

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0124]

JANUARY 2024

Sub. Code :1511

D.M. – INTERVENTIONAL RADIOLOGY

PAPER I – BASIC SCIENCES

(CONSISTING OF VASCULAR ANATOMY, RADIATION PHYSICS AND INSTRUMENTATION RELATED TO INTERVENTIONAL RADIOLOGY)

Q.P. Code: 161511

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Anatomy of the Aortic arch and the branches. Relevance to Interventional Radiology.
2. Planning of Digital subtraction angiography setup.

II. Write notes on: **(10 x 7 = 70)**

1. Liquid embolization material.
2. Carbon dioxide angiography.
3. Snare design and applications.
4. Thermal ablation.
5. Safety and Sterility of ultrasound probes.
6. Lymphatic system – Anatomy and Roots of access.
7. Quality Assurance in IR.
8. Challenges in vascular access.
9. Monitoring a patient in IR.
10. Hepatic arterial anatomy relevant for transplantation.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0225]

FEBRUARY 2025

Sub. Code :1511

D.M. – INTERVENTIONAL RADIOLOGY

PAPER I – BASIC SCIENCES

(CONSISTING OF VASCULAR ANATOMY, RADIATION PHYSICS AND INSTRUMENTATION RELATED TO INTERVENTIONAL RADIOLOGY)

Q.P. Code: 161511

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the anatomy of the Internal Iliac artery with suitable diagram. Enumerate and discuss the importance of Prostatic arteries and their role in Interventional Radiology.
2. Discuss the Radiopathological correlation and differential diagnosis of Vasculitis involving medium sized arteries.

II. Write notes on:

(10 x 7 = 70)

1. Explain with a diagram the coagulation cascade. Expand on the role of any two anticoagulants on the cascade.
2. Briefly describe permitted Radiation doses to general public and radiation worker.
3. Discuss the suitable detectors for a biplane Cath lab in an Intervention Radiology department.
4. Elaborate on the role and choice of antibiotics in biliary drainage procedures.
5. Discuss AERB Guidelines for maintenance of Radiation Equipment.
6. Compare the different MRI techniques in vessel imaging.
7. Pre procedure work up for a patient scheduled for Aortic stenting.
8. Anatomy of the adrenal venous system and its importance in Intervention Radiology.
9. Explain with diagram the lymphatic drainage of the body. Give a brief account of the different approaches to the thoracic duct in Intervention Radiology.
10. Biomechanical and Radiological investigation of Renal artery hypertension.
