بسم الله الرحمن الرحيم

**Tanta University Radiation Physics** Faculty of Medicine Time 3H MSC.: Diagnostic Radiology, 1st Part Examiner: Prof. Dr. Galal Zedan Farag 18-2 - 2018 Faculty of Science /Physics Department (45 M.) **Answer the following Questions:** 1-Explain: ((o M.)(a) The physical meaning of the radiation attenuation, (b) The different CT, and DXR- scanners generations.  $( \circ M.)$ 2- Discuss: (a) The Piezoelectricity application in medicine, and (b) The disadvantages of MRS technology. 3-"The PET/CT/MRI scanner provide physicians with superior Information for determining tissue characterizations, and  $( \ \ \ \ M.)$ Classifications with some of fatal errors. "Explain. (15 M.)4- Discuss: (a) The methods of radiation dose reduction, and (b) Radioactive decay.

والله ولى التوفيق والله ولى التوفيق المرائح من المرائح

**Tanta University** 

22/2/2018

**Faculty of Medicine** 

Time allowed: 3 hours

Radiodiagnosis Department

(List 2013)

## Radiobiology & Istotopes examination == Master & Diploma degrees

## All questions must be attempted

## جميع الاسئلة اجبارية

1-Give an account on ideal isotope used in radio-diagnosis with mention of an example (5 marks)

- 2- Give an account on the role of radioisotope in the evaluation of a patient with acute pulmonary embolism: isotope used, method and interpretation (5 marks)
- 3-Scintigraphic examination of routine liver scan (technique and diagnostic applications of different hepatic lesions) === 10 marks
- 4-Renal isotope scan: purpose, procedure and interpretation of results (5 marks)
- 5- Give an account on stochastic effect (5 marks)
- 6-Give an account on deterministic effect (5 marks)
- 7-Give an account on cell survival curve (5 marks)
- 8-Discuss the effect of radiation on reproductive system (5 marks)

Good Luck

الامتحان الشفوى يوم الاربعاء ٢٠١٨/٢/٢ بقسم الاشعة بالعيادة الشاملة

Tanta University

Written examination

Faculty of Medicine

Number of Questions: 9

Diagnostic Radiology Department

Total Marks: 90 Marks

20-2-2018

Time Allowed: 3 Hours.

## MSc & Diploma Diagnostic Radiology, 1<sup>St</sup> part Technology & Radiological anatomy

All questions are to be answered (10 Marked for each)

- 1- Plain X-Ray positions used for examination of T.M.J.
- 2- Plain X-Ray positions used for examination of sterno-clavicular joint.
- 3- Radiological anatomy of the aortic arch and carotid vessels.
- 4- Imaging of tracheo-oesophageal fistula.
- 5- Contrast media and technique of micturating cysto-urethrography.
- 6- Radiological anatomy of upper two cervical vertebrae.
- 7- Imaging of a case of intestinal obstruction.
- 8- Plain X-Ray positions used for examination sacro-iliac joint.
- 9- Plain X-Ray positions used for examination of Elbow joint.

Good Luck,

Oral examination and spots in 26-2-2018.