

INDIAN STATISTICAL INSTITUTE

QUESTION PAPERS

for

The Computer's Certificate Examination
&
The Statistical Field Survey Examination
1953

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INDIAN STATISTICAL INSTITUTE

COMPUTER'S CERTIFICATE EXAMINATION, 1953.

PART 1A : SECTION 1.

Time : 3 hours

- B. (a) Answers to the different groups are to be given in separate books.
 (b) Figures in the margin indicate full marks.
 (c) Use of calculating machines is not permitted.

GROUP A.

1. (i) Complete the entries in the following table in respect of the cols. (4) to (6) and find the totals for each of the columns. (20)

(1)	(2)	(3)	(4)	(5)	(6)
Sl. No.	x	y	x^2	y^2	xy
1	0.7	0.02			
2	0.8	0.05			
3	0.6	0.12			
4	1.0	0.11			
5	0.8	1.00			
6	0.9	0.03			
7	0.7	0.08			
8	0.9	0.09			
9	0.5	0.07			
10	0.4	0.11			

Total

- (ii) From the above table, find the value of

(a) $\Sigma x^2 - \frac{(\Sigma x)^2}{n}$, (b) $\Sigma y^2 - \frac{(\Sigma y)^2}{n}$, and (c) $\Sigma xy - \frac{(\Sigma x)(\Sigma y)}{n}$,

where Σx , Σy , Σx^2 , Σy^2 , Σxy denote respectively the totals of columns (2) to (6), and 'n' stands for the number of observations (x, y).

2. The following table shows the average size of and the composition of 1374 families by monthly income groups in a town. Check the figures in the different columns of the table and copy the table after correcting the errors. (15)

Monthly Income groups	No. of families	Average size of families	Number of persons in all the families				Total
			Adult		Child		
			Male	Female	Male	Female	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I	31	2.03	17	28	10	8	63
II	155	30.8	176	164	74	63	477
III	207	4.36	307	266	169	106	902
IV	190	4.53	335	303	197	106	1031
V	153	5.82	293	256	170	153	890
VI	116	6.14	270	218	128	96	712
VII	94	7.37	272	207	131	128	693
VIII	79	8.04	224	178	135	89	635
IX	51	8.51	150	112	98	74	434
X	53	8.92	166	140	93	74	473
XI	108	0.07	369	288	186	155	980
XII	47	10.11	189	131	71	87	478
XIII	34	11.32	158	99	69	59	385
XIV	56	13.54	328	210	98	122	758

3. Working class cost of living index numbers in respect of 5 centres for 12 months during 1950 are given below. The centres are represented by the prefixes I, II, III, IV and V, and the months from January to December by the suffixes (1), (2), (12) e.g., "V(10)=378" denotes that the index number in centre no. V during October, 1950 is 378. Present these details classified by centres and months in a suitable tabular form. (15)

(Details)

IV (10)=447	IV (8)=444	II (3)=358	I (4)=292
III (7)=305	I (6)=297	IV (9)=445	III (10)=399
V (5)=370	IV (3)=426	III (3)=408	IV (1)=424
II (1)=327	V (7)=375	V (9)=378	I (7)=304
I (8)=307	II (2)=342	I (1)=294	IV (2)=426
III (12)=395	III (8)=396	III (6)=389	II (12)=322
V (10)=378	I (5)=297	II (11)=330	IV (7)=439
IV (6)=432	III (11)=388	V (2)=366	I (2)=290
II (4)=366	V (3)=366	II (8)=371	II (10)=342
III (2)=408	I (12)=295	I (11)=397	V (1)=366
V (11)=378	II (5)=363	III (1)=404	I (10)=304
II (9)=371	IV (11)=444	IV (12)=435	V (6)=372
IV (4)=420	V (4)=367	II (6)=363	III (5)=396
I (3)=288	I (9)=308	IV (5)=423	II (7)=363
III (9)=401	V (8)=377	V (12)=378	III (4)=412

GROUP B.

4. The following is an extract of 120 two digitd random numbers : (25)

41	38	12	34	20	43	29	53	63	03
17	32	69	29	89	19	65	29	47	46
35	56	43	28	94	59	07	13	94	38
60	28	18	07	06	15	83	64	88	93
16	10	77	52	30	27	53	37	28	18
08	15	33	27	18	72	71	05	51	08
40	12	81	53	25	99	76	95	86	23
32	09	78	92	88	09	43	64	55	79
90	37	35	49	56	34	74	04	68	45
41	67	27	50	01	31	58	60	39	26
26	01	78	29	21	90	62	44	27	22
16	69	53	04	90	92	14	03	11	97

Make use of these figures to obtain two groups, A and B, of random numbers. Each group must contain 40 numbers arranged in ascending order of magnitude; and any number should not occur more than once in any group. Each group should cover the entire range of two-digitd figures.

State the method you have followed.

5. From the Monthly Abstract of Statistics, Government of India, compile the following : (25)

- Monthly registrations in employment exchanges during the years 1950 and 1951.
- Total electricity generated in 1949, 1950 and 1951.
- Yield of rice during the years 1948 to 1951.

COMPUTER'S CERTIFICATE EXAMINATION, 1933.

PART IA : SECTION 2.

Time : 3 hours

- N.B. (a) Answers to the different groups are to be given in separate books.
 (b) Figures in the margin indicate full marks.
 (c) Use of calculating machines is not permitted.
 (d) Use of mathematical tables is permitted.

GROUP A.

1. (a) Solve the equation : (20)

$$9 - \frac{19}{50}y^2 - 1 \frac{11}{25}y = \frac{14}{25}$$

- (b) With the help of appropriate tables evaluate :

$$\Sigma a^4 - \Sigma b^2 - \Sigma c^4$$

for integral values of a from 84 to 95, of b from -903 to -988, of c from 678 to 700.

2. The frequency distribution of heights of sampled populations of Town A, B, C & D and the total populations of the same towns are given below. (30)

Calculate

- (a) The mean heights of the sampled populations in Town A, B, C & D.
 (b) The weighted mean of all the towns, by using the total population of each town as weights.
 (c) The Standard Deviation of the height of the sampled population in Town D.

Heights (in inches)	Frequency distribution of heights of sampled population			
	Town A	Town B	Town C	Town D
60-61	7			
61-62	20			
62-63	47	1		
63-64	49	6		
64-65	31	32	3	
65-66	20	54	11	
66-67	4	55	17	2
67-68	1	62	38	12
68-69		41	42	29
69-70		16	58	33
70-71		6	66	16
71-72			40	9
72-73			17	4
73-74			4	2
Total	179	273	296	107
Total population	100,743	70,825	40,127	5,525

Group B.

