


<p><b>Tanta University</b></p> <p><b>Faculty of Medicine</b></p> <p><b>Anesthesia, SCC &amp; Pain Medicine Dep.</b></p> <p><b>Date: 17 / 8 / 2019</b></p>	<p><b>Exam: MSc – 1<sup>st</sup> Part:</b></p> <p><b>(Physics &amp; Clinical Measurements)</b></p> <p><b>No. of Questions: 7</b></p> <p><b>Times allowed: 3 hours</b></p> <p><b>Total marks: 45</b></p>	
---	---	---

**Question 1:**

- a) Define the critical temperature (2marks)
- b) What is the critical temperature for oxygen and what is its clinical importance (3marks)
- c) Discuss mechanisms of heat transfer (3marks)
- d) What are the temperature measurement sites (3marks)

**Question 2:**

- a) Define: 1. Absolute humidity 2. Relative humidity (2marks)
- b) What are the Instruments used to measure humidity. (4marks)

**Question 3:**

- a) Modes of ultrasound and its use in clinical practice? (2marks)
- b) Enumerate different ultrasound tissue interaction (2marks)
- c) Describe Doppler effect (give an example) and its uses in clinical practice. (2marks)

**Question 4:**

- Give an account on diathermy hazards (5marks)

**Question 5:**

- What is the rotameter and what is its importance in the anesthetic machine? (4marks)

**Question 6:**

- a) What are the differences between Side-stream capnograph and Main-stream capnograph (5marks)

**Question 7:**

What are the sources of error in :

- a) Arterial pressure monitoring. (4marks)
- b) Oximetry (4marks)

-----GOOD LUCK-----

Tanta university  
Faculty of medicine  
Department of Anatomy and Embryology



**ANATOMY EXAM. FOR MASTER DEGREE OF ANAESTHESIA**

Date: 21 / 8 / 2019

Total marks: 45 Marks

Time allowed (three hours)

**Anesthesiology & Surgical Intensive Care**

All questions to be answered

Illustrate your answer with diagram whenever possible:

Question (1): (18 marks)

A- Give short note on fixation and arterial supply of the spinal cord. (10 marks)

B- Enumerate origin and branches of internal carotid artery. (8 marks)

Question (2):

Give a short note on origin, insertion, nerve supply and relations of constrictors of the pharynx. (9 marks)

Question (3):

Give a short note on nerve supply and blood supply of pleura. (7 marks)

Question (4):

Enumerate deep origin and branches of glossopharyngeal nerve. (11 marks)

**END OF EXAM**

**Oral Examination: On: 3 / 9 / 2019 at 9 am  
in the Anatomy Department (Second floor )**

**Best Wishes**

**Committee of exam:**

**Prof. Dr. Manal EL Sawaf, Prof. Dr. Mona Attia and Prof. Dr. Maysa Fahmy**