SRM VALLIAMMAI ENGINEERING COLLEGE

(An Autonomous Institution)

SRM Nagar-Kattankulathur –603203

DEPARTMENT OF AGRICULTURAL ENGINEERING

QUESTION BANK

VIII SEMESTER

PAG104 DAIRY PLANT MANAGEMENT

Regulation – 2023

Academic Year 2025 – 2026

Prepared by

Mr.Dinesh R,

Assistant Professor/Agriculture Engineering

UNIT-I PRODUCTION MANAGEMENT

Definition – Function and structure of Production Management – Production planning & Control – Work study and measurement motion and time study

Q.NO	QUESTIONS PART-A	BT LEVEL	COMPETENCE
1.	Define Dairy Plant Management.	BT-1	Remembering
2.	What is Production Management?	BT-1	Remembering
3.	List any two functions of Production Management.	BT-1	Remembering
4.	Define Production Planning.	BT-1	Remembering
5.	What is Production Control?	BT-1	Remembering
6.	What is meant by Work Study?	BT-1	Remembering
7.	Define Motion Study.	BT-1	Remembering
8.	Define Time Study.	BT-1	Remembering
9.	What is meant by productivity in a dairy plant?	BT-1	Remembering
10.	What is standard time?	BT-1	Remembering
11.	Define plant layout.	BT-1	Remembering
12.	What is routing in production planning?	BT-1	Remembering
13.	Define scheduling.	BT-1	Remembering
14.	State the objectives of Dairy Plant Management.	BT-1	Remembering
15.	Explain the importance of Production Management in dairy industries.	BT-2	Understanding
16.	Distinguish between production planning and production control.	BT-2	Understanding
17.	Explain the need for work study in dairy plants.	BT-2	Understanding
18.	State the advantages of motion study.	BT-2	Understanding
19.	Explain the purpose of time study.	BT-2	Understanding
20.	Why is production planning important in dairy processing units?	BT-2	Understanding
21.	Explain the term “work measurement.”	BT-2	Understanding
22.	State any two limitations of motion study.	BT-2	Understanding
23.	Explain the role of scheduling in production control.	BT-2	Understanding
24.	State the significance of standard time in dairy operations.	BT-2	Understanding

25.	Explain how work study improves efficiency in dairy plants.	BT-2	Understanding
Q.NO	**QUESTIONS PART-B**	**BT LEVEL**	**COMPETENCE**
1.	Explain the functions of Production Management with reference to a dairy processing plant.	BT-3	Applying
2.	Describe the structure of Production Management in a medium-scale dairy plant.	BT-3	Applying
3.	Apply the principles of production planning to a milk processing unit.	BT-3	Applying
4.	Explain production planning and control (PPC) with a suitable dairy plant example.	BT-3	Applying
5.	Illustrate the steps involved in production planning in dairy industries.	BT-3	Applying
6.	Apply work study techniques to improve efficiency in a milk packaging section.	BT-3	Applying
7.	Explain the application of motion study in dairy plant operations.	BT-3	Applying
8.	Describe the procedure of conducting a time study in a dairy processing unit.	BT-3	Applying
9.	Explain how work measurement helps in improving dairy plant productivity.	BT-3	Applying
10.	Analyze the role of production management in improving quality and cost control in dairy plants.	BT-4	Analyzing
11.	Analyze the relationship between production planning and production control in dairy industries.	BT-4	Analyzing
12.	Examine the importance of work study in optimizing labor utilization in dairy plants.	BT-4	Analyzing
13.	Analyze the benefits and limitations of motion study in dairy plant management.	BT-4	Analyzing
14.	Analyze the impact of time study on labor efficiency and production cost.	BT-4	Analyzing
15.	Compare traditional and modern approaches of production planning in dairy plants.	BT-4	Analyzing
16.	Analyze how improper production planning affects dairy plant performance.	BT-4	Analyzing
17.	Examine the role of standard time in production scheduling and control.	BT-4	Analyzing
18.	Analyze the contribution of production planning and control towards overall dairy plant efficiency.	BT-4	Analyzing

UNIT-II EFFICIENCY OF PLANT OPERATION

Product accounting – setting up norms for operational and processing losses for quantity, fat and SNF– monitoring efficiency.

