



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF APPLIED SCIENCES
DEPARTMENT OF RADIOGRAPHY
BSc. HONOURS IN RADIOGRAPHY PART II
IMAGING OF URINARY AND REPRODUCTIVE SYSTEMS
SRA 2201

Second Semester Examination Paper

March 2025

This examination paper consists of 3 pages

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: None
Examiner's Name: Miss N. Gertrude Makonese

INSTRUCTIONS

ANSWER ALL PARTS OF QUESTION 1 IN SECTION A AND ANY THREE QUESTIONS FROM SECTION B. SECTION A CARRIES 40 MARKS AND SECTION B CARRIES 60 MARKS.

MARK ALLOCATION

QUESTION	MARKS
1.	40
2.	20
3.	20
4.	20
5.	20
6.	20
Maximum possible mark	100

SECTION A

- 1 (a) State the main functions of the urinary system. [4]
- (b) With respect to Intravenous Urography (IVU), justify the importance of obtaining patient medical history prior to imaging. [5]
- (c) Identify five pathologies of the male reproductive system. [5]
- (d) Compare and contrast patient preparation for an intravenous urography (IVU) and to patient preparation for computed tomography urography (CTU). [4]
- (e) (i) Discuss the role of an HSG in the diagnosis of pathologies of female reproductive system. [4]
(ii) Discuss the considerations taken into account when booking a patient for an HSG. [5]
- (f) Outline the role of plain radiography in the imaging of the urinary system. [4]
- (g) Describe the radiological appearances of 4 pathologies of the kidneys. [5]

SECTION B

- 2 Justify the increasing use of Ultrasound in imaging female and male reproductive systems. [20]

- 3 (a) Describe the physiology of micturition. [8]
- (b) Explain the pathophysiology leading to Polyuria in diabetes mellitus. [4]
- (c) Discuss the role of multiparametric Magnetic Resonance Imaging (mpMRI) in prostate cancer detection and staging. [8]
- 4 (a) Explain the pathophysiology of menorrhagia. [8]
- (b) Discuss the diagnosis and management of menorrhagia. [12]
- 5 (a) With reference to a nephrostomy:
- (i) Describe this procedure. [5]
- (ii) Justify the performance of this procedure. [5]
- (b) Evaluate the role of cystography in the imaging of the urinary system [10]
- 6 (a) Evaluate the role of the following in the imaging of the breast;
- (i) Mammography [5]
- (ii) MRI [5]
- (iii) Ultrasound [5]
- (b) Justify the role of semen analysis in the diagnosis of male infertility [5]

END OF EXAMINATION