



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

THIRD YEAR FIRST SEMESTER EXAMINATION FOR DIPLOMA IN CIVIL
ENGINEERING

BCECD305: RESEARCH METHODOLOGY AND PROJECT I

DATE: 2/6/2017

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

- *This paper comprises five questions*
- *Question **one** is **compulsory** and carries 30 marks*
- *All other questions carry 20 marks each*
- *Answer question **one** and any other **two** questions*

QUESTION ONE (COMPULSORY) (30 MARKS)

- | | | |
|----|--|------------|
| a) | What is the meaning of research | (2 marks) |
| b) | State and explain FIVE functions of research | (10 marks) |
| c) | State and explain FOUR sources of a research topic | (6 marks) |
| d) | Give FOUR main features of a hypothesis | (2 marks) |
| e) | Give FIVE structures of a research proposal | (10 marks) |

QUESTION TWO (20 MARKS)

- | | | |
|----|--|------------|
| a) | Give TEN characteristics of a good research proposal | (10 marks) |
| b) | Give TWO purposes of a hypothesis | (2 marks) |
| c) | Provide FOUR characteristics of a good problem statement | (8 marks) |

QUESTION THREE (20 MARKS)

- a) State and explain TEN principles of a good report (10 marks)
- b) State and explain FIVE types of variables in a research topic (10 marks)

QUESTION FOUR (20 MARKS)

- a) Provide and explain FIVE characteristics of a good research topic (10 marks)
- b) Give with explanation FIVE relevance of report writing (10 marks)

QUESTION FIVE (20 MARKS)

- a) What is sampling (2 marks)
- b) Explain the stages involved in sampling (8 marks)
- c) Give TEN characteristics of a good sample (10 marks)