Printed Page:- **Roll No.** | | | | | | | | | | | | | | |

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

M.Tech

FIRST YEAR (SEMESTER-II) THEORY EXAMINATION (2020-2021)

(Subjective Type)

Subject Code: AMTME0216 **Max. Mks. : 30**

Subject: Optimization Techniques **Time : 50 Minutes**

General Instructions:

All questions are compulsory.

Question No. 1 to 15 are subjective type question carrying 3 marks each. Attempt any 10 out of 15 questions.

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty
1	Explain gradient of a function.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
2	What is a model in Operations Research ?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
3	What is Basic solution and basic feasible solution?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
4	Distinguish between integer programming problem and linear programming problem. Give examples.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
5	What is two phase method for solving a given linear programming problem?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
6	What is MODI Method and purpose of MODI Method?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
7	Define a queue. Explain the different type of Queue systems.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
8	List the characteristic of a queueing system.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty
9	Explain the queue discipline and its various forms.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
10	What is dummy activity? why we use dummy activities.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
11	What are the applications of zero-one integer programming?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
12	What are the methods used in solving IPP? Explain any one method.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
13	State Kuhn-Tucker conditions for a non linear programming problem having a maximization objective function.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
14	What is Dynamic programming ? What are the advantages of Dynamic programming?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
15	How does unbound solution occur in graphical method?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant