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Answer Sheet No. 108

Sig. of Candidate. _____

Sig. of Invigilator. _____

RADIOGRAPHIC TECHNIQUES HSSC-II

SECTION – A (Marks 20)

Time allowed: 25 Minutes

NOTE: Section-A is compulsory and comprises pages 1-2. All parts of this section are to be answered on the question paper itself. It should be completed in the first 25 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q. 1 Circle the correct option i.e. A / B / C / D. Each part carries one mark.

- (i) For radiography the sensitive period as regard organogenesis is:
- A. 4-8 weeks of gestation B. 1-3 weeks of gestation
C. 15-20 weeks of gestation D. 30-40 weeks of gestation
- (ii) Safe period rule is not applicable in:
X-ray on young lady.
- A. X-ray lumbar spine on young lady
B. Renal scan on young lady
C. CT abdomen in young lady with hysterectomy
D. CT chest in 18 years girl with oophorectomy
- (iii) Preliminary film:
- A. Means the film just after the radiological procedure
B. Is mandatory for contrast urography
C. Is to be carried after IVU
D. Is of no use in radiology
- (iv) Regarding Radionuclide, which is not true:
- A. Milli curries is the unit to measure radioactivity
B. Megabecquerel is the unit to measure radioactivity
C. Is not used in CT-SPECT
D. Is used in CT-PET
- (v) What is true about claustrophobia?
- A. Claustrophobia means patient feels happy in spring
B. Claustrophobia means patient feels happy in MRI scanner
C. Claustrophobia means patient feels discomfort in CT scanner
D. Claustrophobia does not pose problem for the radiographer to carry out the test
- (vi) Skull:
- A. Scalp is part of skull bone B. Skull is part of scalp bone
C. Mandible is part of scalp bone D. Skull is type of long bone
- (vii) Sutures of skull:
- A. Sagittal suture divides the skull into right and left parts
B. Coronal sutures divides the skull into right and left halves
C. Lambdoid suture is on the frontal bone
D. Sutures are not confused with blood vessel markings in x-ray of skull
- (viii) Cervical vertebrae:
- A. Normal curve of spine is straight B. Dens is part of atlas vertebra
C. Dens is part of axis vertebra D. Axis is the name of 7th cervical vertebra
- (ix) Elbow joint region:
- A. The joint is mortise type of joint
B. Olecranon process and radial head take part in formation of the joint
C. Radial head is on the medial side
D. Coronoid fossa is on the posterior side

- (x) Distal row of carpal bones comprises of:
A. Triquetral, trapezoid, capitate, hamate B. Scaphoid, trapezoid, capitate, pisiform
C. Trapezium, trapezoid, hamate, capitate D. Trapezium, triquetral, capitate, hamate
- (xi) Ankle joint:
A. Is type of hinge joint B. Is made by tibia, fibula and talus bones
C. Is made by tibia, calcaneus, talus bones D. Is made by fibula, tibia, navicular bones
- (xii) What is not true about electromagnetic radiation?
A. Always travels at the same velocity in vacuum
B. Its velocity is 186000 miles per second
C. It is both particle and wave at a time
D. It is wave only
- (xiii) Not true about ionizing radiation:
A. Gamma rays are ionizing radiation
B. X-rays are ionizing radiation
C. Ionization means when an atom loses or gets an electron
D. An atom is not ionized when it loses an electron
- (xiv) Not true about X-ray tube:
A. It is diode tube
B. It is not triode tube
C. Its housing is made of lead lining
D. X-ray particles and gamma rays travel with different velocity in it
- (xv) Number of electrons flowing towards the target refers to:
A. Velocity B. Mass
C. mAs D. KVA
- (xvi) Which is not used as photo timer?
A. Photomultiplier detectors B. Ionization chambers
C. Solid state detectors D. Diode
- (xvii) Filters:
A. Filtration is the process of shaping the X-ray beam to increase useful photons in the beam.
B. They increase patient's dose.
C. They increase tissue contrast.
D. Mean energy of the beam decreases after passing through the filters.
- (xviii) Mammography:
A. Mean KVa used is between 70-80 KVp
B. Tungsten is used in the target
C. The filter used is made of Molybdenum
D. The filter used is made of Aluminum
- (xix) Anatomical lines for X-ray on cranium:
A. Orbito meatal base line passes through outer canthus of eye to the centre of the external auditory meatus
B. Orbito meatal base line passes through outer canthus of eye to the upper border of the external auditory meatus
C. Anthropological base line passes through the centre of the orbit to the upper border of the external auditory meatus
D. Infra-orbital line passes through the centre of the orbits
- (xx) Paranasal air sinuses:
A. Water view and occipito-mental view are synonymous
B. Water's view and occipito-frontal view are synonymous
C. These are best seen on town's view
D. Town's view is occipito-frontal view

For Examiner's use only:

Total Marks:

20

Marks Obtained:

— 2HA 1650 —



RADIOGRAPHIC TECHNIQUES HSSC-II

109

Time allowed: 2:35 Hours

Total Marks Sections B and C: 80

NOTE: Sections B and C comprise pages 1-2. Answer any twenty-five parts from Section 'B' and any three questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

SECTION - B (Marks 50)

Q. 2 Answer any TWENTY-FIVE parts. The answer to each part should not exceed 2 to 4 lines. (25x2=50)

- (i) What is meant by X-ray photon?
- (ii) What is space charge?
- (iii) Write short note on Anode.
- (iv) What is atomic number?
- (v) How many electrons are accommodated in k shell of atom?
- (vi) What is scattered radiation?
- (vii) What intensity of the X-ray beam means?
- (viii) What is inherent filtration?
- (ix) Where tube rating chart is used in radiology?
- (x) What is moving grid?
- (xi) What is ALARP? Where this is applicable?
- (xii) What is antiseptic technique? Mention antiseptic agents.
- (xiii) What is sternal angle?
- (xiv) Which bones / part of bone attach to manubrium?
- (xv) Write note on lower end of humerus.
- (xvi) Write bones of proximal row of carpal bones.
- (xvii) What is calcaneum?
- (xviii) How many ribs are normally found in humans?
- (xix) Write part of small intestine.
- (xx) How temporomandibular joint is formed?
- (xxi) Write about thoracic vertebrae.
- (xxii) How cervical and thoracic vertebrae are different?
- (xxiii) What are the parts of uterus?
- (xxiv) Write parts of brain stem in humans.
- (xxv) Name 1st and 2nd cervical vertebrae.
- (xxvi) What is prone position for imaging?
- (xxvii) What is transverse plane of body?
- (xxviii) What is median sagittal plane of body?
- (xxix) What is Antero-posterior projection?
- (xxx) What is the basic view for X-ray foot?
- (xxxi) Write about post exposure film processing.

SECTION - C (Marks 30)

Note: Attempt any THREE questions. All questions carry equal marks.

(3 x 10 = 30)

- Q. 3** Write the views for Knee joint X-ray. Explain Skyline view.
- Q. 4** There is injury to hand and suspicion of fracture dislocation of thumb. How would you do X-ray? Mention different view.
- Q. 5** Write view for radiography of pelvis. How would you take X-ray pelvis when there is suspicion subluxation?
- Q. 6** What are the projections for base of skull? Give detail of Submento-vertical view.
- Q. 7** What is the role of radiographer in conducting Ultrasound?

