



قائمة الاسئلة

(70) مقدمة في الأشعة - المستوى الأول - قسم أشعة - كلية الطب والعلوم الصحية - برامج العلوم الطبية التطبيقية - الفترة الثانية - درجة الامتحان

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- 1) Any visual object that's modified or altered by a computer or an imaginary object created using a computer
  - 1)  Image
  - 2)  Picture
  - 3)  Photo
  - 4)  photograph
- 2) Accelerating potential (10 - 25 MV) for .....
  - 1)  Mammography
  - 2)  Fluoroscopy
  - 3)  X Ray therapy
  - 4)  Computed Tomography (CT scan)
- 3) Which Anode (Target) made of a material Rhodium?
  - 1)  Mammography
  - 2)  X Ray therapy
  - 3)  Computed Tomography (CT scan)
  - 4)  DENTAL X RAY
- 4) What is the average photon energy for CTscan ?
  - 1)  60KV
  - 2)  MeV 3 - 10 MeV
  - 3)  KV 150 - 9 MeV
  - 4)  80 - 160 KV
- 5) Fluoroscopy refers to the continuous acquisition of a sequence of ..... images over time, essentially a real-time x-ray movie of the patient
  - 1)  MRI
  - 2)  X RAY
  - 3)  Ultrasound (US)
  - 4)  Computed Tomography (CT scan)
- 6) ..... are produced by passing x-rays through the body, at a large number of angles, by rotating the x-ray tube around the body. One or more linear detector arrays, opposite the x-ray source, collect the transmission projection data
  - 1)  Panoramic Dental X-rays
  - 2)  CT images
  - 3)  MRI scanners
  - 4)  Nuclear medicine images
- 7) The.....detector system is more sensitive to the presence of radioisotopes than SPECT cameras, and thus can detect very subtle pathologies
  - 1)  PET
  - 2)  CT scan
  - 3)  MRI
  - 4)  SPECT
- 8) Positron are positively charged ....., and are emitted by some radioactive isotopes such as fluorine 18 and oxygen 15.
  - 1)  proton
  - 2)  beta
  - 3)  alpha
  - 4)  electron





- 9) Because ultrasound is.....harmful than ionizing radiation to a growing fetus, ultrasound imaging is preferred in obstetric patients.
- 1) - few
  - 2) - more
  - 3)  less
  - 4) - higher
- 10) Both the speed and direction of blood flow can be measured using imaging technology .....
- 1) - CT scan
  - 2)  Doppler Ultrasound Imaging
  - 3) - SPECT
  - 4) - Magneto EncephaloGraphy
- 11) The nuclear medicine modality, Single Photon Emission Computed Tomography..... uses emission of gamma rays resulting from the interaction of radiopharmaceutical substance with the target tissue.
- 1) - PET
  - 2) - Magneto EncephaloGraphy
  - 3) - MRI
  - 4)  SPECT
- 12) Understanding Image medium : tissue..... is a static property that causes attenuation of an external radiation beam in X-ray imaging modality.
- 1) - resolution
  - 2) - Contrast
  - 3)  density
  - 4) - intensity
- 13) ..... is related primarily to the proton density and to relaxation phenomena
- 1) - resolution CT scan
  - 2) - Emission Computed Tomography) SPECT)
  - 3) - Contrast in ultrasound
  - 4)  Contrast in MRI
- 14) In ultrasound imaging, the wavelength of sound is the fundamental limit of.....
- 1)  spatial resolution
  - 2) - Contrast
  - 3) - density
  - 4) - intensity
- 15) Much..... x-ray energies are used in mammography than any other radiographic applications.
- 1) - higher
  - 2) - more
  - 3) - equivalent
  - 4)  lower
- 16) During a..... examination, the x-ray tube rotates in a semicircle around the patient's head, starting at one side of the jaw and ending at the other side.
- 1) - Computed Tomography (CT scan)
  - 2)  panoramic x-ray
  - 3) - Mammography
  - 4) - DENTAL X RAY
- 17) .....is useful for monitoring blood flow through arteries.
- 1) - Ultrasound Imaging (US)
  - 2)  MR angiography (MRI)
  - 3) - Single Photon Emission Computed Tomography (SPECT)





