

Question Paper and Final Answer Keys for the post of Surveyor

Written Recruitment Examination for filling up of the post of Surveyor in APWD was held on 19/02/2023 from 2.30 pm to 4.30 pm at Port Blair. The Question Paper and the Final Answer Keys of the written examination received from the agency engaged for conduct of examination based on the claims & objections is hereby published.

FINAL ANSWER KEY FOR THE POST OF SURVEYOR

SET-A

Q.No	Correct Option	Q.No	Correct Option	Q.No	Correct Option	Q.No	Correct Option
1	A	26	B	51	C	76	D
2	B	27	D	52	B	77	A
3	A	28	B	53	A	78	C
4	D	29	D	54	B	79	D
5	A	30	A	55	C	80	B
6	D	31	D	56	D	81	D
7	D	32	B	57	C	82	D
8	B	33	D	58	B	83	D
9	C	34	D	59	C	84	-
10	A	35	A	60	A	85	B
11	C	36	D	61	B	86	A
12	A	37	B	62	A	87	B
13	D	38	D	63	C	88	D
14	D	39	D	64	B	89	B
15	C	40	C	65	C	90	A
16	-	41	B	66	B	91	A
17	B	42	B	67	A	92	B
18	A	43	B	68	B	93	A
19	C	44	B	69	B	94	C
20	A	45	A	70	A	95	B
21	B	46	A	71	C	96	B
22	B	47	C	72	D	97	B
23	A	48	B	73	A	98	A
24	C	49	B	74	B	99	C
25	A	50	B	75	A	100	B

Note: Q. No. 16 & 84 are treated as Null & Void due to Error in the Question/Option, hence evaluation of OMR is done out of 98 Questions

Andaman Public Work Department

Trade – Surveyor

Group – A

All question is carrying equal marks. Only one answer is correct. Time : 2.0 hours

1. Determining the relative positions of points on above or beneath the surface of the earth by means of direct or indirect measurements of distance and direction and elevation is called as _____ ()
 - a) Surveying
 - b) Levelling
 - c) Measuring
 - d) Contouring
2. In which surveying, shape of earth is taken into consideration? ()
 - a) Plane surveying
 - b) Geodetic surveying
 - c) Topographic surveying
 - d) Geological surveying
3. The ratio of map distance to corresponding ground distance is called as _____ ()
 - a) Representative factor
 - b) Representation factor
 - c) Reciprocating factor
 - d) Recurring factor
4. Which among the following is one of the principles of surveying? ()
 - a) Taking measurements
 - b) Covering entire area
 - c) Determining the elevation differences
 - d) Working from whole to part
5. The formula for shrunk scale can be given as _____ ()
 - a) Original scale*shrinking factor
 - b) Shrunk scale*shrinking factor
 - c) Vernier scale* shrinking factor
 - d) Diagonal scale* shrinking factor
6. Which of the following is made in connection with the construction of streets, water supply systems, sewers? ()
 - a) Traverse surveying
 - b) Hydrographic surveying
 - c) Cadastral surveying
 - d) City surveying
7. Most accurate method of direct measuring is with _____ ()
 - a) Passometer
 - b) Pedometer
 - c) Theodolite
 - d) Chaining
8. What is used for measuring offsets, but it is often used by building surveyors or architects? ()
 - a) Plum bob
 - b) Butt rod
 - c) Pegs
 - d) Laths
9. Metric chains are generally available in _____ ()
 - a) 15m
 - b) 120m
 - c) 20m
 - d) 25m
10. Tallies are fixed at every _____ metre length for chains of 10m length. ()
 - a) 1
 - b) 2
 - c) 2.5
 - d) 0.5
11. Length of Gunter's chain is _____ ()
 - a) 10ft
 - b) 33ft
 - c) 66ft
 - d) 100ft
12. What is the length of Ranging rod commonly used? ()
 - a) 2 m
 - b) 3 m
 - c) 4 m
 - d) 5 m

