

University of Mumbai

Examination 2020

Program: Civil Engineering

Curriculum Scheme: Rev2012

Examination: Second Year Semester IV

Course Code:CE-C402 and Course Name: SURVEYING-2

Time: 1 hour

Max. Marks: 50

For the students:- All the Questions are compulsory and carry equal marks .

Q1.	The chord of a curve less than peg interval, is known as _____.
Option A:	Small chord
Option B:	Sub-chord
Option C:	Normal chord
Option D:	Short chord
Q2.	A lamniscate curve between the tangents will be transitional throughout if the polar deflection angle of its apex, is _____
Option A:	Total deflection angle/2
Option B:	Total deflection angle/3
Option C:	Total deflection angle/4
Option D:	Total deflection angle/6
Q3.	The angle of intersection of the curve is the angle between _____
Option A:	Back tangent and forward tangent
Option B:	Prolongation of back tangent and forward tangent
Option C:	Forward tangent and long chord
Option D:	Back tangent and long chord
Q4.	The ratio of the radius and apex distance of a curve deflection through 1 degree, is
Option A:	$\sec(1/2) - 1$
Option B:	$1 - \sec(1/2)$
Option C:	$\cos(1/2) - 1$
Option D:	$\tan(1/2) - 1$
Q5.	If +0.8% grade meets -0.7% grade and the rate of change of grade for 30 m distance is 0.05, the length of the vertical curve will be
Option A:	600 m
Option B:	700 m
Option C:	800 m
Option D:	900 m
Q6.	Polar orbiting satellites are generally placed at an altitude range of _____
Option A:	7-15 km
Option B:	7000-15000 km
Option C:	700-1500 km
Option D:	70-150 km
Q7.	Signal can be generated by _____

University of Mumbai
Examination 2020

Option A:	Interaction of EM waves with surface
Option B:	Interaction of EM waves with energy source
Option C:	Interaction of EM waves with atmosphere
Option D:	Interaction of EM waves with sensor
Q8.	Which of the following doesn't indicate a stage in remote sensing?
Option A:	Reflectance of energy
Option B:	Transmission of energy
Option C:	Energy source
Option D:	Absorption of energy
Q9.	Which type of remote sensing uses its own source of electromagnetic energy?
Option A:	Passive
Option B:	Active
Option C:	Satellite
Option D:	Orbital
Q10.	Which of the following represents the correct sequence for the basis of EDM propagation?
Option A:	Propogation,generation,reflection and reception
Option B:	Generation,reception,refelction and propogation
Option C:	Generation,propogation,reception and reflection
Option D:	Generation, propagation, reflection and reception
Q11.	The distance in EDM is measured by _____
Option A:	Frequency of the wave
Option B:	Wave length
Option C:	Phase difference
Option D:	Amplitude
Q12.	_____ was the first microwave based EDM developed in the world.
Option A:	Tellurometer
Option B:	Total station
Option C:	Theodolite
Option D:	Tachometer
Q13.	The horizontal angle subtended at the station by a subtense bar with vanes 3 m apart is 0' 10' 40". Calculate the horizontal distance between the theodolite and the subtense bar?
Option A:	960 m
Option B:	966.87 m
Option C:	966. 78 m
Option D:	906.87 m
Q14.	The following readings were taken with a tacheometer on to a vertical staff. Horizontal distance stadia readings at 46.20 m are 0.780; 1.010; 1.240 and at 51.20 m are 1.860; 2.165; 2.470. Calculate the tacheometric constants.
Option A:	100, 0.20 m

University of Mumbai
Examination 2020

Option B:	200, 0.10 m
Option C:	100, 0.10 m
Option D:	200, 0.20 m
Q15.	Distance and elevation formulae for fixed method assuming line of sight as horizontal and considering an external focusing type telescope is $D = Ks + C$. where K is _____
Option A:	f/i
Option B:	i/f
Option C:	$f+c$
Option D:	$f-c$
Q16.	In fixed hair method, the distance between _____ hair and _____ hair are fixed.
Option A:	Upper and central
Option B:	Central and lower
Option C:	Upper and lower
Option D:	Lower, central and upper
Q17.	Which of the following is the branch of angular surveying in which both the horizontal and vertical positions of points are determined from the instrumental observations, the chain surveys being entirely eliminated?
Option A:	Tacheometry
Option B:	Contouring
Option C:	Ranging
Option D:	Random line method
Q18.	The magnification of the telescope in tacheometer should be at least _____ to _____ diameters.
Option A:	10 to 20
Option B:	10 to 30
Option C:	20 to 30
Option D:	20 to 40
Q19.	The various stages occurring in GPS system are described below: 1. Generation of an output to the user 2. Detection of the GPS signals 3. Processing the data in the built in computer 4. Decoding the GPS signal. The correct sequence of the stages is:
Option A:	1,2,3,4
Option B:	2,3,4,1
Option C:	2,4,3,1
Option D:	3,1,2,4
Q20.	_____ technology is a fast and accurate method of determining the location of point.
Option A:	GIS
Option B:	GPS
Option C:	FEM
Option D:	Total station

University of Mumbai
Examination 2020

Q21.	One of the limitations of GPS is _____
Option A:	It has to have connectivity with orbital satellite
Option B:	Not speedy
Option C:	Not accurate
Option D:	Difficult to install
Q22.	For a curve of radius 100 m and normal chord 10 m, the Rankine's deflection angle, is _____
Option A:	0'25".95
Option B:	0'35".95
Option C:	1'25".53
Option D:	2'51".53
Q23.	If 'L' is in kilometers, the curvature correction is _____
Option A:	58.2 L ² mm
Option B:	64.8 L ² mm
Option C:	74.8 L ² mm
Option D:	78.4 L ² mm
Q24.	An ideal vertical curve to join two gradients, is _____
Option A:	Circular
Option B:	Parabolic
Option C:	Elliptical
Option D:	Hyperbolic
Q25.	If 'S' is the length of a sub-chord and 'R' is the radius of simple curve, the angle of deflection between its tangent and sub-chord, in minutes, is equal to
Option A:	573 S/R
Option B:	573 R/S
Option C:	1718.9 R/S
Option D:	1718.9 S/R