3. The following table shows the values in $\sin x$ corresponding to different values of x (in degrees): (15)

x	$\sin x$	x	$\sin x$
5	0.08716	9	0.15643
6	0.10453	10	0.17365
7	0.12187	11	0.19081
8	0.13917	12	0.20791

Calculate by linear interpolation the sine of the following angles:

(i) $6^\circ 5' 15''$, (ii) $7^\circ 17' 20''$, and (iii) $8^\circ 32'$

4. (a) Plot the curve $x^2 + y^2 = 1.69$ and from the graph, find the area enclosed by the curve. (20)

(b) A cow is tied with a rope to a peg inserted on circumference of a circular grass-plot of radius 30 feet. The length of the rope is also 30 feet. Find graphically the proportion of the area of the grass-plot the cow can cover.

5. *Either*

The following table shows the population (in lakhs) of West Bengal for different years under Census. Draw a suitable graph and from it estimate the population for 1950. (16)

Census-Year	Population (in lakhs)
1901	158
1911	168
1921	164
1931	177
1941	218
1951	248

Or

The following table shows the National Income (in billion of dollars) for U.S.A. for some years. Represent the data graphically and from the graph estimate the Income for 1940.

Year	National Income
1929	87.4
1933	39.6
1939	72.5
1941	103.8
1947	198.7

COMPUTER'S CERTIFICATE EXAMINATION, 1953.

PART IB : SECTION 1.

Time : 3 hours.

- N.B. (a) Answers to the different groups are to be given in separate books.
 (b) Figures in the margins indicate full marks.
 (c) Use of calculating machines is permitted.

GROUP A.

1. The following records of Age, Height, and Weight were taken for a sample of 80 individuals. Classify the data under three age-groups (i) 20 years and below (ii) 21 years—25 years, (iii) 26 years and above and make a further classification by the three height levels, namely, (i) 5'-0" and below, (ii) 5'-1" to 5'-6", (iii) 5'-7" and above. (Under each sub-class enter the actual reading for weights).

Also calculate the Mean Weight

- (a) for each age-group
 (b) for each height level
 (c) for all the 80 individuals

Ser. No.	Age in years	Height ft.—inch	Weight (lbs.)	Ser. No.	Age in years	Height ft.—inch	Weight (lbs.)
1	23	5 — 8	113	41	26	5 — 4	112
2	22	5 — 8	112	42	22	5 — 5	112
3	33	5 — 8	147	43	35	4 — 10	108
4	19	5 — 2	98	44	39	5 — 6	202
5	27	5 — 6	112	45	40	4 — 8	118
6	19	5 — 4	120	46	20	4 — 11	100
7	18	5 — 6	112	47	16	5 — 5	100
8	33	4 — 9	84	48	14	4 — 5	64
9	20	5 — 0	92	49	13	4 — 0	50
10	20	5 — 7	112	50	9	3 — 10	42
11	28	5 — 6	101	51	7	3 — 10	36
12	23	5 — 6	98	52	5	3 — 7	32
13	23	5 — 8	114	53	35	5 — 6	122
14	23	5 — 4	112	54	38	5 — 8	126
15	59	6 — 6	175	55	26	5 — 1	96
16	24	5 — 8	108	56	9	4 — 2	48
17	25	5 — 6	112	57	20	5 — 2	92
18	21	5 — 5	112	58	28	4 — 8	84
19	20	5 — 2	98	59	35	4 — 10	126
20	19	5 — 0	98	60	21	5 — 1	84
21	29	5 — 6	116	61	23	4 — 10	108
22	25	5 — 4	112	62	26	5 — 0	140
23	20	5 — 3	84	63	43	5 — 8	158
24	25	5 — 4	119	64	16	5 — 4	120
25	25	5 — 4	112	65	18	5 — 7	120
26	19	5 — 6	99	66	30	4 — 10	82
27	29	5 — 6	99	67	24	5 — 8	120
28	25	5 — 7	112	68	26	5 — 8	108
29	20	5 — 4	117	69	21	5 — 2	100
30	24	5 — 4	99	70	23	5 — 3	98
31	60	5 — 2	102	71	8	3 — 10	38
32	22	5 — 6	112	72	24	5 — 4	108
33	20	5 — 6	99	73	25	5 — 9	101
34	30	5 — 6	112	74	12	4 — 8	90
35	21	5 — 3	98	75	5	3 — 6	20
36	26	5 — 9	172	76	28	5 — 3	112
37	22	5 — 9	114	77	12	4 — 8	88
38	21	5 — 2	112	78	7	3 — 11	72
39	21	5 — 4	102	79	20	5 — 6	119
40	28	5 — 6	106	80	20	5 — 4	126

Either

2. The following gives the distribution of 640 families in a community according to the quantity of land possessed in acres. (20)

Land in acres possessed per family	Frequoncy
0.0— 1.0	213
1.0— 2.0	161
2.0— 3.0	79
3.0— 4.0	52
4.0— 5.0	41
5.0— 6.0	32
6.0— 7.0	18
7.0— 8.0	16
8.0— 9.0	10
9.0—10.0	7
10.0—11.0	4
11.0—12.0	6
12.0—13.0	1
Total	640

Calculate standard deviation, β_1 and β_2 .

Or

Calculate the correlation coefficients between Height and Weight of individuals on the data furnished in Q. 1.

GROUP B.

Either

3. The data below give the pairs of values of two items which are known to be associated with each other. Examine graphically the nature of a suitable regression (linear or quadratic) of y on x , and calculate the expected values of y by the method of least squares. (50)

x	y
1.2	7.2
2.2	6.1
3.2	4.4
4.2	3.1
5.2	2.2
6.2	1.7
7.2	1.6
8.2	1.9
9.2	2.6
10.2	3.7
11.2	5.2

The table below gives the yields of some randomly selected plots for each of 4 varieties of a crop. Test whether the varieties are significantly different.

Variety	Yield per plot
A	19.4, 26.5, 12.7, 17.9, 22.6
B	22.0, 29.4, 18.9, 19.5, 24.2, 21.8
C	18.9, 23.7, 11.5, 12.8, 14.8, 12.4
D	16.2, 21.8, 10.1, 13.2, 11.3

Or

A manurial trial was conducted in an experimental farm with four manures in randomised blocks of 4 plots each. The layout and the respective yields per plot is given in the sketch below. Is the crop less responsive to the manure A than to manure B ?

