

D.M.R.D. : SUMMER - 2019
SUBJECT : PAPER – I : PHYSICS APPLIED TO RADIOLOGY AND
IMAGING INCLUDING CONTRAST MEDIA

Day : Saturday
Date : 01/06/2019

Time : 2.00 P.M. TO 5.00 P.M
Max. Marks : 100

S-2019-3882

N. B. :

- 1) **Q. No. 1 and Q. No. 2 are COMPULSORY.**
 - 2) Attempt any **SEVEN** questions from **Q. No. 3 to Q. No. 10.**
 - 3) Figures to the right indicate **FULL** marks.
 - 4) Draw neat and labelled diagrams **WHEREVER** necessary.
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Long Answer Questions:

- Q. 1** Indications and technique of doing micturating cystourethrography. (15)
- Q. 2** Enumerate various surface coils used in MR imaging in your department. Write in short about how a surface coil works. How will you undertake high resolution MR imaging of internal ear structures? (15)

Short Answer Questions:

- Q. 3** Technique of performing parotid sialography. (10)
- Q. 4** Principles of perfusion CT. (10)
- Q. 5** MR enterography. (10)
- Q. 6** Enumerate various interaction of X-rays with matter. Write in short about Compton scatter. (10)
- Q. 7** Write a short note on various generations of CT Scanners. (10)
- Q. 8** Recent advances in lead apron technology. (10)
- Q. 9** Principle of diffusion weighted imaging and its usefulness. (10)
- Q.10** Recent developments in non-invasive lymphatic imaging techniques capable of visualizing the central lymphatic anatomy and flow dynamics. (10)

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