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

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

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| **Code :** | **14CE2033** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BUILDING SERVICES** | **Max. marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | What is rain water harvesting? Describe different rain water harvesting techniques with neat sketches. Draw the layout of rain water harvesting in a residential building. | CO1,CO3 | 20 |
| (OR) | | | | |
| 2. |  | Explain   1. conservancy system for waste disposal. 2. working of septic tanks. | CO1,CO3 | 20 |
|  |  |  |  |  |
| 3. |  | What are building bye-laws? Enumerate the problems that can occur if buildings are constructed without following bye-laws | CO1 | 20 |
| (OR) | | | | |
| 4. |  | Describe in detail power transmission to buildings with the help of a schematic diagram. | CO3 | 20 |
|  |  |  |  |  |
| 5. |  | What are green buildings? Explain the ways of energy conservation adopted in green buildings. | CO1 | 20 |
| (OR) | | | | |
| 6. |  | Explain briefly the various safety regulations with respect to fire and how they are adopted in buildings? | CO1 | 20 |
|  |  |  |  |  |
| 7. |  | Classify different types of air conditioning systems. Also differentiate between natural and artificial ventilation. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | Explain the special features required for physically handicapped and elderly in building types. | CO1 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | State and explain the various concepts of smart materials and their applications. | CO1 | 5 |
| b. | Enumerate the various options that you would adopt for suppressing the fire, imagining there is fire in an IT Tech Park that you are employed. As Engineer can you? | CO1 | 5 |
| c. | Discuss on the various components of Structural Health Monitoring System. | CO3 | 5 |
| d. | Enumerate on the various aspects of Environment and Security that makes a facility smarter. | CO3 | 5 |