I	II	III	IV
A 55	B 71	A 50	C 58
C 79	C 71	B 79	D 67
B 58	D 72	D 57	A 46
D 57	A 58	C 76	B 86

If in addition to the above information, you are supplied with the plot to plot results of an experiment conducted on the identical layout with the same crop and a uniform manure, would you modify your views regarding the superiority or inferiority of manure A over that of manure B ?

The corresponding plot to plot yields are given below :

38	60	41	44
59	55	50	46
44	52	41	38
38	52	65	68

COMPUTER'S CERTIFICATE EXAMINATION, 1953.

PART 1B : SECTION 2.

Time 3 : hours

- N.B. (a) Answers to the different groups are to be given in separate books.
 (b) Attempt all questions.
 (c) Figures in the margin indicate full marks.
 (d) Use of calculating machines is permitted.

GROUP A.

1. Solve the equation (10)

$$(4.5)^{2x} (6.4)^{x-2} = (7.8)^{x+4} (0.4857e^{x-2})$$

Either

2. Making use of Fisher-Yates tables, find the 5 per cent value of Z with $n_1=16$, $n_2=50$ (15)

Or

The following table refers to the frequencies in two types of break-down, A and B, which can occur in a manufacturing process. The process can run on three qualities of raw material, L , M , N .

Type of incident	Quality			Totals
	L	M	N	
A	42	13	33	88
B	20	8	25	53
Totals	62	21	58	141

Test whether there is any association between type of breakdown and quality of raw material.

Either

3. The following table gives the distribution of heights of 300 men. (25)

Height in inches	frequency	Height in inches	frequency
62-63	1	—72	42
—64	2	—73	35
—65	1	—74	21
—66	4	—75	14
—67	12	—76	8
—68	31	—77	2
—69	31	—78	1
—70	47		
—71	48		
		<hr/>	<hr/>
		Totals	300

Mean height is 70.47 inches and standard deviation is 2.47. Fit a normal curve to the above frequency distribution and test the goodness of fit.

Or

Draw a histogram of the above distribution and on it draw the normal curve after calculating the ordinates at suitable points.

Either

4. Collect the following items of information relating to shipping for all the months of the year 1949 :— (30)

(i) total number of ships entered at Calcutta port and the corresponding net registered tonnage.

(ii) total number of ships cleared from Calcutta port and the corresponding net registered tonnage.

Represent the data, thus collected, on a graph paper.

Or

Supply from available official statistics, the average daily number of workers employed in India for

(i) all the factories for the years 1938 to 1949.

(ii) Government and local fund factories for the years 1938 to 1949.

(iii) other factories for the years 1938 to 1949.

Represent the data, thus collected, on a graph paper and also calculate the proportions of the number of Government and local fund factories to the total number of factories for all these years.

5. The following data relate to the distribution of the number of typographical errors per page in a typed material of 2608 pages. (20)

Number of typographical errors per page x	Frequency y
0	57
1	203
2	383
3	525
4	532
5	408
6	273
7	139
8	45
9	27
10	10
11	4
12	2
13	0
14	0
	2608

Calculate the expected frequencies from the formula $y = \frac{e^{-m} m^x}{x!}$ m being equal to the mean of the observed distribution.

Represent the observed and expected series on a graph paper.

COMPUTER'S CERTIFICATE EXAMINATION, 1953.

PART 1C : SECTION 1.

Time : 4 hours

- N.B. : (a) Answers to the different groups are to be given in separate books.
 (b) Attempt any three questions from group A, and two from Group B.
 (c) Use of standard mathematical and statistical tables permitted.

GROUP A.

(Total marks 50)

1. The following is a summary of the statistical features of a census of ration cards :—

Item No.	Category	Total number of cards belonging to the category
1.	The whole of the Census	1,000
2.	Permanent Residents	510
3.	Males	490
4.	Consumers of Rice	427
5.	Permanent Male Residents	180
6.	Consumers of Rice among permanent residents	140
7.	Males consuming Rice	90

Examine whether the entry no. 7 is consistent with all the previous entries, viz., nos. 1 to 6, taken together.

2. In a partially destroyed laboratory record of an analysis of correlation data, the following results only are legible :

Variance of $x=9$

Regression equations :—

(i) $8x - 10y + 66 = 0$ (regression of y on x)

(ii) $40x - 18y = 214$ (regression of x only)

Plot these two regression equations on a graph paper and find out the mean values of x and y from the graph.

Hence or otherwise find out (a) the standard deviation of y , and (b) the coefficient of correlation between x and y .

3. A life office has obtained the following data from its experience of withdrawals.

Calculate the rates of withdrawal (w_x) given by $w_x = \frac{W_x}{E_x}$

x	exposed to risk of withdrawal (E_x)	withdrawals (W_x)
0	11,000	209
1	10,000	850
2	9,000	1,215
3	7,000	670
4	5,500	352
5	4,000	108
6	3,000	102
7	2,500	02
8	2,000	43
9	1,800	58
10	1,200	36

Find out graphically the rates of withdrawal (w_p) for $x=1.0, 3.5, 5.5, 11.0$,
2.0.

4. (a) For the curve

$$f(x) = \frac{1}{\sqrt{2\pi}} e^{-\frac{x^2}{2}}$$

Calculate the ordinates for $x=0, 0.5, 1.0, 1.5, 2.0$, and also for $x=-0.5, -1.0, -1.5, -2.0$.

(b) Find out the area bounded by the curve given in (a) above, the x -axis the ordinate at $-\infty$ and another ordinate at each of the following values of $x=0, 0.5, 1.0, 1.5, 2.0, -0.5, -1.0, -1.5, -2.0$.

GROUP B.

(Total marks 50)

5. Fit a cubic of the form $y=a+bx+cx^2+dx^3$ to the following data and draw the curve.

Set out the analysis of variance for y showing the variation explained by a second degree parabola and the additional variation explained by the cubic.

x	-6	-5	-4	-3	-2	1	0	1	2	3	4	5	6
y	12	18	25	31	38	43	48	52	54	54	54	49	41

6. The following information about the trivariate population are available, the three variables being designated x_1, x_2 and x_3 .

$n=30$		
$\Sigma x_1=2,200;$	$\Sigma x_2=54.0;$	$\Sigma x_3=8345$
$\Sigma x_1^2=5,875,400;$	$\Sigma x_2^2=157.68;$	$\Sigma x_3^2=2,464,177$
$\Sigma x_1x_2=14,991;$	$\Sigma x_1x_3=1,027,570;$	$\Sigma x_2x_3=15958.9$

Find the partial regression equation of x_1 on x_2 and x_3 .

