Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Imaging Technology Examination – 03-Jan-2022

Time: Three Hours **Max. Marks: 60 Marks**

DIAGNOSTIC IMAGING TECHNIQUE (RS3)
Q.P. CODE: 2911

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Explain the different generations of CT scanner.
2. What is ultrasound? Explain the type of interaction of ultrasound with matter.
3. Write detail note on contrast media used in MRI.

SHORT ESSAYS (Answer any Five) **5 x 5 = 25 Marks**

4. Care and maintenance of Transducer.
5. MR magnets.
6. SPECT instrumentation.
7. Transducer construction.
8. Ideal features of radiopharmaceuticals.
9. CT artifacts.
10. Safety considerations while handling radionuclides.

SHORT ANSWERS (Answer any Five) **5 x 3 = 15 Marks**

11. T_2 weighted image.
12. Portable ultrasound.
13. Properties of sonic waves.
14. Specific activity.
15. Hounsfield unit.
16. Triple phase CT.
17. Doppler shift.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Imaging Technology Examination – 05-Jan-2022

Time: 3 Hours **Max. Marks: 30 Marks**

RADIOGRAPHIC TECHNIQUES – I (RS3)
Q.P. Code: 2912

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

(Note: Both QP Codes 2912 and 2913 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the routine and supplementary views of knee joint.
2. Describe the routine and supplementary views of pelvis.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. What are the radiological projections for acute abdomen?
4. Orthopantomography
5. Flexion and extension views for cervical spine

SHORT ANSWERS (Answer any Five) **5 x 2 = 10 Marks**

6. Skyline view of patella
7. Water's view
8. Frog-leg projection
9. Bitewings in dental radiography
10. Coned view of sella
11. Scaphoid view

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Imaging Technology Examination – 05-Jan-2022

Time: 3 Hours **Max. Marks: 30 Marks**

RADIOGRAPHIC TECHNIQUES – II (RS3)
Q.P. Code: 2913

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

(Note: Both QP Codes 2912 and 2913 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe MCU under the following headings:
    a) Indication and contraindication
    b) Preparation of the patient
    c) Procedure
    d) Trolley settings
    e) After care of the patient

2. Describe HSG under the following headings:
    a) Indication and contraindication
    b) Preparation of the patient
    c) Contrast media
    d) Procedure including recommended views
    e) After care of the patient

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Double contrast barium enema, explain technique and indication and complication.
4. Write adverse reaction of contrast media and its management.
5. Explain radiological technique, preparation, views, projections, type of barium contrast used for the following clinical disorder.
    a) Hiatus hernia
    b) Gastro esophageal reflux disorder

SHORT ANSWERS (Answer any Five) **5 x 2 = 10 Marks**

6. Positive contrast media
7. Percutaneous catheterization
8. Adrenal venography
9. Pressure injector
10. Myelography
11. Pelvimetry

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Imaging Technology Examination – 05-Jul-2022

Time: Three Hours **Max. Marks: 60 Marks**

DIAGNOSTIC IMAGING TECHNIQUE (RS3)
Q.P. CODE: 2911

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Define artifact. Explain the types of artifact seen in the CT scan.
2. Describe superconductive magnet and its application to MRI.
3. What are transducers? Describe principle of transducers.

SHORT ESSAYS (Answer any Five) **5 x 5 = 25 Marks**

4. Write a note on DSA.
5. Basic principle of doppler scan.
6. Discuss helical CT protocol for evaluation of liver.
7. State the Larmor equation and its significance.
8. MRI contrast media.
9. Explain production of Radionuclides in detail.
10. Radionuclide generator.

SHORT ANSWERS (Answer any Five) **5 x 3 = 15 Marks**

11. CT number.
12. Precession.
13. Pixel and voxel.
14. Inversion recovery sequence.
15. Cold kit.
16. Coupling agents in ultrasound.
17. Principle of PET.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Imaging Technology Examination – 07-Jul-2022

Time: 3 Hours **Max. Marks: 30 Mark**

RADIOGRAPHIC TECHNIQUES – I (RS3)
Q.P. Code: 2912

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.
(Note: Both QP Codes 2912 and 2913 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the routine and supplementary views of foot.
2. Describe the routine and supplementary views of chest.

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Stenver's view
4. Atlanto-Occipital joint
5. Stress view for knee joint

SHORT ANSWERS (Answer any Five) **5 x 2 = 10 Marks**

6. Frog view
7. Lateral view of ankle
8. AP view of humerus
9. Sacroiliac joints
10. Lateral view of Mandible
11. Supine Decubitus view of abdomen

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Imaging Technology Examination – 07-Jul-2022

Time: 3 Hours **Max. Marks: 30 Marks**

RADIOGRAPHIC TECHNIQUES – II (RS3)
Q.P. Code: 2913

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.
(Note: Both QP Codes 2912 and 2913 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the technique of ERCP.
2. Adverse reactions to contrast media and patient management

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Percutaneous nephrostomy
4. Use of digital subtraction
5. Bronchography

SHORT ANSWERS (Answer any Five) **5 x 2 = 10 Marks**

6. Mammography
7. Barium enema
8. Fallopian tube recanalization
9. Non-ionic contrast media
10. Lead **Markers**
11. Lymphography

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