13. Which of the following are not sources of errors? ()

- a) Instrumental
- b) Personal
- c) Natural
- d) Artificial

14. Which of the following is the sighting device? ()

- a) Compass
- b) Spirit level
- c) Plumbing fork
- d) Alidade

15. What instrument is used for centering the table? ()

- a) Compass
- b) Spirit level
- c) Plumbing fork
- d) Alidade

16. What is the size of a field book? ()

- a) 20 cm x 20 cm
- b) 25 cm x 20 cm
- c) 20 cm x 25 cm
- d) 25 cm x 25 cm

17. Identity the following symbol. ()



- a) Well
- b) Earthwork dam
- c) Boundary pillar
- d) Statue

18. Which branch of surveying is used to find the elevations of given points with respect to given or assumed datum? ()

- a) Levelling
- b) Contouring
- c) Traversing
- d) Plane table surveying

19. Turning point is also called _____ ()

- a) intermediate point
- b) level point
- c) change point
- d) end point

20. Which of the following is a personal error? ()

- a) mistakes in manipulation
- b) atmospheric refraction
- c) settlement of tripod or turning points
- d) wind vibrations

21. The formula for calculating R.L can be given as _____ ()

- a) H.I+F.S
- b) H.I-F.S
- c) H.I-B.S
- d) H.I+B.S

22. Two contour lines of different elevations unite to form one line only in the case of _____ ()

- a) Hills
- b) Vertical cliff
- c) Horizontal cliff
- d) Overhanging Cliff

23. Which the following is not a use of contour maps? ()

- a) Drawing of plan
- b) Determination of intervisibility between two points
- c) Tracing of contour gradient and location of route
- d) Calculation of reservoir capacity

24. _____ is the most precise instrument designed for the measurement of horizontal and vertical angles. ()

- a) Survey chain
- b) Dumpy level
- c) Theodolite
- d) Telescope

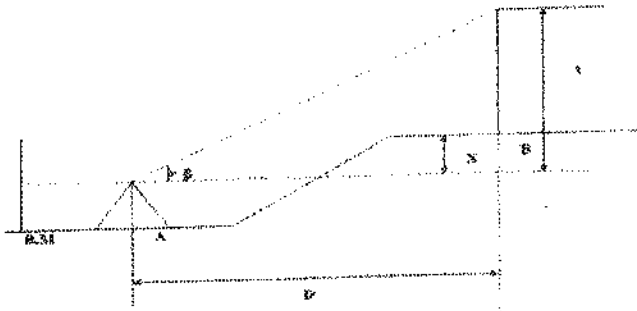
25. How many types do theodolites classified? ()

- a) 2
- b) 3
- c) 4
- d) 5

26. The plate level can be centered with the help of _____ ()
a) Focusing screw
b) Foot screw
c) Tangent screw
d) Clip screw
27. The value of multiplying constant is generally taken as _____ ()
a) 60
b) 80
c) 90
d) 100
28. The sum of interior angles must be equal to _____ ()
a) $(2N+4)$ right angles
b) $(2N-4)$ right angles
c) $(2N+4) * 180$
d) $(2N-4) * 180$
29. Departure can be given as _____ ()
a) $D = l \cos \theta$
b) $D = l \tan \theta$
c) $D = l \operatorname{cosec} \theta$
d) $D = l \sin \theta$
30. Which among the processes having more accuracy in its output? ()
a) Total station
b) Plane table surveying
c) Chain surveying
d) Compass surveying
31. Possibility of error in plane table surveying is _____ ()
a) Negligible
b) Zero
c) More
d) Less
32. Dumpy level is used for _____ ()
a) Finding point to point distance
b) Finding the elevation difference
c) Finding the traverse area
d) Finding the perimeter of area
33. In which direction it is best to place the total station for obtaining the best output? ()
a) East
b) West
c) South
d) North
34. The data obtained from total station can be used in which among the following software directly? ()
a) Primavera
b) STAAD PRO
c) Autodesk Revit
d) Surfer
35. Which among the following is used in the formation of the astronomical triangle? ()
a) Zenith
b) Meridian
c) Horizon
d) Azimuth
36. The velocity of sound in sea can be determined by _____ ()
a) Refraction
b) Reflection
c) Polarization
d) Sounding machine
37. Rain gauge is used for _____ ()
a) Hydrological survey
b) Measuring precipitation
c) Marine survey
d) River survey
38. Rain gauge is expressed in terms of _____ ()
a) Decimeters
b) Meters
c) Centimeters
d) Millimeters
39. Which of the following devices can be used in marine survey? ()
a) RS
b) GPS
c) GIS
d) RMS digital multi-meter

