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Question No 1 (Par	Tim Q.C0	NCH : CIVIL Marks : 100 le : 3 Hours DDE : HB678	2.0	210	210		
010	fro	m Part-III.	010	210	210		
i ne figu	res in the righ	•	indicate marks.				
State well-conditioned Define base line of su	triangle. rvey.	(Answer All-10))		(2 x 10)		
Define bench mark. Define reduced level. What is a contour line State the difference be	? etween face-left a	210	210 oservations.	210	210		
Part-II Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) What is meant by chain surveying? Explain the principle on which it is based. State the precautions would you take to eliminate the errors in chain surveying. The magnetic bearing of a line CD is S 30° 15' W. Find its true bearing, if the							
The bearings of the lines AB, BC, CD and DE, are 45° 30′, 120° 15′, 200° 30′ and 280° 45′, respectively. Find angles B, C and D. State local attraction. How it is detected and adjusted? Determine the visible horizon distance from a tower of 50 m high. Also determine the dip of the horizon, assuming the radius of the earth to be 6370 km. Illustrate the common sources of error in levelling. When is reciprocal leveling done? Describe the method along with sketch. The distance between two stations was 1,200 m when measured with a 20 m chain.							
m chain was 0.05 m to Mention the different of Describe the process	oo long, what was characteristics of of measuring the	s the error in the contour line. vertical angle b	e 30 m chain?	210	210		
A 20 m steel tape wakg. The tape was use The cross-sectional a Young's modulus and	s standardised a d in catenary at rea of the tape coefficient of lin	at a temperature temperature of is 0.02 cm ² , an ear expansion o	of 20 ⁰ C and unde 30 ⁰ C and under a id its total weight in of steel are 2.1 x 10	pull of 10 kg. s 400 g. The	(16) 210		
	Only Short Answer T State well-conditioned Define base line of sur How is a station marke Differentiate between Define bench mark. Define reduced level. What is a contour line State the difference be Mention the use of tota Define horizontal equir Only Focused-Short What is meant by chain State the precautions The magnetic bearin declination is 10° 15' E The bearings of the lin 45', respectively. Find State local attraction. Determine the visible dip of the horizon, ass Illustrate the common When is reciprocal lev The distance between The same distance when chain was 0.05 m to Mention the different of Describe the process Write briefly about the Only Long Answer T A 20 m steel tape was kg. The tape was use The cross-sectional ar Young's modulus and	Question No.1 (Part-1) which is confirmed. The figures in the right Only Short Answer Type Questions State well-conditioned triangle. Define base line of survey. How is a station marked on the ground Differentiate between isogonic and ago Define bench mark. Define reduced level. What is a contour line? State the difference between face-left at Mention the use of total station. Define horizontal equivalent. Only Focused-Short Answer Type Questions would you take to the magnetic bearing of a line CD declination is 10° 15' E. The bearings of the lines AB, BC, CD 45', respectively. Find angles B, C and State local attraction. How it is detected Determine the visible horizon distance dip of the horizon, assuming the radius Illustrate the common sources of error When is reciprocal leveling done? Des The distance between two stations was The same distance when measured wim chain was 0.05 m too long, what was Mention the different characteristics of Describe the process of measuring the Write briefly about the applications of Conly Long Answer Type Questions of C	Part-I Only Short Answer Type Questions (Answer All-10) State well-conditioned triangle. 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Describe the method The distance between two stations was 1,200 m when the same distance when measured with 30 m chain were considered to the horizon done in the Mention the different characteristics of contour line. Describe the process of measuring the vertical angle be Write briefly about the applications of GIS. Part-III Only Long Answer Type Questions (Answer Any Town A 20 m steel tape was standardised at a temperature kg. The tape was used in catenary at temperature of The cross-sectional area of the tape is 0.02 cm², and Young's modulus and coefficient of linear expansion of the common sources of linear expansion of the common sources of linear expansion of the common sources of the tape is 0.02 cm², and Young's modulus and coefficient of linear expansion of the common sources of linear expansion of the common sources of