

**SCHEME OF
PRACTICAL EXAMINATION
IN SUBJECT
RADIOLOGY TECHNICIAN
(PA / PB / PC)
STD. XII
HSC VOCATIONAL**

Maharashtra State Board of Secondary & Higher Secondary

Education Board

H.S.C. Examination

H.S.C. Vocational Course – Practical Exam,

Radiology Technician

Paper I Radiography (PA)

Each Student has-

Q.No. 1	Long Experiment 1	25 Marks	1.5 hours
Q.No. 2	Short Experiment 1	15 Marks	½ hour
Q.No.3	Identification Spot (10)	20 Marks	½ hour
Q.No. 4	Viva and Journal	20 Marks	½ hour

Total – 3 hours.

Paper-I Radiography (PA)

Q.1) Long Experiments.(Any One) Marks-25 each Time-1.5 Hours.

Take the x-ray of (.....) and process film. Show it to examiner. Write in detail with the help of following points.

- a) Anatomy
- b) Indications and contraindications
- c) Position of patient and cassette
- d) Central ray and central point
- e) Exposure factors
- f) Film processing
- g) Labelled diagram

(Examiners should give any one of the following, to each student)

- i. Elbow joint - AP view
- ii. Knee joint - AP view
- iii. Femur bone - AP view
- iv. Abdomen KUB - AP view
- v. Cervical spine - Lat view
- vi. Chest radiograph - PA view
- vii. Ankle joint - Lat view
- viii. Hip joint - AP view
- ix. Lumbar spine _ Lat view
- x. Hand radiograph - PA view
- xi. Skull Lateral
- xii. Calcaneum-lat
- xiii. Wrist- P/A
- xiv. Forearm -P/A
- xv. Para nasal sinus- Walters View

Q. 2) Short Experiments (Any one) 15 marks each

Time: ½ hour

1. How will you take care and maintain intensifying screen.
2. How will you test screen for uniform film-screen contact.
3. How will you take care and maintain cassette?
4. How will you mount a screen on cassette?
5. How will you load and unload xray film ?
6. How will you perpare Developer ?
7. How will you perpare Fixer ?
8. Explain manual film processing ?
9. Write the procedure of dental radiography.
10. Explain Digital Radiography ?

Q.3). Spotting identification, characteristics, related information.

Any 10 Spots

20 Marks(2for each spot)

Time:- ½ hour

- i) Lead apron ii) View box
- iii) Neck Radiograph iv) Dental film
- v) Rib Bone vi) Cassette
- vii) Film hanger viii) Clavical Bone
- ix) Lead divider x) Safe light
- xi) Radius bone xii) Tibia bone
- xiii) Patella bone xiv) Calcaneum bone
- xv) Sternum bone xvi) Scapula bone
- xvii) Knee joint radiograph xviii) Wrist joint radiograph
- xix) Radiograph of Chest xx) Elbow joint Radiograph

Q.4) Viva and journal.

20 Marks

Time:- ½ hour

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H.S.C.Vocational Radiology Technician

Paper - II Special Radiological procedures (PB)

Each Student has-

Q.No. 1	Long Experiment 1	30 Marks	1.5 hours
Q.No. 2	Short Experiment 1	15 Marks	½ hour
Q.No. 3	Identification Spot (10)	20 Marks	½ hour
Q.No. 4	Viva and Journal	20 Marks	½ hour

Total –3 hours.

Q.1) Long Experiments. (Any One) 30 Marks each Time-1½ hour

1) Describe in detail any one of the following procedure with the help of following points.

- i) Definition
- ii) Indications
- iii) contra-indications
- iv) Contrast media and its dose
- v) Preliminary films
- vi) Preparation of patient
- vii) Pre-medication
- viii) Equipments
- ix) Various films
- x) Labelled diagrams
- xi) complications
- xii) Aftercare

(List of procedures, give any one to each student)

1. IVP (Intravenous pyelography)
2. Barium meal follow through
3. HSG (Hysterosalpingography)
4. Bronchography
5. barium meal
6. MCU (Micturating Cysto Urography)
7. Myelography
8. Barium enema
9. Tomography
10. Coronary angiography
11. Sialography
12. Mammography
13. Dacryocystography
14. Barium swallow
15. Oral cholecystography

Q.NO. 2 Short Experiment. Any one (15 Marks) Time:- 1/2 hour

1. How to make medical emergency tray for procedure.
2. How to give first aid in convulsions?
3. Write difference between malignant and benign tumour.
4. How to give first aid in bones and joints injuries?
5. How to make medical instruments for emergency?
6. How will you conduct basic examination of the body?(pulse, BP, temperature etc.)
7. How will you diagnose gall stone in gall bladder? (OCG)
8. How will you do arthrography examination?
9. Describe in detail contrast media.
10. What is the procedure to diagnose tumour in stomach?(Barium Meal)

Q.3). Spotting identification, characteristics, related information.

Any 10 Spots

20 Marks(2for each spot)

Time-: ½ hour

1. Lumbar puncture needle
2. Kidney tray
3. Barium sulphate suspension
4. Urograffin 76% CM
5. Enema can
6. Sim's speculum
7. Ryle's tube
8. Foley's catheter
9. Copper T
10. Vulsellum forceps
11. IVP radiograph
12. TLD
13. CT scan radiograph
14. HSG radiograph
15. Plain catheter

Q.4) Viva and journal.

20 Marks

Time-: ½ hour

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Paper-III Imagelogy (PC)

Each Student has-

Q.No. 1	Long Experiment 1	25 Marks	1.5 hours
Q.No. 2	Short Experiment 1	15 Marks	½ hour
Q.No. 3	Identification Spot (10)	20 Marks	½ hour
Q.No. 4	Viva and Journal	20 Marks	½ hour

Total –3 hours.

Q.1) Long Experiments. (Any One) 25 Marks each Time-1½ hour

1. Describe CT scan department and write in details for its set up in the hospital.
2. Describe MRI department and write in details for its set up in the hospital.
3. Describe USG department and write in details for its set up in the hospital.
4. Describe in detail the Cath - lab.
5. Explain PET scan.
6. Describe nuclear medicine.
7. Explain interventional radiography.
8. Explain the use of computer knowledge related to medical imaging technology.
9. Prepare a power point presentation (PPT) of CT scan skull and explain.
10. Write difference between ultrasonography and radiography.

Q. 2) Short Experiment. Any one (15 Marks) Time-:1/2 hour

1. Describe in short CT scan Machine.
2. Prepare a power point presentation (PPT) of USG.
3. Write indications and contra-indications of MRI.
4. How patient is prepared in nuclear medicine?

5. Explain colour doppel.
6. Which contrast medium is used for CT scan. Write the dose.
7. Describe PET scan technique.
8. How patient is prepared for CT scan?
9. Write indications of USG.
- 10.Enumerate differences between x-ray and MRI.

Q.3). Spotting identification,characteristics, related information.

Any 10 Spots

20 Marks(2for each spot)

Time-: ½ hour

1. Syringe and needle
2. Lead partition
3. Computer
4. Pass box
5. Digital x-ray film
6. CT scan radiograph
7. Omni paque - CM for CT scan
8. Omni scan liquid 10 ml
9. Inj. Hydrocort
- 10.Lumbar coil
- 11.Skull coil
- 12.Lead apron
- 13.Godolinium contrast medium
- 14.Inj. Atropine
- 15.Lead gloves
- 16.TLD
- 17.Adaptation goggles
- 18.View box
- 19.Mammography machine
- 20.MRI radiograph

Q.4) Viva and journal.

20 Marks

Time-: ½ hour
