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**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE**

**End Semester Examination – MAY 2019**

**Course: B. Tech in Civil Engineering**

**Sem: III**

**Subject Name: Building Construction**

**Subject Code: BTCVC305**

**Max Marks: 60**

**Date: 01/06/2019**

**Duration: 3 Hr.**

**Instructions to the Students:**

1. Solve **ANY FIVE** questions out of the following.
2. The level question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.
3. Use of non-programmable scientific calculators is allowed.
4. Assume suitable data wherever necessary and mention it clearly.

|   | (Level/CO)         | Marks     |
|---|--------------------|-----------|
| <b>Q. 1 Solve of the following.</b>   |                    | <b>12</b> |
| A) Draw the neat plan and elevation (not to scale) of the following bonds         | <b>Analysis</b>    | <b>6</b>  |
| 1. English bond - One Brick thick   |                    | <b>2</b>  |
| 2. English bond - One and half brick thick  |                    | <b>2</b>  |
| 3. English bond - two brick thick   |                    | <b>2</b>  |
| B) Enlist the principles to be observed during construction of composite masonry? | <b>Knowledge</b>   | <b>6</b>  |
| <b>Q.2 Solve of the following.</b>  |                    | <b>12</b> |
| A) Enlist the type of admixtures with functions.                                  | <b>Knowledge</b>   | <b>6</b>  |
| B) Describe the factors affecting to the strength of concrete?                    | <b>Understand</b>  | <b>6</b>  |
| <b>Q. 3 Solve Any Two of the following.</b>                                       |                    | <b>12</b> |
| A) With neat sketch describe the technical terms used in arches?                  | <b>Application</b> | <b>6</b>  |
| B) I) Write down the difference between arches and lintels.                       | <b>Analysis</b>    | <b>4</b>  |
| II) Define the primary and the secondary beam.                                    | <b>Remember</b>    | <b>2</b>  |
| C) I) What is the requirement of good formwork?                                   | <b>Knowledge</b>   | <b>4</b>  |
| II) What are the functions of lintel?   | <b>Knowledge</b>   | <b>2</b>  |
| <b>Q.4 Solve Any Two of the following.</b>  |                    | <b>12</b> |
| A) Plan a dog legged stair for a building with the following data                 | <b>Synthesis</b>   |           |
| i) Vertical distance between the floors = 3.6 M                                   |                    |           |
| ii) Size of stair hall = 2.5 M X 5 M  |                    | <b>6</b>  |
| iii) Thickness of the floor slab = 140 MM   |                    |           |
| iv) Thickness of the waist slab and landing slab = 100 MM                         |                    |           |
| B) What is the requirement of good staircase?                                     | <b>Understand</b>  | <b>6</b>  |
| C) With neat sketch describe the technical terms used in door?                    | <b>Application</b> | <b>6</b>  |

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**Q. 5 Solve of the following.**

- A) State step by step procedure to construct concrete flooring for an industrial building.
- B) Write down the construction details for the tile flooring.

12  
Understand 6  
Understand 6

**Q. 6 Solve of the following.**

- A) What are the advantages and disadvantages of precast structure?
- B) Explain the concept of erection in precast building.

12  
Remember 6  
Understand 6

\*\*\* End \*\*\*

