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



**End Semester Examination – Nov/Dec– 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code :** | **14ME2044** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INDUSTRIAL DESIGN** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | What is TRIZ? Explain its methodology and give its application. | CO2 | 20 |
| (OR) | | | | |
| 2. | a. | Mention the steps to be followed in creating and sustaining successful growth. | CO1 | 8 |
| b. | Define the following with examples. |  |  |
|  | 1. Re-engineering. | CO2 | 4 |
|  | 1. Concurrent engineering. | CO2 | 4 |
|  | 1. Reverse engineering. | CO2 | 4 |
|  |  |  |  |  |
| 3. | a. | Discuss about customer oriented design and give an example from our daily life. | CO3 | 10 |
| b. | Explain in detail product life cycle with an example. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | What is an intellectual property rights? Name the agreement made to protect IP rights? Explain the main postulates of this agreement. | CO2 | 8 |
| b. | Explain the following terms. |  |  |
|  | 1. Ethics. | CO1 | 4 |
|  | 1. Patent. | CO1 | 4 |
|  | 1. Copyrights. | CO1 | 4 |
|  |  |  |  |  |
| 5. | a. | Explain about industrial ergonomics and mention its role in industries. | CO3 | 10 |
| b. | What is Human Interface System? Mention its applications. | CO3 | 10 |
| (OR) | | | | |
| 6. | a. | Discuss about industrial anthropometry citing its applications. | CO1 | 10 |
| b. | How will you design a workspace by considering the requirements of customer needs and economical design? | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | Explain the four kinds of interactions between human and products. | CO3 | 10 |
| b. | Explain the important strategies of design for environment. | CO2 | 10 |
| (OR) | | | | |
| 8. | a. | Justify the need for prototype modeling and simulation in engineering design. | CO2 | 10 |
| b. | Explain any four types of customer requirements. | CO3 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Mention the steps to be followed to improve creative thinking. | CO2 | 6 |
|  | b. | List out the types of models in engineering design. | CO2 | 4 |
|  | c. | Write about OSHA. | CO2 | 10 |

ALL THE BEST