Q.NO	**QUESTIONS PART-A**	**BT LEVEL**	**COMPETENCE**
1.	Define efficiency of dairy plant operation.	BT-1	Remembering
2.	What is product accounting in a dairy plant?	BT-1	Remembering

3.	Define operational loss in dairy processing.	BT-1	Remembering
4.	Define processing loss in dairy plants.	BT-1	Remembering
5.	What is meant by fat loss?	BT-1	Remembering
6.	What is SNF loss?	BT-1	Remembering
7.	Define milk balance.	BT-1	Remembering
8.	What is meant by quantity loss in dairy plants?	BT-1	Remembering
9.	Define yield in dairy processing.	BT-1	Remembering
10.	What is meant by standard norms in dairy plant operation?	BT-1	Remembering
11.	Define monitoring in dairy plant management.	BT-1	Remembering
12.	What is fat standardization?	BT-1	Remembering
13.	Define recovery percentage.	BT-1	Remembering
14.	Explain the need for product accounting in dairy plants.	BT-2	Understanding
15.	State the importance of setting norms for processing losses.	BT-2	Understanding
16.	Explain why fat and SNF losses must be controlled.	BT-2	Understanding
17.	Distinguish between operational loss and processing loss.	BT-2	Understanding
18.	Explain the role of milk balance in efficiency evaluation.	BT-2	Understanding
19.	Why is monitoring efficiency important in dairy plants?	BT-2	Understanding
20.	Explain how quantity losses occur during milk handling.	BT-2	Understanding
21.	State the objectives of efficiency monitoring.	BT-2	Understanding
22.	Explain the importance of yield analysis.	BT-2	Understanding
23.	Why are loss norms different for various dairy products?	BT-2	Understanding
24.	Explain the role of records and reports in product accounting.	BT-2	Understanding
25.	Explain how efficiency affects profitability of dairy plants.	BT-2	Understanding
Q.NO	**QUESTIONS PART-B**	**BT LEVEL**	**COMPETENCE**
1.	Explain product accounting system in a dairy plant with suitable examples.	BT-3	Applying
2.	Describe the procedure for setting norms for operational losses in milk processing.	BT-3	Applying
3.	Apply product accounting principles to estimate quantity losses in a dairy plant.	BT-3	Applying
4.	Explain the method of calculating fat and SNF losses during	BT-3	Applying

	processing.		
5.	Illustrate the preparation of a milk balance statement for a dairy plant.	BT-3	Applying
6.	Explain how processing loss norms are fixed for dairy products like butter and ghee.	BT-3	Applying
7.	Apply efficiency monitoring techniques in a milk reception and pasteurization section.	BT-3	Applying
8.	Explain the role of yield and recovery calculations in monitoring dairy plant efficiency.	BT-3	Applying
9.	Describe the steps involved in monitoring operational efficiency using product accounting.	BT-3	Applying
10.	Analyze the impact of operational and processing losses on dairy plant profitability.	BT-3	Applying
11.	Analyze the effectiveness of product accounting in controlling fat and SNF losses.	BT-3	Applying
12.	Examine the causes of quantity, fat and SNF losses at various stages of processing.	BT-3	Applying
13.	Analyze the importance of standard loss norms in dairy plant efficiency evaluation.	BT-3	Applying
14.	Compare efficiency monitoring methods for liquid milk and milk products.	BT-4	Analyzing
15.	Analyze how improper monitoring affects overall dairy plant performance.	BT-4	Analyzing
16.	Examine the role of records, reports and audits in efficiency monitoring.	BT-4	Analyzing
17.	Analyze the relationship between yield, recovery and plant efficiency.	BT-4	Analyzing
18.	Analyze strategies to minimize processing losses and improve operational efficiency.	BT-4	Analyzing

UNIT-III PLANT OPERATIONS

Energy conservation and Auditing – Product and process control, Control charts, Process Sigma – Efficiency factors losses – Financial and Managerial efficiency Provision for Industrial Legislation in India – particularly in dairy industry– Factory Act & Regulations.

Q.NO	QUESTIONS PART-A	BTLEVEL	COMPETENCE
1.	Define plant operations in a dairy industry.	BT-1	Remembering
2.	What is energy conservation?	BT-1	Remembering
3.	Define energy audit.	BT-1	Remembering
4.	What is product control?	BT-1	Remembering
5.	What is process control?	BT-1	Remembering
6.	Define control chart.	BT-1	Remembering

