

Mozning

D. 14/05/2014.

Student Exam No:

GANPAT UNIVERSITY
B.TECH SEM II (CI/EE/ME/MC)
REGULAR EXAMINATION MAY- JUNE-2014
2CI101 ELEMENTS OF CIVIL ENGINEERING

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

Q1(A) Explain various aids and devices used to control, regulate and guide traffic. (6)

(B) Explain various branches of Civil Engineering. (6)

OR

Q1(A) Define concrete. Write a short note on concreting operation. (6)

(B) What are the requirements of good timber? Explain Seasoning and Preservation of timber. (6)

Q2(A) What are the requirements of good quality bricks? (6)

(B) Explain with a neat sketch the hydrological cycle. (5)

OR

Q2(A) List the various hydraulic structures and explain them briefly. (6)

(B) What are the requirements of a building? (5)

Q3(A) Explain BOT projects. (4)

(B) Explain Gantt bar charts. Write down its advantages and disadvantages also. (4)

(C) Define mortar. What are the requirements of good mortar? (4)

SECTION – II

- Q4(A) Differentiate between Geodetic survey and Plane survey. (6)
- (B) The length of a line was measured with 30 m chain and it worked out to be 655.00 m. it was consequently found out that the chain was 1.6 m too long? Calculate the true length of line? And what would have been the true length of line, if the chain was 2.4 m too short? (6)

OR

- Q4(A) What is Meridian? Explain types of Meridian with figure (6)
- (B) The following are the bearings of a closed traverse. Calculate the included angles for traverse and show the check. (6)

Line	F. B.	B. B
AB	N 45° 15' E	S 45° 15' W
BC	S 60° 30' E	N 60° 30' W
CD	S 20° 15' W	N 20° 15' E
DA	N 55° 00' W	S 55° 00' E

- Q5(A) Define: Chain line, Base line, Tie line, Tie Station, Offset. (4)
- (B) Following are the fore bearing and back bearings of the lines a closed traverse. ABCDEA. Calculate the included angles for traverse and show the check. (7)

Line	F.B.
AB	72° 30'
BC	122° 45'
CD	46° 15'
DA	210° 30'
EA	302° 30'

OR

- Q5(A) What is Theodolite? Write its types and uses. (4)
- (B) With the help of neat sketch explain use, parts and working of Planimeter. (7)

- Q6(A) What are the characteristics of contour lines? (4)
- (B) The following staff readings were taken with a dumpy level. The instrument was shifted after the 4th, 7th and 10th readings. R. L. of the B. M. is 100.00 m. Enter the readings in the page of a level book and find reduced level by the use of any method of levelling. Also apply the usual checks. (8)

2.640, 3.640, 3.820, 4.270, 4.650, 0.480, 0.970, 1.750, 2.950, 3.580, 4.780, and 4.910. m.

End of Paper.

Page 2 of 2