



MACHAKOS UNIVERSITY

University Examination 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

DIPLOMA IN CIVIL ENGINEERING

BCECD 305 RESEARCH METHODOLOGY AND PROJECT I

DATE: 24/7/2019

TIME: 2.00-4.00 PM

INSTRUCTIONS: Answer questions **ONE** and any other **TWO** questions.

1. a) Define the term research (2 marks)
- b) Discuss 4 characteristics of good research (8 marks)
- c) Explain four functions of good research design (8 marks)
- d) Discuss 3 methods of collecting data in a research (9 marks)
- e) Outline 5 characteristics of a good surveying (5 marks)
2. Outline the procedural guideline on a research process (20 marks)
3. a) Define the term sampling (2 marks)
- b) State Three advantages and Three disadvantages Of sampling (6 marks)
- c) Discuss the following types of probability sampling: -
 - i. simple random sampling
 - ii. interval or systematic sampling
 - iii. stratified sampling (2 marks)

4. a) Define the term hypothesis (2 marks)
- b) Discuss 3 importance of hypothesis (9 marks)
- c) Discuss 3 types of hypothesis (9 marks)
5. a) Outline 5 purpose of literature review (10 marks)
- b) Discuss the following type of research: -
- i. survey research
 - ii. comparative research (6 marks)
- c) State four sources of a research topic (4 marks)