Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **18MS3041** | **Duration :** | **3hrs** |
| **Sub. Name :** | **LOGISTICS CONCEPTS AND PLANNING** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Examine the various logistics functions performed by logisticians as a consolidator? | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Discuss in detail the components of Logistics. | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | How to improve effectiveness of logistics management in countries like India? | CO1 | 10 |
|  | b. | List out and explain the logistics process design. | 10 |
| (OR) | | | | |
| 4. |  | Discuss the logistics planning and coordination flows. | CO2 | 20 |
|  |  |  |  |  |
| 5. | a. | Explain the effects of transportation in logistics activities? | CO2 | 10 |
|  | b. | Elaborate the transportation interaction of business processes and supply chain. | 10 |
| (OR) | | | | |
| 6. |  | Demonstrate the different parameters that determine the successful logistics strategies? | CO2 | 20 |
|  |  |  |  |  |
| 7. |  | Explain the dimensions of different internationalism strategies of logistics. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | Summarize the merits and demerits of different modes of transportation. | CO3 | 20 |
|  | |  |  |  |
| 9. | | **Compulsory**:  **Compulsory :**  **Scenario**: A global courier company has a dedicated express delivery operation that moves everything from small envelopes and packages to pallet-sized goods across its vast network.  In any given day, thousands of trucks are dispatched from multiple locations performing same day or in some cases, time-specific deliveries. Stops per truck range from 20 to 200 a day, including pickups and deliveries.  **Challenge**: Like many courier and LTL companies, the company is dealing with a highly variable logistics network, in which each day, deliveries do not go to the same destination and new customers could come from any location. The variability and density of daily delivery schedules makes it extremely challenging for managers to optimize resources on the road. Adding to the complexity is the fact that the courier’s fleet is comprised of both managed and third-party services.  **Opportunity**: Scheduling and routing have been done manually via spreadsheets. While the operation has done some spreadsheet-based stop counts using map overlays and other PC-based mapping solutions, these do not scale to address the company’s entire planning needs, are time consuming to use, and do not update delivery information in real time as orders came in .The company realizes that more effective pick-up and delivery route planning would be an important contributing factor in increasing productivity and helping to achieve cost reductions within the business. Improving on-the-road efficiency would assist towards optimized driver time on the road and thereby help control unnecessary payroll costs. Making sense of extreme complexity  Whether one is running regional, national or global delivery operations, courier and LTL delivery companies could be dealing with hundreds, thousands or even hundreds of thousands of vehicles on the road. An LTL carrier could have anywhere from five to 800 vehicles, and eight or more terminal locations servicing 1,000 to 1,500 customers a day. On average, high density routes could require 20 to 200 stops a day.  The variable nature and speed of execution can make route planning a complex and daunting challenge, since in many cases, operators may be unable to confirm delivery and pickups more than 24 hours to one hour before they execute them.  As a result, mapping the appropriate number of routes and scheduling of warehouse dock workers can be a guessing game at best.  Making manual decisions on route planning may increase the potential for service failure or over sizing/under sizing capacity requirements on routes.  In addition, with last minute delivery requests, routes are not always optimized the way they could be. All of these factors can add unnecessarily to delivery and pickup costs and undermine customer satisfaction.  Couriers and LTL (Less than Truck Load) companies with limited route building capabilities are now turning to solutions such as Descartes Area Planner in their drive to reduce operational costs, improve delivery cycles, adapt to fluctuating logistics network volumes, and standardize and automate processes across global operations. | CO3 |  |
|  | a. | Critically analyse the solution for real world delivery demands. | CO3 | 10 |
|  | b. | Examine the risks involved in carrying cargoes of different owners in a single truck. | CO3 | 10 |