Reg. No. ☐☐☐☐☐☐☐☐

IV Semester M.B.A. (Day and Eve) Degree Examination, September/October- 2022
MANAGEMENT
Resource Optimization and Project Risk Management
(CBCS Scheme 2019-20)
Paper : 4.6.1

Time : 3 Hours   Maximum Marks : 70

SECTION - A

Answer any five questions, each carries 5 marks.   (5×5=25)

1. What are the factors influencing the utilization of resources?

2. State the difference between Resource levelling and resource smoothing.

3. How would you define Risk Management Process?

4. What are the benefits of Resource optimization?

5. Use the graphical method to solve the following LP problem.

   Maximise $Z = 5X_1 + 2X_2$

   Subject to the constraints

   i) $X_1 + 4X_2$

   ii) $3X_1 + 8X_2$

   iii) $10X_1 + 7X_2$ Where X_1, X_2

6. Mention the different types of risk in contingency planning.

7. What is risk response control and state its functions?

SECTION - B

Answer any three questions, each carries 10 marks.   (3×10=30)

8. What is a subsystem of the project management system and brief about the ten Subsystems of it?

9. Listed in the Table are the activities and sequencing necessary for a maintenance job on the heat exchanges in a refinery.

Activity	Description	Predecessor Activity
A	Dismantle pipe connections	-
B	Dismantle heater, closure and floating Front	A
C	Remove Tube handle	B
D	Clean bolts	B
E	Clean heater and floating head Front	B
F	Clean tube Bundle	C
G	Clean shell	C
H	Replace Tube Bundle	F,G
I	Prepare shell pressure test	D,E,H
J	Prepare tube Pressure Test and reassemble	I

Draw a network diagram of activities for the project.

10. What is Quality function Deployment in project Management and briefly discuss the steps of QFD as per industry standard.

11. What are the different methodologies in Risk management process?

SECTION - C

Compulsory Questions   (1×15=15)

12. A Manager of oil company has to decide on the optimal mix of two possible blending process of which the inputs and outputs per productions follows

Process	Input Crude A	Input Crude B	Output Gasoline X	Output Gasoline Y
A	5	3	5	8
B	4	5	4	4

Maximum availability of crude A and crude B is 200 and 150 units respectively. Market requirement shows at least 100 units gasoline X and 80 units of gaslone Y. Profit from production run of process A and B are Rs 300 and Rs 400 respectively. Formulate the problem as an LPP and determine the optimum product mix

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