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QUESTION NO : 1

ANSWER:

TEN ADVANTAGES OF DIGITAL RADIOGRAPHY:

Following are the advantages of digital radiography over screen film radiography.

1. Digital radiography is more useful in **time,space and personnel** over screen film radiography.
2. No darkroom.
- 3.No chemical processing in digital radiography.
4. Less patient radiation dose over screen film radiography.
5. Images can be stored,email and zoom easily.
- 6.Improves image quality.
- 7.No repeat examination.
- 8.Improved spatial resolution.
- 9.Low exposure techniques.
- 10.No loaded and unload of cassette.

QUESTION NO: 2

ANSWER:

DIFFERENTIATE BETWEEN DIRECT AND INDIRECT DIGITAL RADIOGRAPHY:

1.DIRECT DIGITAL RADIOGRAPHY:

- X-rays photons act directly on a photoconductor layer which produces electric charges i.e positive and negative.
- TFT collects signals.

- Electrical signals is sent to computer for processing.
- Image is viewed on computer.
- **CAPTURE ELEMENTS:** Amorphous selenium.
- **COUPLING ELEMENTS:** NO
- **COLLECTING ELEMENTS:** TFT

2 INDIRECT DIGITAL RADIOGRAPHY:

- X-rays photons hit the scintillator layer which releases light photons.
- CCF or TFT convert light into signals.
- Computer processes electrical signals.
- Image is viewed on computer.
- **CAPTURE ELEMENTS:** Csl and GdOS.
- **COUPLING ELEMENTS:** Fibre optics and contact layer.
- **COLLECTING ELEMENTS:** TFT OR CCD.

QUESTION NO : 3

ANSWER:

IMPORTANCE OF FILL FACTOR:

- Percentage of pixel face which is sensitive to x-rays is called fill factor.
- It convert incident x-rays beam into light.
- If the size of the pixel is reduced the spatial resolution is increases.
- Due to which patient radiation dose increases.
- With smaller pixels the fill factor is reduced and x-rays intensity is increased to maintain signal strength.

QUESTION NO :4

ANSWER:

- The consequences of producing flat panel digital image receptors with smaller pixels are **Noisy images**.

QUESTION NO:5

ANSWER:

FEATURES OF STORAGE PHOSPHOR IMAGING PLATES:

1. Most of storage phosphor plates are made of barium fluorohalide.
2. Flexible.
3. Less rapid than direct digital imaging.
4. Responds to a very wide range of x-ray exposure.

5.Storage phosphor imaging plate also contains;

- Phosphor layer
- Protective coat
- Conductive layer
- Support and laminate layers.

END OF PAPER...!
THANK YOU...!