

Examination for Diploma in: Neonatology /Health care  
Course Title: Pediatrics  
Date: April 18, 2017 (Paper III)  
Time allowed: 3 Hours  
Total Assessment Marks: 100 (3 Pages)



Tanta University  
Faculty of Medicine  
Department of Pediatrics

*All questions should be tried*

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**Q 1) Long essay: (15)**

**Discuss neonatal necrotizing enterocolitis.**

**Q 2) Short essay: Discuss in brief: (3 for each one)**

- 1- Management of apnea of prematurity.
- 2- Neonatal cold injuries.
- 3- Neonatal hypercalcemia.
- 4- Fetal and neonatal complications of multiple births.
- 5- Neck injuries related to birth trauma.

**Q 3) Short answer: Mention: (3 for each one)**

- 1- Complications of surfactant therapy.
- 2- Complications of prematurity.
- 3- Complications of IDM.
- 4- Complications of phototherapy.
- 5- Indications of TPN.

**Q 4) Problem Solving: (3 for each one)**

1- A male infant is born at term and immediately develops respiratory distress and cyanosis. He is intubated and ventilated. On examination, he has reduced breath sounds on the left, retractions, cyanosis, grunting and his apex displaced to the right. He has a scaphoid abdomen. He remains hypoxic with a high pCO<sub>2</sub> and his ventilator pressures are increased. A short period of improvement follows before he collapses. A repeat chest x-ray shows a left pneumothorax which is drained.

- **What is the most likely diagnosis?**
- **What is the treatment?**

2- A baby is delivered by forceps at 41 weeks because of a non-reassuring CTG. There is old meconium present in the amniotic fluid. The baby requires some resuscitation with bag/mask ventilation. Following the onset of normal respiration, he develops grunting and marked recession, the respiratory rate is 65/min and he is deeply cyanosed. He is admitted to the neonatal unit and oxygen therapy is commenced. A chest radiograph shows oligemic lung fields and a blood gas shows PaO<sub>2</sub> values may be elevated when a preductal sampling site is used compared with postductal sites.

- **What is the most likely diagnosis?**
- **What is the treatment?**

3- A 3 week old baby, who was full term, is brought to the hospital. He has recently been having problems in completing his feeds and today appears short of breath. On examination, his HR was 180/min, RR 72/min, rectal temperature 37.4°C, BP 80/50, and he had a 4 cm hepatomegaly. All blood tests were normal. X-ray of the chest showed cardiothoracic ratio %68.

- **What is the most likely diagnosis?**
- **What is the treatment?**

4- The mother of a 2 week old infant reports that her baby sleeps most of the day, she has to awaken her every 4 hours to feed and the infant has persistently hard stool. On examination, HR 75/min and temperature is 35°C, baby is still jaundiced and has a distended abdomen and umbilical hernia.

- **What is the most likely diagnosis?**
- **What is the treatment?**

5- A 7 days old infant has had no immunization, sleeps 18 h a day, weight 3.5 kg, and takes his standard infant formula. The baby looks alert and is not dysmorphic. Respiratory, cardiovascular and abdominal examinations are unremarkable. The sucking reflex is good, the baby manifest skin rash in the form of macular erythema, often on the face or trunk. The macules are irregular, blanchable, and vary in size with absent mucosal, palmar, or plantar involvement.

- **What is the most likely diagnosis?**
- **What is the treatment?**

**Q 5) MCQs: (3 for each one)**

**1- Oligohydramnios is associated with all of the following EXCEPT:**

- a. Esophageal atresia.
- b. Pulmonary hypoplasia.
- c. Potter syndrome.
- d. Posterior urethral valves.
- e. Skeletal contractures.

**2- A 12 day old, large-for-gestational-age infant is noted to have Erb palsy. You should do all of the following EXCEPT:**

- a. Refer for immediate neuroplasty.
- b. Refer for physical therapy.
- c. Reassure the family.
- d. Determine if the clavicle is fractured.
- e. Look for additional nerve involvement (phrenic).

**3- Meconium plug is associated with all of the following EXCEPT:**

- a. Hypermagnesemia.
- b. Infants of diabetic mothers.
- c. Cystic fibrosis.
- d. Hirschsprung disease.
- e. Prematurity.

4- A 5 day old, large-for-gestational-age, 4500-g boy has a bilirubin level of 21 mg/dL. There is no anemia or polycythemia, but on examination he has a large cephalohematoma. The next therapeutic activity should be to:

- a. Aspirate the hematoma.
- b. Perform an incision and drainage of the hematoma.
- c. Undertake prophylactic blood transfusion.
- d. Administer phototherapy.
- e. Perform exchange transfusion.

5- Successful ventilation is determined by all of the following EXCEPT:

- a. Zero reading of end-tidal CO<sub>2</sub> measurement.
- b. Pink color.
- c. Rising heart rate.
- d. Symmetric breath sounds.
- e. Good chest rise.

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Q 6) Discuss role of zinc in the treatment of pediatric illnesses. (9)

Q 7) Mention passive immunization. (6)

Q 8) Problem solving: (6)

A normal infant sits briefly leaning forward on her hands, reaches for and grasps a cube and transfers it from hand to hand. She babbles, but cannot wave bye-bye nor can she grasp objectives with the finger and thumb.

1. What is her average age?
2. When can she draw a circle?
3. When can she feed from spoon, and drink with cup?

Q 9) MCQs:

1- A two year old female child was brought to the OPD by his parents with complaints of not eating anything. On examination, her weight is 11.5 kg and height is 90 cm, with no systemic abnormalities. Management is: (2)

- a. Advise multivitamin tonic.
- b. Force to eat.
- c. Investigate for UTI.
- d. Ask parents to stop worrying.

2- Which of the following acts can a one year old child perform: (2)

- a. Sits down from standing position.
- b. Drinks from cup.
- c. Speaks one or two words with meaning.
- d. Rings bell purposefully.

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Good Luck

Q1 to Q5 = Neonatology and Q6 to Q 9= Health Care.

Chairman of Department:

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