Calculate the multiple correlation coefficient $R_{1,23}$ and the partial correlation coefficient $r_{12.3}$ and test their significance.

7. The following table gives logarithms of the length and weight of two species of fish (I and II) caught from two tanks (A, B). It is intended to test for the differences in the weights of the two species after correcting for the length. Complete the necessary tables of the analysis of variance and covariance.

	Species I		Species II	
	length	weight	length	weight
Tank A	1.57	0.78	1.52	0.70
	1.57	0.70	1.51	0.60
	1.56	0.78	1.49	0.47
	1.55	0.60	1.48	0.60
	1.52	0.60	1.45	0.48
Tank B	2.21	2.82	2.14	2.54
	2.17	2.72	2.08	2.34
	1.77	1.45	1.96	2.01
	1.75	1.32	1.63	1.18
	1.74	1.34	1.63	1.08

COMPUTER'S CERTIFICATE EXAMINATION, 1963.

PART IC : SECTION 2.

Time : 4 hours

- N.B. (a) Answers to the different groups are to be given in separate books.
 (b) Attempt all the questions from Group A, and any two questions from Group B.
 (c) Use of calculating machines and standard tables are permitted.

GROUP A.

(Total marks 50)

1. From the following table of the function of $\cos x$ with x in radians at intervals of 0.1, calculate $\cos x$ for

(i) $x_1 = 5.347$ (ii) $x_1 = 5.138$ and (iii) $x_1 = 5.629$

x_1	$\cos x_1$
5.0	0.28 36 62 185
5.1	0.37 79 77 743
5.2	0.46 85 16 671
5.3	0.55 43 74 336
5.4	0.63 46 92 876
5.5	0.70 86 69 774
5.6	0.77 55 65 879
5.7	0.83 47 12 785

2. From the statistical publications supplied, compile in a tabular form the figures on any five of the following items for the latest available periods, and indicate in each case the source of your information.

- (a) Total yield of food grains, giving separate figures for rice, wheat etc., in Indian Union for two consecutive years.
 (b) Total production of coal and mica in the Indian Union for one year.
 (c) Total number of graduates and under-graduates in Indian Union for two consecutive years.
 (d) Number of Newspapers and Journals published in the Indian Union and West Bengal separately.
 (e) Total number of inland telegrams in the Indian Union for three consecutive years.
 (f) Total number of factories in West Bengal and the Indian Union separately and also the corresponding average daily number of workers employed for one year.
 (g) Amount (in Rupees) of property stolen and that recovered for the Indian Union for three consecutive years.

3. The following table gives the birth-rates in the city of Madras during successive four-week periods (1926-38).

4 week period	1	2	3	4	5	6	7	8	9	10	11	12	13
1926	37.8	32.7	35.0	35.8	38.4	37.8	37.5	42.0	39.1	41.7	39.1	43.0	38.2
27	39.0	31.3	31.2	36.6	41.3	43.8	40.0	46.4	51.0	48.2	47.3	43.6	44.0
28	40.3	36.5	36.4	37.5	35.7	36.5	35.5	40.6	42.8	45.3	43.7	42.0	36.4
29	37.7	26.1	33.1	32.1	34.1	35.9	31.6	37.6	39.0	42.0	42.6	44.8	45.8
30	41.0	35.2	35.1	41.2	42.4	39.3	42.2	40.0	40.3	44.4	42.9	43.5	40.3
1931	41.7	30.4	40.4	43.7	41.5	42.7	44.4	42.4	39.8	39.0	42.6	42.1	37.0
32	39.8	31.3	30.4	39.9	43.7	44.0	44.8	47.3	46.7	45.6	50.4	47.8	42.0
33	40.0	35.0	37.0	37.7	43.2	41.0	42.9	44.7	45.2	45.2	50.1	45.5	41.9
34	38.7	36.2	41.5	39.1	42.6	40.1	38.4	43.0	42.8	44.2	42.4	41.6	42.7
35	39.4	38.4	35.7	39.6	43.7	44.2	43.0	40.2	49.7	53.1	50.0	47.4	39.0
1936	30.0	33.9	33.4	35.3	41.4	35.8	36.6	43.1	45.7	40.4	45.6	47.3	41.4
37	43.9	33.6	34.0	45.5	40.8	41.3	43.1	41.6	44.1	47.5	46.0	48.4	44.2
1938	41.6	39.7	35.2	42.2	46.8	43.3	38.2	44.7	41.4	43.5	44.8	42.3	41.8

Calculate seasonal indices after removing the trend by the method of moving averages. (A "Season" here refers to a 4-week period).

4. Evaluate the determinant

$$\Delta = \begin{vmatrix} 8.1 & 6.0 & -1.1 \\ 4.3 & -2.2 & 0 \\ 3.2 & 0 & 5.6 \end{vmatrix}$$

Calculate the cofactor of each element of Δ and write down the determinant D formed by these cofactors. Again find the cofactors of the elements of D and verify that they are equal to the corresponding elements of Δ multiplied by the value of Δ .

5. The following table gives the monthly earning of 600 clerks in an Indian city.

Monthly earning in rupees	Frequency%
40—	30
50—	81
60—	114
70—	151
80—	129
90—100	95

Fit an appropriate Pearsonian curve to the data.

6. The following table gives the number of pounds of milk given by each of five breeds of cows in one week at six different farms

Breed Farm No.	Holstein	Jersey	Guernsey	Ayrshire	Brown Swin
1	390	228	231	270	309
2	474	230	225	308	312
3	389	287	208	337	285
4	309	178	247	250	278
5	384	178	205	344	253
6	374	182	226	252	274

Test for the variability between the breeds.

INDIAN STATISTICAL INSTITUTE
STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IA : THEORETICAL

Time : 3 hours

Full marks : 100

- N.B.* (a) Figures in the margin indicate full marks.
(b) Neatness carries four marks.
(c) Whenever you are asked to give information for your native State or State of domicile mention the name of the State.

GROUP A.

Answer question one and any two of the rest.

1. (a) What are the different classes for a railway journey ? State the basic rates for Inter and Third class fares and the amount of free luggage admissible to these classes. What are the different fares for Inter and Third class journeys from Howrah to Aansol,—a distance of 125 miles ? (6)

(b) Two annas were paid as bearing charges as the value of stamps used on a bookpost of 28 tolas was insufficient to meet the postal charges. (6)

Calculate the cost of stamps which were affixed by the sender.

(c) A telegram containing 13 words was sent on a Sunday at 11 A.M. (6)
Calculate the charges paid for that message.

