

# **KAMARAJ COLLEGE (Autonomous)**

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

**(3 Pages)**

Reg. No:.....

**Question Code: 26E04213**

**Course Code : 25PMBA25**

**PG Degree - End Semester Examinations, April 2026**

**Second Semester**

**M.B.A**

**Operations Management**

**(For those who joined in June 2025 onwards)**

**Time : 3Hours**

**Maximum : 75 Marks**

## **PART - A (5 × 4 = 20 Marks)**

**Answer ALL Questions**

**Answer should not exceed 250 words.**

- CO:1 1. List the nature, scope and functions of Operations  
K:2 Management.
- CO:2 2. Outline the factors influencing plant location decisions.  
K:1
- CO:3 3. Describe the concept and significance of Economic Order  
K:2 Quantity.
- CO:4 4. Summarize the objectives and procedure of work study.  
K:1
- CO:5 5. Identify the nature and characteristics of services.  
K:2

## **PART - B (5 X 8 = 40 Marks)**

**Answer ALL Questions choosing either (a) or (b).**

**Answer should not exceed 500 words.**

- CO:1 6. (a) Apply capacity planning approaches to address long-  
K:3 term production issues.

**(OR)**

- (b) Compare and contrast the different types of production processes and their industrial applications.

- CO:2 7. (a) Examine principles of a good layout to improve  
K:4 manufacturing efficiency in detail.

**(OR)**

(b) Elaborate materials handling principles in designing an effective plant layout.

CO:3 8. (a) Illustrate ABC classification in inventory control with  
K:3 suitable examples.

**(OR)**

(b) Determine the role of preventive maintenance in reducing breakdown time.

CO:4 9. (a) Examine the term time study and allowance factors to  
K:4 determine standard time.

**(OR)**

(b) Breakdown the use of control charts for variables in quality control.

CO:5 10. (a) Identify service blueprinting to design an effective  
K:3 service process.

**(OR)**

(b) Analyze waiting line models for improving service delivery with suitable example.

## PART - C (1 X 15 = 15 Marks)

### CO:3 11. Case Study:

K:4

Arogya Plus is a fast-growing diagnostic service provider operating in tier-2 Indian cities. The center offers blood tests, scanning services and health check-up packages. Due to increasing health awareness and corporate tie-ups, the number of patients has risen sharply in the past two years.

However, the centre is facing several service management issues. Patients complain about long waiting times during peak morning hours. Though the lab equipment is modern, technicians are not scheduled efficiently, causing delays in sample processing. The physical layout forces patients to move between multiple counters for registration, payment and reports. Some elderly patients find the process confusing.

Management also introduced an online booking system, but many walk-in patients still depend on manual registration. During festivals and seasonal illness outbreaks, service demand fluctuates heavily, making capacity planning difficult. The centre wants to improve service quality, reduce waiting time and ensure smooth service delivery without increasing costs drastically.

### Questions

1. Analyse the nature of services offered by Arogya Plus and explain the service characteristics visible in the case.
2. Examine the service process design issues faced by the centre and suggest improvements using service blueprinting concepts.
3. Evaluate how better service facility layout and staff scheduling can improve overall service delivery performance.