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Question Paper Code: 54A06

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fourth Semester

Agriculture Engineering

15UAG406 – SURVEYING FOR AGRICULTURE

(Regulation 2015)

Duration: 1.15 hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The object of surveying is to prepare a CO1-R
(a) Drawing (b) Cross section (c) Sketch (d) Map
2. Which of the following scale is the smallest one CO1-R
(a) 1 cm = 5m (b) R.F = 1/5000 (c) 1:1,000 (d) 1 cm = 5km
3. The WCB of line is 330° its quadrantal bearing is CO2-R
(a) W 30° N (b) N 30° W (c) W 60° N (d) W 60° S
4. The tool which consists of metal rule 40cm long, 3cm wide and fitted with two vanes at the ends is called _____ CO2-R
(a) Alidade (b) Scale (c) Compass (d) Sprit Level
5. Elevation is drawn CO3-R
(a) Above plan (b) Below plan (c) On right side of plan (d) On left side of plan
6. Subtense bar is an instrument used for CO3-R
(a) Levelling
(b) Measurement of horizontal distances in plane areas
(c) Measurement of horizontal distances in undulated areas
(d) Measurement of angles

7. The number of horizontal cross wires in a stadia diaphragm is CO4-R
 (a) One (b) Two (c) Three (d) Four
8. The..... distance between any consecutive contours is called contour interval CO4-R
 (a) Vertical (b) Horizontal (c) Angles (d) Any two point
9. Tachemetric equation CO5-R
 (a) $D = K_s - C$ (b) $D = K_s / C$ (c) $D = K_s * C$ (d) $D = K_s + C$
10. Theodolite is an instrument used for CO5-R
 (a) To find the bearings only (b) To find the vertical angles only
 (C) To find the horizontal angles only (D) All of these

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. What is meant by ranging a line? Explain its methods. CO1-App (8)
12. The following are the bearings observed in traversing with a compass an area where local attraction was suspected. Find the amount of local attraction at different stations, the correct bearings of the lines. CO2-App (8)
- | Line | AB | BC | CD | DE | EA |
|------|----------|----------|----------|----------|----------|
| FB | 68° 15' | 148° 45' | 224° 30' | 217° 15' | 327° 45' |
| BB | 248° 15' | 326° 15' | 46° 00' | 38° 15' | 147° 45' |
13. Write short notes on various method of leveling. Explain with neat sketch. CO3-Ana (8)
14. Explain the procedure for conducting longitudinal section (LS) with neat sketch. CO4-U (8)
15. Write down the Temporary and Permanent adjustment of Theodolite followed for successful conduction of the survey. CO5-U (8)