

INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous) Dundigal, Hyderabad - 500 043

CIVIL ENGINEERING

DEFINITIONS AND TERMINOLOGY QUESTION BANK

Course Name	:	SURVEYING & GEOMATICS		
Course Code	:	ACEB01		
Program	:	B.Tech		
Semester	:	III		
Branch	:	Civil Engineering		
Section	:	A & B		
Academic Year	:	2019 - 2020		
Course Faculty	:	Dr. K Shruthi, Assistant Professor Mr. B Suresh, Assistant Professor		

COURSE OBJECTIVES:

The	The course should enable the students to:						
Ι	Describe the function of surveying in civil engineering construction.						
II	Work with survey observations, and perform calculations.						
ш	Identify and calculate the errors in measurements and to develop corrected values for differential level						
	circuits, horizontal distances and angles for open or closed-loop traverses.						
W	Operate an automatic level to perform differential and profile leveling; properly record notes						
1 V	mathematically reduce and check levelling measurements						

DEFINITIONS AND TERMINOLOGY QUESTION BANK

S.No	QUESTION	ANSWER	Blooms Level	CO	CLO	CLO Code
		MODULE-	I			
1	What is meant by surveying?	Surveying is the science and art of determining the relative positions of points above, on, or beneath the earth's surface and locating the points in the field.	Remember	CO 1	CLO 1	ACEB01.01
2	What are the objectives of surveying?	The primary object of survey is the preparation of plan of estate or buildings roads, railways, pipelines, canals, etc. Or to measure area of field, state, nation.	Understand	CO 1	CLO 1	ACEB01.01
3	What is meant by plane surveying?	The shape of the earth is spherical. Thus the surface is obviously curved. But in plane surveying the curvature of earth is not taken into account.	Remember	CO 1	CLO 3	ACEB01.03
4	What is meant by geodetic surveying?	In geodetic surveying the curvature of the earth is taken into consideration. It is extended over a large area greater than 250 sq.km.	Remember	CO 1	CLO 3	ACEB01.03

S.No	QUESTION	ANSWER	Blooms Level	СО	CLO	CLO Code
5	What so you	Leveling is the determination of	Understand	CO 1	CLO 4	ACEB01.04
	understand by	the elevation of a point or				
	leveling?	difference between points				
	_	referenced to some datum.				
7	What are the	To prepare a topographical map	Understand	CO 1	CLO 2	ACEB01.02
	applications of	this shows the hills, valley,				
	surveying?	rivers, villages, town, etc, of a				
		country. To prepare a cadastral				
		map showing the boundaries of				
		fields houses, and other				
		properties.				
8	What so you	Benchmark is a relatively	Understand	CO 1	CLO 1	ACEB01.01
	understand by	permanent object bearing a				
	benchmark?	marked point whose elevation				
		above or below an adopted				
		datum.	Record Providence			
9	What are the	Inclination due to	Understand	CO 1	CLO 1	ACEB01.01
	different errors in	maladjustment of instrument,				
	leveling?	Changes in scale of rod due to				
		temperature, Rod not held				
10	XX71 - 1	plumb.		00.1	CT C 1	
10	What do you	Precise levelling is a particularly	Understand	CO 1	CLO 1	ACEB01.01
	understand by	accurate method of differential				
	precise leveling?	levelling which uses highly				
		accurate levels and with a more				
		rigorous observing procedure				
		lovelling. It sime to achieve high				
		orders of accuracy such as 1 mm				
		per 1 km traverse				
11	What do you	In reciprocal levelling, the level	Understand	CO 1	CLO 3	ACEB01.03
11	understand by	is set up on both bank of the	Understand	COT	CLO J	ACED01.03
	reciprocal	river or valley and two sets of				-
	leveling?	staff reading is taken by holding				10 million (1990)
	ie verning.	the staff on both banks in this			1	1 C C C C C C C C C C C C C C C C C C C
	· · · ·	case it is found that error is				1.
