**

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**Plot 91, Cadastral Zone, NnamdiAzikwe Expressway, Jabi, Abuja**

**Faculty of Sciences**

**JANUARY/FEBRUARY, 2018 EXAMINATIONS**

**COURSE CODE: ESM 423TIME ALLOWED:** 2 HOURS

**COURSE TITLE: HYDROLOGY AND WATER RESOURCES CREDIT UNIT:** 2

**Instruction:** Attempt question number one (1) and any other three (3).

1a. Withrelevant examples, name the four major drainage patternsof a river system **(5marks)**

1b. Explain the following terms

Chemical Hydrology**(5marks)**

Hydrogeology**(5marks)**

Moisture Storage **(5marks)**

Drainage Basin **(5marks)**

**2.**With the aid of a simplified diagram, explain the concept of the hydrological cycle. **(15marks)**

**3a**. Discuss the two factors influencing surface water runoff **(5marks)**

**3b**. Discuss five factors of the variation in interception**(10marks)**

**4a.** Explainthe concept of interception. **(6marks)**

**4b.** Discuss thethree factors that affect interception**(9marks)**

**5.**Justify the view that hydrology is the scientific study of waters in their varied systems. (**15marks)**