

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF PHYSICAL SCIENCES
DEPARTMENT OF GEOLOGY

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BTECH GEOLOGY,
2016/2017 SESSION

COURSE: GEL 526 (Drilling Technology)

UNITS: 3

INSTRUCTIONS: Answer any two (2) questions from each section

DATE: 23RD OCTOBER, 2017.

TIME ALLOWED: 2Hours

Section A

1.
 - a. Briefly outline all the water well drilling methods known to you.
 - b. Describe the best method of drilling for water you will employ in Bida town, Niger state stating its merits and demerits.
2. Write concise notes on any three of the following;
 - a. Development of well drilling techniques
 - b. Classification of drilling rigs
 - c. Advantages and disadvantages of air drilling system
 - d. Major types of drilling fluids used in water well industries.
3.
 - a. Briefly identify all the hazards associated with water well drilling
 - b. Discuss any three of the hazards listed above, stating the possible ways of mitigating the hazards.

Section B

4. Explain drilling for oil and gas under the following segments:
 - a. Planning
 - b. Drilling
 - c. Completion
 - d. Production
 - e. Abandonment
5. Write brief notes on any two of the following;
 - a. Oil Rig personnel and their functions
 - b. Sketch and label an oil drilling
 - c. Onshore and offshore seismology
6. Drilling for oil and gas has been responsible for environmental degradation and pollution. Suggest ways in which the drilling and production process can be carried out with minimal environmental impact.