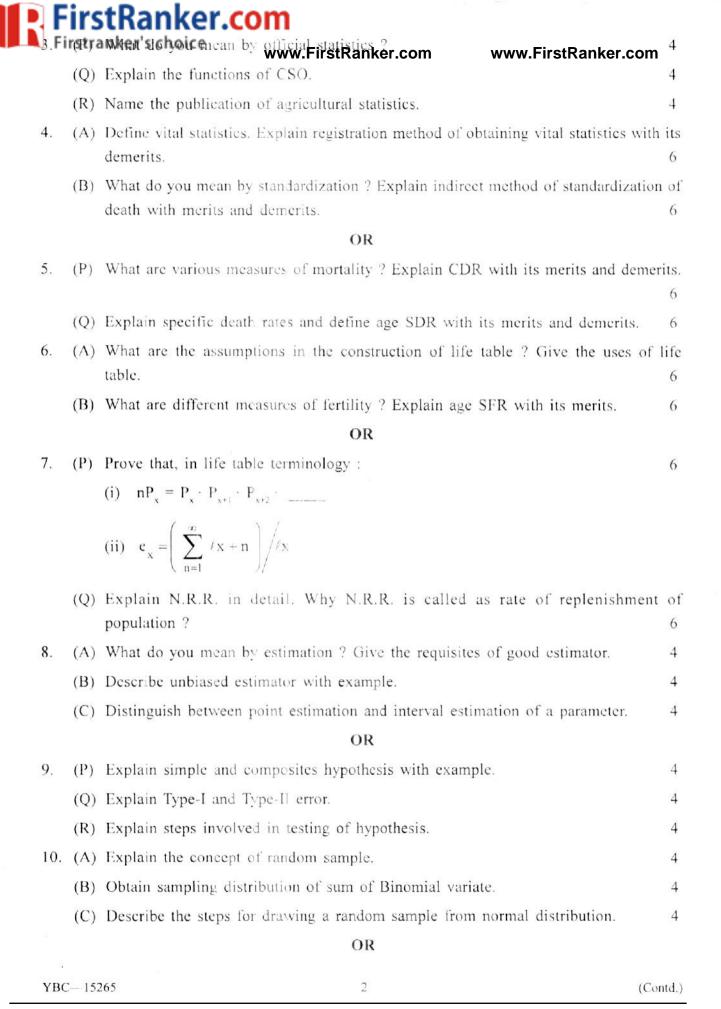


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B.Sc. Part-II (Semester-III) Examination 3S: STATISTICS

Time	e : T	hree	Hou	rs]	[Maximum Mar	Maximum Marks: 80		
				Note :-	ALL questions ar	e cc	mpulsory.	
1.	(A)	Fill	in the blanks:					2
		(i)	(i) Testing of hypothesis is a decision problem.					
		(ii)	In r	× s contingency table, d.f. is				
	(iii) A method of "sample study" relating to population is known as							_*
		(iv)) The study of birth, death, migration etc. is called					
	(B)	Choose the correct alternative :						2
		(i) "Testing of hypothesis" was initiated by:						
			(a)	Karl Pearson		(b)	R.A. Fisher	
			(c)	J. Neyman		(d)	C.R. Rao	
		(ii)	Chi-square test is also called as:					
			(a)	Normal test		(b)	Parametric test	
			(c)	Non-parametric	e test	(d)	Two tailed test	
	(iii) Generally census in every country is conducted after ye						ducted after years.	
			(a)	Three		(b)	Five	
			(c)	Ten		(d)	Fifteen	
		(iv)	In life table terminology q _x :					
			7-1	$\ell x + 1$		(1.)	A + 1 A	
			(a)	$\frac{\ell x + 1}{\ell x}$		(b)	$\ell \mathbf{x} + 1 - \ell \mathbf{x}$	
			(c)	$\ell_{\mathbf{X}} + 1 \cdot \ell_{\mathbf{X}}$		(d)	$\frac{dx}{dx}$	
	(C)	Answer in ONE contense each :						4
	(C)	Answer in ONE sentence each :						4
		(i) What is meant by vital event?(ii) Define parameters of population.						
		(ii) Define parameters of population.(iii) Who proposed the chi-square test for testing the goodness of fit ?						
			F					
2	(4)		(iv) What is Tx, in life table terminology?					
2.		Explain in brief, present statistical system in India.						4
		State the important publications of banking and finance.						4
	(C)	Des	escribe De facto method of census with its advantages and disadvantages.					4
					OR			
YBC	-152	65			1			(Contd.)





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(Q) Obtain sampling distribution of sum of Poisson variate.

- 4
- (R) Give the procedure of drawing a random sample from Binomial distribution.
- 12. (A) Define chi-square variate with 'n' degrees of freedom and obtain its m.g.f. 4
 - (B) State and prove additive property of chi-square variate. 4
 - (C) Explain Yate's correction factor in 2 × 2 contingency table and give corrected chi-square.

OR

13. (P) State the conditions for validity of chi-square test.

4

(Q) Explain chi-square test for testing goodness of fit.

4

(R) In 2 × 2 contingency table $\begin{bmatrix} a & b \\ c & d \end{bmatrix}$ show that :

$$\chi^{2} = \frac{N(ad - bc)^{2}}{(a + b)(c + d)(a + c)(b + d)}.$$

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