

GANPAT UNIVERSITY

B.Tech. Semester-I(CE/IT/EC/BM)

Regular Examination – November / December: 2011

CI - 101: Elements of Civil Engineering

Max. Time: 3 Hours

Max. Marks: 70

- Instructions: -
- (1) Answer to the two sections must be written in separate answer books.
 - (2) Figures to the right indicate full marks.
 - (3) Assume suitable data if required.

Section - I

- 1 Attempt the following questions. 12
- (A) Give the difference prismatic compass and surveyor compass.
 - (B) What is closing error? How it can be eliminated by graphically?

OR

- 1 (A) What is ranging? Explain indirect ranging with neat sketch? 11
- (B) What are the uses of GIS and GPS?

- 2 Attempt the following questions. 11
- (A) Describe with sketches the characteristics and uses of contour.
 - (B) Give the difference dumpy level and Y-level

OR

- 2 (A) Explain the fundamentals principal of the surveying? List modern tools use for surveying and mapping. Explain any one in detail. 12
- (B) Describe various branches of civil engineering.

- 3 Attempt the following questions. 12
- (A) Write a short note on planimeter.
 - (B) The bearings of the sides of traverse ABCDE are as Follows.

Side	F.B	B.B
AB	107°	287°
BC	22°	202°
CD	281°	101°
DE	189°	9°
EA	124°	304°

Calculate included Angles and apply necessary Check.

Section - II

4 Attempt the following Question. 12

- (A) Draw a detail sketch of cross section of wall showing the components of buildings.
- (B) Give properties and uses of bricks. Which tests are carried out for bricks? Explain any one in detail.

OR

- 4 (A) Explain different types of paint used in building construction.
- (B) Draw a cross section of timber.

5 Attempt the following Question. 11

- (A) Define hydraulic lime, fat lime, and slack lime.
- (B) What is workability? Which factors are affecting on it? Which tests are carried out for workability? Explain any one test.

OR

- 5 (A) Draw detail sketches showing various component of typical highway cross section?
- (B) Describe hydrological cycle with neat sketches.

6 Attempt the following Question. 12

- (A) The following readings were taken with dumpy level and 4m leveling staff. The instruments were shifted after 5th and 8th reading. The readings are 2.865, 3.345, 2.935, 1.950, 0.855, 2.790, 2.640, 1.545, 0.935, 0.865, and 0.190. R.L of starting station is 150m. enter the readings in the form of level book page and calculate the R.L's of the remaining points by any methods
- (B) Give full name: DPC, EDM, OPC, RCC, RL, and HI.

END OF PAPER