



UNIVERSITI KUALA LUMPUR
ROYAL COLLEGE OF MEDICINE PERAK

FINAL EXAMINATION
MARCH SEMESTER 2026

COURSE CODE : RXD23503
COURSE NAME : SPECIALISED IMAGING TECHNIQUE
PROGRAMME NAME : DIPLOMA IN MEDICAL IMAGING
DATE : 23 JUNE 2026
TIME : 2.30 P.M – 4.30 P.M
DURATION : 2 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please read CAREFULLY the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of TWO (2) section; Section A and Section B.
4. Answer ALL questions in Section A. For Section B, answer THREE (3) questions ONLY.
5. Please mark/write your answers on the OMR answer script or answer booklet provided.
6. Answer ALL questions in English language ONLY.

THERE ARE 9 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A : MULTIPLE CHOICE QUESTIONS (Total: 25 marks)**INSTRUCTION: Answer ALL questions.****Please use the objective answer sheet provided.**

1. Identify the equipment used in the endoscopic retrograde cholangiopancreatography (ERCP).
 - A. Colonoscope
 - B. Duodenoscope
 - C. Bronchoscope
 - D. Laryngoscope
2. Recognise the advantage of digital subtraction angiography(DSA).
 - A. Low resolution.
 - B. Clear vessels visualisation.
 - C. No contrast needed.
 - D. No radiation needed.
3. What is atherosclerosis?
 - A. Bone disease with osteoporosis.
 - B. Fat deposition in blood vessels.
 - C. Muscle injury with tear.
 - D. Ischemic stroke in the cerebral artery.
4. Identify the purpose of screening mammography.
 - A. For symptomatic patients.
 - B. For asymptomatic patients.
 - C. For trauma patients.
 - D. For emergency patients.
5. Recognise the advantage of ERCP compared with magnetic resonance cholangiopancreatography (MRCP).
 - A. Provide diagnosis and therapeutic intervention at the same time.
 - B. Provide better soft tissue contrast without contrast media.
 - C. Provide real-time imaging fluoroscopy of the surrounding tissue.
 - D. Provide high-resolution images.

6. Recognise the term cholangio.
- A. Bile ducts
 - B. Pancreas
 - C. Liver cell
 - D. Colon
7. Recognise the background colour of DSA images.
- A. Pale grey
 - B. Black
 - C. White
 - D. Transparent
8. Identify the patients position during the coronary angiogram examination.
- A. Supine
 - B. Oblique
 - C. Prone
 - D. Semi erect
9. Identify the advantage of breast compression in mammogram examination.
- A. Increase artifacts.
 - B. Reduce motion artifact.
 - C. Increase thickness.
 - D. Reduce scar artifact.
10. Identify the radiographers preparation before entering the operating theatre.
- A. Helps the physician to prepare the medication.
 - B. Perform proper hand hygiene.
 - C. Wearing jewelry and using a casual uniform.
 - D. Preparing the equipment after finishing the procedure.
11. Identify the factor that improves image visualisation during ERCP.
- A. Air intake.
 - B. Contrast injection.
 - C. Sedation administration.
 - D. Medication intake.

12. Identify the purpose of the basket catheter in ERCP.
- A. Injecting contrast.
 - B. Removing stones.
 - C. Dilating vessels.
 - D. Enhances images.
13. Recognise the advantage of the frame rate in DSA.
- A. No radiation involved.
 - B. Capture dynamic flow.
 - C. Improve comfort.
 - D. Avoid contrast injection.
14. Identify the advantage of biplane imaging in the catheterization laboratory.
- A. Improve image quality.
 - B. Increased radiation dose.
 - C. Reduce contrast usage.
 - D. Reduce pain during examination.
15. Identify the fracture with skin tear.
- A. Compression fracture.
 - B. Compound fracture.
 - C. Impacted fracture.
 - D. Transverse fracture.
16. Identify the function of an internal fixation instrument.
- A. Break the bone.
 - B. Stabilise the bone.
 - C. Measure the bone.
 - D. Replace the bone.
17. Recognise the purpose of an intravenous line preparation before ERCP examination.
- A. For diagnostic imaging purposes.
 - B. For administration of fluids and sedation.
 - C. For contrast injection only.
 - D. For monitoring blood pressure.

18. Identify the anatomical structure that regulates bile flow in the duodenum.
- A. Sphincter of Oddi
 - B. Phyloric sphincter
 - C. Ileocaecal valve
 - D. Cardiac sphincter
19. Recognise the purpose of the Seldinger technique in the angiography examination.
- A. Removed aneurysm.
 - B. Access blood vessels.
 - C. Enhance image quality.
 - D. Measure heart rate.
20. Recognise the **CORRECT** insertion of the guidewire in the angiogram examination.
- A. Needle into muscle.
 - B. Needle into blood vessels.
 - C. Needle into subcutaneous tissue.
 - D. Needle into the bone cortex.
21. Identify the advantage of the Seldinger technique.
- A. Reduce examination time.
 - B. Reduces trauma to the blood vessel.
 - C. Required no sterilization.
 - D. Eliminates all complications.
22. Recognise the purpose of operative cholangiography.
- A. Evaluate the salivary system during surgery.
 - B. Evaluate biliary ducts during surgery.
 - C. Evaluate bone alignment during surgery.
 - D. Evaluate lung disease.
23. Identify the advantage of the right posterior oblique (RPO) projection during operative cholangiography.
- A. Avoid superimposition.
 - B. Reduce dose.
 - C. Increase contrast.
 - D. Improve comfort.

24. Recognise the cause of arrhythmia complications during the coronary angiogram examination.
- A. Catheter irritation.
 - B. Incorrect position.
 - C. Contrast delayed.
 - D. Incorrect bandage compression.
25. Identify the complication of operative cholangiography.
- A. Fracture
 - B. Bile leakage
 - C. Asthma
 - D. Hypertension

SECTION B : MODIFIED ESSAY QUESTIONS (Total: 75 marks)

INSTRUCTION: This section consists of **FOUR (4)** modified essay questions (MEQ).

You are required to answer **ONLY THREE (3)** questions in the answer booklet provided.

Question 1

(a) Referring to the mammography examination:

i. Explain patient preparation.

(10 marks)

ii. Describe the spot compression view.

(5 marks)

b) Referring to the intravenous urography (IVU) examination:

i. Identify the equipments used.

(5 marks)

ii. Identify the purpose of preliminary radiography.

(5 marks)

Question 2

- (a) Referring to the micturating cystourethrography (MCU) examination:
- i. Explain the technique. (10 marks)
 - ii. Describe stress incontinence. (5 marks)
- b) Referring to the barium swallow examination:
- i. Identify **FIVE (5)** indications. (5 marks)
 - ii. Identify **FIVE (5)** patient preparation. (5 marks)

Question 3

- (a) Referring to the barium enema large colon examination:
- i. Differentiate between double contrast and single contrast. (10 marks)
 - ii. State **FIVE (5)** overcouch film series. (5 marks)
- b) Referring to the operation theatre examination:
- i. Identify **FOUR (4)** types of fracture. (4 marks)
 - ii. Explain **SIX (6)** steps of hand washing. (6 marks)

Question 4

(a) Referring to the endoscopic retrograde cholangiopancreatography (ERCP) examination:

i. Explain regarding sphincterotomy. (10 marks)

ii. Identify **FIVE (5)** indications. (5 marks)

b) Referring to the antegrade pyelography (APG) examination:

i. List **FIVE (5)** indications. (5 Marks)

ii. List **FIVE(5)** equipments. (5 marks)

END OF EXAMINATION PAPER