



FIFTH SEMESTER B.TECH DEGREE EXAMINATION, NOVEMBER 2013

ELECTRONICS AND COMMUNICATION ENGINEERING

EC /PTEC 09 502 QUANTITATIVE TECHNIQUES FOR MANAGERIAL DECISIONS

Time : Three Hours

Maximum : 70 Marks

PART A

(5 X 2=10 Marks)

Answer all Questions

1. What is a slack? What is its significance?
2. What is a network? How it is constructed?
3. What is safety stock?
4. State Duality principle.
5. What is an Hungarian method? Give its significance in transportation problem.

PART B

(4 X 5 = 20 Marks)

Answer any four questions

6. Briefly explain strategic and tactical decision making.
7. With a suitable example explain minimal spanning tree.
8. What are relevant and opposing costs? Explain.
9. Write a note on quantity discount.
10. Based on Rim condition, explain the degeneracy problem in transportation.
11. Explain the significance of Tableau format.

Turn Over

PART C

(4 X 10 = 40 Marks)

12. (a) Discuss in detail about the models of decision making.

(or)

(b) Discuss in detail about CPM and PERT networks.

13. (a) Explain the structure, functions and models of Inventory controls.

(or)

(b) (i) Explain the EOQ model with and without back logging.

(ii) What are P system and Q system? Explain.

14. (a) (i) Discuss in detail about the reduction of a feasible solution to basic feasible solution.

(ii) What is an artificial variable? Explain.

(or)

(b) Explain the algorithm of Charnes' M method of solving linear programming. Explain its difference over simplex method.

15. (a) With suitable examples explain the coefficient matrix and its properties.

(or)

(b) (i) Explain the steps involved in Stepping Stone algorithm.