	6	completely eliminated and true	and the second se			
		difference of level is equal to the			-	
	C 2	mean of the two apparent				
		difference of level.			100	
12	What do you	The automatic level employs a	Remember	CO 1	CLO 3	ACEB01.03
	mean by auto	gravity-referenced prism or				
	level?	mirror compensator to orient the		~		
		line of sight (line of collimation)				
		automatically. The instrument is	N 1			
		quickly levelled when a circular				
		spirit level is used.				
13	What do you	Tilting level consists of a	Remember	CO 1	CLO 5	ACEB01.05
	mean by tilting	telescope attached with a level				
	level?	tube which can be tilted within				
		few degrees in vertical plane by				
	XX 71 1	a tilting screw.		a a		
14	What do you	Differential levelling is the term	Remember	CO 1	CLO 5	ACEB01.05
	understand by	applied to any method of				
	differential	measuring directly with a				
	ieveiing?	graduated staff the difference in				
		points				
		points.				

S.No	QUESTION	ANSWER	Blooms Level	СО	CLO	CLO Code
15	Why there is	For execution of Engineering	Understand	CO 1	CLO 4	ACEB01.04
	need for	Projects it is very necessary to				
	performing	determine elevations of different				
	leveling?	points along the alignment of				
		proposed project.				
		MODULE	п			
		WODULE-	11			
1	What are the	Based on the instruments used	Remember	CO 2	CLO 7	ACEB01.07
	methods of	in setting out the curves on the				
	setting out	ground there are two methods:				
	simple circular	Linear method and Angular				
	curve?	method			<u> </u>	
2	What are the	Main linear methods are:	Remember	CO 2	CLO 7	ACEB01.07
	linear methods of	1) By offsets from the long				
	circular curve?	2) By successive disection of				
	circular curve:	arcs and By offsets from the				
		tangents.				
3	What are the	The Angular methods are:	Remember	CO 2	CLO 7	ACEB01.07
	angular Meth <mark>ods</mark>	1) Rankine method of tangential				
	of setting out	angles				
	simple circular	2) Two theodolite method				
4	curve?	3) Tacheometric method	Damarahan	CO 2	CLOC	ACED01.06
4	what do you	Degree of curvature is defined	Remember	02	CLO 6	ACEB01.00
	mean by curve?	an arc of standard length This				
		definition is generally used in				
		highway practice. The length of				
		standard arc used in FPS was	Contraction of the second			
		100 ft.				
5	What are the	The following two special	Understand	CO 2	CLO 6	ACEB01.06
	problems that	problems may arise in setting				
	setting curves?	curves-passing the curve			1	
	setting curves.	Setting curve tangential to				2
		three lines	Contract Contractor		1	
6	What do you	A non-circular curve of varying	Remember	CO 2	CLO 9	ACEB01.09
Ũ	mean by	radius introduced between a		001	010 /	1102201109
	transition curve?	straight and a circular curve for				
		the purpose of giving easy		1.1	1. A.	
		changes of direction of a route is		1		
		called a transition or easement		S		
7	What are the	The transition from the tangent	Understand	CO 2	CLOO	ACEB01.00
/	advantages of	to the circular curve and from	Understand	02	CLO 9	ACED01.09
	providing a	the circular curve to the tangent				
	transition curve	is made gradual. It provides				
	at each end of a	satisfactory means of obtaining				
	circular curve?	a gradual increase of super-				
		elevation from zero on the				
		tangent to the required full				
		curve.				
8	What are the	It should meet the tangent line	Understand	CO 2	CLO 9	ACEB01.09
~	conditions to be	as well as the circular curve				
	fulfilled by the	tangentially. The rate of increase				
	transition curve?	of curvature along the transition				
		curve should be the same as that				
		of increase of super-elevation.				