2. (a) What are the principal rivers in your native State or State of domicile ? (5)

(b) Write down the names of the important towns on the banks of the principal rivers of your State ? (7)

(c) What is the density of population per sq. mile in your State according to the latest available census reports ? (Mention year of Census). (3)

3. Name the districts in your native State or State of domicile which have (15)
(i) large flooded areas,
(ii) hilly areas.
(iii) areas growing mainly Autumn paddy.

4. What are the three principal crops in your State ? Write down the figures of acreage and yield of these crops for 1952-53. Mention the percentage of increase or decrease in the yield over that of previous year. Write the causes known to you for such variations. (15)

GROUP B.

Answer any four of the following :

5. Find the value of :

(a) $\frac{1.49 \times 14.9 - .41 \times 4.1}{14.9 - 4.1}$ of Rs. 10 (4)

(b) $(0.75 \text{ of Rs. } 9-8-8) + (0.05 \text{ of Rs. } 12-8-0) + (0.15 \text{ of Rs. } 2-3-7\frac{1}{2})$ (4)

(c) $\frac{1}{2}$ of 4 bighas 3 kottahs + $\frac{1}{3}$ of 1 bigha 6 kottahs + $\frac{1}{4}$ of 13 bighas 6 chatacks. (4)

6. Express

(a) 500 tons in mds. and seers. (4)

(b) one acre in square inches. (4)

(c) 500 mds. having 82½ tolas to a seer in standard maunds. (4)

7. Find by practice the cost of 25 bags of rice containing 1 ind. 37 ars. 8 chatacks per bag at the rate of Rs. 18-10-9 per md. (12)

8. A rectangular lawn has its length three times its breadth and the cost of levelling it at 5 as. per sq. yard is Rs. 1470. What would be the cost of fencing it at Rs. 4/- per yard? (12)

9. The number of foreign tourists at a Hill station during five consecutive years was as under (12)

Nationality	1st year	2nd year	3rd year	4th year	5th year
American	304	320	251	289	312
British	117	86	133	145	99
Canadian	26	32	25	47	50
Chinese	19	8	11	23	4
Others	44	55	60	78	85

(a) Find the average number of tourists per year under each nationality.

(b) What is the yearly average for all tourists taken together?

(c) Calculate the percentage of American tourists to total number of tourists in the entire period of 5 years.

10. The area of the paddy plots in a locality, which is approximately circular with a radius of 5 miles, is 26 sq. miles. Calculate the percentage of paddy area to total area. (12)

Neatness

(4)

STATISTICAL FIELD SURVEY EXAMINATION, 1953

PART 1B : THEORETICAL

Time : 3 hours

Full marks : 100

- N.B.* (a) Figures in the margin indicate full marks.
 (b) Neatness carries five marks.
 (c) Whenever information is asked for your native State/District or State/District of Domicile, mention the name of State/District.
1. Answer any *three* of the following. (5+5+5)
- (a) Name part A states of Indian Union.
 (b) Name five important ports of Indian Union.
 (c) What are the following ? Give an idea of their location in brief. (Answer any five items).
 (i) Agra; (ii) Vindhyachal; (iii) Simla; (iv) Jamuna; (v) Western Ghats;
 (vi) Bangalore.
 (d) What are Andamans and Nicobar and who is responsible for their administration ?
 (e) Draw a sketch map of your native state or state of domicile showing approximate location of one principal river, one important railway line and three important cities or towns.
2. Answer any *three* of the following: (6+6+6)
- (a) Mention principal types of articles treated as luggage by Indian Railways. What is the free allowance of luggage and what is the maximum weight of luggage allowed to be carried per ticket in Indian Railways ?
 (b) What is the basis for calculating passenger fares and luggage rates in Indian Railways ?
 (c) State in brief the conditions in which you will choose between sending
 (i) money by money-order and by registered insured post;
 (ii) letter by ordinary post and by express delivery;
 (iii) goods by post, by passenger train and by goods train.
 (d) What is (i) registered book-post, (ii) night air-mail service, (iii) V.P.P. ? Give rates for (i) and (iii).
 (e) What precaution is necessary in delivering a money-order to an illiterate person ? If you have not received the acknowledgement receipt from the payee in due time, what steps will you take ?
3. Answer any *three* of the following: (6+6+6)
- (a) Mention six occupations of the people in your native District or District of domicile in order of importance. Mention the name of District and State.
 (b) State the sowing and harvesting period and the amount of seed required per acre sown for two major crops of your native State or State of Domicile. Mention State and crops.
 (c) What are the three principal crops of your native State or State of domicile ? Name the Districts which have the largest acreage of these crops.
 (d) What were the total yield of each of the three principal crops of your State during the crop season of 1952 ? What was the yield rate during that year for each such crop.
 (e) What was the area cultivated under each of the three principal crops of your State during the crop seasons of 1952 ?
4. Answer any *three* of the following: (10+10+10)
- (a) A certain number of persons agree to subscribe as many pios each as there are subscribers; the whole subscription being Rs. 33-5-4. How many subscribers were there ?

(b) In a charity performance, the participants were each requested to contribute as many as 4 anna coins as double the number of participants in the charity performance. Each of them contributed as such. The amount thus collected was Rs. 338/- only. Find out the number of participants in the performance.

(c) Find the area of the square whose perimeter (i.e., total length of four sides) is same as that of a rectangle which has its length equal to 3 times its breadth of 16 ft.

(d) (i) In how many years will £ 300/- amount to £ 408/- at 4 per cent rate of simple interest.

(ii) A capital of Rs. 4000/- on being invested amounted to Rs. 5000/- after 10 years at the simple rate of interest. Find the rate of interest.

(c) A square room whose floor measures 56 sq. yds. 2 sq. ft. 36 sq. inches is 10 ft. 4 inches high. Find the expense of white washing its ceiling and walls at 2 pias per square yard.

5. Answer any one of the following: (14)

(a) A factory commenced working on 1-7-1950 recruiting three categories of staff on that date. The scales of pay of these categories were (A) Rs. 35-2-55, (B) Rs. 60-3-00 and (C) Rs. 75-5-125 respectively. The number recruited was 12, 35, and 9 in categories A, B and C respectively. Later on it added five men in A on 1-2-1951, 11 men in (B) on 1-3-1951 and 6 women in (C) on 1-1-1952. Dearness allowance paid was 10 per cent of the basic pay throughout. Calculate the pay bill of the factory for the month of April, 1953 showing the steps in calculation.

If the management retrenched 5 and 3 persons from categories A and B respectively on 31-5-1953 what will be the pay bill for the month of May, 1953.

