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Total No. of Questions : 8]

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[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.*

- 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]

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 600m². 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]
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