

Tanta University
Faculty of Medicine
Anatomy Department
14/4/2016

Diploma of Anesthesiology
Number of Questions: 4
Time Allowed: 3 Hours
Total: 25 Marks



ANESTHESIOLOGY & SURGICAL INTENSIVE CARE

All questions to be answered

Illustrate your answer with diagram whenever possible:

1. Discuss the anatomy of the tentorium cerebelli. (10marks)
2. Give a note on the lateral relations of the palatine tonsil. (5 marks)
3. Mention the levels of the major openings in the diaphragm and their contents. (4 marks)
4. Give an account on the deep origin and branches of facial nerve. (6 marks)


END OF THE EXAM

Oral Examination:

On Sunday 24/ 4/ 2016 at 10 o'clock in the Anatomy Department (Second floor)

WITH MY BEST WISHES

Chairman of Department: Prof. Dr. Mona Zoair

Tanta University	Exam: Diploma (2 nd Part) (Paper 1)	
Faculty of Medicine	No. of Questions: 3	
Anesthesia & SIC Dep.	Times allowed: 3 hours	
Date: 10 / 4 / 2016	Total marks: 50	

1. A 26-yr-old lady reports that she heard the conversation between you and the surgeon during the emergency cesarean section because of severe antepartum hemorrhage.

- A. How would you proceed? (3 marks)
- B. What is the difference between implicit & explicit awareness? (3 marks)
- C. Enumerate patient groups at high risk of awareness? (4 marks)
- D. How would you prevent awareness? (4 marks)
- E. Explain the combination of minimal alveolar concentration (MAC) < 0.7, BIS<45%, and mean arterial blood pressure < 70 mmHg. (6 marks)


2. A 26-yr-old soldier presents for above knee amputation. He is worried about possibility of development of chronic pain.

- A. How would you counsel him? (2 marks)
- B. What are the different types of pain that he may develop? (2 marks)
- C. Discuss the different modalities for treatment of his acute postoperative pain? (3 mark)
- D. What do you recommend to prevent development of phantom limb syndrome? (3 marks)

3. Give an account on the following:

- A. Malnutrition in critically ill surgical patients; causes, assessment and its impact on patient outcomes. (5 marks)
- B. Postdural puncture headache; diagnosis and treatment. (5 marks)
- C. Role of the anesthetist in infection control in operating room, in ICU and in pain medicine. (5 marks)
- D. Risk factors of venous thromboembolism in surgical patients. (5 marks)

.....GOOD LUCK.

Tanta University	Exam: Diploma (2nd Part) (Paper 2)	
Faculty of Medicine	No. of Questions: 3	
Anesthesia & SICU Department	Times allowed: 3 hours	
Date: 14 / 4 / 2016	Total marks: 50	

1. During counselling of a previously healthy 23-y-old man who is scheduled for arthroscopic repair of right ACL, he refuses regional anesthesia and his mother is concerned about the possibility of cardiac arrest during surgery.

- A. Define the perioperative cardiac arrest? (1 mark)
- B. Enumerate the categories and causes of perioperative cardiac arrest? (2 marks)
- C. How would you counsel his mother? (3 marks)
- D. Compare and contrast perioperative and out of hospital cardiac arrest? (6 marks)
- E. Discuss the role of capnography in the management of cardiac arrest? (3 marks)

2. A previously healthy 24-y-old lady is admitted to SICU following a RTA. On arrival, evaluation reveals head injury and closed fracture of right femur with GCS score 7/15. CT brain shows diffuse brain swelling with no focal lesion. Vital signs are as follows; blood pressure is 110/65 mmHg, heart rate is 110 bpm, SpO₂ is 90 %, and CVP is 4 mmHg. Laboratory workup shows: Hb is 7.5 g/dl, blood glucose is 14 mmol/L, PaO₂ is 60 mmHg, PaCO₂ is 26 mmHg and pH is 7.48

- A. What is the first therapeutic step in the management of this lady? (2 marks)
- B. If the orthopedic surgeon wants to do open reduction and internal fixation of the fractured femur, how would you proceed? (2 marks)

C. What principles govern your management during the first 48 hours in this sitting? (7 marks)

D. How would you assess neurological outcome at 72 hours? (4 marks)

3. A 68-y-old man with recent history of cerebral stroke, presents with fracture pelvis. He is receiving dual antiplatelet and antidepressant drugs. He is known to have hypertension and IDDM. Airway evaluation shows a Mallampatti class IV and a neck circumference of 46 cm. His laboratory workup is significant for serum creatinine value of 2.5 mg/dl.

A. Discuss risk management of cannot intubate cannot ventilate in this patient? (8 marks)

B. Enumerate 3 systems dysfunction that might complicate surgery in this sitting (1 marks)

C. Explain the risk factors of the 3 systems dysfunction (6 marks)

D. How would you prevent development of any one of the 3 system dysfunction? (5 marks)

.....GOOD LUCK.



