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

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

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| **Code :** | **17CE2001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BUILDING MATERIALS AND GEOLOGY** | **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. | List the kinds of metamorphism. | CO1 | 2 |
| b. | Explain Bar, Spit and Tombola with a neat sketch. | CO1 | 4 |
| c. | Explain physical and chemical weathering process in detail. | CO1 | 14 |
| (OR) | | | | |
| 2. | a. | Recall the hardness for the following minerals.   1. Diamond 2. Quartz | CO2 | 2 |
| b. | Describe the classification and physical properties of Quartz family. | CO1 | 9 |
| c. | Give an detailed account of the mineralogical composition, engineering properties, behavior and uses of clay minerals | CO1 | 9 |
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| 3. | a. | Define hypabyssal rocks. | CO2 | 2 |
| b. | Briefly describe the prime physical properties of sedimentary rocks. | CO3 | 2 |
| c. | Elaborate the Properties of the following rocks :   1. Granite 2. Dolerite 3. Basalt | CO3 | 16 |
| (OR) | | | | |
| 4. | a. | Define petrology. | CO1 | 2 |
| b. | Sketch the different types of igneous rocks with respect to mode of origin. | CO1 | 3 |
| c. | Explain in detail about the types, texture and structure of igneous rock. | CO1 | 15 |
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| 5. | a. | Sketch the Chevron fold. | CO2 | 2 |
| b. | Classify joints with a neat diagram. | CO1 | 4 |
| c. | Explain various types of fault with neat diagram | CO2 | 14 |
| (OR) | | | | |
| 6. | a. | List the Geophysical methods for subsurface investigation. | CO2 | 2 |
| b. | Define Dip | CO1 | 2 |
| c. | Elaborate the geological consideration for the construction of tunnels. | CO2 | 16 |
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| 7. | a. | Define the term Efflorescence. | CO3 | 2 |
| b. | List out the defects in timber | CO1 | 2 |
| c. | Recall the use of Third class brick in civil engineering structures. | CO3 | 2 |
| d. | Describe the various tests on bricks. | CO3 | 14 |
| (OR) | | | | |
| 8. | a. | List the physical tests on Cement. | CO3 | 2 |
| b. | What is White cement and where is it used? | CO3 | 2 |
| c. | Recall the setting time of cement. | CO3 | 2 |
| d. | Explain the types of cement produced in India. | CO3 | 14 |
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|  | | **Compulsory**: |  |  |
| 9. |  | Describe Geomembrane and Geotextile for earth reinforcement with a case study. | CO3 | 20 |