

July-2017

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~~Paper~~

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17/B/C/S-4/4/E

031/217

PAPER - I  
DRAUGHTSMAN (CIVIL)  
(THEORY)  
SEMESTER - IV

TIME: 3 HRS.

MARKS: 150

Note: Attempt all questions.

All questions carry equal marks.

This paper carries negative marking. 25% marks will be deducted for each wrong answer.

Choose correct answer.

1. Which of the salt present in water is harmful for cultivation purposes?  
a) Sodium carbonate b) Potassium sulphate c) Calcium sulphate d) None of these
2. A part of water which exists in the porous space of the soil by molecular attraction, is known as \_\_\_\_\_  
a) Capillary water b) Gravitational water c) Hygroscopic water d) All of these
3. The amount of water required to fill up the pore spaces in soil particles by replacing all air held in pore spaces, is known as \_\_\_\_\_  
a) Field capacity b) Saturation capacity c) Available moisture d) All of these
4. The total depth of water required by a crop during the entire period the crop is in the field, is known as \_\_\_\_\_  
a) Delta b) Duty c) Base period d) Crop period
5. The time (in days) that crop takes from the instant of its sowing to that of its harvest, is known as \_\_\_\_\_ period.  
a) Base b) Crop c) Kor d) Delta
6. The depth of root zone is 90 cm for \_\_\_\_\_  
a) Wheat b) Sugar cane c) Rice d) Cotton
7. The optimum depth of kor watering is 19 cm for \_\_\_\_\_  
a) Wheat b) Sugar cane c) Rice d) Cotton
8. The commonly used rain gauge is \_\_\_\_\_  
a) Weighing bucket type b) Tipping bucket type  
c) Float type d) None of these
9. When the bed level of the canal is higher than the highest flood level (H.F.L) of the drainage, then the cross drainage work is said to be \_\_\_\_\_  
a) Aqueduct b) Super-passage c) Canal syphon d) Syphon aqueduct

Contd...2/-

10. Which of the following is used for circulation of the people from one room to another?  
 a) Carpet area      -b) Circulation area      c) Non usable area      d) Floor area
11. Which of the following is used to find the cost material at site?  
 - a) Schedule of rate      b) Analysis of rates      c) Data book      d) Lead statement
12. The fundamental principle of surveying is to work from the \_\_\_\_\_.  
 - a) Whole of the part      b) Part of the whole  
 c) Lower level to higher level      d) Higher level to lower level
13. The instrument attached to the wheel of a vehicle in order to measure the distance travelled, is called \_\_\_\_\_.  
 a) Passometer      b) Pedometer      c) Odometer      ✓d) Speedometer
14. When the measured length is less than the actual length, the error is known as \_\_\_\_\_.  
 • a) Positive error      b) Negative error  
 - c) Compensating error      d) Instrumental error
15. A line joining some fixed points on the main survey line is called a \_\_\_\_\_.  
 a) Check line      - b) Tie line      c) Base line      d) None of these
16. An open cross-staff is commonly used for setting out \_\_\_\_\_.  
 a) Short offsets      b) Long offsets      c) Oblique offsets      ✓d) None of these
17. The horizontal angle between the true meridian and magnetic meridian is known as \_\_\_\_\_.  
 a) True bearing      b) Dip  
 c) Local attraction      d) Magnetic declination
18. At the magnetic poles, the amount of dip is \_\_\_\_\_.  
 a) 0°      b) 45°      c) 60°      ✓d) 90°
19. The image formed by the objective in the plane of cross hairs is \_\_\_\_\_.  
 a) Real and straight      - b) Real and inverted  
 c) Virtual and straight      d) Virtual and inverted
20. The deflection angle may have any value between \_\_\_\_\_.  
 a) 0° and 45°      - b) 0° and 90°      c) 0° and 12°      d) 0° and 180°
21. A fixed point of reference of known elevation is called \_\_\_\_\_.  
 a) Change point      b) Station point      - c) Bench mark      d) Datum
22. Rise and fall method is used in \_\_\_\_\_.  
 a) Profile leveling      - b) Differential leveling  
 c) Check leveling      d) None of these
23. The line of joining the points having the same elevation above the datum surface, is called as \_\_\_\_\_.  
 a) Contour surface      b) Contour line      c) Contour interval      d) Contour gradient