S.No	QUESTION	ANSWER	Blooms Level	СО	CLO	CLO Code
9	What are the	There are three types of	Remember	CO 2	CLO 9	ACEB01.09
	types of	transition curves in common				
	transition	use: cubic parabola, cubical				
	curves?	spiral, and lemniscate				
10	Differentiate	Curves provided in the	Remember	CO 2	CLO 9	ACEB01.09
	between	horizontal plane to have the				
	horizontal and	gradual change in direction are				
	vertical curves?	known as horizontal curves,				
		whereas those provided in the				
		vertical plane to obtain the				
		gradual change in grade are				
		known as vertical curves.		<u> </u>	GT 0 1	
11	What is the need	Curves are regular bends	Understand	CO 2	CLO 6	ACEB01.06
	for providing	provided in the lines of				
	curves?	communication like roads,				
		to bring about the gradual				
		change of direction They are				
		also used in the vertical plane at				
		all changes of grade to avoid the				
		abrupt change of grade at the				
		apex	1000			
12	What do you	A reverse or serpentine curve is	Understand	CO 2	CLO 8	ACEB01.08
12	understand by	made up of two arcs having	Chidorbiana	002		TICEB01100
	reverse curve?	equal or different radii bending				
		in opposite directions with a				
		common tangent at their				
		junction. Their centres lie of				
		opposite sides of the curve.				
13	When are reverse	Reverse curves are used when	Understand	CO 2	CLO 8	ACEB01.08
	curves used?	the straights arc parallel or				
		intersect at a very small angle.				
		They are commonly used in				
		railway sidings and sometimes				
	0	on railway tracks and roads			- C	>
		meant for low speeds. They				
		should be avoided as far as			4	
		possible on main railway lines				
		and highways where speeds are			Sec. 1	
1.4	How is the surve	necessarily nign.	Un denoten d	CO 2	CLOR	ACED01.09
14	designated?	either by the radius or by the	Understallu	02		ACEDUI.08
	acoignatea :	angle subtended at the centre by		1		
		a chord of particular length.				
15	What is meant by	A curve is designated by the	Understand	CO 2	CLO 8	ACEB01.08
	degree of curve?	angle (in degrees) subtended at	Sec.			
	0	the centre by a chord of 30				
		metres (100 ft.) length. This				
		angle is called the degree of the				
		curve (D).				
		MODULE-]	Ш			
1	What is meant by	The advance of technology and	Remember	CO 3	CLO 10	ACEB01.10
	electronic	miniaturization of electronic				
	theodolite?	components enabled the				
		building of theodolites that				
		measure angles electronically,				
1		called Electronic Theodolite				

S.No	QUESTION	ANSWER	Blooms Level	СО	CLO	CLO Code
2	What is meant by	Combination of an electronic	Remember	CO 3	CLO 11	ACEB01.11
	total station?	theodolite and electronic				
		distance meter, and software				
		running on an external laptop				
		computer known as a data				
		collector is called Total Station		<i></i>	AT 0.10	
3	What do you	Electronic Distance meter is the	Understand	CO 3	CLO 10	ACEB01.10
	understand by	distance determined by emitting				
	Electronic	and receiving multiple				
	Distance meter?	frequencies, and determining the				
		integer number of wavelengths				
4	What do you	CPS which stands for Clobal	Lin donaton d	CO 2	$CI \cap 14$	ACED01 14
4	what do you	Besitioning System is the only	Understand	003	CLO 14	ACEB01.14
	Global	system today able to show you				
	Dositioning	your exact position on the Earth				
	System?	anytime in any weather				
	bystem.	anywhere				
5	What is meant by	An REM is a function used to	Remember	CO 3	CLO 10	ACEB01.10
C	Remote Elevated	measure the height to a point	1.01110.01	000	01010	
	Measurement	where a target cannot be directly				
	(REM)?	installed such as power lines,				
	`	overhead cables etc.				
6	What is the	A Total station integrates the	Understand	CO 3	CLO 12	ACEB01.12
	purpose of total	functions of a Electronic				
	station?	theodolite for measuring angles,				
		an EDM for measuring				
		distances, digital data and a data				
		recorder				
7	How is the	Measurement of distance is done	Understand	CO 3	CLO 11	ACEB01.11
	distance	by a modulated microwave or				
	measured in	infrared carrier signal in a				
	Electronic	Electronic Distance meter.				
