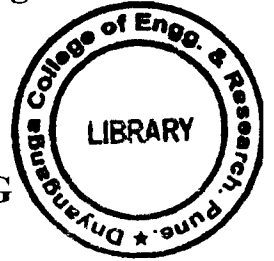


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Total No. of Questions : 8]

[Total No. of Printed Pages : 3

**[4261]-6****F. E. Examination - 2012****BASIC CIVIL AND ENVIRONMENTAL ENGINEERING****(2012 Course)**

Time : 2 Hours]

[Max. Marks : 50

**Instruction :**

Solve Q. No. 1 or 2, Q. No. 3 or 4, Q. No. 5 or 6 and Q. No. 7 or 8.

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- Q.1)** (A) Comment a statement "for successful completion of any Civil Engineering Project, combined efforts of all Branches of Engineering is necessary." [05]
- (B) Define Settlement. State various types of Settlement. State various causes of Settlements. [05]
- (C) State any two practical application of the following : [02]
- (a) Fluid Mechanics
- (b) Project Management

**OR**

- Q.2)** (A) Define Concrete. State various types of Concrete. Also mention one practical application of each. [05]
- (B) State different Modes of Transportation. Explain any one of in brief. [05]
- (C) Write a short note on Dead Load. [02]

**[4261]-6****1****P.T.O.**

- Q.3)** (A) Explain in brief Biotic and A Biotic Components of Ecosystem. [04]
- (B) The following staff readings were taken in continuously sloping ground, along the centre line of a road with the help of level and 4m staff at 30m interval. The first reading was taken on a starting point of a road, whose R-L was known to be 100.00m. The reading are 0.500, 0.900, 1.200, 2.300, 3.800, 0.400, 1.600, 2.200, 3.600, 0.700, 1.500, 2.700 and 3.400 : [08]
- (a) Determine the Reduced Levels of all Stations by Rise and Fall Method.
- (b) Find the Gradient of the Road.

**OR**

- Q.4)** (A) Define the following terms : [04]
- (a) Plane Surveying
- (b) Geodetic Surveying
- (c) Scale
- (d) Reduced Level
- (B) State various Natural Resources. Explain any one in brief. [04]
- (C) Write a short note on Hydrological Cycle. [04]
- Q.5)** (A) State various ways of achieving economy while constructing a building. [05]
- (B) State with reason, the Desirable Aspect for the following rooms of a residential building : [04]
- (a) Living Room
- (b) Kitchen
- (c) Bed Room
- (d) Study Room

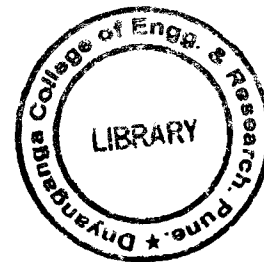
- (C) Define the following terms : [04]
- (a) Built up Area
  - (b) Floor Area Ratio
  - (c) Setback Distance
  - (d) Roominess

**OR**

- Q.6)** (A) Distinguish between Aspect and Prospect with need sketch. [04]
- (B) A building is to be constructed with G + 2 storey's and built up area on each floor is to be 600m<sup>2</sup>. A rectangular plot is purchased for this building, having width one third of the longer side. Find the dimensions of the plot, if FSI allowed is 1.50. [05]
- (C) Write a short note on Green Building. [04]
- Q.7)** (A) Distinguish between Conventional and Non-conventional Sources of Energy. [05]
- (B) When a Water is said to be polluted ? What are the various causes of Water Pollution? [04]
- (C) State various Eco-friendly Sources of Energy. Explain any one in brief. [04]

**OR**

- Q.8)** (A) Write a short note on Green House Effect. [05]
- (B) Define Air Pollution. Explain in brief the various sources of Air Pollution. [04]
- (C) Write a short note on Land Pollution. [04]



[4261]-6/3