2017

STATISTICS

[Honours]

(CBCS)

(Practical)

PAPER – C2P

Full Marks : 20

Time : 2 hours

Answer three questions
Questions are to be drawn by lottery basis.

The figures in the right hand margin indicate marks

1. In a classic study of human sex-ratio the families were categorized according to the sexes of the children. Data are collected from 72069 families,

2. A part of a life table is given here with most of the entries missing. On the basis of the available figure supply the missing ones. Hence determine the probability that a child of age 10 years will live at least 5 year. 5

Age	l_x	d_x	1000 g_x	L_x	T_x	l^o_x
10	93,102		0.62			
11			0.66			
12			0.72			
13			0.80			
14			0.90			
15			1.00			
16			1.12			
17			1.23			
18			1.33			
19			1.40			
					4842,446	

3. Following it the frequency distribution of right hand grip for 340 European males :   5

Right hand grip (in FB)	Frequency
30-40	1
40-50	8
50-60	50
60-70	101
70-80	108
80-90	59
90-100	16
100-110	4
110-120	1

Fit a normal distribution to the above data and obtain the expected frequencies.

which is shown below. Fit a binomial distribution to the following data : 5

No. of of boys	0	1	2	3	4	5	6	Total
No. of girls	6	5	4	3	2	1	0	72069
No. of families	1096	6233	15700	22221	17332	7908	1579	

4. The following table gives the census population data for USA. Fit a logistic curve with a suitable methods.   5

Year	Population (in millions)	Year	Population (in millions)
1800	5·3	1890	63
1810	7·2	1900	76
1820	9·6	1910	92
1830	12·9	1920	105·8
1840	17·1	1930	122·8
1850	23·2	1940	131·7
1860	31·4	1950	150.7
1870	38·6	1960	179·3
1880	50·2		

5. Fit the Poisson distribution of the following data : 5

Marks	:	40	50	60	70	80	90	95
No. of students :		10	12	15	19	21	13	3

6. Fit the binomial distribution for the following data : 5

Face of a die :	1	2	3	4	5	6
No. of times :	3	8	10	6	4	2

Laboratory Note Book. 2

Viva-voce. 3