	FACULTY OF BUSINESS & SCIENCE MANAGEMENT KOLEJ UNIVERSITI ISLAM PERLIS		/10
COURSE : BUSINESS STATISTICS	CODE : BVM4003	TOPIC : INDEPENDENCE TEST	
ASSESSMENT : QUIZ	NO : 5	DURATION : 15 MINUTES	
NAME :		STUDENT ID :	

Answer ALL questions.

A researcher wishes to see if the way people obtain information is independent of their educational background. A survey of 400 private college and university graduates yielded this information.

	TELEVISION	INTERNET	NEWSPAPER	$n_{i.}$
PRIVATE COLLEGE	27 (O11)	42 (O12)	31 (O13)	$n_{1.} = 100$
UNIVERSITY	159 (O21)	90 (O22)	51 (O23)	$n_{2.} = 300$
$n_{.j}$	$n_{.1} = 186$	$n_{.2} = 132$	$n_{.3} = 82$	$n_{..} = 400$

At $\alpha = 0.005$, test the claim that the way people obtain information is independent of their educational background.

(10 Marks)

STEP 1: HYPOTHESIS

H₀ :

H₁ :

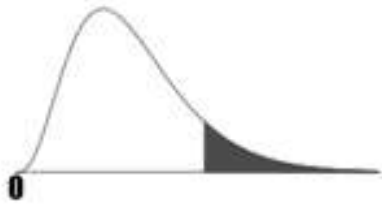
STEP 2: FIND EXPECTED FREQUENCY & STEP 3 COMPUTE CHI-SQUARE TEST

Observed (O)	Expected $\left(E = \frac{n_{i.} \times n_{.j}}{n_{..}}\right)$	Chi-Square Test $\left(\chi^2_{test} = \frac{(O-E)^2}{E}\right)$
O11	E11 =	
O12	E12 =	
O13	E13 =	
O21	E21 =	
O22	E22 =	
O23	E23 =	
TOTAL $\chi^2_{test} =$		

STEP 4: FIND CRITICAL VALUE

$$\chi^2_{\alpha, (r-1)(c-1)} =$$

STEP 5: CHECK AND MAKE DECISION



STEP 6: CONCLUSION

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