



# RADIOGRAPHIC TECHNIQUES HSSC-II

## SECTION – A (Marks 20)

Time allowed: 25 Minutes

Version Number 4 5 0 1

**Note:** Section – A is compulsory. All parts of this section are to be answered on the separately provided OMR Answer Sheet which 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** Choose the correct answer A / B / C / D by filling the relevant bubble for each question on the OMR Answer Sheet according to the instructions given there. Each part carries one mark.

- 1) Zygoma is a part of:
  - A. Skull vault
  - B. Vertebral column
  - C. Embryo in its early stage
  - D. Cheek bone
- 2) Mastoid process:
  - A. Is a part of temporal bone
  - B. Is located at the angle of mandible
  - C. Is a part of parietal bone
  - D. Forms suture with parietal bone
- 3) Posterior clinoid process:
  - A. Is the posterior part of clivus
  - B. Is the anterior part of clivus
  - C. Is posterior to the heart
  - D. is posterior to the sternum
- 4) Middle ear lies in:
  - A. Occipital bone
  - B. Petrous bone
  - C. Temporal part of temporal bone
  - D. External auditory meatus
- 5) Coronoid process is seen in:
  - A. Mandibular and ulnar bones
  - B. Radial bone and mandibular bones
  - C. Femur bone only
  - D. Fibular bone only
- 6) Canine tooth is between:
  - A. Incisors and molar teeth
  - B. Incisors and premolar teeth
  - C. Premolars and molar teeth
  - D. 6-8 in numbers in adult humans
- 7) Foramen transversarium is:
  - A. Lateral to foramen ovale
  - B. Medial to foramen ovale
  - C. Seen in the cervical vertebrae
  - D. The passage of facial nerve in middle ear
- 8) Ala of sacrum is the:
  - A. Upper part
  - B. Lower part
  - C. Lateral part
  - D. Medial part
- 9) Acetabular cavity is made up of:
  - A. One bone
  - B. Two bones
  - C. Three bones
  - D. None of these
- 10) Ischial bone is:
  - A. Part of iliac bone
  - B. Part of pubic bone
  - C. The bone one sits on
  - D. The lowest part of coccyx

- 11) Wave length is defined as distance between:
- A. Two crests  
B. Two successive troughs  
C. Adjacent crest and trough  
D. None of these
- 12) SI unit of force is:
- A. Coulomb  
B. Newton  
C. Watt  
D. Volt
- 13) Cathode in X-ray tube means:
- A. Carries positive charge  
B. Carries negative charge  
C. Negative electrons move towards it  
D. Positive charge particles move away from it
- 14) Focusing cup in X-ray tube is made up of:
- A. Tungsten  
B. Aluminium  
C. Nickel  
D. Chromite
- 15) Line focus principle means:
- A. Method to minimize effective focal spot  
B. Method to bring lines of X-ray in parallel  
C. Is the method to fix focusing cup in X-ray tube  
D. Is the method to keep the anode at right angle to beam
- 16) Heel effect:
- A. Is related to patient heel X-ray  
B. Thick part of the patient should be on the cathode side  
C. Thick part of the patient should be on the anode side  
D. Thick part of the patient should be on the center of the tube
- 17) Heat loss by radiation is proportional to:
- A. The fourth power of the temperature  
B. The 5th power of the temperature  
C. The 6th power of the temperature  
D. The 8th power of the temperature
- 18) Regarding Barium studies:
- A. Barium is water soluble  
B. Barium is safe if it goes to lungs as compared to HOCM  
C. Barium 100% w/v is used in all studies  
D. Barium is preferred in studying stomach after recent biopsy
- 19) Intravenous urography:
- A. Can be done with dilute barium  
B. Buscopan should be give during the study  
C. Bowel preparation is not mandatory  
D. Bowel preparation is not mandatory as it does not improve quality of the test
- 20) In Contrast meal test:
- A. Buscopan is used during the study  
B. Buscopan is not used during the study  
C. Metoclopramide is used before the test  
D. Metoclopramide is used during the test



# RADIOGRAPHIC TECHNIQUES HSSC-II

90

Time allowed: 2:35 Hours

Total Marks Sections B and C: 80

**NOTE:** 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 geometric un-sharpness?
- (ii) Write about absorption un-sharpness in X-ray image.
- (iii) Write down factors controlling subject contrast.
- (iv) Write about exposure factors.
- (v) Define coronal plane.
- (vi) Write down bones of hands.
- (vii) What is ball catching view?
- (viii) What glenoid cavity is?
- (ix) Just name basic projections for X-ray scapula.
- (x) How X-ray for Hallux Valgus is done?
- (xi) What type of ankle joint is?
- (xii) What types of movements occur at ankle joint?
- (xiii) Draw and label diagram of human lumbar vertebra.
- (xiv) Name the tarsal bones.
- (xv) Why stress view of ankle joint is done?
- (xvi) Write about anthropological base line.
- (xvii) What isinion?
- (xviii) Where styloid process is:
- (xix) Write common views for X-ray paranasal sinus.
- (xx) Why lordotic view is done?
- (xxi) What is tube rating chart?
- (xxii) Draw diagram of diode tube.
- (xxiii) What are the types of generators used in X-ray?
- (xxiv) What is meant by attenuation of X-ray beam?
- (xxv) What is filter in X-ray tube and why is it used?
- (xxvi) Where grid is found?
- (xxvii) Write about grid pattern.
- (xxviii) How fluoroscopy and X-ray tubes are different?
- (xxix) How X-ray film is processed after exposure?
- (xxx) How image distortion is produced in X-ray?
- (xxxi) Which part in neck is more sensitive while exposing a patient for X-ray?

## SECTION – C (Marks 30)

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

(3 x 10 = 30)

- Q. 3** Write how to do X-rays of Para nasal sinuses. Give detail on one view.
- Q. 4** Write down procedure to carry out X-ray for Ulna. Mention different views and lateral view in detail.
- Q. 5** Write down about the procedure for X-ray chest in detail.
- Q. 6** What is Apical view for X-ray chest? Give detail of the procedure.
- Q. 7** What is stress view for ankle joint, why and how is it done?