



**Dr. V. N. Bedekar Institute of Management, Thane**  
**Teaching Plan (MMS/PGDM)**  
**Academic Year (2018-2019)**

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Programme Name: PGDM

Trimester: II

Name of the subject: Quantitative Techniques

Maximum marks: 100

No. of Sessions: 10

Name of the Faculty: Dattaprasanna Marathe

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Weblink:

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**Learning Objectives:**

**To learn various techniques of optimization.'**

**To apply techniques in real life situation**

**To achieve capability of scaling up academic model into real life model and optimize operations.**

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**Reference Books:**

**Operations Research by N D Vohra**

**Quantitative methods for Business by Anderson, Sweeney and Williams**

**Operations Research by J K Sharma**



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**Plan:**

| <b>Session No</b> | <b>Topics to be covered</b>   | <b>Books referred/ Recommended/ References-<br/>Print/Articles/ News/Research papers/ Online<br/>database/ Software /Simulations used</b> | <b>Learning outcomes</b>                                | <b>Evaluation of Students understanding by<br/>MCQs, Quiz, Short Test</b> |
|-------------------|---|---|---|---|
| 1                 | Basics of Quantitative methods and Operations Research                              | Books as per no 1,2,3   | Understand basic concepts                               | Examples, problems and cases  |
| 2                 | Linear Programming Introduction and graphical method                                | Same as above   | Analyse and interpret solution                          | Examples, problems and cases  |
| 3                 | Linear programming Examples   | Same as above   | Analyse and interpret solution                          | Examples, problems and cases  |
| 4                 | Linear programming cases Vajra tools, Production strategy, Panchatantra Corporation | Same as above   | Analyse, develop solution, interpret and scale up model | Examples, problems and cases  |
| 5                 | Linear Programming cases, Advertising strategy, McCentrix corporation on Excel      | Same as above   | Analyse, develop solution, interpret and scale up model | Examples, problems and cases  |
| 6                 | LPP on Excel  | Same as above   | Analyse, develop solution, interpret and scale up model | Examples, problems and cases  |
| 7                 | Assignment technique  | Same as above   | Analyse and interpret solution                          | Examples, problems and cases  |
| 8                 | Assignment application on flight scheduling   | Same as above   | Analyse, develop  | Examples, problems and  |



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|    |                               |               |   |                              |
|----|-------------------------------|---------------|---|------------------------------|
|    | on Excel                      |               | solution, interpret and scale up model                  | cases                        |
| 9  | Transportation problem        | Same as above | Analyse and interpret solution                          | Examples, problems and cases |
| 10 | Transportation cases on Excel | Same as above | Analyse, develop solution, interpret and scale up model | Examples, problems and cases |
| 11 |                               |               |   |                              |
| 12 |                               |               |   |                              |

**Practical Approach : Other activities (Atleast 4 distinct activities)**

| Sr. No. | Activity Name                         | Topic Covered   | Learning outcomes                                      | Source |
|---------|---------------------------------------|---|--|--------|
| 1       | Role Play                             |   |  |        |
| 2       | Industry Visit                        |   |  |        |
| 3       | Academic Projects                     | <b><u>Flight scheduling</u></b>                           | <b><u>Data collection ,analysis, interpretaion</u></b> |        |
| 4       | Book Review                           |   |  |        |
| 5       | Group Discussion                      |   |  |        |
| 6       | Business Quiz / Business News sharing |   |  |        |
| 7       | Videos / Simulation                   |   |  |        |
| 8       | Use of Softwares and Labs             | <b><u>Excel for LPP Assignment and transportation</u></b> | <b><u>Analysis and interpretation</u></b>              |        |
| 9       | Any other activity                    |   |  |        |



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**Evaluation:**

**Internal:**

| <b>Component</b> | <b>Details</b> | <b>Marks</b> |
|------------------|----------------|--------------|
| Class Test       |                |              |
| Presentation     |                |              |
| Case Study       |                |              |
| Participation    |                | 20           |
| Case assignments |                | 30           |

**Signature of Faculty**

**Signature of the Co-ordinator**