Roll No…….. **Total No. of Printed Pages: [02]**
Total No. of Questions: [10]

MBA (Semester – 4th)
SALES AND OPERATIONS PLANNING
Subject Code: MBADD5-422
Paper ID: [20260178]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A consists of 10 compulsory short notes of two marks each.
2. Section B consists of Four Units (Unit – I, II, III & IV). Each unit contains two questions of 8 marks each. Student has to attempt one question from each unit.
3. Section C (8 Marks): A short Case Study related to the syllabus.

Section – A **(2 marks each)**

Q1. Attempt the following:

a. What are the requirements of sales and operation planning?
b. Give difference between Qualitative and Quantitative forecasting.
c. Define working capital.
d. What is the purpose of Scheduling?
e. What do you mean by MPS?
f. Write a short note on Forecast error.
g. State the principles related to facility layout.
h. Define Pull and Push System.
i. What are the costs associated in aggregate planning?
j. State the Johnson's Rule.

Section – B **(8 marks each)**

UNIT-I

Q2. What do you mean by Operation Planning and state the factors affecting operation planning and why is the need for operations planning?

Q3. Define the term Forecasting. What is its purpose and explain the methods of forecasting in detail.

UNIT-II

Q4. Explain Key Performance Indicators (KPI) with its types.

Q5. Define MRP and the factors affecting MRP and what are the characteristics of production system to support MRP?

UNIT-III

Q6. Explain the role of ERP in operation planning and control.

Q7. Explain Product and Process layout with its advantages and disadvantages.

UNIT-IV

Q8. Describe types of capacity. Why capacity planning is important in operation planning?

Q9. What are the different criteria for scheduling job shop production system and give their justification.

Section – C **(8 marks)**

Q10. Case Study:

The client was the Australian federal government, who needed to forecast the annual budget for the Pharmaceutical Benefit Scheme (PBS).The PBS provides a subsidy for many pharmaceutical products sold in Australia, and the expenditure depends on what people purchase during the year. The total expenditure was around A$7 billion in 2009, and had been underestimated by nearly $1 billion in each of the two years before we were asked to assist in developing a more accurate forecasting approach.

In order to forecast the total expenditure, it is necessary to forecast the sales volumes of hundreds of groups of pharmaceutical products using monthly data. Almost all of the groups have trends and seasonal patterns. The sales volumes for many groups have sudden jumps up or down due to changes in what drugs are subsidised. The expenditures for many groups also have sudden changes due to cheaper competitor drugs becoming available.

a. Which method of forecasting of sales volumes will be beneficial to be used by client?
b. How this method will bring robust change in the underlying patterns?