

O/C  
PL

19/A/C/S-4/4/E

(K)

031/217

July 2019. Suppl. Exam

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

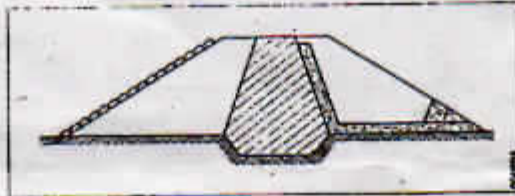
Time: 2 Hrs.

Marks: 150

Note: Attempt all the questions. All questions carry equal marks.

Choose the correct answer:

1. What is the irrigation if water supplied higher level to lower level by gravitational force?  
a) Lift irrigation  
b) Drip irrigation  
c) Flow irrigation  
d) Sub-surface irrigation
2. What is the name of the dam?



- a) Earth dam  
b) Storage dam  
c) Rock fill dam  
d) Diversion dam
3. Which construction is to protect the river bank by keeping flow away and creating still pond for silting up area?  
a) Weir  
b) Spur  
c) Divide wall  
d) Guide bank
4. Which shape of an artificial canal is formed?  
a) 'V' shape  
b) Rectangle  
c) Trapezoidal  
d) Semi-circular
5. Which canal classified in the basis of function?  
a) Main canal  
b) Feeder canal  
c) Branch canal  
d) Minor distributary
6. Which channel aligned nearly parallel to the land profile of the country?  
a) Ridge canal  
b) Slope canal  
c) Contour canal  
d) Irrigation canal

Contd....2/-

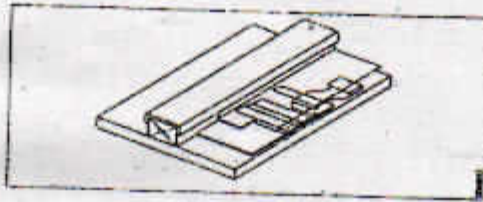
7. What is the name of the part marked 'X'?



- a) Gallery  
c) Penstock  
b) Turbine  
d) Generator

8. What scale is used to prepare index plan showing alignment of culvert and outlets?  
a) 1 cm = 0.3 km  
b) 1 cm = 0.5 km  
c) 1 cm = 0.8 km  
d) 1 cm = 1.0 km
9. Which is external service or work?  
a) Floor  
b) Staircase  
c) Passages  
d) Compound wall
10. What is the percentage of estimated cost for work-charged establishment provided in the estimate?  
a) 1 to 2%  
b) 2 to 3%  
c) 1½ to 2%  
d) 2½ to 3%
11. Which is rough cost estimate?  
a) Detailed estimate  
b) Revised estimate  
c) Plinth area estimate  
d) Supplementary estimate
12. What is the unit of payment in MKS system for earth filling in excavation for foundation?  
a) per. sq. m  
b) per. cu. m  
c) per % cu. m  
d) per % sq. m
13. Which is a miscellaneous expense on general overheads charge?  
a) Repair  
b) Supervision  
c) Establishment  
d) Handling of materials
14. How many bricks are used in the construction of masonry work per day per mason?  
a) 400  
b) 500  
c) 600  
d) 700
15. Which is temporary wiring?  
a) CTS wiring  
b) Duct wiring  
c) Cleat wiring  
d) Conduit pipe wiring

16. What is the name of the wiring?



- a) Duct wiring  
 b) Cleat wiring  
 c) CTS / TRS wiring  
 d) Conduit pipe wiring

17. What is the name of the tool?



- a) Tester  
 b) Gauge  
 c) Solder iron  
 d) Solder plug

18. Which tool is used to measure the thickness of wire?

- a) Scale  
 b) Taps  
 c) Gauge  
 d) Vernier scale

19. Which survey is carried out for construction of road, water supplying system and sewer?

- a) City survey  
 b) Cadastral survey  
 c) Engineering survey  
 d) Topographical survey

20. Which type of survey determines the feasibility and rough cost of the scheme?

- a) Location survey  
 b) Preliminary survey  
 c) Topographical survey  
 d) Reconnaissance survey

21. Which survey is based upon the instrument used?

- a) Chain survey  
 b) Traverse survey  
 c) Triangulation survey  
 d) Closed traverse survey

22. How many acre are equal to one hectare?

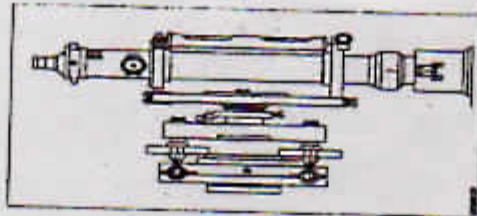
- a) 20 acre  
 b) 50 acre  
 c) 80 acre  
 d) 100 acre

23. What is the length of Gunter's chain?  
 a) 33 feet  
 b) 66 feet  
 c) 50 feet  
 d) 100 feet
24. Convert the whole circle bearing of  $132^{\circ}12'$  into quadrant bearing?  
 a)  $S 47^{\circ} 48' E$   
 b)  $N 47^{\circ} 48' E$   
 c)  $S 47^{\circ} 48' W$   
 d)  $N 47^{\circ} 48' W$
25. Convert the reduced bearing of  $S 28^{\circ} 14' E$  into whole circle bearing  
 a)  $231^{\circ} 46'$   
 b)  $208^{\circ} 14'$   
 c)  $151^{\circ} 46'$   
 d)  $118^{\circ} 14'$

26. What is the name of the instrument?

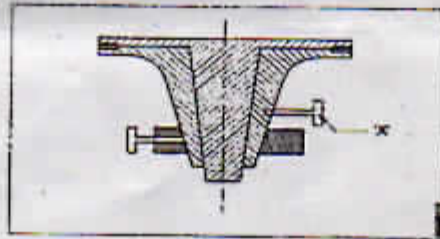


- a) Planimeter  
 b) Clinometer  
 c) Pentagraph  
 d) Speedometer
27. Which place the mean sea level of GTS bench mark fixed in India ?  
 a) Chennai  
 b) Calcutta  
 c) Bombay  
 d) Trivandrum
28. What is the name of the levelling instrument?



