

COURSE TITLE: PUBLIC HEALTH BIostatISTICS APPLICATION

COURSE CODE: PHS813

UNIT:3

INSTRUCTION: ANSWER ALL

TIME:2 HOURS

1. a). What is Chi Square Goodness of Fit? (5 marks)  
 b). A manager of a hospital supply store which has Five (5) branches believed that the amount of revenue generated from each branch are the same. A survey was then carried out to see whether this claim is valid at 5 percent level of significance and the following results were obtained. (15 marks)

Branch	A	B	C	D	E
Revenue generated(₦)	380	450	430	390	350

2. (a) Differentiate between Statistics and Biostatistics (2 marks)  
 (b) Define and explain the following terms:  
 (i) Population (2 marks)  
 (ii) Sample (2 marks)  
 (iii) Statistics (2 marks)  
 (iv) Variable (2 marks)  
 (v) Experiment (2 marks)
- (c). Basic Differences between Experimental and Observational Studies (8 marks)

3. The following table shows the intake through JAMB by the Faculty of Science of a certain University in three consecutive years.

Department	2010	2011	2012
Botany	25	23	50
Chemistry	16	20	36
Zoology	44	37	23
Computer Science	50	16	30
Physics	43	26	25



**6. Question Six**

- a. Given image  $f(x, y)$  and a spatial filter  $h(x, y)$  for which convolution with the image results in some form of degradation, derive an expression that denotes general image degradation. **8 Marks**
- b. Using a detailed block diagram, illustrate Schematic diagram of an MPEG decoder.

**4 Marks**