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

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

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| **Code :** | **15EI2021** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ERGONOMICS IN HOSPITALS** | **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. | Elucidate the architecture of human technological system. | CO1 | 10 |
| b. | Present the details of the human and medical device interaction when operating a medical device. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Classify the types of visual displays. Illustrate the display system in multiparameter monitor. | CO2 | 15 |
| b. | Detail the merits of data presentation methods. | CO1 | 5 |
|  |  |  |  |  |
| 3. | a. | Give the criteria for human interactive model. | CO1 | 5 |
| b. | Detail the material handling operations in a hospital work. | CO1 | 10 |
| c. | Brief the safety aspects for devices in hospitals. | CO1 | 5 |
| (OR) | | | | |
| 4. | a. | State the causes and effects of hazards in hospital. | CO2 | 10 |
| b. | Elaborate the methods of preventing the hazards. | CO1 | 10 |
|  |  |  |  |  |
| 5. | a. | Discuss the significance of human factors in a work place design. | CO1 | 5 |
| b. | Develop the model of the outpatient section in a hospital with ergonomic considerations. | CO2 | 15 |
| (OR) | | | | |
| 6. | a. | Infer the Design features of Diagnostic worktable. | CO2 | 10 |
| b. | Design the ergonomic requirements in a surgical rooms. | CO2 | 10 |
|  |  |  |  |  |
| 7. |  | Elaborate the environmental conditions involved in design of the hospital work place. | CO3 | 20 |
| (OR) | | | | |
| 8. | a. | Detail the nature of work and energy consumed in a hospital. Brief the measurement of energy utilization in humans. | CO2 | 10 |
| b. | Discuss the types of work that causes musculoskeletal disorder. | CO1 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Discuss the remedial action for preventing musculoskeletal disorder in a hospital work place. | CO3 | 14 |
| b. | Give notes on measurement techniques for stress related injury. | CO3 | 6 |