- 4) - Positron Emission Tomography (PET)
- 18) In ..... a nuclear camera records x- or gamma-ray emissions from the patient from a series of different angles around the patient.
- 1) - PET
  - 2) - CT scan
  - 3) - MRI
  - 4)  SPECT
- 19) The ..... (e+) combines with an electron (e-) from the surrounding tissue, and the mass of both the e+ and the e- is converted by annihilation into pure energy, following Einstein's famous equation  $E = mc^2$ .
- 1)  positron
  - 2) - neutrons
  - 3) - alpha
  - 4) - beta
- 20) ..... is different to all the other techniques. It doesn't put anything into a patient's body. No X rays/Strong Magnetic Fields/Radio waves/Radiotracers
- 1) - MR angiography (MRI)
  - 2) - Ultrasound Imaging (US)
  - 3) - Positron Emission Tomography (PET)
  - 4)  Magneto EncephaloGraphy (MEG)
- 21) It is an imaginary line that divides the body into front and back.
- 1) - Axial
  - 2) - Sagittal
  - 3)  Coronal
  - 4) - Lateral
- 22) The patient is in an inclined position 45 degrees from the x-ray receiver.
- 1) - Lateral side
  - 2)  Oblique
  - 3) - Anteroposterior PA
  - 4) - Anteroposterior AP
- 23) 12 g of radioactive material in a place, and after 60 days, it was found that the remaining amount of this radioactive material is 0,75 g. Calculate the half-life of this radioactive substance
- 1) - 12.5 days
  - 2) - 7.5 days
  - 3) - days 30
  - 4)  15 days
- 24) A sample of radioactive material weighing 200 g.  
How many of them are left after half an hour if you know that the half-life is ten minutes.
- 1) - g100
  - 2) - g50
  - 3)  g25
  - 4) - g12
- 25) It is an acronym for Source-Image Distance, which is the distance between the x-ray tube source and the Bucky beam receiver
- 1) - SID usually 6 m
  - 2)  SID usually 100 cm
  - 3) - SID usually 10 cm
  - 4) - SID usually 100 mm
- 26) RPO It is an acronym for





- 1) - Left Anterior Oblique
  - 2) - Right Anterior Oblique
  - 3)  Right Posterior Oblique
  - 4) - Left Posterior Oblique
- 27) The inclination is of two types: either upward towards the head and is called .....,or it is tilted down towards the feet and here it is called .....
- 1) - RPO - RAO
  - 2) - .caudal - cephalad
  - 3) - LAO - LPO
  - 4)  cephalad - caudal.
- 28) ASIS – Anterior Superior Iliac Spine this examination shows the
- 1) - Cervical AP
  - 2) - Thoracic AP
  - 3)  Pelvis AP
  - 4) - Lumbar Spine AP
- 29) An imaginary line that divides the human body into above and below.
- 1)  Axial
  - 2) - Sagittal
  - 3) - Coronal
  - 4) - Lateral
- 30) The duration of the..... imaging machine is 30 - 45 minutes
- 1)  MRI
  - 2) - X RAY
  - 3) - Ultrasound (US)
  - 4) - Computed Tomography (CT scan)
- 31) In MRI, the patient is placed in the magnetic field, and a pulse of ..... waves is generated by antennas ("coils") positioned around the patient.
- 1) - sound
  - 2) - microwaves
  - 3)  radio
  - 4) - seismic
- 32) Ultrasound refers to sound with a frequency above .....
- 1)  20,000Hz
  - 2) - 2000Hz
  - 3) - 200Hz
  - 4) - 20Hz
- 33) Very sensitive metabolic tool. It is advantage for.....
- 1) - MRI
  - 2)  Nuclear medicine
  - 3) - Ultrasound (US)
  - 4) - Computed Tomography (CT scan)
- 34) Mainly anatomical and only "reasonable " spatial resolution. These disadvantages for.....
- 1) - MRI
  - 2) - Nuclear medicine
  - 3)  Ultrasound (US)
  - 4) - Computed Tomography (CT scan)
- 35) ..... is a specialized x-ray projection imaging technique useful for detecting breast anomalies such as masses and calcifications.
- 1) - DENTAL X RAY





- 2) + Mammography
- 3) - Computed Tomography (CT scan)
- 4) - panoramic x-ray

