

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE**B. Tech. First Year (Semester - I)****Basic Civil Engineering CV105****Time: 03 Hours****Date: 07/06/2019****Max Marks: 60****INSTRUCTIONS TO THE STUDENTS**

1. Attempt any five questions from the given six questions. Figures to the right indicate full marks.
2. Illustrate your answers with neat sketches, diagrams etc. wherever necessary.
3. Necessary data is given in the respective questions. If such data is not given, it means that the knowledge of that data is a part of the examination.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly.
5. Use of logarithmic table, drawing instruments and non programmable calculators is permitted.

(Marks)

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| Q. 1 | a) List any six types of flooring. | (6) |
| | b) List any six types of cements. | (6) |
| Q. 2 | Solve any three: | (4x3) |
| | a) Draw a neat sketch of under-reamed pile. | |
| | b) What is the function of windows in building? Draw neat sketch of aluminum framed double shuttered glazed panel window. | |
| | c) Write a short note on bearing capacity of soil. | |
| | d) What are the different elements of a building? | |
| Q. 3 | a) Draw a king post truss. | (6) |
| | b) Differentiate between load bearing and framed structures. | (6) |
| Q. 4 | Solve any two: | (6x2) |
| | a) Define: Contours, Fore Sight, Change Point, and Bench Mark. | |
| | b) Draw contour lines for: (i) hill, and (ii) sloping ground surface. | |
| | c) Draw a neat sketch of a 20 m chain used in survey work. | |
| Q. 5 | a) Draw a neat sketch of a general cross-section of a road. | (6) |
| | b) Draw neat sketches for the following road signs: Speed Limit 30 kmph, Overtaking prohibited, No entry. | (6) |
| Q. 6 | a) What is meant by air pollution and what are its sources. | (6) |
| | b) Explain: Rain water harvesting with neat sketch. | (6) |

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