

CP-9837

Sub. Code

93511

DIPLOMA EXAMINATION, NOVEMBER 2018.

Non-Semester

Land Survey Engineering

BASICS OF SURVEYING AND COMPASS SURVEYING

(2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define surveying.
2. Define plan and map.
3. What are the types of Ranging?
4. What are accessories used in chain surveying?
5. Mention different types of compasses?
6. Define traverse.
7. What are the methods of plane tabling?
8. What is plane tabling?
9. What is contour gradient?
10. What are the methods of contouring?

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) What is geodetic surveying and uses?

Or

- (b) Write any five uses of surveying.

12. (a) Briefly explain any two tape correction in chain survey.

Or

- (b) Write any four conventional signs uses in plotting.

13. (a) Convert the following fore bearing into back bearings

(i) $120^{\circ}30'$.

(ii) $200^{\circ}45'$

(iii) $50^{\circ}5'$

Or

- (b) What is meant by whole circle bearing?

14. (a) Explain in detail about traversing method of plane tabling.

Or

- (b) Explain the radiation method of plane tabling.

15. (a) Write down the Simpson's formula to calculating the capacity of reservoir.

Or

- (b) Explain in detail about the square contouring method.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) What are the accessories for a chain survey? Explain the functions of each.

Or

- (b) A 30m chain was found to be 0.1m too long after chaining 2400m. If the chain was correct before commencement of the work, find the true distance.

17. (a) What is local attraction in a compass surveying? How is it detected and corrected?

Or

- (b) Explain in detail about temporary adjustments of prismatic Compass.

18. (a) Explain in detail about intersection method of Plane tabling.

Or

- (b) What are the methods of contouring? And explain.
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93512

DIPLOMA EXAMINATION, NOVEMBER 2018

Non-Semester

Land Survey Engineering

ENGINEERING SURVEYING

(2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define simple curve.
2. What is transition curve?
3. Name any four types of levelling instruments.
4. Define levelling.
5. Define latitude.
6. What is theodolite?
7. Define stadia intercept.
8. What is tacheometry?
9. Define reduced level.
10. Write formula for correction refraction.

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Explain about curve ranging.

Or

- (b) Explain about the reverse curve.

12. (a) Describe of bench mark and types.

Or

- (b) Calculate the correction

- (i) correction of curvature

(1) 320 m

(2) 3.75 km

- (ii) correction of refraction

(1) 920 m

(2) 4.75 km

- (iii) combined correction of

(1) 120 m

(2) 1.75 km.

13. (a) Explain about the parts of theodolite.

Or

- (b) What are the methods of theodolite surveying? And explain.

14. (a) What are the advantages and disadvantages of theodolite method over stadia method.

Or

- (b) Explain in detail about the anallatic lens and uses.

15. (a) Write any five use of trigonometrical surveying.

Or

- (b) Explain in detail about the case of height and distance.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Describe in detail about the with neat sketch and parts of dumpy level.

Or

- (b) Explain in detail about the route surveying for highway and railway project.

17. (a) The following observed staff reading successively with a level the instrument have been moved after the third, and eight readings : 0.875, 0.145, 0.280, 1.25, 1.580, 1.960, 1.350, 1.450, 0.850, 0.650 and 1.520 using the height of collimation method and reduced level 250.000.

Or

- (b) Briefly explain in detail about the temporary adjustments of theodolite.

18. (a) Explain in detail about the difference between theodolite and tachometry.

Or

- (b) Explain in detail about the method trigonometrical surveying.

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93513

DIPLOMA EXAMINATION, NOVEMBER 2018

Non-Semester

Land Survey Engineering

MODERN SURVEYING

(2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define total station.
2. What is electromagnetic wave?
3. Write demerits of total station.
4. Write the parts of total station.
5. What are the correction EDM?
6. What is REM?
7. G.I.S. stands for
8. What are the uses of remote sensing?
9. What is GPS?
10. D.G.P.S. stands for

Part B**(5 × 5 = 25)**Answer **all** questions.

11. (a) Write any five uses of total station.

Or

- (b) Explain in detail about the basic principles of total station.

12. (a) Describe in detail about the tie distance and methods.

Or

- (b) Explain in detail about the electromagnetic waves.

13. (a) What is the orientation set? and explain.

Or

- (b) Briefly explain in detail about the adjustments of total station.

14. (a) Explain in detail about the principle of remote sensing.

Or

- (b) What are the sources of errors in GIS?

15. (a) What are the uses of DGPS.

Or

- (b) Explain in detail about the satellite signals.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about the neat sketch and function of electronic display.

Or

- (b) The co-ordinates of two points A and B are follows to find out the length and bearing AB.

point	northing	easting
A	500.25	640.75
B	840.78	315.6

17. (a) Explain in detail about the total station programme.

Or

- (b) Describe in detail about the electro magnetic energy.

18. (a) What are the methods and types of GPS.

Or

- (b) Describe in detail about the application of DGPS.