Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. Imaging Technology Examination – APRIL-2019

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

DIAGNOSTIC IMAGING TECHNIQUE
(RS – II)
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. Write briefly on computed tomography – principles, data acquisition, pixel & voxel.
2. Write briefly principles, coils, computer of MRI.
3. Principles, characteristics, propagation, frequency, wavelength, velocity, amplitude, of ultrasound

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

4. Write on artifacts, patient preparation and handling in ultrasound.
5. Radioimmunoassay
6. Gamma camera
7. MRI contrast agent.
8. Gray scale and harmonic imaging in ultrasound.
9. Nuclear scanning technique
10. Sequences in MRI scan.

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

11. Spectroscopy in MRI
12. Diffusion in MRI
13. Probes in ultrasound
14. Radioactivity
15. Window level and width in CT scan.
16. Larmor Frequency in MRI
17. Mechanical transducers

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III year B.Sc. Imaging Technology Examination – APRIL-2019

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

Radiographic Technique - I
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. Explain in detail basic and supplementary projections for knee joint.
2. Explain in detail various views for shoulder joint.

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

3. Scapula - various views and projections
4. Views for sacrum
5. Carpal tunnel view

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

6. Swimmer's view
7. Soft tissue neck radiography
8. Mobile radiography
9. Strykers view
10. Rhese view
11. Ball Catcher's view

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Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. Imaging Technology Examination – APRIL-2019

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

Radiographic Technique - II

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. What is Micturating Cystourethrogram (MCU)? Describe the procedure in detail and indications for MCU.
2. Describe Intravenous Urography in adults under the following headings:
    a) Indications and contraindications
    b) Preparation of the patient
    c) Contrast media
    d) Procedure including recommended views
    e) Aftercare of the patient

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

3. Oral cholecystography
4. Magnification technique
5. Orthopantomography

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

6. Contrast media in CT
7. CT pyelography
8. Xeroradiography
9. Digital mammography
10. HSG
11. Fistulogram

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Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. Imaging Technology Examination – OCT-2019

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

DIAGNOSTIC IMAGING TECHNIQUE (RS – II)

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. Describe in detail the different magnets and coils in MRI. Discuss the hazards related to MRI hardware and safety procedure to be followed to prevent accidents.
2. What is the maximum permissible dose and describe the methods of radiation protection to the patient and to the staff in Diagnostic radiology department.
3. Write a note on CT Dosimetry parameters, factors influencing patient dose and steps to minimize patient's dose.

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

4. MR Spectroscopy
5. CT guided Biopsies
6. PET
7. MR Angiography
8. MR artefacts
9. Interventional technique in Ultrasound
10. Quality check and maintenance of CT

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

11. Ultrasonography contrast agents
12. Emergency drugs in radiology
13. CT technique of KUB examination
14. Gradient Echo sequence
15. Ring artifact in CT
16. Inversion recovery sequence
17. Contrast to noise ratio

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III year B.Sc. Imaging Technology Examination – OCT-2019

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

Radiographic Technique - I

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 chest.
2. Skeletal survey of metabolic bone diseases.

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

3. What are the radiological projections for temporomandibular joint?
4. Optic foramina
5. Radiological projections for shoulder joint

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

6. Soft tissues of neck
7. K. U. B radiograph
8. Towne's view
9. Extra oral projections of teeth
10. Lumbosacral X-rays
11. Carpal tunnel view

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Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. Imaging Technology Examination – OCT-2019

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

Radiographic Technique - II

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 Barium meal under the following headings:
    a) Indications and contraindications
    b) Patient preparation
    c) Methods and contrast medium
    d) Procedure
    e) Complications and aftercare
2. Describe in detail the indications and procedure of peripheral limb CT angiography.

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

3. Percutaneous transluminal angioplasty
4. Retrograde urethrogram
5. Hepatic venography

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

6. Contrast media used in MRI
7. Phlebography
8. Peripheral venography
9. High mA technique
10. Pressure injector
11. T-tube cholangiogram

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