INTERMEDIATE EXAMINATION
MODEL QUESTION PAPER
PAPER – 9
OPERATIONS MANAGEMENT AND STRATEGIC MANAGEMENT

SET 2

TERM – DECEMBER 2025

SYLLABUS 2022

Time Allowed: 1 Hour   **Full Marks: 100**

Answer all questions. Each question carries 2 marks.

SECTION – A (Compulsory)

1.   **Choose the correct option:**   **[15 x 2 =30]**

i.   One of the requirements of Aggregate Planning is:

a. Output and sales should be expressed in a logical overall unit of measuring

b. Appropriate time period

c. List of all resources available

d. List of operations required

ii.   For Quality Assurance in Production and Installation the _____ model is be used.:

a.   ISO 9001

b.   ISO 9002

c.   ISO 9003

d.   None of the above

iii.   A cement factory in Madhya Pradesh works 7 days a week in 3 shifts per days having maintenance in the first shift of around 2 hours. It has roughly 100 workers which produces only pozzolanic properties cement better known as PPC. The output per month is around 2500 tonnes of PPC. Find the productivity per worker?

a.   20 tonnes

b.   30 tonnes

c.   25 tonnes

d.   15 tonnes

iv.   Which of the following is not project quality management?

a.   Quality Definition

b.   Quality Assurance

c.   Quality Control

d.   Quality Inspection

v.   The event from where more than one activity starts:

   a. Merge event

   b. Brust Event

   c. start event

   d. event nodes

vi. The critical path analysis is an important tool in production planning and_____:

   a. Loading

   b. scheduling

   c. Routing.

   d. All the above

vii. One of the important charts used in programme control is:

   a. Material chart

   b. Gantt chart

   c. Route chart

   d. Inspection chart

viii. Which one of the following is NOT the advantage of Preventive Maintenance?

   a. Better product quality

   b. Greater safety to workers

   c. Increased breakdowns and downtime

   d. Fewer large-scale repairs

ix. One of the objectives of maintenance is:

   a. to prevent obsolescence

   b. to ensure spare parts management

   c. to satisfy customers

   d. to extend the useful life of Plant & Machinery without sacrificing the level of performance

x.   In some case the_____ and inconvenience due to breakdown of equipment is so high that standby equipment is kept:

   a. Cost

    b.   Loss

    c.   Time

    d.   Interval

xi. Which of the following is correct about Red Ocean Strategy:
    a.   Exploit existing demand
    b.   Create and capture new demand
    c.   Create uncontested markers to serve
    d.   Align the whole system of a firm's activities in pursuit of differentiation and low cost.

xii. Which among the following is incorrect lyre of organisational structure?
    a.   Value
    b.   Beliefs
    c.   Behaviours
    d.   Objective

xiii. In SMART goal framework 'A' consist of:
    a.   Advanced
    b.   Ambitious
    c.   Attainable
    d.   Assessable

xiv. A company develops a new recycling process to reduce waste. Which PESTEL factor is it responding to?
    a.   Environmental
    b.   Technological
    c.   Economic
    d.   Political

xv. Which among the following is true?
    a.   BPR has resulted in major gains in efficiency
    b.   BPR has resulted in major gains in speed
    c.   BPR has resulted in major gains in quality
    d.   BPR has resulted in gains in efficiency, quality and speed

Section – B
(Answer any five questions out of seven questions given. Each question carries 14 Marks)

[5 x 14 = 70]

2. **(a)** What are the characteristics of Modern Operations Function? **[7]**

(b) Explain the different stages of product life cycle. **[7]**

3. **(a)** A Public transport system is experiencing the following number of breakdowns for months over the past 2 years in their new fleet of vehicles:

Number of breakdowns	0	1	2	3	4
Number of months this occurred	2	8	10	3	1

Each break down costs the firm an average of ₹2,800. For a cost of ₹ 1,500 per month, preventive maintenance can be carried out to limit the breakdowns to an average of one per month. Calculate which policy is suitable for the firm? **[7]**

(b) With the help of following data project illustrate the trend of sales for the next five years:

Years	2018	2019	2020	2021	2022	2023
Sales (in lakhs)	100	110	115	120	135	140

[7]

4. **(a)** A captain of a cricket team has to allot five middle batting positions to five batsmen. The average runs scored by each batsman at these positions are as follows:

Batsmen		III	IV	V	VI	VII
	A	40	40	35	25	50
	B	42	30	16	25	27
	C	50	48	40	60	50
	D	20	19	20	18	25
	E	58	60	59	55	53

(Batting Position)

Prepare the assignment so that the expected total average runs scored by these batsmen are maximum.

[7]

(b) Wanda's Car Wash & dry is an automatic, five-minute operation with a single bay. On a typical Saturday morning, cars arrive at a mean rate of eight per hour, with arrivals tending to follow a Poisson distribution. Calculate:

   I.   The average number of cars in line.
   II.   The average time cars spend in line and service.   **[7]**

5. **(a)** A pension fund manager is considering investing in two shares A and B. It is estimated that:

   (i)   Share A will earn a dividend of 12% per annum and share B 4% per annum.
   (ii) Growth in the market value in one year of share A will be 10 paise per ₹1 invested
       and in B 40 paise per ₹1 invested.

He requires investing the minimum total sum which will give:

Dividend income of at least ₹600 per annum and growth in one year of at least ₹1,000 on the initial investment.

You are required to:

Prepare the mathematical formulation of the problem which will facilitate computation of the minimum sum to be invested to meet the manager's objective.   **[7]**

(b) Prepare the network diagram for the following activities and identify critical path and total duration of project.

Activity	Duration (months)	Activity	Duration (months)
1-2	2.5	4-5	2.0
2-3	2.5	5-6	3.0
2-4	1.5	6-7	1.5
3-4	1.0	5-7	1.5
3-5	1.0		

                                                                                         [7]

6. **(a)** Explain Balanced score card and what are the different perspectives of Balanced score card. **[7]**

    (b) Explain the demerits of Big Data.   **[7]**

7. **(a)** Discuss value chain. What are the primary and secondary activities?   **[7]**

    (b) Examine the steps involved in strategic planning.   **[7]**

8. **(a)** Discuss the nine-design test on structural solutions.   **[7]**

    (b) Analyze the traditional and contemporary approach of strategic control.   **[7]**