

C-1426

Sub. Code

93511

DIPLOMA EXAMINATION, NOVEMBER 2019

Non – Semester

Land Survey Engineering

BASIC OF SURVEYING AND COMPASS

(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) State two point problem and three-point problem.

15. (a) Write down the trapezoidal formula to calculating the capacity of reservoir.

Or

- (b) What is mean by capacity of reservoir?

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) What are the types of classification of surveying?

Or

- (b) Describe general principles of surveying.

17. (a) Draw a neat sketch of a prismatic compass and indicate the various parts and functions.

Or

- (b) The following are the bearing observed at the stations A,B,C,D of a closed traverse ABCD carried out with the help of prismatic compass.

LINE	F.B	B.B
AB	60°30'	240°30'
BC	120°30'	300°30'
CD	210°15'	30°15'
EA	320°45'	140°45'

18. (a) Explain about the three-point problem.

Or

- (b) A reservoir has the following water spread areas. Find the volume of the reservoir by primordial rule and trapezoidal rule.

Contour level	Area under the contour (m ²)
120	605
130	1210
140	1950
150	2500
160	3800

C-1427

Sub. Code

93512

DIPLOMA EXAMINATION, NOVEMBER 2019

Non – Semester

Land Survey Engineering

ENGINEERING SURVEYING

(2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the 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** the 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).320m (2).3.75km

(ii) correction of refraction (1).920m (2).4.75km

(iii) combined correction of (1).120m (2).1.75km.

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 substance 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** the 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 tacheometry.

Or

- (b) Explain in detail about the method trigonometrical surveying.
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C-1428

Sub. Code

93513

DIPLOMA EXAMINATION, NOVEMBER 2019

Non-Semester

Land Survey Engineering

MODERN SURVEYING

(2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. Define geodimeter.
2. List out the total station instruments.
3. What is electro magnetic wave?
4. Write the advantages of total station survey.
5. What are the applications of total station survey?
6. What are the types of EDM instruments?
7. What is mean sea level?
8. Define remote sensing.
9. Define map.
10. G.P.S. Stands for

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

11. (a) Explain about the characteristics of total station.
- Or
- (b) Explain detail about the properties of electro magnetic waves.
12. (a) Describe about the in detail fundamental measurement of the total station.
- Or
- (b) Explain the working principles of EDM.
13. (a) Describe about the adjust image and retical focuse.
- Or
- (b) Explain about the tripod set up total station.
14. (a) Explain about the application of remote sensing.
- Or
- (b) Briefly explain about land use and land cover.
15. (a) Explain about the functions of DGPS.
- Or
- (b) Explain in detail about the map and types.

Part C**(3 × 10 = 30)**Answer **all** the questions.

16. (a) Explain in detail about the functions of modulation.
- Or
- (b) Explain about the electro maganetic instruments and types.

17. (a) Write the field procedure of run traverse survey.

Or

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

POINT	NORTHING	EASTING
A	600.25	740.75
B	940.78	415.6

18. (a) Explain in detail about the functions and methods GIS.

Or

- (b) Explain about the reference system, co-ordinate system and satellite signals.
