

**SUBJECT CODE NO:- P-92**  
**FACULTY OF ENGINEERING AND TECHNOLOGY**  
**F. E. (All) (CGPA) Examination May/June 2017**  
**Basic Civil Engineering**  
**(Revised)**

[Time: Two Hours]

[Max.Marks:40]

Please check whether you have got the right question paper.

- N.B
- i) Question No.1 is compulsory.
  - ii) Attempt any two questions from the remaining questions.
  - iii) Draw neat sketches wherever necessary.
  - iv) Figures to the right indicate full marks.
- Q.1 Answer the following (Any five) 10
- i) Define FSI and Carpet area.
  - ii) Enlist the properties of cement.
  - iii) What are the loads coming on the structures?
  - iv) What are the objectives of surveying?
  - v) Define Fore bearing and back bearing.
  - vi) What is Domestic Water demand.
  - vii) Enlist the population forecasting methods.
  - viii) What is necessity of Irrigation.
- Q.2 a) What are the points to be considered for selection of site for residential building. 07  
 b) Explain the technical terms used in stair along with a neat sketch. 08
- Q.3 a) Define foundation and explain in detail functions of foundation. 07  
 b) Draw a neat labelled sketch of c/s of road in embankment. 08
- Q.4 a) Give Comparison between WCB and RB system along with neat sketch. 05  
 b) The following consecutive readings were taken with a dumpy level and 4m leveling staff on a continuously sloping ground. 10  
 1.625, 1.820, 1.995, 2.005, 1.720, 1.980, 2.150, 2.320, 2.455, 2.500  
 The instrument was shifted after taking 5<sup>th</sup> and 7<sup>th</sup> reading. Calculate Reduced levels of all points. If RL of BM is 131.700m. Use H.I method. Give Arithmetical Check.
- Q.5 a) Find the population of a city after One, two and three decades from the last known decade by Geometric increase method. Refer data from table.1 07  
 b) Explain roof top rainwater harvesting along with neat sketch. 08

Year	1950	1960	1970	1980	1990
Population	26000	29000	35000	43000	48000

Table:1 [Q.No.5a)]