- a) Wye level  
 b) Tilting level  
 c) Dumpy level  
 d) Cushing's level
29. What is the least count in levelling staff?  
 a) 0.5 m  
 b) 0.05 m  
 c) 0.005 m  
 d) 0.001 m
30. Which levelling staff is used for precise levelling work?  
 a) Invar staff  
 b) Solid staff  
 c) Target staff  
 d) Folding staff

31. Calculate the reduced level, if height of collimation is 100.785 and inter sight is 1.326?  
 a) 98.459  
 b) 99.459  
 c) 102.111  
 d) 101.111
32. Which is the natural error?  
 a) Omitting an entry  
 b) Error due to refraction  
 c) Non verticality of staff  
 d) Loose joint of the tripod
33. Which type of theodolite are used for higher precision work?  
 a) Digital theodolite  
 b) Transit theodolite  
 c) Engineer's theodolite  
 d) Non-transit theodolite
34. What is the angle of transit telescope that can be revolved in a vertical plane about its horizontal axis?  
 a)  $30^\circ$   
 b)  $60^\circ$   
 c)  $90^\circ$   
 c)  $180^\circ$
35. What is the name of the part marked 'X'?



- a) Side clamp  
 b) Upper clamp  
 b) Lower clamp  
 d) Vertical clamp
36. What is the name of the test in permanent adjustments of theodolite?



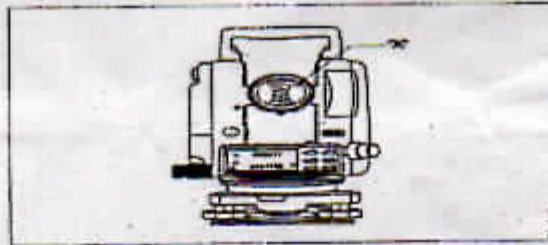
- a) Vertical ARC test  
 c) Vertical circle index test  
 b) Collimation in spire test  
 d) Collimation in Azimuth test
37. Which is instrumental error in theodolite survey?  
 a) Parallax  
 b) Wind effect  
 c) Temperature effect  
 d) Eccentricity of vernier

38. What is a prolonging line method in theodolite?

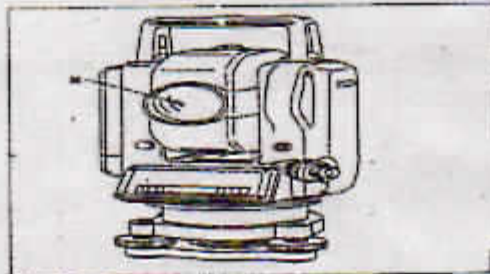


- a) Prolongation of first method  
 b) Prolongation of a straight line  
 c) Prolongation a line third method  
 d) Prolongation a line by second method
39. Determine the error if the sum of the observed interior angles of the traverse is  $356^\circ$  and theodolite sum is  $360^\circ$ .
- a)  $-2^\circ$   
 b)  $-4^\circ$   
 c)  $+4^\circ$   
 d)  $+2^\circ$

40. What is the name of the part marked 'X' in theodolite?

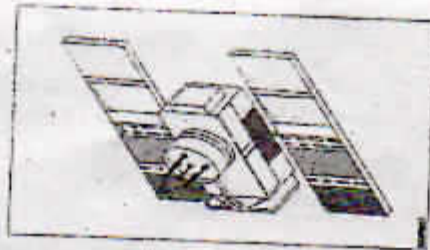


- a) Power off  
 b) 2" Accuracy  
 c) Illuminated reticle  
 d) 30 x magnification
41. What is the name of the component marked 'X' in total station?



- a) Collimator  
 b) Objective lens  
 c) Optical plummet  
 d) Bluetooth Antenna
42. How much least distance can measure by Totalstation?
- a) 1 mm  
 b) 2 mm  
 c) 3 mm  
 d) 4 mm

43. How much maximum distance can be measured with less expensive unit of single prism reflector?
- a) 600 m  
b) 700 m  
c) 800 m  
d) 1000 m
44. Which is the back site set in Totalstation?
- a) Tape  
b) Prism  
c) Tripod  
d) Rain cover
45. Which is the survey tool in Totalstation?
- a) Prism  
b) Tripod  
c) Compass  
d) Rain cover
46. What is the accuracy for a ship in coastal waters in GPS?
- a) About 1 m  
b) About 2 m  
c) About 3 m  
d) About 5 m
47. What is the name of the survey instrument in Totalstation?



- a) Segment  
b) Block I satellite  
c) Typical GPS satellite  
d) Segment of GPS system
48. What is the name of the survey instrument in total station?



- a) Spot Gen 3  
b) Pocket finder  
c) Marine GPS receiver  
d) Delorme in search SE

49. What is the name of the survey instrument in Totalstation given in the figure.



- a) Trax
- b) Spot Gen 3
- c) Pocket finder
- c) Marine receiver

50. What is the name of the survey instrument in Totalstation given in the figure.



- a) Trax
- b) Spot Gen 3
- c) Pocket finder
- d) Marine receiver

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