GANPAT UNIVERSITY

B. TECH SEM- 1 & 2 Reg. & Rem   EXAMINATION-- NOV-DEC 2016
2CI101 : Elements of Civil Engineering

TIME: 3 HRS   **TOTAL MARKS: 60**

Instructions: (1) This Question paper has two sections. Attempt each section in separate answer book.
           (2) Figures on right indicate marks.
           (3) Be precise and to the point in answering the descriptive questions.
           (4) Assume suitable data if necessary.

SECTION: I

Q.1 **(A)** What is scheduling? Explain any one method of scheduling technique in detail. **(05)**

     (B) What is concrete? Explain concreting operation in details. **(05)**

OR

Q.1 **(A)** What is construction management? Explain functions of construction management. **(05)**

     (B) What is aggregate? Give classification of aggregate based on weight and size. **(05)**

Q.2 **(A)** Enumerate various principles of planning and briefly explain them. **(05)**

     (B) Write a short note on watershed development. **(05)**

OR

Q.2 **(A)** What are the requirements of a building? **(05)**

     (B) What is hydrology? What are its applications? **(05)**

Q.3 **(A)** What are the various physical properties of cement? Explain the laboratory test for finding out compressive strength of cement. **(05)**

     (B) Give the classification of rocks. And explain geological classification in detail. **(05)**

SECTION: II

Q.4 **(A)** Define surveying and explain its object. What are the purposes of survey? **(05)**

     (B) The distance between two stations was measured with a 20.00 m chain and found to be 1400 m. The same distance was measured with a 30.00 m chain and found to be 1295.40 m. If the 20.00 m chain was 5.0 cm too short, what was the error in the 30.00 m chain? **(05)**

OR

Q.4 **(A)** Enumerate the various direct methods of linear measurements. **(05)**

     (B) Differentiate between **(05)**

        1. Prismatic compass and surveyor's compass

        2. Compensating errors and cumulative errors

Q.5 (A) What is a compass? What are its essential three parts with application? (05)

(B) Describes the characteristics of contours. (05)

OR

Q.5 (A) Define the following terms: (05)

Meridian, Line of collimation, Check line, Leveling, Oblique offset

(B) The following were observed with a compass for the closed traverse ABCDA. (05)

Line	F.B.
AB	N 55° 15'E
BC	N 68° 30'E
CD	S 40° 15'W
DA	N 75° 45'W

Find the included angles and also apply the necessary check.

Q.6 (A) Give reason "The transport has been recognized as a great public utility service. (04)

(B) The following consecutive readings were taken with a dumpy level along a chain line at (06) a common interval of 30 m. the instrument was shifted after 3rd and 6th readings. The readings are:

2.665, 3.225, 2.905, 1.850, 0.98, 2.620, 1.585, 0.960, 0.425

A bench mark with reduced level of the 1st point as 240 m.

(a) Prepare a page of level book and enter these readings.

(b) Calculate RL of all points and

(c) Apply the usual checks.

Use any method of elevation measurement.

---END OF PAPER---