linear expansion of the common sources of the tape is 0.02 cm², and Young's modulus and coefficient of linear expansion of the common sources of the tape is 0.02 cm², and Young's modulus and coefficient of linear expansion of the common sources of the tape is 0.02 cm², and	Time: 3 Hours Q.CODE: HB678 Question No.1 (Part-1) which is compulsory, any EIGHT from P from Part-III. The figures in the right hand margin indicate marks. Part-I Only Short Answer Type Questions (Answer All-10) State well-conditioned triangle. Define base line of survey. How is a station marked on the ground? Differentiate between isogonic and agonic lines. Define bench mark. Define reduced level. What is a contour line? State the difference between face-left and face right observations. Mention the use of total station. Define horizontal equivalent. Part-II Only Focused-Short Answer Type Questions- (Answer Any Eight out What is meant by chain surveying? Explain the principle on which it is bas State the precautions would you take to eliminate the errors in chain surve The magnetic bearing of a line CD is S 30° 15' W. Find its true be declination is 10° 15' E. The bearings of the lines AB, BC, CD and DE, are 45° 30', 120° 15', 200° 45', respectively. Find angles B, C and D. State local attraction. How it is detected and adjusted? Determine the visible horizon distance from a tower of 50 m high. Also complete the horizon, assuming the radius of the earth to be 6370 km. Illustrate the common sources of error in levelling. When is reciprocal leveling done? Describe the method along with sketch. The distance between two stations was 1,200 m when measured with a The same distance when measured with 30 m chain was found to be 1,19 m chain was 0.05 m too long, what was the error in the 30 m chain? Mention the different characteristics of contour line. Describe the process of measuring the vertical angle by using theodolite. Write briefly about the applications of GIS. Part-III Only Long Answer Type Questions (Answer Any Two out of Four) A 20 m steel tape was standardised at a temperature of 20° C and under a The cross-sectional area of the tape is 0.02 cm², and its total weight is	Time: 3 Hours Q.CODE: HB678 Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any from Part-III. The figures in the right hand margin indicate marks. Part-I Only Short Answer Type Questions (Answer All-10) State well-conditioned triangle. Define base line of survey. How is a station marked on the ground? Differentiate between isogonic and agonic lines. Define bench mark. Define reduced level. What is a contour line? State the difference between face-left and face right observations. Mention the use of total station. Define horizontal equivalent. Part-II Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) What is meant by chain surveying? Explain the principle on which it is based. State the precautions would you take to eliminate the errors in chain surveying. The magnetic bearing of a line CD is S 30° 15' W. Find its true bearing, if the declination is 10° 15' E. The bearings of the lines AB, BC, CD and DE, are 45° 30', 120° 15', 200° 30' and 280° 45', respectively. Find angles B, C and D. State local attraction. How it is detected and adjusted? Determine the visible horizon distance from a tower of 50 m high. Also determine the dip of the horizon, assuming the radius of the earth to be 6370 km. Illustrate the common sources of error in levelling. When is reciprocal leveling done? Describe the method along with sketch. The distance between two stations was 1,200 m when measured with a 20 m chain. The same distance when measured with 30 m chain was found to be 1,195 m. If the 20 m chain was 0.05 m too long, what was the error in the 30 m chain? Mention the different characteristics of contour line. Describe the process of measuring the vertical angle by using theodolite. Write briefly about the applications of GIS. Part-III Only Long Answer Type Questions (Answer Any Two out of Four) A 20 m steel tape was standardised at a temperature of 30° C and under a pull of 15 kg. The tape was used in catenary at temperature of 30° C and under a pul		

210	210	210	210	210	210	210	210
210	Q4	of 20m. 2.375, 1.730, 0. 3.630 m. The instrument v	nsecutive readings w .615, 3.450, 2.835, vas shifted after the f FRL 110.200 m. Find	2.070, 1.835, 0.9	985, 0.435, 1.6	30, 2.255 and	(16) 210
	Q5	What is tempor adjustment.	ary adjustment of a	a theodolite? D	escribe the pro	ocess of such	(16)
	Q6	Define EDM. What description of each	nat are the different t	types of EDM equ	uipment used? (Give a detailed	(16)
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