



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS  
2017/2018 ACADEMIC YEAR  
THIRD YEAR FIRST SEMESTER**

**SCHOOL OF TOURISM & RESOURCE  
MANAGEMENT  
BACHELOR ENVIRONMENTAL SCIENCE (EPM)**

**COURSE CODE: EPM305  
COURSE TITLE: INFRASTRUCTURE DESIGN  
AND MANAGEMENT**

**DATE: 24<sup>TH</sup> APRIL, 2018**

**TIME: 1100 – 1300HRS**

---

**INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions in section **A** and any other **THREE** in section **B**.

*This paper consists of 2 printed pages. Please turn over.*

**SECTION A: ANSWER ALL QUESTIONS ( 25 marks )**

- 1) Define the following terms  
a) Infrastructure ( 2 mks)  
b) Public utilities ( 2 mks)  
c) Solid waste ( 2 mks)
- 2) Characterize infrastructure ( 4 mks)
- 3) Classify public services ( 4 mks)
- 4) Citing one advantage for each, explain the major sources of renewable energy sources in Kenya ( 6 mks)
- 5) Briefly explain the major principles in the process of infrastructure planning. ( 5 mks)

**SECTION B: ANSWER ANY THREE QUESTIONS ( 45 marks)**

- 6) Briefly discuss the major challenges facing water services in Kenya (15 mks)
- 7) a) With an aid of a diagram discuss the process of planning for infrastructure ( 11 mks)  
b) Briefly explain any two approaches you would use to estimate energy demand ( 4 mks)
- 8) 'Solid waste management in Kenya is unsustainable', discuss for or against this statement using relevant examples (15 mks)
- 9) From a infrastructure designer point of view, discuss the recommendations you would give to Kenya Power and Lighting company to ensure efficiency in their energy supply grid. ( 15 mks)

**END//**