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

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

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| **Code : 16MS3009** |  | **Duration :** | **3hrs** |
| **Sub. Name : PRODUCTION AND OPERATIONS MANAGEMENT** |  | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Describe the new product development process, with reference to food industry. | CO1 | 10 |
| b. | How would the manufacturing strategies change at different stages of the product life cycle? | CO1 | 10 |
| (OR) | | | | |
| 2. |  | What should all brand CEOs must know about developing great new products? How would you identify the need for new products? What strategies can you explore? | CO1 | 20 |
|  | | | | |
| 3. |  | What makes locational decisions in retailing strategic in nature? Discuss with suitable examples the factors necessary to consider before selecting a final site for any store. | CO2 | 20 |
| (OR) | | | | |
| 4. | a | What is the scope of materials management? Define the various roles of materials management in the context of internal and external interfaces to a materials management system. | CO1 | 10 |
| b | Annual demand for an item is 4800 units. Ordering cost is Rs.500 per order. Inventory carrying cost is 24% of the purchase price per unit, per year. The price breaks are shown as   |  |  | | --- | --- | | Quality | Price (in Rs) | |  | 10 | |  | 9 | |  | 8 |   Find the optimal order size. | CO2 | 10 |
|  | | | | |
| 5. |  | Explain the differences between MRP and MPS. Though both components gives you the requirement list, what do we gain out of MPS run rather than running MRP? What is the main idea behind this? | CO2 | 20 |
| (OR) | | | | |
| 6. |  | What is aggregate planning? Discuss the aggregate planning strategies with their relative prominence in production process. | CO2 | 20 |
|  | | | | |
| 7. |  | How could we use "The 7 basic quality tools" (7QC) for building project management plan? | CO3 | 20 |
| (OR) | | | | |
| 8. | a. | Compare 9001 Quality Management with General Management Systems. | CO3 | 10 |
| b. | How PDCA cycle is used in the context of TQM? | CO3 | 10 |
|  | | | | |
| **Compulsory**: | | | | |
| 9. |  | **Case Study:**  OPERATIONAL STRATEGY  You have the opportunity to invest INR 100 billion for your company to develop a jet engine for commercial aircrafts. Development will span 5 years. The final product costing Rs. 500 million / unit could reach a sales potential, eventually of Rs. 2500 billion. The new engine can be placed in service 5 years from now, but only if it qualifies four years from now for certification clearing commercial use and only if it meets America’s Federal Aviation Administration’s (FAA) ever tightening standards for noise reduction. Certification also has to be obtained from India’s Director General of Civil Aviation (DGCA). There is competition from world-class manufacturers like Pratt and Whitney and Rolls Royce who are developing competing engines. If you decide to proceed with the project, you must also determine where the new engines will be produced and the development of the manufacturing facilities. If you decline to proceed, your company could invest its resources elsewhere and based on its track record, get attractive returns. |  |  |
| a. | What would be your line of action? | CO2 | 10 |
| b. | In case of lengthy product design and development time, what kinds of risks are there? | CO2 | 10 |