7.	What is meant by process sigma?	BT-1	Remembering
8.	Define efficiency factor.	BT-1	Remembering
9.	What is operational loss?	BT-1	Remembering
10.	Define financial efficiency.	BT-1	Remembering
11.	What is managerial efficiency?	BT-1	Remembering
12.	Define industrial legislation.	BT-1	Remembering
13.	What is Factory Act?	BT-1	Remembering
14.	Explain the importance of energy conservation in dairy plants.	BT-2	Understanding
15.	State the objectives of energy auditing.	BT-2	Understanding
16.	Explain the need for product and process control in dairy plants.	BT-2	Understanding
17.	Distinguish between product control and process control.	BT-2	Understanding
18.	Explain the role of control charts in quality control.	BT-2	Understanding
19.	Explain the concept of process sigma in plant operations.	BT-2	Understanding
20.	State the factors affecting plant efficiency.	BT-2	Understanding Under
21.	Explain the causes of efficiency losses in dairy plants.	BT-2	Understanding
22.	Explain the importance of financial efficiency in plant operations.	BT-2	Understanding
23.	Explain the role of managerial efficiency in dairy plants.	BT-2	Understanding
24.	Explain the need for industrial legislation in dairy industry.	BT-2	Understanding
25.	State the significance of Factory Act provisions in dairy plants	BT-2	Understanding
Q.NO	**QUESTIONS PART-B**	**BTLEVEL**	**COMPETENCE**
1.	Explain the principles and methods of energy conservation in dairy plants.	BT-3	Applying
2.	Describe the procedure for conducting an energy audit in a dairy processing unit.	BT-3	Applying
3.	Explain product and process control systems adopted in dairy plants.	BT-3	Applying
4.	Apply statistical process control (SPC) using control charts for milk processing.	BT-3	Applying
5.	Explain the construction and application of control charts in dairy plant operations.	BT-3	Applying
6.	Apply the concept of process sigma to improve quality in dairy processing.	BT-3	Applying
7.	Explain the efficiency factors and losses in dairy plant operations.	BT-3	Applying

8.	Describe methods to improve financial efficiency in dairy plants.	BT-3	Applying
9.	Explain the role of managerial efficiency in effective plant operations.	BT-3	Applying
10.	Analyze the impact of energy conservation measures on dairy plant performance.	BT-4	Analyzing
11.	Analyze the effectiveness of energy auditing in reducing operational costs.	BT-4	Analyzing
12.	Examine the role of product and process control in maintaining quality standards.	BT-4	Analyzing
13.	Analyze the use of control charts in minimizing process variations.	BT-4	Analyzing
14.	Analyze the relevance of process sigma approach in dairy industry.	BT-4	Analyzing
15.	Examine the causes of efficiency losses in dairy plant operations.	BT-4	Analyzing
16.	Analyze the interrelationship between financial and managerial efficiency.	BT-4	Analyzing
17.	Examine the implementation of Factory Act and regulations in dairy plants.	BT-4	Analyzing
18.	Analyze the importance of industrial legislation in ensuring safety and efficiency in dairy industry.	BT-4	Analyzing

UNIT-IV HUMAN RESOURCE MANAGEMENT

Personnel Management, Manpower planning, recruitment, training, transfer, promotions policies, Job specifications, Job evaluation, Job enhancement, Job enrichment, MBO, working conditions.

Q.NO	**QUESTIONS PART-A**	BT-1	Remembering
1.	Define Human Resource Management.	BT-1	Remembering
2.	What is Personnel Management?	BT-1	Remembering
3.	Define manpower planning.	BT-1	Remembering
4.	What is recruitment?	BT-1	Remembering
5.	Define training.	BT-1	Remembering
6.	What is transfer?	BT-1	Remembering
7.	Define promotion.	BT-1	Remembering
8.	What is job specification?	BT-1	Remembering
9.	Define job evaluation.	BT-1	Remembering
10.	What is job enhancement?	BT-1	Remembering
11.	Define job enrichment.	BT-1	Remembering

12.	What is MBO?	BT-1	Remembering
13.	Define working conditions.	BT-1	Remembering
14.	Explain the objectives of Human Resource Management.	BT-2	Understanding
15.	State the importance of manpower planning.	BT-2	Understanding
16.	Explain the need for recruitment in organizations.	BT-2	Understanding
17.	Distinguish between training and development.	BT-2	Understanding
18.	Explain the purpose of transfer policy.	BT-2	Understanding
19.	Explain the importance of promotion policies.	BT-2	Understanding
20.	Explain the role of job specification in HRM.	BT-2	Understanding
21.	Explain the significance of job evaluation.	BT-2	Understanding
22.	Explain the benefits of job enhancement.	BT-2	Understanding
23.	Explain the importance of job enrichment.	BT-2	Understanding
24.	Explain the concept of Management by Objectives (MBO).	BT-2	Understanding
25.	Explain the importance of good working conditions.	BT-2	Understanding
Q.NO	**QUESTIONS PART-B**	**BTLEVEL**	**COMPETENCE**
1.	Explain the functions of personnel management in an organization.	BT-3	Applying
2.	Describe the process of manpower planning with suitable examples.	BT-3	Applying
3.	Explain the recruitment and selection process followed in organizations.	BT-3	Applying
4.	Describe various training methods used for employee development.	BT-3	Applying
5.	Explain transfer and promotion policies in organizations.	BT-3	Applying
6.	Explain the procedure for preparing job specification for a post.	BT-3	Applying
7.	Apply job evaluation methods to determine wage structure.	BT-3	Applying
8.	Explain the application of job enhancement and job enrichment.	BT-3	Applying
9.	Describe the implementation of MBO in organizations.	BT-3	Applying
10.	Analyze the role of HRM in improving organizational efficiency.	BT-4	Analyzing
11.	Examine the effectiveness of manpower planning in meeting organizational goals.	BT-4	Analyzing
12.	Analyze the impact of training and development on employee performance.	BT-4	Analyzing
13.	Examine the advantages and limitations of promotion policies.	BT-4	Analyzing

