

Tanta University,
Faculty of medicine,
Public health department

1st part master & diploma degree
of neurology and Psychiatry
(Genetics)

October 2013

Time allowed one hour



1. Read the following problem then answer the questions below:

A new born have a family history for phenyl ketonuria . A blood sample was screened for phenylalanine level ,and it was high.

- A. Outline the genetic background and prevention of that disease. (9 degrees)
- B. Mention the steps of genetic counseling for the family of that case. (4 degrees)

2- Enumerate : (8 degrees)

- a. Two Topics for health education needed for primary prevention of genetic disorders.
- b. Two Purposes of the genetic testing.
- c. Two features of Autosomal dominant disorders
- d. Two hereditary causes of chromosomal disorders.
- e. Two indications for a genetic etiology of certain disorders listed by the scientist Thompson (1980).
- f. Three methods for rehabilitation of neurological disorders.
- g. One technique of gene therapy
- h. Two causes of a higher prevalence of genetic disorders in Arab countries.

3- Calculate the sensitivity and specificity of the following new screening test: (4 degree)

New screening test results	Gold standard test		Total
	Diseased	Not diseased	
Positive	36 (a)	34 (b)	70
Negative	19 (c)	11 (d)	30
Total	55	45	100

Good Luck

October 2013



1. Read the following problem then answer the questions below:

A one years child came to your clinic with his father he complained that his child is not speaking yet any words and they want to know if the problem is in hearing or not. Also if the problem is hereditary. (12 degrees)

- A. Outline the causes of pre-lingual deafness. (2 degrees)
- B. Summarize the procedures you know for secondary prevention for that case (only history, screening and investigations to evaluate the case) (10 degrees).

2- Enumerate : (5 degrees)

- a. Two Causes of genetic illiteracy I n Arab countries.
- b. Two Characteristics of the screening test
- c. Two features of Autosomal recessive disorders
- d. Two hereditary causes of single gene disorders.
- e. One technique of gene therapy

3- Deduce risk of inheritance of an autosomal recessive disorder to the family members of a proband. (3 degree)

4- Two comparable groups of diabetic patients (Group I included 25 patients and group II included 28 patients). Both groups were submitted to two different dietetic regimens for blood sugar reduction for a month. After this period, the mean fasting blood sugar level of group I became 166 mg/dl with a standard deviation of 12.5 mg/dl and that of group II became 172 mg/dl with a standard deviation of 15 mg/dl. Is there is a significant difference between the mean fasting blood sugar levels of the two groups of patients after this dietetic regimens?. (5 degree)

Good Luck



Answer the following questions:

Q1: Explain how to conduct a counseling session for drug abuser? (20 marks)

Q2: Discuss different health behavior models affecting health and the suitable behavior theory for its interference? (20 marks)

Q3: Mention health education messages for prevention of: (20 marks)

a- Rheumatic fever.

b- Tuberculosis.

Q4: Discuss the socio-behavioral determinants of drug abuse? (20 marks)

Q5: Discuss barriers for effective communication? (10 marks)

Q6: Analyze the relation between socio-cultural factors & health of the community? (10 marks)

Good Luck