5 Entrepreneurship
05 Marks****Remember**

1. Define Entrepreneur and entrepreneurship.
2. List the qualities of an entrepreneur.
3. List the factors that influence entrepreneurship.
4. List the sources of financing of an enterprise.
5. Define industry and classify.
6. List the items reserved for small scale sectors.

Understand

1. Explain qualities of entrepreneur.
2. Explain project planning.
3. Explain entrepreneur motivation.
4. Explain scope and role of small scale industries.
5. Explain procedure to start a small scale industry.
6. Explain market survey and market risk.
7. Explain training for entrepreneurship development.
8. Explain the sources of financing to start an enterprise.

Applying

1. Write scope and role of small scale industries.
2. Write the qualities of an entrepreneur.
3. Write the steps involved in preparing of project report.
4. Classify industries and explain briefly.

Evaluation

1. Compare the different types of industries.
2. Evaluate the market risks involved in starting an enterprise.
3. Summarise the factors that influence entrepreneurship.

10 Marks**Understand**

1. Explain the factors that influence entrepreneurship.
2. Explain the procedure for a successful entrepreneur.
3. Describe the steps involved in project planning and preparation of project report.
4. Describe small scale sectors and list the items reserved for it.
5. Explain the sources of finance to start an enterprise.

Applying

1. Illustrate the concept of entrepreneur and entrepreneurship.
2. Illustrate the various factor that influence entrepreneurship and entrepreneur motivation.
3. Write a note on market survey and market risks.
4. Write the procedure to start a small scale industry.

UNIT-6 Employment
05 Marks

Understand

1. Explain employment opportunities in Govt. sector.
2. Explain employment opportunities in private sector.
3. List the sources of internal recruitment
4. Explain Psychometric tests.

Applying

1. Write the different areas of employment opportunities.
2. Illustrate the procedures for scientific selection process.
3. Identify the causes of unemployment.

Create

1. Express the various areas of employment.
2. Express the method of Psychometric tests

10 Marks

Understand

1. Explain the Sources of recruitment.
2. Explain written tests, group discussions and Interviews.
3. Explain offers, promotions and transfers in employment.

End