0	Distance meter?			00.2	CL 0 11	A CED01 11
8	What is meant by	Distomat is a very small,	Remember	CO 3	CLO II	ACEB01.11
	distomat?	compact EDM, particularly		- C		
		and other Civil Engineering			A	
	0	works where distance		r .		
		measurements are less than 500			100	
	~~~~	m		- 0		
9	What are the	Total solution for surveying	Understand	CO 3	CLO 12	ACEB01.12
	benefits of total	work, Most accurate and user		- C		
	station?	friendly, Gives position of a		D		
		point (x, y and z) w. r. t. known	1 1 1			
		point (base point),				
		Compatibility with computers				
10	What are the	Different types of Electronic	Remember	CO 3	CLO 10	ACEB01.10
	different types of	Distance				
	Electronic	measurement instruments are:				
	Distance	Infrared wave instruments.				
	Measurement inst	Light wave instruments.				
	ruments?	Microwave instruments.			at a st	
11	What do you	An automatic level is a special	Remember	CO 3	CLO 14	ACEB01.14
	mean by	leveling instrument used in				
	automatic level?	surveying which contains an				
		optical compensator which				
		collimation over the of				
		instrument is slightly tilted				
		mou unione is singlicity threa.				

12       What is the purpose of GPS in surveying?       The user needs a GPS receiver to locate the position of any point on ground. The receiver processes the signals received from the satellite and compute the position (latitude and logitude) and elevation of any point with reference to datum.       CO 3       CLO 15       ACEB01.15         13       What are the various functions?       Total Station can perform the assultine and compute measurement, Angular measurement, Angular measurement, Data processing, Digital display of point details.       Understand       CO 3       CLO 13       ACEB01.13         14       What are the various functions?       Infrared wave instruments measure distances by using amplitude modulated infrared waves. At the end of the line, prisms mounted on target are used to reflect the waves.       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments are light and economical and can be magued stated or instrument will be 3 km and the accurate achieved is ± 10 mm.       Remember       CO 4       CLO 16       ACEB01.16         2       What are the various disadvantages of disal photo imagery to locate features on or above the surface of the carth.       Remember       CO 4       CLO 16       ACEB01.16         2       What are the various disadvantages of photogrammetry surveying?       Photogrammetry and be accurate active on or above the surface of the carth.       Remember       CO 4       CLO 16       ACEB01.16         3       What are the various disadvantag	S.No	QUESTION	ANSWER	<b>Blooms Level</b>	CO	CLO	CLO Code
purpose of GPS       to locate the position of any processes the signals received from the satellite and compute the position of any processes the signals received from the satellite and compute the position of any processes the signals received from the satellite and compute the position of any processes the signals received from the satellite and compute the position of any processing.       Understand       CO 3       CLO 13       ACEB01.13         13       What are the position of any processing.       Understand       CO 3       CLO 14       ACEB01.14         14       What is the purpose of infrared wave instruments measurement. Angular measurement, any provide the distances by using amplitude modulated infrared waves.       Understand       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments are used to reflect the waves.       Remember       CO 3       CLO 14       ACEB01.14         16       What are the advantages of infrared wave instruments are used to reflect the waves.       Remember       CO 3       CLO 14       ACEB01.14         17       What are the advantages of infrared wave instruments will prove of such an instrument will perform and the accuracy achieved is ± 10 mm.       Remember       CO 4       CLO 16       ACEB01.16         2       What are the waves instrument are user extent for the earth.       Terrain data and mapping advantages of relatives can be extracted from store the active of the earth.       Remember       CO 4       CLO 16	12	What is the	The user needs a GPS receiver	Understand	CO 3	CLO 15	ACEB01.15
in surveying?       point on ground. The receive processes the signals received processes processes the signals received processes the signal recesses thereces there and processes thereces there an		purpose of GPS	to locate the position of any				
13       What are the voition functions is transment. Angular measurement, Data processing, Digital display of point details, and the accuracy and the science of making reliable mounted on target are used to reflect the waves. At the end of the line, primers mounted on target are used to reflect the waves. At the end of the line, primers mounted on target are used to reflect the waves.       Understand       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments instruments?       Infrared wave instruments are used to reflect the waves.       Remember       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments are used to reflect the waves.       Remember       CO 3       CLO 14       ACEB01.14         16       What are the advantages of infrared wave instruments are are of out instruments?       Remember       CO 3       CLO 14       ACEB01.14         17       What are the advantages of infrared wave instruments are are of such an instrument will be 3 km and the accuracy are fusioned on indegree of making reliable measurements. Protogrammetry?       Remember       CO 4       CLO 16       ACEB01.16         2       What are the various dis-advantages of photogrammetry surveying?       Seasonal weather patterns that and mapping rate aware anging and digital terrain draw and at a low cost. Large area mapping and digital terrain draw and be accomplishe to collect measurements in areas vyegitation, snow, water, or overhamoing features cost when core when overehamoing features cost when core when overhamoing featur		in surveying?	point on ground. The receive				
