

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF ENVIRONMENTAL TECHNOLOGY
DEPARTMENT OF SURVEYING AND GEOINFORMATICS
FIRST SEMESTER EXAMINATION: 2017/2018 SESSION.

SVG 313: HYDROGRAPHY I

TIME ALLOWED: 2hrs

INSTRUCTION: ANSWER ANY FOUR (4) QUESTION

- 1) As a hydrography expert, your company is consulted to carry out bathymetric survey of Tagwai Dam; explain how you would get the job done considering all factors?
- 2)
 - a) List the five (5) chart datum and explain how they can be established?
 - b) Write briefly on Mean Sea Level (MSL)?
 - c) Copy and complete the formula below and state what each character stands for;
$$MHWS = Z_0 + (M_2 + S_2) + F_4(M_2 + S_2) \dots \dots + MSF$$
- 3)
 - a) what is sounding considering equipment use?
 - b) What do understand by position fixing in hydrographic survey
 - c) Itemize the purpose of sounding.
- 4) Discuss extensively on acoustic system?
- 5)
 - a) the following observation s were made from two stations A and B, the distance AB being 3.2Km, and the bearing AB to a sounding boat P being $50^0 10'$. Angle ABP = $30^0 50'$, Angle BAP = $60^0 10'$. Determine the coordinates of P if the coordinates of A are X=1000m, Y= 800.
 - b) Discuss the applications of position fixing in marine industry.