



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

BCECD 305: RESEARCH METHODOLOGY AND PROJECT I

DATE: 2/8/2017

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)