

Tanta University,
Faculty of medicine,
Public health department



Second part of Diploma of Public Health
Faculty of Medicine
Public Health Dept.
October 2016

Number of Questions: 5
Time Allowed: 3 Hours
Total: Marks 100

Answer the following questions:

Q1: Discuss the nutritional care and dietary management of patients with cardiovascular diseases? ()

Q2: Discuss the school health procedures that contribute to improvement and maintenance of health status of the pupils and school personnel? ()

Q3: Discuss the epidemiological investigation measures to confirm the diagnosis of infectious disease outbreak? ()


Q4: Give an account on specific preventive measures of the following diseases:

- | | |
|----------------------------------|-------------------------------|
| i- Pertussis (or Whooping cough) | ii- Virus Hepatitis "A" (HAV) |
| ii- Yellow fever | iv- Mumps |

Q5: Give an account on the public health importance of the following:

- i- The constituents of tobacco smoke
- ii- Injuries and accidents
- iii- International sanitary regulations
- iv- Sexually transmitted infections (STIs)
- v- Importance of laboratory diagnosis of typhoid fever than clinical diagnosis

Good Luck

Faculty of Medicine Public Health Dept. October, 2016 <u>The exam in 2 page</u>	Diploma in Public Health and Community Medicine <u>First paper</u> Number of Questions: 5 Time Allowed: 3 Hours Total: 100 Marks	
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20 marks for each question

1. Answer the following:
 - a. What is the meaning of odds ratio and relative risk, mention when and how to calculate each of them.
 - b. What are the main actions you take when you suspect a case of "group A" infectious diseases included in the Egyptian surveillances system?

2. The National HIV/AIDS Control Program asked for possible sites or services that can be used for sentinel surveillance for HIV infection.
 - a. Recommend the possible places or services that can be utilized for this purpose.
 - b. Mention which of these chosen sentinel sites can be used in low prevalence situation and which can be used in high prevalence areas.
 - c. Discuss sources of bias that may be encountered in each chosen sentinel site.

3. You are asked to study the effect of hepatitis B vaccine in a district where cases showed a double fold increase in the last 12 months as compared to the preceding two years.
 - a. Write your study hypothesis.
 - b. What type of study would you use? Give reasons for your selection.
 - c. What are the sources of your information and data?
 - d. What are the variables to look for?

4. Malaria used to be endemic in Egypt until 1970's now it shows sporadic foci in some governorates.
 - a. How can you find-out the current situation of Malaria in Egypt? Describe in details.
 - b. What are the control measures against Malaria?

5. Influenza A (H1N1) started as pandemic, and recently more than 800 cases were identified in Egypt.
 - a. Who are the highest risk groups?
 - b. How can the surveillance system help in limiting this disease wave in Egypt?
 - c. How can you suspect a case, and when to take swab for laboratory diagnosis?
 - d. What are the precautions you take in schools?

With my best wishes to you all

Examination for Diploma in: **Neonatology /Health care**
Course Title: Pediatrics
Date: October 18, 2016 (Paper III)
Time allowed: 3 Hours
Total Assessment Marks: 100 (4 Pages)



Tanta University
Faculty of Medicine
Department of Pediatrics

All questions should be tried

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

Discuss epidemiology, pathogenesis, diagnosis and management of necrotizing enterocolitis.

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

- 1- Primitive neonatal reflexes.
- 2- Physiology of the first breath.
- 3- Diagnosis and complications of bronchopulmonary dysplasia.
- 4- Etiology and treatment of neonatal hypertension.
- 5- Neonatal Intracranial injuries.

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

- 1- Causes of congestive heart failure in the neonates.
- 2- Causes of neonatal polycythemia.
- 3- Schedule for metabolic monitoring of TPN.
- 4- Benefits of delayed cord clamping.
- 5- Complications of O₂ therapy.

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

1- A 5-hour-old male newborn on the postnatal ward is noticed by the midwife because he looks blue around the lips and tongue. History of spontaneous labour at 41 weeks and there was thin meconium staining of the liquor when the membranes ruptured 1 hour before delivery. Cardiotocograph monitoring during labour revealed normal variability of fetal heart rate. The baby was born by normal vaginal delivery and weighed 3.3 kg. The Apgar scores were 7 at 1 min and 8 at 5 min. The baby is not dysmorphic. His temperature is 36.6 °C and his central capillary refill time is 2 s. His lips, tongue and extremities are cyanosed. He is crying normally and has no signs of increased respiratory effort. Heart rate is 160 beats/min, femoral pulses are palpable, heart sounds are normal and no murmur is audible. Oxygen saturation is 70 per cent in air and does not rise with facial oxygen, which has been administered by the midwife. There is no hepatosplenomegaly. pH 7.25, PaO₂ 4.7 kPa, PaCO₂ 5.0 kPa. After 10 min in high-flow facemask oxygen, pH 7.23, PaO₂ 5.3 kPa, PaCO₂ 5.2 kPa.

