

B.TECH
(SEM II) THEORY EXAMINATION 2017-18
SURVEYING AND LEVELLING

Time: 3 Hours

Total Marks: 70

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

- 1. Attempt all questions in brief. 2 x 7 = 14**
- a. Define surveying in brief.
 - b. Explain principle of surveying.
 - c. What is prismatic compass?
 - d. What do you mean by chaining?
 - e. What is dip of needle?
 - f. What is meant by local attraction?
 - g. What is reciprocal leveling?

SECTION B

- 2. Attempt any three of the following: 7 x 3 = 21**
- a. Explain two point problems in plane table surveying.
 - b. Describe obstacles in chaining.
 - c. Explain computations of area methods in detail.
 - d. What is longitudinal leveling? Explain in detail.
 - e. Explain theodolite traversing in detail.

SECTION C

- 3. Attempt any one part of the following: 7 x 1 = 7**
- (a) Explain chain measurements and error correction in detail.
 - (b) Describe selection of survey stations and lines.
- 4. Attempt any one part of the following: 7 x 1 = 7**
- (a) How will you remove local attraction in leveling?
 - (b) Explain three point problems in detail.
- 5. Attempt any one part of the following: 7 x 1 = 7**
- (a) How entry will be provided to field book?
 - (b) The fore bearings of the lines AB, BC, CD and DE are $45^{\circ}30'$, $120^{\circ}15'$, $200^{\circ}30'$ and $280^{\circ}45'$. Find angle B, C and D
- 6. Attempt any one part of the following: 7 x 1 = 7**
- (a) Describe temporary adjustment of theodolite.
 - (b) Explain different types of leveling in detail.
- 7. Attempt any one part of the following: 7 x 1 = 7**
- (a) The distance between two points measured with a 20m chain, was recorded as 327m. It was afterwards found that the chain was 3cm too long. What was the true distance between points?
 - (b) Explain bubble adjustment at the time of leveling.