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**BIME-020** 

## B.Tech. - VIEP - MECHANICAL ENGINEERING (BTMEVI) Term-End Examination

June, 2019

## **BIME-020 : INDUSTRIAL ENGINEERING**

Time : 3 hours Maximum Marks : 70 Note : (i) Answer any five questions. (ii) All questions carry equal marks. 1. (a) What is Industrial Engineering? Outline 7 the scope of Industrial Engineering. 7 (b) Define the term of Productivity. How is it different from Production ? Give suitable examples. 1 2. (a) Discuss ergonomic factors considered for 7 designing a office chair. Describe the basic procedure for making a (b) 7 time-study using a stop watch. 3. (a) Explain the principles of motion economy 7 as applied to the use of tools and equipments. (b) What do you understand by product life 7 cycle? Discuss its phases with the help of a suitable example.

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| 4. | (a)<br>(b) | List the types of control charts for variables<br>and explain any one of them with the help<br>of a suitable example.<br>Explain the procedure for Sequential | 7<br>7 |
|----|------------|---|--------|
|    | . ,        | Sampling Plan.  |        |
| 5. | (a)        | List down objectives of Inspection. Explain   | 7      |
|    | (1-)       | how it helps in Quality Management ?  | 7      |
|    | (b)        | List various methods of rating. Discuss the importance of performance rating in time-study.   | ,      |
| 6. | (a)        | Explain any two types of charts used in Method Study.   | 7      |
|    | (b)        | Describe in brief the predetermined motion time study.  | 7      |
| 7. | Write      | e short notes on the following : $4x3^{1/2}=1$  | 14     |
|    | (a)        | Value Engineering   |        |
|    | (b)        | Quality Control   |        |
|    | (c)        | Design for Manufacturing  |        |
|    | 4 .        |   |        |

(d) Product Standardization

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