- What is the likely diagnosis?
- What is the emergency management?

2- A mother presents at 41 weeks with reduced fetal movements. A CTG recording is non-reassuring and there is meconium staining noted at artificial rupture of membranes (ARM). A sudden profound fetal bradycardia develops and emergency cesarean section is carried out. A baby boy is born in poor condition and requires intubation for apnea. Following admission to

the NICU, an arterial blood gas shows a base deficit of 20. He remains apneic, anuric and develops generalized convulsions.

- What is the most likely diagnosis?
- What is the management?

3- You are asked to see a term neonate in the delivery suite. Pregnancy and delivery were uncomplicated. Following birth, the baby girl has blue episodes. When you examine the baby, she is active, crying and pink with no respiratory or cardiac abnormality. As she settles and stops crying she goes blue, following this she cries and goes pink. You are unable to pass a feeding tube down either nares.

- What is the most likely diagnosis?
- What is the management?

4- Both the mother and baby have O-positive blood. The baby's direct serum bilirubin is 0.2 mg/dL, with a repeat total serum bilirubin of 11.8 mg/dL. Urine bilirubin is positive. The hemoglobin is 17 g/dL, and the platelet count is 278,000/ μ L. Reticulocyte count is 1.5%. The peripheral smear does not show fragments or abnormal cell shapes. Liver enzymes and liver ultrasound are normal. G6PD levels and osmotic fragility testing are normal.

- What is the most likely diagnosis?
- What is the management?

5- Antenatal review at 33 weeks' gestation of a mother with systemic lupus erythematosus (SLE) reveals that the fetus is bradycardic and developing heart failure. Steroids are given and delivery planned for the following day. At delivery the neonate is difficult to intubate and ventilate. Drainage of 50 mL of peritoneal fluid relieves abdominal distension and improves ventilation.

- What is the most likely diagnosis?
- What is the management?

Q 5) MCOs:

(3 for each one)

1- Premature infants are at higher risk for hypoglycemia because (choose one):

- a. They are born with adequate glycogen stores but have immature homeostatic mechanisms to mobilize glucose.
- b. They are born with inadequate glycogen stores but have mature homeostatic mechanisms to mobilize glucose.
- c. They are born with inadequate glycogen stores and have immature homeostatic mechanisms to mobilize glucose.

2- Facial twitches are an example of what kind of seizures?

- a. Tonic-clonic.
- b. Myoclonic.
- c. Clonic.
- d. Subtle.

3- Which of the following is correct about Moro reflex?

- a. Normally disappears around the 1st month of life.
- b. Unilateral Moro is usually seen in severe neonatal hypoxia.

- c. Absent Moro occurs only if the mother takes heavy sedation during labor.
- d. It is known as startle reflex.

4- Which of the following factors is associated with an increased risk of neurologic damage in a jaundiced newborn?

- a. Metabolic alkalosis.
- b. Increased attachment of bilirubin to binding sites caused by drugs such as sulfisoxazole.
- c. Hypcralbuminemia.
- d. Neonatal sepsis.
- e. Maternal ingestion of phenobarbital during pregnancy.

5- Amount of amniotic fluid is of help in diagnosis of:

- a. Congenital heart disease.
- b. Bronchopulmonary dysplasia.
- c. Tracheo-esophageal fistula.
- d. Laryngeal web.

Q 6) Discuss preventive measures of childhood obesity. (9)

Q 7) Mention normal teeth eruption. (6)

Q 8) Problem solving: (6)

(Answer this question in Arabic or in English)

In outpatient clinic you were encountered with a normal girl aging 12 years. For this girl you are asked to:

1. Calculate her requirement of calories and water.
2. Calculate her needs of carbohydrates, proteins and fat in grams.
3. Suggest a complete one day diet plan (consisting of the following servings: 6 grains, 5 vegetables, 5 fruits, 3 dairy products, 7 meats and their substitutes and 5 fats).

Q 9) MCOs:

1- A true statement concerning the tuberculin skin test for tuberculosis is: (2)

- a. It is administered by subcutaneous injection.
- b. The reaction is measured 24 to 48 hr after administration.
- c. Persons with tuberculous meningitis often do not react to the test.
- d. Reaction is measured by the amount of erythema.

2- The most accurate method to assess growth is: (2)

- a. A single physical measurement compared to average for age and sex.
- b. A single physical measurement plotted against growth chart.

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- c. Serial physical measurement compared to average for age and sex.
 - d. Serial physical measurement plotted against growth chart.

=====Good Luck=====

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

Chairman of Department:
Prof. Dr. Mohamed Ahmed Rowisha