(b) Following is a portion of a schedule. Scrutinise and enter the answers in the answer book, pointing out the mistakes if any.

Family Budget enquiry of Households—(October–December, 1952).

Block I

1. Name of the head of the Household—Smt. Kalyani Devi
2. Address: 27, Rash Behari Avenue, Chander Nagar, Dist—24 Parganas.
3. If refugees from East Pakistan—Year.

Block II

Family details and consumption

Srl. No.	Relation to head	Sex M=1 F=2	Month and year of migration from East Pakistan	Age in years	Economic status e=earner o.d.=earning dependent n.o.d.=non-earning dependent	Consumption of rice in seers per month	Earning per month in Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Head	1	Dec. 1947	47	e.	15	55
2	1st daughter	2	Dec. 1947	28	e.d.	17	15
3	1st son	1	Nil	24	n.o.d.	22	22
4	1st son's wife	2	April 1948	19	n.o.d.	12	nil
5	2nd son	1	Feb. 1946	22	e.	10	nil
6	2nd daughter	2	Sept. 1952	14	e.d.	27	17
7	Son of Sr. No. 2	1	Oct. 1951	3	n.o.d.	5	nil
8	Servant	1	Nil	38	n.o.d.	25	14

Neatness

(5)

STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IC : THEORETICAL

Time : 3 hours

Full marks : 100

N.B. (a) Figures in the margin indicate full marks.

(b) Neatness carries five marks.

(c) Whenever you are asked to give answer for your native State or State of Domicile, mention the name of the State.

1. Answer any five of the following :

(15)

(a) Describe the shortest sea-route from England to Basra in Iraq, naming the principal ports on the way and the seas traversed.

(b) State the names of the four largest rivers in the world and describe the course followed by any one of these.

(c) Name in order of magnitude the five largest mountains in the world.

(d) Name the countries which lie to the

(i) east of India; (ii) west of Afghanistan; (iii) south-west of China.

(e) Arrange the following countries in order of distance of the southernmost point from the equatorial line.

(i) Indian Republic; (ii) Australia; (iii) Canada; (iv) Arabia; (v) United States.

(f) Name the largest port of the following countries.

(i) Italy; (ii) Burma; (iii) Pakistan; (iv) Turkey and (v) Canada.

(g) Name the capitals of the following countries.

(i) Italy; (ii) Burma; (iii) Pakistan; (iv) Turkey and (v) Canada.

2. Answer any three of the following :

(15)

(a) Name four of the principal food crops of your state and the Districts in which they are mainly grown. Show how geographical factors influence the distribution of each of these crops within the State.

(b) Give the names of important manures used for the cultivation of the principal non-food crop (cash crop) of your State and the quantity of such manures ordinarily used per acre. What are the different important stages in the cultivation of this crop? Mention the names of state and crop.

(c) Name the Districts with highest and lowest rainfall in your State. Mention the name of the State.

(d) State briefly the major crops grown and the methods of artificial irrigation adopted if any, together with the names of typical irrigation sources and implements used in the district of your State which has the lowest annual rainfall.

(e) What will be the cost of irrigation for 0.33 acres of land for any one of the crops noted below in the district of your State where such crop has the largest area; when the source of irrigation is 300 yards from the land. Mention the method of irrigation; crop and district :

Crops : Sugarcane/winter paddy/jute/potato

3. Answer any three of the following :

(21)

(a) What is the area of your native state or state of domicile under each of the following heads :

(i) cropped area; (ii) area not available for cultivation and (iii) culturable waste? Mention source of information.

(b) Give the average rate of yield per acre of three principal food crops of your state during any one of the last three years. Mention the year in each case.

(c) What are the main causes which account for the relatively low yield rate of paddy crop in this country when compared with the yield rate of some other countries ?

(d) Are there particular manures more suited to the growth of particular crops in your state ? Mention names of only three crops and the manures more suited to these.

(e) State briefly all that you know about independent India's plans for improving manuring position of the country.

4. Answer any *two* of the following : (12)

(a) Give the principal items of expenditure ordinarily incurred by (i) weaver and (ii) fisherman families in rural areas.

(b) What are the occupations open to agricultural families of your native State or State of domicile for supplementing their income during the off-season ? Name the State.

(c) Name the districts of your State in which in-migrant labourers are largely employed for agriculture and state the operations for which their services are mostly required. What were the daily rates of wages for such labourers for the operations referred to above during the last 12 months in any one of those districts (Name district, crop, operations and months).

(d) What are the sources from which you can obtain the following :

(i) List of plots in villages and classification thereof.

(ii) Prevalent rates of wages for labourers.

(iii) Prevalent wholesale and retail prices of ordinary commodities used by people in rural areas.

5. Answer any *one* of the following : (12)

(a) Discuss in general terms the main sources of bias and the methods of selection of sample which give rise to bias.

(b) What are the designations and functions of principal local officials of any four of the following departments in a subdivision of your State.

(i) Revenue administration; (ii) Agriculture; (iii) Criminal justice; (iv) local self government and (v) rural self governing institutions. (Name State).

6. Answer any *one* of the following : (20)

(a) It is proposed to carry out an economic enquiry into the size of holdings, burden of agricultural indebtedness and total annual income and expenditure of agricultural families in two districts of your native State or State of Domicile. The enquiry is to be restricted to 120 sample villages, all agricultural families in each of these villages being completely investigated.

Assuming that four schedules can be filled up on the average per worker per day, give an estimate of the staff required (including inspecting staff) to complete the enquiry in one month. A programme of work should also be given for one month assuming that entire staff starts from the H.Q. of one of the districts on the 1st day of the month.

(b) A sum of Rs. 50,000 is sanctioned for entire field work for a sample survey by interview method to be carried out in a district with about 5000 sq. miles and with 6000 villages and about 4,00,000 families. Give a detailed breakdown of the total cost for the organisation you should set up and say how many villages with 10 households to be investigated in each you would be able to cover and what would be the appropriate period needed for field work.

STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IIA : THEORETICAL

Time : 3 hours

Full marks : 100

- N.B. (a) Figures in the margin indicates full marks.
(b) Neatness carries four marks.

GROUP A.

Answer any one of the following :

1. A survey is to be conducted for estimating the number of existing houses provided by employers for the industrial labour, and it has been decided to collect data from a sample of employers by the method of interview. Draw up a schedule for this purpose with suitable spacings and headings. (Square paper will be supplied). (36)

2. A survey is to be conducted in Calcutta to study whether there is any correlation between the weights in lbs. of school children of different ages and per capital expenditure on food in the families of these children. (36)

Draw up a schedule for the purpose and write a very short set of instructions for the use of the field workers explaining the difficult points only.

