FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF GEOGRAPHY
<u>**SECOND SEMESTER 2012/2013 SESSION UNDERGRADUATE EXAMINATION**</u>

COURSE CODE: GRY 522 (3 Units)
COURSE TITLE: Geographic Hydrology and Water Resources Management

INSTRUCTION: Answer **FOUR (4)** Questions in all; Answer question one and any other three questions. Credit will be given for good illustrations and relevant examples.

TIME ALLOWED: 3 Hours

1. Describe the distance Weighting/ gridded and Thiessen Polygon method of estimating rainfall over watershed and in each cases used the table below to calculate the average rainfall of the watershed.

Stations	Station area (cm^2)	Station distance from the centre	Station precipitation (mm)
A	15.0	1.1	0.55
B	33.0	0.5	0.87
C	28.8	0.6	2.33
D	16.4	1.4	5.40
E	24.3	1.4	1.89

2. Discuss the major water problems facing the world and the possible solution.

3. Justify the need for the study of water as a resources

4. Assess the role of river basin authority in integrated water development

5. Discuss the major component and uses of water balance

6. A. Using a suitable diagram describe the endless interchange of water between the sea, air and land

   b. Explain the techniques of measurement and recording of rain-gauge