Tanta University
Faculty of Medicine
Department of Physiology.

Examination for (Diploma Anesthesia)
Course Title: Physiology
Total Assessment Marks:25

Course Code:
TMED.02:A09
Time Allowed:
Physio. + Anat.
pharm.

Date:14/4/2016

Term : Final

All the questions are to be answered:-

- Q1- Discuss: Erythropoiesis and anemia. (10 marks)
Q2- Explain briefly: Factors affecting cardiac output. (5 marks)

Case study: A healthy 27-year-old woman, was pregnant with her first child. The pregnancy was completely normal. However, as the delivery date approached, She became increasingly fearful of the pain associated with a vaginal delivery. Her mother and five sisters had told her horror stories about their experiences with labor and delivery. She discussed these fears with her obstetrician, who reassured her that she would be a good candidate for epidural anesthesia. The obstetrician explained that during this procedure, lidocaine, a local anesthetic, is injected into the epidural space around the lumbar spinal cord. The anesthetic drug prevents pain by blocking action potentials in the sensory nerve fibers that serve the pelvis and perineum. Which ion channel would you conclude is blocked by lidocaine?

- a. Voltage-gated Na⁺ channels
b. Voltage-gated K⁺ channels
c. Voltage-gated Cl⁻ channels
d. All of the above.

Explain your answer (2.5 marks)

Answer the following MCQ by the most probable one choice & write the statement in your answer paper: (7.5 marks)

Q.1. Lung compliance is increased by:

- a. Asthma.
b. Emphysema
c. Paralysis of respiratory muscles.
d. Living at high altitude

Q.2. Administration of curare may produce:

- a. Weakness of skeletal muscle by blocking acetylcholine receptors in the motor endplate.
b. Pupillary constriction (meiosis).
c. An increase in the heart rate at rest.
d. Excessive salivation.

Q.3. The tensions of O₂ in the venous blood is increased:

- a. In anaemia.
b. In stagnant hypoxia.
c. In hypoxic hypoxia.
d. In cyanide poisoning

Q.4. Haemostasis involves all of the following processes EXCEPT:

- a. Vascular constriction.
b. Platelet plug formation.
c. Clot formation.
d. Plasmin formation.

Q.5. Systolic pressure in the pulmonary artery is normally about

- a. 8-10mm Hg.
b. 30mm Hg.
c. 60mm Hg.

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d. 80mm Hg.

Q.6. Maximum breathing capacity is:

- a. A better index for physical fitness than the timed vital capacity.
- b. Maximum voluntary ventilation minus respiratory minute volume.
- c. Maximum breathing capacity minus tidal volume.
- d. Maximum voluntary ventilation divided by tidal volume.

Q.7. Pain arising from the viscera:

- a. May be transmitted by somatic nerve fibres.
- b. May lead to reflex contraction of the nearby skeletal muscles.
- c. May cause reflex autonomic effects.
- d. All of the above.

Q.8. Capillary blood pressure is influenced by:

- a. The number of open capillaries.
- b. Precapillary resistances.
- c. Postcapillary resistances.
- d. All of the above.

Q.9. Cortisol:

- a. Inhibit peripheral glucose utilization.
- b. Enhances protein synthesis in all body cells.
- c. Enhances immunity.
- d. Enhances inflammatory response to allergy.

Q.10. All of the following produce cyanosis EXCEPT:

- a. Bronchial asthma
- b. Patent ductus arteriosus

c. Congestive heart failure

d. Cyanide poisoning

Q.11. The distribution of the body fluids is as follows:

- a. Intracellular fluid constitutes the largest compartment.
- b. Interstitial fluid is about 3 litres.
- c. Intravascular fluid is about 5 litres.
- d. Total body water is about 5 litres.

Q.12. Iron deficiency anaemia:

- a. Is characterized by large hyperchromic RBCs.
- b. Is characterised by large hypochromic RBCs.
- c. Causes decrease in bleeding time.
- d. Is typically found following chronic blood loss from body.

Q.13. The anticoagulant heparin acts by:

- a. Forming an insoluble salt with calcium.
- b. Competitive inhibition of vitamin K.
- c. Inhibition of thrombin action.
- d. Inhibition of phospholipid action.

Q.14. The intrapleural pressure is:

- a. Equal to the atmospheric pressure during inspiration.
- b. Negative even in forced expiration.
- c. Increased by lung fibrosis.
- d. Helping the venous return.

Q.15. Cyanosis is seen when the amount of:

- a. Deoxygenated Hb increases.
- b. Deoxygenated Hb decreases.
- c. Oxygenated Hb increases.
- d. None of the above.

Oral exam will be on Sunday 24/4/2016 at 9 am in physiology department