

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGER STATE  
SCHOOL OF ENVIRONMENTAL TECHNOLOGY

DEPARTMENT OF SURVEYING AND GEOINFORMATICS

S&G III 1 2019/2020 First Semester  
Answer only four questions time; 2 hours

1. Define surveying and Geoinformatics

i. Write briefly on the history of surveying profession in Nigeria

2. Write short note on the following

i. Geodetic surveying

ii. Plane table surveying

2b. convert the following from whole circle bearing to quadrant bearing

i.  $210^{\circ}$  ii.  $160^{\circ} 34'$  iii.  $35^{\circ} 45'$

3. Write short note on the following

i. Triangulation

ii. Traversing

iii. Levelling

3b. convert the following from Quadrantal bearing to whole circle bearing

i.  $S78^{\circ} 36'E$  ii.  $N47^{\circ} 27'E$  iii.  $N27^{\circ} 34'W$

4. Mention five careers opportunities as a geomatics engineer.

4b. write short note on the following

i. Accuracy

ii. Precision

5. List and explain three types of errors in surveying

5b. compute the include angle of the following

i.  $AB N30^{\circ} 30'E$ ,  $AC N30^{\circ} 25'W$

ii.  $AB S35^{\circ} 45'$   $AC N 45^{\circ} 30'E$

iii.  $AB 70^{\circ} 20'$   $AC 285^{\circ} 40'$

6. List five instrument used by a surveyor

6b. write short note on the following

i. True meridian

ii. Magnetic meridian

iii. Grid meridian

iv. Arbitrary direction