13       What are the position (latitude and longitude) and elevation of a point with reference to datum.       Understand       CO 3       CLO 13       ACEB01.13         13       What are the various functions:       Digital display of point details.       Understand       CO 3       CLO 14       ACEB01.13         14       What is the purpose of infrared wave instruments instruments?       Infrared wave instruments waves. At the end of the line, prisms mounted on target are used to reflect the waves.       Understand       CO 3       CLO 14       ACEB01.14         15       What are the mouthed on theodolites for angular measurements. The range of such an instruments. The range of such an instruments will be 3 km and the accuracy achieved is ± 10 mm.       Remember       CO 3       CLO 16       ACEB01.14         1       What do you means       Photogrammetry can be defined achieves on or above th surface of the earth.       Remember       CO 4       CLO 16       ACEB01.16         2       What are the various after can be defined various of photogrammetry?       Remember       CO 4       CLO 16       ACEB01.16         3       What are the various dis-adot and mapping various dis-advantages of photogrammetry with dark shadows, dense vegetation, snow, water, or orweth wave water or inger on deligned produce increased wind and allow or organine the wave wave or informer organine the wave wave or informer organine the wave organine the wave organine the various dis-advantages of photogrammetry       Seasonal weather pattern			processes the signals received				
13       What are the point with reference to datum.       CO 3       CLO 13       ACEB01.13         13       What are the various functions of total station?       Total Station can perform the uneasurement, Angular measurement, Data processing, Digital display of point details.       Understand       CO 3       CLO 14       ACEB01.14         14       What is the purpose of infrared wave instruments are used to reflect the waves.       Understand       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments?       Infrared wave instruments are used to reflect the waves.       Remember       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments?       Infrared waves instruments will be a 3 km and the accuracy achieved is ± 10 mm.       Remember       CO 4       CLO 16       ACEB01.16         1       What are the surface of the earth.       Photogrammetry can be defined as the science of making reliable measurements. By photographs or digital photo imagery to locate features on or above the surface of the earth.       CO 4       CLO 16       ACEB01.16         2       What are the various dis-advantages of Photogrammetry surveying?       Seasonal weather patterns that a low cost. Large area mapping and digital terrain and ba a cownglished quicker and at a low cost. Large area mapping and digital terrain any be difficult or impossible to collect measurements in areas with disk shadows, denes vegetation, snow, water, or overhameine fea			from the satellite and compute				
13       What are the various functions: of total station?       Total Station can perform the following functions: Distance measurement, Angular measurement, Data processing, Digital display of point details.       Understand       CO 3       CLO 13       ACEB01.13         14       What is the purpose of infrared wave instruments measure distances by using anplitude modulated infrared waves. At the end of the line, prisms mounted on target are used to reflect the waves.       Understand       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments. Infrared wave instruments. The range of such an instruments. The range of such an instruments. The range of such an instruments will be 3 km and the accuracy achieved is ± 10 mm.       Remember       CO 4       CLO 16       ACEB01.14         1       What are the surface of measurements. Photogrammetry?       Photogrammetry can be defined as the science of making reliable measurements by photographs or digital photo imagery to locate features on or above the surface of the carth.       Remember       CO 4       CLO 16       ACEB01.16         2       What are the variase of produce increased with little effort and at a low cost. Large advantages of produce increased with little effort and at a low cost. Large are amapping and digital terrain models can be accomplished quicker and at a lowe cost when compared to ground survey methods.       CO 4       CLO 16       ACEB01.16         3       What are the various dis-divantages of produce increased wind and cloud cover may hanper the ability to perform the mission. It may be dif			the position (latitude and				
