

Total No. of page(s) :
Register No. :
Name of the Candidate :

B.Sc. DEGREE EXAMINATION, 2011
(DOUBLE DEGREE)
(OPERATIONS RESEARCH)
(PART – III -- PAPER–V)

750. NON-LINEAR PROGRAMMING AND SIMULATION

December)

(Time: 3 Hours

Maximum: 100 Marks

SECTION –A

(8×5=40)

Answer any EIGHT questions

1. Explain equality constraints deviation method.
2. Describe the extension of the Lograngian Method.
3. Explain Khun-Tucker conditions of single inequality constrained problem.
4. State the advantage of linear combination method.
5. Give the general form of NLPP. Also explain unconstrained optimization.
6. Explain the terms (i) Posynomial (ii) Monomial and (iii) Signomial functions in Geometric programme.
7. What is Monte-Carlo Simulation? Give various types of simulation.
8. Outline the limitations of simulation.
9. What is simulation? Explain the steps in simulation.
10. Mention the reasons for solving OR problems by simulation.

SECTION – B

Answer any THREE questions

(3×20=60)

11. Explain in detail Newton-Raphson method in solving the non-linear programming problem.
12. Describe geometric programming problem. State their advantages.
13. Explain separable programming.
14. Examine the scope of simulation applications.
15. Describe the mechanics of constructing and executing simulation models.