

**National Open University of Nigeria**

**Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja**

**Faculty of Science**

**NOVEMBER, 2018 EXAMINATIONS**

**COURSE CODE: ESM 407**

**COURSE TITLE: RESEARCH METHOD AND FIELD TRIP**

**CREDIT: 3 Units**

**TIME ALLOWED: 2½ Hours**

**INSTRUCTION: Answer Question ONE (1) and any other FOUR (4) Questions**

1a) Discuss the essential features of GIS (10 marks)

1b) Discuss extensively the questions that GIS answers (12 marks)

2a) Outline the established methods of digitization (3 marks)

2b) Highlight the valuable perspectives which GIS provides (5 marks)

2c) Outline the dedicated facilities or subsystems for a GIS (4 marks)

3) Write short notes on any three of these GIS concepts:

i)Geo-referencing; (4 marks)

ii)Spatial data capture; (4 marks)

iii)Attribute data; Projection (4 marks)

4a. What is Geographic Data? (3 marks)

4b. Explain four characteristics of Geographic features (9 marks)

5a) Name any four factors that aided the rise of GIS. (4 marks)

5b) Discuss grouping of features based on geometric dimensions (8 marks)

6a) Discuss any three Similarities between GIS and CAD (6 marks)

6b) Discuss any Differences between GIS and CAD (6 marks)