GROUP B.

Answer any three of the following :

3. Enumerate the important sources of errors that are likely to affect the final estimates of yield based on a crop cutting survey by random sampling method during the different stages of field work and briefly outline the methods of controlling them.

4. A State Government which has recently taken up crop surveys by the random sampling methods refuses to accept the results in preference to the official estimate based on reports of District Officers given without any survey. Outline the argument you will employ for convincing them of the superiority of the former. (20)

5. Suppose you are required to stay 3 days for inspecting the work of primary investigator in regard to a socio-economic survey in a village, describe how you would utilise your time for this work and otherwise, to maximum advantage. (20)

Do you consider that your method of inspection and utilisation of time will be the same if you have to inspect the work of an investigator in a city ? If not explain the reasons.

6. Fill up columns (7), (8), and (10) of the table given below with appropriate figures to complete it. (20)

Name of crop	Production of food grains in 1000 mds.					Aver- ago.	P.c. increase (+) of decrease (-) in production in 1951 as com- pared to 1950	Average acreage 1947- 1951 in 1000 acres	Average yield rate
	1947	1948	1949	1950	1951				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Rice	340.7	296.3	315.8	329.4	299.3			3742.8	
Wheat	720.6	683.5	708.1	710.2	693.5			9365.5	
Jowar	63.4	58.2	52.6	61.8	75.3			936.4	

7. A sample survey for estimating the total consumption of food-grains is being conducted in a state. Write down the points and matters to which, in your opinion, the Inspector should pay more attention when on duty. (20)

Give your arguments for considering points, as mentioned by you, more important.

Neatness

(4)

STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IIB : THEORETICAL

Time : 3 hours

Full marks : 100

- N.B. (a) Figures in the margin indicate full marks.
(b) Neatness carries four marks.

GROUP A.

Answer any two of the following :

1. Local weights and measures vary from place to place. If the figures on quantities (say, of different kinds of cereals) are required to be collected in a survey what steps will you propose to ensure that the collected data are meaningful and correct ? (12)

2. If you are asked to arrange the economically active population of your state by the nature of their economic activities, what method of classification do you think will be satisfactory ? List the main broad classifications. (12)

3. Write short notes on any three of the following. (12)

(a) Normal and fixed travelling allowance. Indicate the circumstances under which these should be allowed.

(b) Net cropped area.

(c) Reference period of an enquiry.

(d) Non-response in sample surveys and complete enumeration.

(e) Substitution of a nearby unit in place of a chosen sample unit.

GROUP B.

Answer any three of the following :

4. In connection with a statistical survey of a district, the following basic informations relating to the district were required. (24)

Mention the sources from which these may be collected or likely to be available indicating how they are to be tapped and the procedure to be adopted.

(i) Population, number of households, Thana or Tehsil areas, number of villages.

(ii) Number of livestock.

(iii) Area and yield of principal crops.

(iv) Distribution of holdings by their size and the principal occupation of household, so far as available.

(v) Steamor-routes, Bus routes, and Railway routes in the District.

(vi) Cadastral survey maps for Thanas and villages.

5. In a sample survey for the area under crops, the cadastral survey maps showing individual plot boundaries were not available. Skeleton maps showing the village boundaries could not also be procured. The total area under each crop in these villages were to be enumerated.

On a preliminary enquiry, it was however learnt, that the village boundaries could more or less be ascertained from pillar stones standing here and there and partly by enquiry from among the villagers.

Under the circumstances, the following alternative schemes for enumerating these villages were suggested. Examine each and give your own views in brief, to bring out the relative merits and demerits of each.

(a) To measure the sides of each crop plot exhaustively one by one with the help of chains or ropes and determine the total area under each crop in the village directly. Since there are no maps, any reference to cadastral plots does not arise. Each parcel of land under a particular crop (pure or in mixture) has to be measured separately. What checks would you provide ?

(b) To visit each household within the village and collect information regarding the area cultivated under different crops of the season, which a household possesses within the village.

(c) To prepare plotwari maps with the help of an Amin or Surveyer using plane table methods and then to make a complete enumeration of all plots in the village. 'Anna' proportions of area occupied by a crop in each individual plot will be eye-estimated on the field, while the area of individual plots can be measured on the maps.

6. For any six of the following state, in what publications the data should be found, mentioning in what breakdowns—i.e., Thanas, Tehsils, districts or States—are the figures available there. The data may refer to any year except in (ii) which should be a post-war (2nd great war) year. (24)

- (i) Land revenue in rupees per acre and per head of population.
- (ii) Cost of living index for menial staff and middle class families for any post war year.
- (iii) Irrigated and non-irrigated area.
- (iv) Harvest prices of important crops.
- (v) Net area sown.
- (vi) Monthly Rainfall.
- (vii) Number of ploughs, carts, tractors, oil engines for irrigation.
- (viii) Number of horses by sex for ages below 1 year, 1 year to 3 years, and above 3 years.
- (ix) Per acre yield rate of important crops.

7. State briefly the appropriate action to be taken in any of the contingencies noted below. Where there are alternate actions possible, mention all of them. (24)

(a) An investigator was residing in the house of a village. There was burglary at the house in one night. The investigator has been arrested by Police on suspicion and kept in *hajat*. A village has sent a report to you for necessary action.

(b) An investigator working in a remote village has been attacked with small pox. His fellow investigator has reported that pox has broken out in the area in epidemic form and he wants to go away on leave at once.

(c) An Inspector has been run over by a bus in a place about 50 miles from your head quarters. He has been taken to a hospital. Doctor has found your address from papers in his pocket and has informed you by wire that the Inspector is unconscious and his condition is precarious.

(d) An investigator was not found at his working village by the Inspector when he visited the village. Inspector has passed order of suspension on the worker and forwarded it for your confirmation.

(e) Salary of a worker was sent to Inspector for disbursement. He was going with this money to workers' village when it was lost or stolen by pickpockets, Inspector not being sure which has happened.

(f) Your contingency fund is exhausted and you have no service stamp in stock. As a Government officer you use service postage only. You have to send some urgent letters and reports.

Neatness

(4)

STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IA : PRACTICAL

Full marks : 100

N.B. Figures in the margin indicate full marks.

