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

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

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| **Code :** | **14ME 2043** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INDUSTRIAL ENGINEERING** | **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. | Distinguish work content and ineffective time. | CO1 | 6 |
| b. | Explain the detailed procedure to conduct time study. | CO1 | 14 |
| (OR) | | | | |
| 2. | a. | What is ‘productivity deflator’? | CO1 | 6 |
| b. | Enumerate the procedure of Method study. | CO1 | 14 |
|  |  |  |  |  |
| 3. | a. | What are the outcomes of capacity planning? | CO1 | 6 |
| b. | Explain the salient features of master production schedule. | CO1 | 14 |
| (OR) | | | | |
| 4. | a. | Define WIP in inventory. | CO2 | 6 |
| b. | What is inventory control and elaborate on its types with suitable illustrations. | CO2 | 14 |
|  |  |  |  |  |
| 5. | a. | Compare the 2 different types of control charts. | CO2 | 6 |
| b. | Discuss process capability analysis with neat diagrams and suitable examples. | CO2 | 14 |
| (OR) | | | | |
| 6. | a. | Differentiate MTBF and MTTR. | CO2 | 6 |
| b. | Find the reliability of the following system.  R(A)= 0.95  R(B)= 0.82  R(D)=0.80  R(C)= 0.88 | CO2 | 14 |
| 7. | a. | Prescribe suitable layout for ship building. | CO 3 | 6 |
| b. | i)There are 6 jobs to be processed in the machines A,B in the order A-B.processing time of the 6 jobs under machine A and Machine B is given in the following table.   |  |  |  | | --- | --- | --- | | Job | Processing Time  In Machine A | Processing Time  In Machine B | | Job1 | 3 | 2 | | Job2 | 6 | 5 | | Job3 | 4 | 6 | | Job4 | 7 | 3 | | Job5 | 5 | 2 | | Job6 | 8 | 8 |   Find the optimal sequence of the jobs to be processed and also find the idle time of machines and total elapse time to process the jobs. | CO 3 | 14 |
| (OR) | | | | |
| 8. | a. | State the concept of ‘ management by objective’. | CO 3 | 6 |
| b. | Enumerate the variant and generative approaches of computer aided process planning. | CO 3 | 14 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | List the benefits of supply chain management. | CO 3 | 6 |
| b. | Explain the process of business process reengineering with suitable example. | CO 3 | 14 |