

March 2009

[KU 136]

Sub. Code: 2031

**M.D. DEGREE EXAMINATION**  
**Branch VIII – RADIO DIAGNOSIS**  
**(Common to all candidates)**

**Paper I – MEDICAL RADIATION PHYSICS AS APPLIED  
TO RADIO DIAGNOSIS**

*Q.P. Code : 202031*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary.**

**Answer ALL questions.**

**I. Essay questions :** **(2 x 20 = 40)**

1. Discuss the various factors that control the sharpness of “Radiographic Image”.
  
2. **a)** Describe the construction of the transducer used in ultrasonography.  
**b)** Discuss briefly about the various transducers used in ultrasound imaging.

**II. Write short notes on :** **(10 x 6 = 60)**

1. Dark room construction.
2. Focal spot in a x-ray tube.
3. Intensifying screens.
4. Xero-Radiography.
5. Macro radiography.
6. Radiation protection in diagnostic radiology.
7. Grid cassette.
8. Static marks.
9. Daylight automatic processing unit.
10. Rectifiers.

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March 2010

[KW 136]

Sub. Code: 2031

**M.D. DEGREE EXAMINATION**

**Branch VIII – RADIO DIAGNOSIS**

**Paper I – (for candidates admitted upto 2007-2008) and  
Part I – (for candidates admitted from 2008-2009 onwards)**

**MEDICAL RADIATION PHYSICS AS APPLIED  
TO RADIO DIAGNOSIS**

*Q.P. Code : 202031*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary.**

**Answer ALL questions.**

**I. Essay questions :**

**(2 x 20 = 40)**

1. What are the factors affecting radiographic quality? How to improve the radio graphic quality?
2. X-ray of both hands including forearms as an index of systemic diseases. Discuss in detail.

**II. Write short notes on :**

**(10 x 6 = 60)**

1. Avascular necrosis.
2. Digital radiography.
3. Pulmonary embolism.
4. Contrast media.
5. Ewings sarcoma.
6. Cold abscess pathway – cervical to caudal.
7. Aorto arteritis.
8. Intussusception.
9. X-ray filters.
10. Pulmonary alveolar microlithiasis.

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