



SD-6077

B. Arch - I (Sem - II) Examination
May / June - 2011
Surveying & Levelling
(New Course)

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

नीचे दशांशों तक निशान्तीवाणी विगतो उत्तरवही पर अवश्य लिखनी.
Fillup strictly the details of signs on your answer book.

Seat No. :

Name of the Examination :

Name of the Subject :

Subject Code No. : Section No. (1, 2,.....):

Student's Signature

- (2) Assume suitable data and specifically mention it.
- (3) Figures to the right indicate full marks.
- (4) Use of nonprogrammable scientific calculator is permitted.

- 1 Define and explain following terms : 3
Offset, Meridian, WCB, Magnetic declination, RB, ranging.
- 2 (i) Explain instruments used in chain surveying. 6
(ii) Explain basic principles of surveying.
- 3 Following readings are taken with a prismatic compass, 4
check if there is any local attraction and correct wrong bearings :

Line	FB	BB
AB	60° 15'	245° 15'
BC	35° 20'	215°
CD	100° 15'	280°
DE	201° 45'	21°
EF	270° 30'	90° 30'

OR

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[Contd...

- 3 Calculate interior angles for an open traverse for the given data : 4

Line	FB
AB	65° 15'
BC	35° 20'
CD	100° 15'
DE	201° 45'
EF	270° 30'

- 4 Write short notes : (any **three**) 12
- (i) Magnetic declination
 - (ii) Process of chain surveying
 - (iii) Instruments used in plane table surveying
 - (iv) Any one method used in plane table surveying
 - (v) Types of meridian and types of bearing.

- 5 Explain following terms : IS, Contour Equivalent, RL, property documents. 4

- 6 What is levelling ? How it is done in field ? 4

- 7 Tabulate and calculate RL of all the stations if following readings are taken with a 3 m levelling staff. Instrument is shifted after 3rd and 6th reading. Use any method for calculation of RL. Benchmark was taken on a 1st station having 100 RL. 0.5, 0.2., 2.5, 2.9, 1, 0.36, 0.5, 0.8, 1.9, 0.5.

OR

- 7 Calculate area bounded between chain line and boundary using trapezium rule. 5

Offset (m)	1	3	4	5	8
Chain edge (m)	5	10	15	20	25

- 8 Write short notes on following: (any **three**) 12
- (1) Characteristics and use of contours
 - (2) Total station
 - (3) Cross section levelling
 - (4) Use of GIS in surveying
 - (5) Dumpy level.