

Tanta University
Faculty of Medicine
Radiodiagnosis Department

22/8/2021
Time allowed : 3 hours
(List 2013)

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Radiobiology & Istotopes examination == Master & Diploma
degrees

(total marks = 45)

All questions must be attempted

جميع الاسئلة اجبارية

- 1- Role of istopes scanning in diagnosis of common alimentary tract pathology. (5 marks)
- 2- Efect of radiation on a) the fetus(5 marks)
b) Reproductive system. (5 marks)
- 3- Renogram: interpretation of normal and abnormal findings. (5 marks)
- 4- Bone scanning in painful hip hoint in children. (5 marks)
- 5- Give an account on a) radiochemical labeling and target organs, mention an example for each. (2.5 marks)
b) Characters of ideal radioactive nucleids. (2.5 marks)
- 6- PET/CT artefacts and malignancies poorly detected on FDG PET (false negative). (5 marks)
- 7- Discuss radioprotection in details. (5 marks)
- 8- Describe factors affecting radiosensitivity of the cell and also relation between LET & RBE. (5 marks)

Good Luck

Tanta University
Faculty of Medicine
Radiodiagnosis Department

19/8/2021
Time allowed : 3 hours
(List 2013)

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Radiological anatomy & technology examination Diploma & master degrees
(total marks = 90)

All questions must be attempted

جميع الاسئلة اجبارية

- 1- Plain X-ray positions used for examination of first and second cervical vertebra. (5 marks)
- 2- Plain X-ray positions used for examination of ankle joint. (10 marks)
- 3- Radiological anatomy of the cerebral circulation. (10 marks)
- 4- Contrast administration in patients on renal dialysis guidelines and discuss post contrast acute kidney injury (definition, risk factors and prophylaxis). (15 marks)
- 5- Contrast media and technique of micturating cystourethorography. (10 marks)
- 6- Radiological anatomy of retroperitoneal spaces. (10 marks)
- 7- Give short account on digital subtraction angiography. (10 marks)
- 8- Imaging of a case of neonatal intestinal obstruction. (10 marks)
- 9- Plain X-ray positions used for examination of paranasal sinuses. (10 marks)

Good Luck

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Tanta University
Faculty of Medicine
Msc.: Diagnostic Radiology, 1st Part
دور أغسطس ٢٠٢١
٢٠٢١/٨/١٧

Radiation Physics

Time 3H

Examiner: Dr. Galal Zedan Farag
Faculty of Science /Physics Department

Answer the following Questions:

1- Explain:

- (a) The physical basic principles of Multislice helical CT.
- (b) The concepts of beam pitch and detector pitch.

2- Discuss:

- (a) Disadvantages of CT, and advantages of PET/CT.
- (b) The interaction of radiation with matter.
- (c) The sources of radiations, and x-ray.

3- Define :

- (a) Radioactive decay and its application in PET/CT.
- (b) Properties of different radiations.
- (c) Radiation detection methods.

4- Explain:

- (a) The infrasound, acoustic, and ultrasound.
- (b) The Piezoelectricity phenomena and its applications.

* امتحان الفيزياء في عبارة الشاملة بعد امتحان النظرية