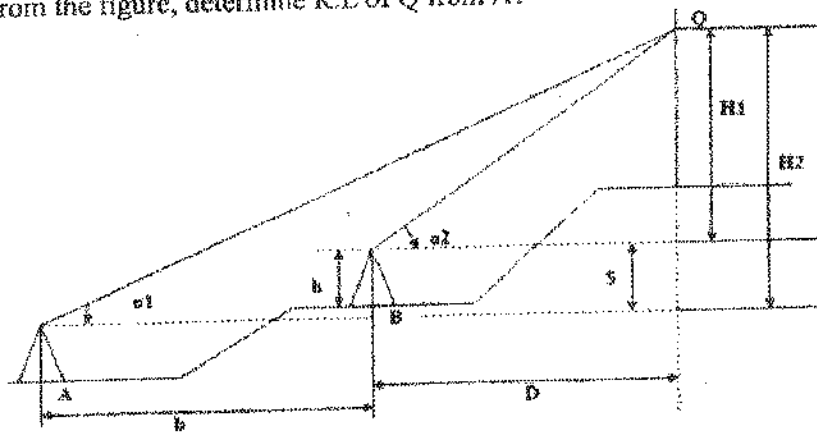
40. Which among the following scales is used to determine the original scale when the plan on the drawing sheet shrinks due to atmospheric conditions? ()
- a) Vernier scale
b) Plane scale
c) Shrunk scale
d) Diagonal scale
41. Chains are made up of _____ ()
- a) High steel carbon
b) Galvanized mild steel
c) Copper coated iron
d) Iron
42. The letter 'm' marked on the tallies refers to _____ ()
- a) Meter
b) Metric chain
c) Non Metric chain
d) Mild steel
43. One furlong is equal to _____ Gunter's chains. ()
- a) 1
b) 10
c) 66
d) 80
44. How many number of links are there in engineer's chain? ()
- a) 10
b) 100
c) 50
d) 66
45. Diameter of ring of arrow is _____ ()
- a) 50 mm
b) 25 mm
c) 30 mm
d) 25 mm
46. How many numbers of arrows are required for chain surveying? ()
- a) 10
b) 5
c) 15
d) 20
47. Marking the survey stations in soft ground is done by _____ ()
- a) Nails
b) Spikes
c) Wooden pegs
d) Butt rods
48. Which of the following type of surveying is used for exploring mineral wealth? ()
- a) Military surveying
b) Mine surveying
c) Topographic surveying
d) Engineering surveying
49. What is Surveying? ()
- a) Surveying is used to find the elevations of given points with respect to given or assumed datum
b) Surveying shows the relative positions of the objects on the surface of the earth
c) Surveying is to find the elevation of points having the same contour interval
d) All of the mentioned
50. Which of the following doesn't describe the use of hydrographic surveying? ()
- a) Nautical charts for navigation
b) Establishing mean sea level
c) Laying an Alignment
d) Making underground investigations
51. Which of the following type of surveying can be employed in a magnetic area? ()
- a) Compass surveying
b) Traverse surveying
c) Plane table surveying
d) Theodolite surveying
52. In case, to get a well-proportioned or well-shaped triangle, no angle should be less than _____ ()
- a) 15°
b) 30°
c) 45°
d) 25°

66. In which of the following transverse method angles are measured by theodolite? ()
- a) By fast needle
b) By direct observation of angles
c) By locating details with transit and tape
d) By free needle
67. Stadia method can also be known as ()
- a) Fixed hair method
b) Movable hair method
c) Subtense method
d) Tangential method
68. From the figure, the R.L. of B can be ()



- a) R.L. of B = R.L. of B.M. + H.I. + X + V
b) R.L. = R.L. of B.M. + H.I. + V - X
c) R.L. = R.L. of B.M. + V - X
d) R.L. = R.L. of B.M. + V + X

69. From the figure, determine R.L. of Q from A? ()



- a) R.L. = R.L. of A + h + H2
b) R.L. = R.L. of A + s + H1
c) R.L. = R.L. of A + s + H2
d) R.L. = R.L. of B + H1 + h

70. Which of the following can give the best output? ()
- a) Traversing
b) Intersection
c) Resection
d) Radiation
71. Which among the following methods of plane table is most commonly used? ()
- a) Intersection
b) Resection
c) Traversing
d) Radiation
72. Which among the following is more accurate in its output? ()
- a) Absolute positioning
b) Resection method
c) Modern GPS surveying
d) Conventional GPS method