13       What are the various functions for Cotal Station can perform the following functions: Distance measurement, Angular measurement, Angular measurement, Data processing, Digital display of point details.       Understand       CO 3       CLO 13       ACEB01.13         14       What is the purpose of infrared wave instruments waves. At he end of the line, prisms mounted on target are used to reflect the waves.       Understand       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments are distances by using achieved is ± 10 mm.       Remember       CO 3       CLO 14       ACEB01.14         15       What are the advantages of using understand is the science of making reliable measurements. The range of such an instrument will be a 3 km and the accuracy achieved is ± 10 mm.       Remember       CO 4       CLO 16       ACEB01.16         2       What are the variace of the earth. stree image nodes with little effort and at a low cost. Large are mapping addigital terrain models can be accomplished quicker and at a low cost. Large are mapping addigital terrain models can be accomplished quicker and at a low cost. Large are mapping addigital terrain models can be accomplished quicker and at a low cost. Large are mapping addigital terrain models can be accomplished quicker and at a low cost. Large are mapping addigital terrain models can be accomplished quicker and at a low cost. Large are mapping addigital terrain models can be accomplished quicker and at a low cost. Large are mapping addigital terrain models can be accomplished quicker and at a low cost. Large are mapping addigital terrain models can be accomplished quicker and at a low cost. L			longitude) and elevation of a				
13       What are the various functions of total station?       Total station can be profine the measurement, Angular measurement, Data processing, Digital display of point details.       Understand       CO 3       CLO 14       ACEB01.14         14       What are the advantages of infrared wave instruments?       Infrared wave instruments are used to reflect the waves.       Understand       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments?       Infrared wave instruments are inget of such an instrument will be 3 km and the accuracy achieved is ± 10 mm.       Remember       CO 3       CLO 14       ACEB01.14         1       What are the advantages of infrared wave instruments?       Photogrammetry can be defined as the science of making reliable measurements by photographs or digital photo imagery to locate features on or above the surface of the earth.       Remember       CO 4       CLO 16       ACEB01.16         2       What are the various advantages of Photogrammetry?       Terrain data and mapping measurements by photographs or digital photo imagery to locate features can be extracted from stereo image models with little effort and at a low cost. Large are anapping and digital terrain models can be accomplished quicker and at a low cost. Large area mapping and digital terrain models can be accomplished quicker and at a low cost. Large surveying?       Remember       CO 4       CLO 16       ACEB01.16         3       What are the various dis- advantages of Photogrammetry       Scasonal weather patterns that produ	13	What are the	Total Station can perform the	Understand	CO 3	CLO 13	ACEB01 13
of total station?       Diffusion functions       Diffusion functions <td>15</td> <td>various functions</td> <td>following functions: Distance</td> <td>Understand</td> <td>05</td> <td>CLO 15</td> <td>ACED01.15</td>	15	various functions	following functions: Distance	Understand	05	CLO 15	ACED01.15
1       What is the measurement, Data processing, Digital display of point details.       Understand       CO 3       CLO 14       ACEB01.14         14       What is the purpose of infrared wave instruments measure distances by using amplitude modulated infrared waves. At the end of the line, prisms mounted on target are used to reflect the waves.       Understand       CO 3       CLO 14       ACEB01.14         15       What are the advantages of infrared wave instruments are ingular measurements. The range of such an instrument will be 3 km and the accuracy achieved is ± 10 mm.       Remember       CO 3       CLO 14       ACEB01.14         MODULE-IV         1       What do you measurements by photogrammetry of sigilal photo imagery to locate features on or above the surface of the earth.       Remember       CO 4       CLO 16       ACEB01.16         2       What are the various advantages of photogrammetry surveying?       Terrain data and mapping addigital terrain models can be accomplished quicker and at low cost. Large react angring and digital terrain models can be accomplished quicker and at a low cost. Large nearbing and digital terrain models can be accomplished quicker and at a low cost. Large nearbing and digital terrain advantages of photogrammetry surveying?       Seasonal weather patterns that produce increased wind and cloud cover may hamper the ability to perform the mission. In may be difficult or impossible to collect measurements in areas overtanering features: can over above the surface of the earth.       CO 4       CLO 16       ACEB01.16         3       Wha		of total station?	measurement Angular				
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S.No	QUESTION	ANSWER	<b>Blooms Level</b>	СО	CLO	CLO Code
5	What are the	Types of photogrammetry are:	Remember	CO 4	CLO 19	ACEB01.19
	types of	Terrestrial Photographs				
	photogrammetry	Aerial Photographs				
6	What is meant by	Photographs taken from camera	Remember	CO 4	CLO 19	ACEB01.19
	terrestrial	station at a fixed position on or				
	photographs?	near the ground is known as				
		Terrestrial Photographs. The				
		photographs are taken by means				
		of a photo theodolite which is				
		combination of a camera and a				
		theodolite.				
