

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA**

**FACULTY OF SCIENCE**

**OCTOBER/NOVEMBER 2016 EXAMINATION**

**COURSE CODE: DAM363**

**COURSE TITLE: ECONOMIC STATISTICS**

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| **CREDIT UNITS:** | **3** |

**TIME ALLOWED: 3Hours**

**INSTRUCTION: Attempt any Five (5) questions**

**Question 1**

List and discuss the methods used in the selection of samples in research

**– 14 marks**

**Question 2**

1. Describe any four methods of data collection that you know - **8 marks**
2. Discuss any four identified disadvantages of using secondary data **- 6 marks**

**Question 3**

i) Enumerate the features of standard deviation - **7 marks**

ii) In descriptive statistics, mention the major reasons why arithmetic mean is considered an important measure of location? -**7 marks**

**Question 4**

1. Briefly explain the halting problem **- 7 marks**
2. State Godel’s incompleteness theorem **- 7 marks**

**Question 5**

1. What is a Turing Machine? **- 7 marks**
2. Distinguish between deterministic and nondeterministic pushdown automata **- 7 marks**

**Question 6**

1. What is a PDA? **- 7marks**
2. If languages L1 and L2 are each given in a standard representation prove that the languages (L1 and L2) are identical **-7 marks**

**Question 7**

1. Develop an algorithm for the Operation of a DFA **8 marks**
2. Write shorts notes on any 3 of the following terms **6 marks**
3. *Transducer*
4. An automaton
5. Set Intersection