

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2018/2019**

**YEAR IV SEMESTER II EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMMUNITY HEALTH DEVELOPMENT**

**ICH 2103: MEDICAL PHYSICS**

**DATE: AUGUST 2019 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A AND ANSWER ONE QUESTION IN SECTION B**

**SECTION A (48 MARKS)**

1. Give an explanation about X-ray absorption (6marks)

2. What are X-ray futries? Give a brief explanation about X-ray futries (6 marks)

3. Explain the properties of ultrasound (6 marks)

4. What are the advantages of ultrasound in medicine (6 marks)

5. Explain about radioactivity (6 marks)

6. Explain about the production of X-ray beam (6 marks)

7. What is plezoelectricity and explain it in details (6 marks)

8. Discuss about poppler in medical physics (6 marks)

**SECTION B (22 MARKS FOR EACH QUESTION)**

9. Give an explanation about the medical applications of X-ray (22 marks)

10. Discuss various safety measures and quality assurance practices in diagnosis, treatment in research radiation laboratories (22 marks)

11. Give an explanation of biological effects and advantages of ultrasound as used in medicine (22 marks)