7	What is meant by	Photographs taken from a Aerial	Remember	CO 4	CLO 17	ACEB01.17
	aerial	camera mounted on a aerial				
	photographs?	vehicle. Used for various	_			
	1 0 1	purpose, mainly information				
		extraction on the ground surface				
8	What are the	Fast Lens	Understand	CO 4	CLO 17	ACEB01.17
	requirements of	High speed & sufficient shutter				
	aerial camera?	High speed emulsion for the film				
		A Magazine to hold large rolls of				
		film				
9	What is meant by	Tilt displacement is defined	Remember	CO 4	<b>CLO 18</b>	ACEB01.18
	tilt displacement?	as the difference between				
	· · · · · ·	the distance of the image of				
		a point on the tilted				
		photograph from the	and the second second			
		isocentre and the distance of				
		the image of the same point				
		on the photograph from the				
		isocentre if there had been				
		no tilt.				
10	What is meant by	Exposure (or air) station is	Remember	CO 4	CLO 20	ACEB01.20
_	Exposure (or	the exact position of the				100
	air) station?	front nodal point of the lens				
	0	in the air at the instant of				
		exposure.				1.
11	What is meant by	Flying height is the	Remember	CO 4	CLO 20	ACEB01.20
	Flying height?	elevation of the air station			· · · ·	
		above the mean sea level is				
		known as flying height of			10 C	
		the aircraft.				
12	XX71	Principal Point is the point	Remember	CO 4	CLO 20	ACEB01.20
	what is meant by	where a perpendicular	1.0	1		
	Principal Point	dropped from the front				
		nodal point strikes the				
		photographs				
13	What is meant by	Focal length is the	Remember	CO 4	CLO 20	ACEB01.20
	focal length?	perpendicular distance from				
	room ronguit	the centre of the camera				
		lens to either the picture				
		plane or the camera plate				
14	What do you	The point of intersection of	Remember	CO 4	CLO 20	ACEB01 20
1 1	mean by	the principal line and the			220 20	.102001.20
	horizontal point?	horizontal line through the				
	nonzonui point:	perspective centre $\Omega$ is				
		known as horizontal point				
15	What do you	The deviation of a plate	Remember	CO 4	CLO 18	ACEB01 18
10	mean by tilt?	from the horizontal plane at	remember		010 10	
	of the	the time of exposure.				
