DEPARTMENT OF SURVEYING AND GEOINFORMATICS

SCHOOL Of ENVIRONMENTAL TECHNOLOGY

FEDERAL UNIVERSITY OF TECHNOLOGY MINNA

1ST SEMESTER EXAMINATION FOR 2018/2019 SESSION

COURSE CODE/TITTLE SVG 214(SURVEY INSTRUMENTATIONS)

INSTRUCTION: ANSWER ALL QUESTIONS

TIME ALLOWED 1 HOUR 30 MIN

MATRIC NUMBER _____

1. A Travers is a _____ whose end have been marked
   in the field and whose _____ have been determined
   by field observation.

2. Given the field book below from a traverse observation, determine the horizontal Angel,
   vertical Angle and slop correction. Make a clear sketch in the space provided and show
   all workings clearly below.

STA	SIGHT	FACE	HORZ.CIRCLE	HORIZ ANGLE	VERT. CIRCLE RDG	VERT. ANGLE	DIST	REMARK
	A	L1	023^0 14' 13''					
B	C	L2	223^0 09' 54''		90^0 12' 13''		212.24	
	C	R2	204^0 22' 37''		270^0 12' 15''			
	A	R1	004^0 27' 01''					

3. Before embarking on any survey observation, after the instrument is set up
   _____ adjustment must be carried out.

4. To ascertain the integrity of control points, _____ test is carried out.

5. For effective perimeter traverse, with a theodolite a _____minimum control is required.

6. Plans are in _____scale and maps are in _____scale

7. Compass Reading are referenced to the _____, Azimuths are referenced to the _____

8. Theodolites directly measure_____, the compass measures

   _____

9. Total station is a combination of _____and _____

10. A Tacheometer comprises of _____and _____

11. The end product of Tacheometric survey is _____and _____

12. Abney level is used for measuring _____

13. Consider the leveling field book given below and compute the reduced level at each station accordingly.

Station	B.S	I.S	F.S	Raise	Fall	R.L	remark
	2.228						
		1.606					
	2.090		0.988				
		2.864					
	0.602		1.262				
	1.044		1.982				
			2.684				
Sum							

Chechk:

14. During leveling exercise by 200L students _____was used to check the accuracy of the observation.

15. TBM in survey stands for_____

16. _____Angular misclosure is allowed for five stations theodolite travers.

17. Any survey carried out without angular observation is known as _____

18. Objects that introduce error in compass observation is called_____

19. Make a sketch and label the following compass observation below:

MATRIC NUMBER_____

Line	Fore Bearing
AB	79^0 15'
BC	177^0 30'
CD	270^0 00'
DA	350^0 10'

20. In travers field book, a single set of observation at one traverse station is recorded on _____lines

21. Four major information contained in a traverse field sheet include:_____,
_____, _____ and _____

22. A booker mistakenly writes 25^0 15' 22'' instead of 55^0 17' 22''. Illustrate how he is to effect the corrections_____

23. The two kinds of travers are_____

24. Consider the level field book below, using height of instrument method; give height of P,Q and R

B.S	I.S	F.S	H.I	R.L	REMARK
1.622			?	432.384	TBM
?		0.354	435.526	?	
2.032		1.780		?	
	2.362				P
0.984		1.122			Q
1.906		2.824			
		2.036			R

25. Consider the table below and state if the following components present (P) or absent (A) in the Dumpy, Tilting or Automatic level.

	DUMPY	TILTING	AUTOMATIC
Spirit bubble	A	?	?
Spirit Level	?	P	A
Compensator	A	?	?

26. The survey instrument that uses electromagnetic wave to carryout distance measurement is known as_____

27. The survey instrument that acquires signals from satellites is called_____

28. _____ is an instrument used to measure depth of water.

29. The vehicle that carries camera for photogrammetric survey operation is called_____

ANSWER TRUE OR FALSE FOR THE QUESTIONS BELOW

30. The first reading on a leveling set up is called foresight _____

31. The most recent survey equipments presently in use is the GPS _____

32. The last reading on a leveling setup is called foresight _____

33. Whole circle bearings are not the same as Azimuths_____

34. A closed traverse may be mathematically close but geometrically opened _____

35. Pillars that are used to demarcate boundaries are not called beacons_____

36. Gross errors are not same as mistakes _____

37. Systematic errors can also be called cumulative errors _____

38. A plan with a large scale is a recce diagram_____

39. The whole circle bearing of N 78^0 05' E is 178^0 05'_____

40. The whole circle bearing of N 178^0 05' E is 278^0 05'