Roll No…….. **Total No. of Printed Pages: 2**

Total No. of Questions: [10]

MBA (Aviation Management) (Semester – 2nd)

OPERATIONS MANAGEMENT

Subject Code: MBADS1225

Paper ID: 23260405

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. Define Strategy.
b. What is Operations Manager?
c. Define Capabilities.
d. Explain Facility Location.
e. What do you understand by Project?
f. What is Corporate Profitability?
g. Explain the concept of Product-Mix.
h. What is Transportation problem?
i. Define Dominance Method?
j. Explain: Johnsons Algorithm.

Section – B **(8 marks each)**

UNIT-I

Q2. Explain the Difference between Manufacturing and Service Operations?

Q3. Define Global Strategies and Role of Operations Strategy.

UNIT-II

Q4. Explain the requirements for Types of Layouts.

Q5. Explain the Operations Management in Corporate Profitability and Competitiveness.

UNIT-III

Q6. Explain the Concept of Mathematical Formulations of LP Models for Product-Mix Problems.

Q7. Explain the fundamentals of Initial feasible solution using North-west Corner Rule.

UNIT-IV

Q8. Explain the Dominance Method and Graphical Method for Solving Mixed Strategy Game.

Q9. Explain the Two Jobs and M Machines Problems.

Section – C (8 marks)

Q10. Case Study

You have the opportunity to invest INR 100 billion for your company to develop a jet engine for commercial aircrafts. Development will span 5 years. The final product costing Rs. 500 million / unit could reach a sales potential, eventually of Rs. 2500 billion. The new engine can be placed in service 5 years from now, but only if it qualifies four years from now for certification clearing commercial use and only if it meets America's Federal Aviation Administration's (FAA) ever tightening standards for noise reduction. Certification also has to be obtained from India's Director General of Civil Aviation (DGCA). There is competition from world-class manufacturers like Pratt and Whitney and Rolls Royce who are developing competing engines. If you decide to proceed with the project, you must also determine where the new engines will be produced and develop the manufacturing facilities. If you decline to proceed, your company could invest its resources elsewhere and based on its track record, get attractive returns.

(a) What would be your line of action?

(b) In case of lengthy product design and development time, what kinds of risks are there?