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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May– 2017**

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| **Code :** | **16CE1001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **EVOLUTION OF CIVIL INFRASTRUCTURE** | **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. | Enumerate the qualities of good brick. | CO2 | 5 |
| b. | State the uses of sand. | CO1 | 5 |
| c. | Describe in detail about the different mechanical properties of building materials. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | List the requirements of a good aggregate. | CO2 | 5 |
| b. | Summarize the different uses of stones. | CO1 | 5 |
| c. | Discuss in detail about the ingredients of cement and the function of each. | CO2 | 10 |
| 3. | a. | Outline the various properties of a good mortar. | CO2 | 5 |
|  | b. | Construct the procedure for setting out right angle in field. | CO1 | 5 |
|  | c. | Enumerate the advantages and disadvantages of concrete. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | Explain the different ingredients in concrete. | CO2 | 5 |
|  | b. | Define (i) End bearing pile (ii) Friction pile | CO3 | 5 |
|  | c. | Review in detail about any five building bye-laws. | CO3 | 10 |
| 5. | a. | Describe the fundamental principles of Green Buildings. | CO4 | 5 |
|  | b. | Enumerate the factors affecting the size of an airport. | CO3 | 5 |
|  | c. | Differentiate between shallow foundation and deep foundation. | CO3 | 10 |
| (OR) | | | | |
| 6. | a. | Compare suspension and cable-stayed bridges, with the help of neat sketches. | CO4 | 5 |
|  | b. | Enumerate the economic advantages of railways. | CO3 | 5 |
|  | c. | Describe in detail about any five components of super-structure of a building. | CO3 | 10 |
| 7. | a. | ‘Coning of wheels is essential’. Discuss the statement. | CO3 | 5 |
|  | b. | Summarize the characteristics of copper-tubing pipes. | CO4 | 5 |
|  | c. | With the help of a neat sketch, explain the different components of an airport. | CO4 | 10 |
| (OR) | | | | |
| 8. | a. | Enumerate the advantages of pre cast concrete construction. | CO3 | 5 |
|  | b. | List down the different components of a railway track. | CO3 | 5 |
|  | c. | Define storage tank. Explain its different parts and the pipes connected to it. | CO3 | 10 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Categorize the functional classification of harbours. | CO4 | 5 |
|  | b. | Write short notes on (i) Break water (ii) Turning basin | CO3 | 5 |
|  | c. | Dicuss in detail about the different types of dams. | CO3 | 10 |