73. The process of measuring depth below the water surface is called _____ ()
a) Sounding
b) Chaining
c) Traversing
d) Compass traversing
74. What is length of the sounding rod or pole? ()
a) 7-8 m
b) 5-8 m
c) 10-18 m
d) 15-18 m
75. Which of the following is not used in the tracking system? ()
a) Multiple frequency
b) Dual frequency
c) Single frequency
d) Military navigation
76. Which of the following indicates the objective of road survey? ()
a) Specific gravity
b) Density
c) Pavement design
d) Detailed layout of road way
77. Township survey is also known as _____ ()
a) Congressional township
b) Harbor survey
c) Land survey
d) Airport survey.
78. Levelling deals with measurements in a _____ ()
a) Horizontal plane
b) Inclined plane
c) Vertical plane
d) Both vertical and horizontal plane
79. Which of the following is not a method of levelling? ()
a) Barometric levelling
b) Trigonometric levelling
c) Spirit levelling
d) Traverse leveling
80. Direct ranging is done when the two ends of the survey lines are _____ ()
a) Invisible
b) Intervisible
c) Visible from a particular point
d) Faraway from each other
81. AGMSY, CIOUA, EKQWC, 7, IOUAG, KQWCI ()
(A) FMYES (B) FMSYE (C) GNSYD (D) GMSYE
82. M is the son of P. Q is the granddaughter of O, who is the husband of P. How is M related to O? ()
(A) Father (B) Daughter (C) Mother (D) Son
83. If 'x' means 'addition', '÷' means 'division', '-' means 'subtraction' and '+' means 'multiplication', then which of the following equations is correct? ()
(A) $16 \times 5 \div 10 \div 4 - 3 = 19$ (B) $16 - 5 \times 10 \div 4 + 3 = 12$
(C) $16 + 5 \div 10 \times 4 - 3 = 9$ (D) $16 + 5 - 10 \times 4 + 3 = 9$
84. Writer : Pen :: ? ()
(A) Painter (B) Artist : Tailor Brush (C) Needle (D) Teacher : Canvas : Class

85. Statement- "Buy pure and natural Oil of company HOL." – An ad. in a newspaper.

Assumptions- I. People do not mind paying more for pure and natural oil. ()

II. Artificial oil can be prepared.

A. If only assumption I is Implicit

B. If only assumption II is Implicit

C. If either I or II is Implicit

D. If neither I nor II is Implicit

E. If both I and II are implicit

86. Which of the following is the branch of Artificial Intelligence? ()

a) Machine Learning

b) Cyber forensics

c) Full-Stack Developer

d) Network Design

87. Public health depends on sufficient amounts of good quality _____ safe drinking _____ and adequate _____ ()

(A) Water, food and shelter

(B) Food, Water and Shelter

(C) Shelter, food and water

(D) Water, shelter and food

88. Which of the following machine requires input from the humans but can interpret the outputs themselves? ()

a) Actuators

b) Sensor

c) Agents

d) AI system

89. Statements: All purses are mobile. All mobile are phones. Some mobile are rings. No ring is purse. Which Conclusion is right? ()

(a) Some purse is ring.

(b) Some phones are purse

(c) No mobile is ring

(d) All rings are mobile.

90. A man starts walking towards Northeast diagonally from the left corner of a square plot and turns right after reaching the centre of the plot. After some distance, he again turns right and continues walking. Which direction is he facing now? ()

(a) South

(b) West

(c) East

(d) North

91. Agnimitra was the hero of Kalidasa's play _____ ()

(A) Malavikagnimitram

(B) Mega Dhutam

(C) Raghu vamsam

(D) Sakunthalam

92. The holy book of the Sikhs is _____ ()

(A) Mahabharatham

(B) Granth Sahib

(C) Gita

(D) Ramayanam

93. The Indus Valley, civilization had overseas trade contacts with _____ ()
(A) China (B) Spain (C) Egypt (D) Russia
94. Which of the following type of computer is mostly used for automatic operations?
a) analog b) digital c) hybrid d) remote
95. Which of the following is the first neural network computer? ()
a) AN b) SNARC c) RFD d) AM
96. Which of the following package allows individuals to use personal computers for storing and retrieving their personal information? ()
a) Graphics package b) Personal assistance package
c) Spreadsheet package d) Animation package
97. From the given alternative words, select the word which cannot be formed using the letters of the given word: CHRONOLOGICAL ()
a. CALL b. ANALOGY
c. CALICO d. LOGIC
98. As per 'August Offer 1940' the Constitution of India would be drawn by ()
A. Indians B. House of Lords
C. Princely States D. House of Commons
99. Square root of 0.9 is ()
A) 0.0300 B) 0.3300
C) 0.948 D) 0.8123
100. Logarithmic value of 1000 is ()
A) 1.000 B) 3.000
C) 2.000 D) 4.000
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