14.	Analyze the importance of job evaluation in ensuring pay equity.	BT-4	Analyzing
15.	Compare job enhancement and job enrichment as motivational tools.	BT-4	Analyzing
16.	Analyze the effectiveness of MBO in performance appraisal.	BT-4	Analyzing
17.	Examine the role of working conditions in employee satisfaction and productivity.	BT-4	Analyzing
18.	Analyze how effective HR policies contribute to organizational growth.	BT-4	Analyzing

UNIT-V SAFETY HAZARDS

Hazards prevention – security for plant machinery and the employees – Plant Maintenance – Spare parts inventory, tools & lubricants, etc.

Q.NO	QUESTIONS PART-A	BTLEVEL	COMPETENCE
1.	Define safety hazards in industrial plants.	BT-1	Remembering
2.	What is hazard prevention?	BT-1	Remembering
3.	Define plant safety.	BT-1	Remembering
4.	What is machinery safety?	BT-1	Remembering
5.	Define employee safety.	BT-1	Remembering
6.	What is plant maintenance?	BT-1	Remembering
7.	Define preventive maintenance.	BT-1	Remembering
8.	What is breakdown maintenance?	BT-1	Remembering
9.	What is spare parts inventory?	BT-1	Remembering
10.	Define safety devices.	BT-1	Remembering
11.	What are personal protective equipments (PPE)?	BT-1	Remembering
12.	What is lubrication?	BT-1	Remembering
13.	Define safety audit.	BT-1	Remembering
14.	Explain the need for hazard prevention in plants.	BT-2	Understanding
15.	State the importance of machinery safety.	BT-2	Understanding
16.	Explain the role of employee safety measures.	BT-2	Understanding
17.	Distinguish between preventive and breakdown maintenance.	BT-2	Understanding
18.	Explain the importance of plant maintenance in safety.	BT-2	Understanding
19.	Explain the need for spare parts inventory management.	BT-2	Understanding
20.	Explain the role of tools in plant maintenance.	BT-2	Understanding

21.	Explain the importance of proper lubrication.	BT-2	Understanding
22.	Explain the causes of common safety hazards in plants.	BT-2	Understanding
23.	Explain the role of training in accident prevention.	BT-2	Understanding
24.	Explain the importance of safety audits.	BT-2	Understanding
25.	Explain how maintenance reduces safety risks.	BT-2	Understanding
Q.NO	**QUESTIONS PART-B**	**BTLEVEL**	**COMPETENCE**
1.	Explain various types of safety hazards in industrial plants.	BT-3	Applying
2.	Describe hazard prevention techniques used in dairy/industrial plants.	BT-3	Applying
3.	Explain safety measures for plant machinery and equipment.	BT-3	Applying
4.	Describe employee safety and welfare measures in plant operations.	BT-3	Applying
5.	Explain the plant maintenance system adopted in industries.	BT-3	Applying
6.	Describe preventive maintenance scheduling for plant equipment.	BT-3	Applying
7.	Explain the management of spare parts inventory in maintenance.	BT-3	Applying
8.	Explain the importance of tools and lubricants in plant maintenance.	BT-3	Applying
9.	Describe the role of safety audits and inspections in hazard control.	BT-3	Applying
10.	Analyze the impact of safety hazards on plant productivity and workers.	BT-4	Analyzing
11.	Examine the effectiveness of hazard prevention programs in industries.	BT-4	Analyzing
12.	Analyze the role of machinery guarding and safety devices.	BT-4	Analyzing
13.	Examine the causes of equipment failure and accidents.	BT-4	Analyzing
14.	Analyze the importance of preventive maintenance over breakdown maintenance.	BT-4	Analyzing
15.	Examine the relationship between maintenance management and safety.	BT-4	Analyzing
16.	Analyze the role of inventory control of spare parts in minimizing downtime.	BT-4	Analyzing
17.	Examine the contribution of training and safety awareness in hazard prevention.	BT-4	Analyzing
18.	Analyze strategies to improve overall plant safety and maintenance efficiency.	BT-4	Analyzing