

GANPAT UNIVERSITY

B. Tech. Semester Ist (EC/CE/IT/BM), Examination – Nov / Dec : 2010

CI - 101: Elements of Civil Engineering

Max. Time: 3 Hours

Max. Marks: 70

Exam. No. of the candidate: _____

Supervisor's dated initial: _____

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 (A) Define: Meridian, Bearing, true meridian, arbitrary meridian, Agonic lines, and isogonic lines. (3)
- (B) What is local attraction? How it can be detected? (3)
- (C) The Fore bearing sides of traverse PQRST are as under. (5)

Side	F.B.
PQ	348° 15'
QR	299° 30'
RS	230° 00'
ST	137° 30'
TP	71° 15'

Compute the included angles and apply necessary check.

- 2 (A) What is ranging? Explain indirect ranging with figure. (6)
- (B) The Following bearing were taken in running in compass traverse where local attraction was suspected. (6)

Line	F.B.	B.B.
AB	38° 30'	219° 15'
BC	100° 45'	278° 30'
CD	25° 45'	207° 15'
DA	325° 15'	145° 15'

Find the correct fore and back bearing and the true bearing of each of the lines given that the magnetic declination was 5° E.

OR

- 2 (A) Write short note on Prismatic compass. (6)
(B) A chain was measuring exactly 20.0 m at the beginning of survey. At the end it was found to be 20 cm shorter. The area surveyed and drawn to a scale of 1 cm = 100 m was found to be 100 cm². Find the true area in hectares. (6)
- 3 **Attempt any Two:** (12)
(A) Write short note on Planimeter.
(B) Explain dumpy level with figure.
(C) What are various modes of transportation? Write down advantages and disadvantages of road transport.

Section – II

- 4 (A) Describe briefly various branches of civil Engineering. (3)
(B) Explain Hydrological cycle with neat sketch. (5)
(C) Give classification of dam. & explain it briefly. (4)
- 5 (A) Draw the outline diagram of the water supply system? (6)
(B) Describe various operation involve in concreting. (5)

OR

- 5 (A) Write a short note on following: (6)
(a) Granite (b) Basalt (c) Slate
(B) Explain seasoning and prevention of timber. (5)
- 6 **Attempt any Three:** (12)
(A) Geological classification of rocks.
(B) Role of Civil Engineer.
(C) Methods of Scheduling.
(D) Sewage treatment plant.

“ END OF PAPER ”