1. **To visualize the left intervertebral foramina of the cervical spine which of the following cervical positions should be used?**
2. **Right posterior oblique (RPO)**
3. Right anterior oblique (RAO)
4. Left posterior oblique (LPO)
5. Left lateral

Correct answer is A

Rational: To demonstrate the intervertebral foramen of the c-spine open, it is necessary to achieve adequate rotation of the vertebral column, usually at 45°. Moreover, the [PA oblique](https://radiopaedia.org/articles/cervical-spine-pa-oblique-view?lang=us) projection is preferred as it reduces radiation dose to the thyroid 1 compared to the AP oblique projection

DOMAIN- **Radiologic Imaging**

SUB DOMAIN - **Procedures/Positions for Skull (head) - whole spine Without contrast media**

IDICATAR -**Apply basics and specific positioning techniques in radiography for adults and pediatrics**

1. **The measurement unit of “dose equivalent” is the**
2. Rad
3. **Rem**
4. Gray
5. Roentgen

Correct answer is B

Rational: *equivalent dose* is specifically for radiological protection purposes and the unit used for measuring it is REM

DOMAIN **/ Safety of practice and risk management**

SUB DOMAIN **Radiation protection**

IDICATAR - **Identify radiation dose of absorbed, equivalent dose and effective dose**

3- .Contraindication for CM injection all of the following except

A – D.M

B – Hepatic failure

C – Renal failure

D – Previous sensitivity

Correct answer is A

Rational: DM is not contraindications for contrast media, the DM patients need to stop their medication for 48 hours just

4-If patient (A) came to the radiographer asking for another patient (B) diagnosis, what is the right action the radiographer must take?

A-Give patient (A) a brief answer about patient (B) medical diagnosis

**B-Must inform patient (A) that this cannot be done for ethical and legal reasons**

C-Must inform patient (B) about it

D-Must inform patient (B) family

Correct answer: B

Rational: it is not ethical to give any patient private information to others

DOMAIN **Management of Patient care**

SUB DOMAIN **Ethical performance**

INDICATAR **Inform client/staff members of ethical issues affecting client care**

5-Epiglottis is identified by the letter

L

F

K

I

The correct answer is letter K

Rational: K is the Epiglottis in anatomy



DOMAIN Medical Imaging

SUBDOMAIN Cross Sectional Anatomy

INDICATAR 5. **Identify different structures of the human body on both computed tomography (CT) and magnetic resonance (MR) images for head and neck**

6- Gyromagnetic ratio is best defined as:

1. **It is the ratio of dipole magnetic moment to the angular momentum**
2. It is proportional to Bo
3. It is similar between all MR nuclei
4. It does not affect the MR signal

Correct answer: A

Rational: the **gyromagnetic ratio** (also sometimes known as the **magnetogyric ratio**) of a particle or system is the [ratio](https://en.wikipedia.org/wiki/Ratio) of its [magnetic moment](https://en.wikipedia.org/wiki/Magnetic_moment) to its [angular momentum](https://en.wikipedia.org/wiki/Angular_momentum)

 DOMAIN **/ Medical Imaging/radiation therapy sciences practice**

**SUB DOMAIN / Magnetic Resonance Imaging ( MRI )**

**INDICATAR** **Identify basic physics of NMR, relaxation phenomena .relaxation time measurements**

7- The main aim of developing the first ever computed tomography scanner was to:

1. Improve the image spatial resolution
2. Improve the image temporal resolution
3. **Overcome tissues' overlapping seen on conventional radiography**
4. Improve the image low-contrast resolution

Correct answer: C

Rational:**CT scan enabling the visualisation of sections through a body**

 **DOMAIN Medical Imaging**

 **/ SUBDOMAIN / Computerized Tomography Scan**

**( CT Scan )**

 **INDICATAR**  **Identify Physical Principles of Computed Tomography**

 8- Which of the following is not a type of radiation detector?

A- Geiger Muller (G.M.) counter.

B- Proportional counter.

C- Semiconductor radiation detector.

**D-Flame emission detector.**

**Correct answer: D**

**Rational: The flame is a**[**sensor**](https://en.wikipedia.org/wiki/Sensor)**designed to detect and respond to the presence of a**[**flame**](https://en.wikipedia.org/wiki/Flame)**or**[**fire**](https://en.wikipedia.org/wiki/Fire)

 DOMAIN/ Safety of practice and risk management

SUBDOMAI/ Radiation protection

INDICATAR/ . **Know Portable Radiation Survey Instruments**

9- **One of these projections is not taken for a traumatic patient in shoulder examination**

**A-AP Apical Oblique Axial Projection**

**B- Transthoracic Lateral Projection**

**C-    Infero-superior projection**

**D-   Tangential Projection—supraspinatus Outlet**

**Correct answer: C**

**Rational: You should not move or try to force the patient to do the desired position and inferior superior need special position**

DOMAIN **Radiologic Imaging**

SUBDOMAIN **Procedures/Positions for Upper extremities and lower extremities Without contrast media**

 INDICATAR Recognize Clinical indication

10- **The midfemoral neck (which is used as a CR For hip radiography) is located**

**A-     About 3 to 5 inches medial and 8 to 10 inches distal to ASIS**

B-  **About 3 to 5 cm lateral and 8 to 10 cm distal to iliac crest**

C-  **About 3 to 5 cm medial and 8 to 10 cm distal to ASIS**

D-  **About 3 to 5 inches medial and 8 to 10 inches distal to iliac crest**

**Correct answer: A**

**Rational: The femoral neck located 3-5 inches and 8-10 inches distal to ASIS**

DOMAIN **Radiologic Imaging**

SUBDOMAIN **Procedures/Positions for Upper extremities and lower extremities Without contrast media**

IDICATAR Apply Central of x-ray and exposure