24. Contour lines cross ridge or valley lines at \_\_\_\_\_.  
 a)  $30^\circ$                       - b)  $45^\circ$                       - c)  $60^\circ$                       d)  $90^\circ$
25. A curve of varying radius is known as \_\_\_\_\_.  
 a) Simple curve              b) Compound curve              c) Reverse curve              - d) Transition curve
26. The plotting of small area which can be commanded from a single station, is usually done on the plane table by the method of \_\_\_\_\_.  
 a) Radiation              b) Intersection              c) Traversing              d) Resection
27. An arbitrary surface with reference to which the elevation of points are measured and compared, is called \_\_\_\_\_.  
 a) Datum surface              b) Level surface              c) Horizontal surface              d) Vertical surface
28. The radius of curvature of the arc of the bubble tube is generally kept \_\_\_\_\_.  
 a) 25m                      b) 50m                      c) 75m                      d) 100m
29. Closed contours of decreasing values towards their centre, represent \_\_\_\_\_.  
 a) Saddle                      b) Hill                      c) Depression                      d) River bed
30. Detailed plotting is generally done by \_\_\_\_\_.  
 a) Resection              - b) Traversing                      c) Radiation                      - d) All of these
31. Three point problem can be solved by \_\_\_\_\_.  
 a) Bessels method    b) Tracing paper method  
 c) Lehmans method    d) All of these
32. A series of closely spaced contour lines \_\_\_\_\_.  
 a) Plane surface              b) Gentle slope                      c) Uniform slope                      d) Steep slope
33. A metallic tape is made up of \_\_\_\_\_.  
 a) Steel                      b) Invar                      c) Linen                      d) Cloth
34. The method of leveling in which the heights of mountains are found by observing the temperature at which water boils is known as \_\_\_\_\_.  
 a) Reciprocal leveling    b) Barometric leveling  
 c) Trigonometrically leveling    d) Hypsometry
35. Which of the following is particularly suitable when a contoured map of a hill is required?  
 a) By graphical method    b) By squares  
 c) Technometric method    d) By cross section
36. The correction for sag is \_\_\_\_\_.  
 a) Always zero                      b) Always positive                      ✓ c) Always subtractive                      d) All of these
37. Which of the following is not use in GIS?  
 a) Measuring weathering data    b) Locating traffic accidents  
 c) Traffic pattern analysis    d) Locating utility poles

38. Electromagnetic remote sensing uses \_\_\_\_\_.
- a) Electromagnets
  - b) Electromagnetic radiation
  - c) Electromagnetic energy
  - d) Electromagnetic spectrum.
39. Visible light is electromagnetic radiation with wavelength between \_\_\_\_\_.
- a) 0.1  $\mu\text{m}$  to 0.2  $\mu\text{m}$
  - b) 0.15  $\mu\text{m}$  to 0.25  $\mu\text{m}$
  - c) 0.4  $\mu\text{m}$  to 0.7  $\mu\text{m}$
  - d) 1.0  $\mu\text{m}$  to 1.2  $\mu\text{m}$
40. \_\_\_\_\_ is one of the most powerful data-capturing techniques for the creation of GIS spatial database.
- a) Topography
  - b) Aerial photo grammetry
  - c) Surveying
  - d) Resource information system
41. The geoid of earth coincides with \_\_\_\_\_.
- a) Sea level
  - b) Earth surface
  - c) Imaginary surface
  - d) Ocean floor
42. A series of closed contour lines on the map with lower to higher values inside them represents a \_\_\_\_\_.
- a) Steep slope
  - b) Hill
  - c) Ridge
  - d) Depression
43. A building is an obstacal to \_\_\_\_\_.
- a) Ranging but not chaining
  - b) Too chaining but not ranging
  - c) Both chaining and ranging
  - d) None of these
44. The instrument used for measuring area on a contour \_\_\_\_\_.
- a) Graphometer
  - b) Areameter
  - c) Plainometer
  - d) Clinometer
45. Which among these is a method of wiring?
- a) Joint box
  - b) Tee system
  - c) Loop system
  - d) All of these
46. Which of the following item of work not included in the plinth area estimate?
- a) Verandah area
  - b) Room area
  - c) Courtyard area
  - d) W.C area
47. The area is measured correct to the nearest \_\_\_\_\_.
- a) 0.01 sqm
  - b) 0.02 sqm
  - c) 0.03 sqm
  - d) 0.04 sqm
48. Percentage of drum submerged in the slurry in case of rotary drum filter is \_\_\_\_\_.
- a) 60 cm
  - b) 65 cm
  - c) 70 cm
  - d) 75 cm
49. Irrigation canals are generally aligned along \_\_\_\_\_.
- a) Contour line
  - b) Ridge line
  - c) Valley line
  - d) Straight line
50. The main function of a diversion head works of a canal from a river is \_\_\_\_\_.
- a) To remove slit
  - b) To control floods
  - c) To store water
  - d) To raise water level