		r			1	

S.No	QUESTION	ANSWER	<b>Blooms Level</b>	CO	CLO	CLO Code
		MODULE-	V			
1	What is meant by remote sensing?	Remote sensing is an art and science of obtaining information about an object or feature without physically coming in contact with that object or feature. Humans apply remote sensing in their day-to-day business, through vision, hearing and sense of smell.	Remember	CO 5	CLO 21	ACEB01.21
2	What are the applications of remote sensing?	It finds extensive applications in civil engineering including watershed studies, hydrological states and fluxes simulation, hydrological modelling, disaster management services such as flood and drought warning and monitoring etc.	Understand	CO 5	CLO 21	ACEB01.21
3	What do you mean by electromagentic radiation?	Electromagnetic radiation (EMR) is the energy propagated in the form of an advancing interaction between electric and magnetic fields. It travels with the velocity of light. Visible light, ultraviolet rays, infrared rays, heat, radio waves, X-rays all are different forms of electro- magnetic energy.	Remember	CO 5	CLO 22	ACEB01.22
4	What are the advantages of remote sensing	Advantages of remote sensing are: a) Provides data of large areas b) Provides data of very remote and inaccessible regions c) Able to obtain imagery of any area over a continuous period of time	Remember	CO 5	CLO 21	ACEB01.21
5	What are the dis- advantages of remote sensing	Disadvantages of remote sensing are: a) The interpretation of imagery requires a certain skill level 9 b) Needs cross verification with ground (field) survey data c) Data from multiple sources may create confusion	Remember	CO 5	CLO 21	ACEB01.21
6	What is meant by electromagnetic radiation (EMR) spectrum?	Distribution of the continuum of radiant energy can be plotted as a function of wavelength (or frequency) and is known as the electromagnetic radiation (EMR) spectrum.	Remember	CO 5	CLO 22	ACEB01.22
7	What is meant by Ground level remote sensing?	Ground level remote sensing, Ground level remote sensors are very close to the ground. They are basically used to develop and calibrate sensors for different features on the Earth's surface.	Remember	CO 5	CLO 23	ACEB01.23

S.No	QUESTION	ANSWER	<b>Blooms Level</b>	СО	CLO	CLO Code
8	What is meant by	In airborne remote sensing,	Remember	CO 5	CLO 23	ACEB01.23
	airborne remote	downward or sideward looking				
	sensing?	sensors mounted on aircrafts are				
		used to obtain images of the				
		earth's surface. Very high spatial				
		resolution images (20 cm or				
		less) can be obtained through				
	<b>TT</b> TL . 1	this.		00.5	CT 0 00	A CED01 00
9	What is meant by	In space-borne remote sensing,	Remember	005	CLO 23	ACEB01.23
	space-borne	sensors mounted on space				
	remote sensing?	South are used. There are several				
		remote sensing satellites				
		(Geostationary and Polar				
		orbiting) providing imagery for	1.1			
		research and operational				
		applications.				
10	What is meant by	Electromagnetic (EM) energy	Remember	CO 5	<b>CLO</b> 22	ACEB01.22
	electromagnetic	includes all energy moving in a				
	energy?	harmonic sinusoidal wave				
		pattern with a velocity equal to				
		that of light. Harmonic pattern				
		means waves occurring at				
		frequent intervals of time.				
11	What do you	Atmospheric scattering is the	Remember	CO 5	CLO 22	ACEB01.22
	mean by	process by which small particles				
	scattering?	in the atmosphere diffuse a				
		portion of the incident radiation				
		in all directions. There is no				
		energy transformation while				
		distribution of the energy is				
		altered during scattering				-
12	What are the	There are three different types	Understand	CO 5	CLO 22	ACEB01 22
12	different types of	of scattering:	enderstand	005	010 22	IICEB01.22
	scattering?	1. Rayleigh scattering			· · · ·	1
	8	2. Mie scattering	and the second second			
		3. Non-selective scattering			-	
13	What is the	Solar energy reflected by the	Understand	CO 5	CLO 23	ACEB01.23
	purpose of	targets at specific wavelength			100	
	sensors?	bands are recorded using sensors			h	
		on board air-borne or space			0.000	
		borne platforms.	1.0	~		
14	What do you	Absorption is the process in	Understand	CO 5	CLO 24	ACEB01.24
	mean by	which incident energy is				
	absorption?	retained by particles in the				
		aunosphere at a given				
15	What is moont by	Reflection is the process in	Remember	CO 5	CIO 24	ACEB01 24
13	reflection?	which the incident energy is	Kennennber	05	CLO 24	ACEDUI.24
		redirected in such a way that the				
		angle of incidence is equal to the				
		angle of reflection. The reflected				
		radiation leaves the surface at				
		the same angle as it approached.				

#### Signature of the Faculty