

Time allowed: 2 hours

M.Sc. Exam 2nd Part
Clinical Oncology & Nuclear Medicine
Chemotherapy

All Questions should be answered:

- | | Marks |
|--|-------|
| 1- Tumors can be classified into two categories according to their immunologic activities, hot tumors and cold tumors: | |
| a- What are the hot and cold tumors? | 5 |
| b- What are the problems we faced in cold tumors with immune therapy? | 10 |
| c- What are the solutions? | 15 |
| 2- HER2 over-expression is associated with increased cell proliferation: | |
| a- What is the role HER2 in the progression of breast cancer? | 5 |
| b- What are the tests used to determine HER2 expression and what are the difference between them? | 10 |
| c- What is the relation between HER2 & topoisomerase-II genes? | 10 |
| d- What is the truncated HER2? | 5 |
| 3- Male patient with hormone resistant prostate cancer recommended to receive Abiraterone Acetate (Zytiga). Describe, | |
| a- Mechanism of action | 10 |
| b- Mechanism of resistance | 10 |
| c- Instruction of administration | 10 |
| 4- Bevacizumab is administered with multiple regimens of chemotherapy as a 2nd line treatment. What are its main toxicities? | 20 |
| 5- What are the indications, contraindication, and complications of enteral nutrition in cancer patients? | 25 |

Tanta University
Faculty of Medicine
Clinical Oncology Department

9/11/2021

Time allowed: 2 Hours

M.Sc. Exam 2nd Part
Clinical Oncology & Nuclear Medicine
Radiation Technology & Isotopes

All Questions should be answered:

	Marks
1- Describe and compare in details between different planning techniques of radiotherapy for breast cancer patients after breast conservation?	40
2- Thirty-one year's female patient with cervical carcinoma mass 1.5x1.8 cm:	
a- Define the last FIGO classification.	10
b- Describe how to manage the lady and	20
c- If the initial, mass was 2 x2.5 cm describe your suggestion by using different tools for treatment to achieve conservative management of this lady aiming to retain fertility in both scenarios	15
3- Adjoining fields: explain in detail the problem and solution? How to apply in craniospinal irradiation?	25
4- Radiotherapy delineation in cancer bladder?	25

Tanta University

Faculty of Medicine

Clinical Oncology Department

17/10/2021

Time allowed: 3 Hours

M.Sc. Exam 2nd Part

Clinical Oncology & Nuclear Medicine

1st paper

All Questions should be answered:

Marks

- 1- A 62 yrs. old man diagnosed with advanced lung cancer is going to start first-line chemotherapy. He has read on a popular magazine that fasting before and during chemotherapy is associated with reduced toxicity and enhanced efficacy of anticancer therapies.
 - a- Would you advise the patient to fast before and during chemotherapy? WHY? 5
 - b- Is this recommendation based on established clinical trials? Mention these trials? 4
 - c- Is there a supplementation of specific nutrients enhance the effectiveness of first-line chemotherapy in lung cancer? Mention it, its effectiveness and dose? 6
- 2- Different treatment modalities of brain metastases in favorable versus poor prognosis patients? 25
- 3- Enumerate the main conditions to consider in the differential diagnosis of multiple myeloma, and explain 3 of them? 30
- 4- What are the types and clinical pictures of mediastinal tumours, and explain treatment of one of them? 30

GOOD LUCK

Tanta University

Faculty of Medicine

Clinical Oncology Department

20/10/2021

Time allowed: 3 Hours

M.Sc. Exam 2nd Part

Clinical Oncology & Nuclear Medicine

2nd Paper

All Questions should be answered:

Marks

- 1- A 65- years old male was recently diagnosed with an esophageal neuroendocrine carcinoma with innumerable metastases to liver and lymph nodes. the tumor is poorly differentiated with a ki67 of 70% with mitotic rate of 20 mitoses / 10 HPF
- a- What is the grade of this tumor? 4
- b- Which imaging study should be considered? 6
- c- Which laboratory tests should be done? 6
- d- What are the treatment options for this case? 9
- 2- Enumerate the most common side effect of pelvic radiotherapy and:- 10
- a- Discuss one of the most common hematological and one of the non-hematological side effects and how to correct. 6
- b- Describe technical methods to reduce the occurrence of the pelvic side effect of radiotherapy. 9
- 3- Flare phenomenon in hormone dependent cancer patient? 25
- 4- What are the prognostic and predictive biomarkers in a patient diagnosed with lung adenocarcinoma? And what are the recent advances in management of stage III NSCLC? 25

Tanta University
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Clinical Oncology Department

23/10/2021

Time allowed: 90 minutes

M.Sc. Exam 2nd Part
Clinical Oncology & Nuclear Medicine
Optional Determinant

All Questions should be answered:

	Marks
1- The rational of organ preservation in anal canal carcinoma?	25
2- Combined chemo-radiotherapy in nasopharyngeal carcinoma?	25

GOOD LUCK

Tanta University
Faculty of Medicine
Clinical Oncology Department

27/10/2021

Time allowed: 3 Hours

M.Sc. Exam 2nd Part
Clinical Oncology & Nuclear Medicine
Radiation Technology & Isotopes

All Questions should be answered:

- | | Marks |
|--|-------|
| 1- In cranial irradiation, define the tolerances of organ at risk? | 25 |
| 2- Explain the role of radiopharmaceuticals agents in management of bone metastases? | 25 |
| 3- Adjuvant radiotherapy delineation in locally advanced cancer vulva? | 25 |
| 4- Indications and contraindications of radioactive I ¹³¹ in treatment of thyroid carcinoma and how to use it if indicated? | 25 |

GOOD LUCK

Tanta University
Faculty of Medicine
Clinical Oncology Department

30/10/2021

Time allowed : 2 Hours

M.Sc. Exam 2nd Part
Clinical Oncology & Nuclear Medicine
Radiation therapy

All Questions should be answered:

Marks

- 1- Role of radionuclide in treatment of neuroendocrine tumors? **35**

- 2- What are the factors affecting toxicity of CNS irradiation? **30**

- 3- Discuss late complications of head and neck cancer and their Management? **40**

- 4- Discuss the role of positron emission tomography in cancer diagnosis and treatment? **30**