1. Give the significance of any five of the symbols shown below which are used in settlement survey maps. (10)
2. On a C.S. map, locate 3 plots shown to you on the ground. (15)
3. Locate five plots on the ground which were shown to you in a C.S. map. (15)
4. With the help of maps, identify eight plots whose survey numbers are given to you and fill up the annex proportions of the crops and other uses, if any in form IA-1. (30)
5. Fill up form IA-2 or form IA-3 from a rural household to be selected as directed having not less than 5 members. (30)

District.....P.S..... Village.....

J.L. No.....

Name of the Investigator..... Date of Survey.....

Anna proportions

Serial no.	Plot No.	Jute	Aus	Anan	Fallow	Home-stead	Others		Under crops	Other than crop
							(write all the names with their corresponding annas)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	Crop or other use	annas	(10)	(11)

Signature of the Investigator..... Date.....

Time of starting.....Time of returning.....Total time taken.....

Note: Timings should be recorded in the presence of the Examiner.

District..... P.S..... Village.....
 Name of Union..... J.L. No.....
 Name of head of household..... Date of survey.....
 Address of household.....

Ser. No.	Items	Cash purchases during last year				No. of persons in household
		Units (note)	Quantity	Price Rs. as.	Frequency	
1	Dhuti (all sizes)					Adult Male
2	Sari (all sizes)					Adult Female
3	Shirt, Kurta etc. (all sizes)					Male Child
4	Lungi (all sizes)					Female Child
5	Pyjama (all sizes)					Total
6	Chemiseq (all sizes)					Occupation of earners of the household: 1st 2nd 3rd
7	Blouse, frocks etc. (all sizes)					
8	Vest, underwear etc. (all sizes)					
9	Chaddar, bed sheet etc.					Approx. income from above occupation during last year
10	Mat, matting etc.					1st Occpn. 2nd 3rd

Name of worker..... Time of starting.....
 Time of returning.....
 Total time.....

Last year means 12 months ending on the previous day of the date of enquiry.

District..... P.S..... Village..... J.L. No.....
 Name of the head of the household.....
 Address.....

Serial No.	Relation to Head of the Family	Sex (Male-1 Female-2)	Age (Last birth day)	Civil condition	Age at marriage	Education	Occupation			Working day per month	Monthly gross earnings
							primary	sub-diary	pri-sub-diary		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(11)	(12)	(12)

Lands (in acres) possessed	Total	Monthly expenditure (in rupees)
		Growing jute .....	on
	Growing paddy	Food
		Clothing
		Agriculture
		Education
		Miscellaneous
		Total

Signature of the Investigator..... Date.....
 Time of starting..... Time of returning..... Total time taken.....

Note: (i) Timings should be recorded in the presence of the Examiner.

(ii) For the purpose of this enquiry, a 'household' is defined as a group of individuals who have a common kitchen and reside in the same place. Domestic servants who stay in the household should be included as members of the household. Guests who are staying for more than a month should also be treated as members of the household. Relatives who stay outside should not be included as members of the household.

STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IB : PRACTICAL

Full marks : 100

N.B. Figures in the margin indicate full marks.

1. (a) Locate plot numbers 1757 and 1760 with C.S. map of mouza Banhooghly, P.S. Baranagar, Dist. 24-Parganas and give annawari estimate of the land utilisation for as many heads of utilisation as possible. (15)

(b) Give the length and breadth of 2 largest buildings, 2 lawns, one tank and one road (taking east to west, north to south etc., as limit and mentioning the road, building etc., chosen) if any, situated in plot numbers 1756, 1762 and 1763 vide C.S. map above. (25)

2. Fill the following schedule (form IB) for a refugee family living in the Government colony named Beehive colony, Belghurria, Dist. 24-Parganas. Information has to be taken for the month of May, 1953 or for the date of survey as the case may be. (40)

Block I-A	3 marks	Valuation of Block
I-B	4 "	IV of schedule will be
II	18 "	included in Q. 4.
III	12 "	
V	3 "	

3. Indoor practical. (10)

4. Viva Voce on filled in schedule. (10)

5. Viva voce on general problems arising in conducting field work. (10)

Form I B.

Block I A.

1. Name of head of household.....
2. Name of the Refugee Colony.....
3. Address.....
4. Police Station.....
5. District.....

Block I B.

1. Land possessed—Govt.....
(in acres) Others.....
2. Size of household.....
3. Expenditure for May, 1953. Rs.....
4. Household occupation.....
5. Total income in May 1953. Rs.....

Block II. Demography.

Serial No.	Relation with head of household	Sex Male-1 Female-2	Age last birth day in years	Principal means of livelihood (describe)	No. of days worked in May 1953 in occupation as in col. 5	Income in Rs. for May, 1953 from all occupations and all sources	Month and year of coming over from E. Pakistan
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	head						
2							
3							
4							
5							
6							
7							
8							
10							

Block III. Loans and grants (excluding doles) received from Government upto date of Survey.

Serial No.	Type of loan	Amount of loan received Ra.	Spent for the purpose taken Ra.	Spent in consumption Ra.	Spent for other purposes Ra.	Rest in hand Ra.	Loan and interest repaid Ra.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	cultivation land						
2	homestead land						
3	building construction						
4	agricultural operations						
5	maintenance						
6	trade						
7							
8							
9							
10	other						

Block IV. Remarks

Block V.

1. Name of Investigator.....
2. Signature of Investigator.....
3. Date of Survey.....
4. Time of receiving schedule.....
5. Time of returning the schedule.....

STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IC : PRACTICAL.

Full marks : 100

N.B. Figures in the margin indicate full marks.

1. Walk along the portion of a road (to be specified by examiners) and bring a list of all shops (mentioning type of each) found on both sides of the street. (15)

2. (a) Collect the information for one of the three families listed below and fill up Blocks I and II, and either block III or IV in the attached form—for IC. In the selection of family, preference should be meritarian.

(b) If you had to fill up your schedule with information collected from the second or the third family, state your reasons for not being able to fill it up with No. 1 or Nos. 1 and 2 as the case may be.

(c) LIST OF FAMILIES

District..... P.S..... Village.....

Nearest Railway Station.....

Names of Head of families :	Allocation of marks	
(1)	Block I	(5)
(2)	Block II	(10)
(3)	Block III or IV	(25)
Viva Voce		(10)

3. Indoor practical.

(a) Written intelligence test (20 minutes) (25)

(b) Oral (10)

STATISTICAL FIELD SURVEY EXAMINATION, 1955.
PART IC: PRACTICAL

Block I. District..... P.S. Mouza..... FORM IC.
J.L. No..... Sheet No..... Union.....
Name of head of household..... Street.....

Block II. Demography

Serial No.	Relation to head (write exact relation father's brother's daughter etc.)	Sex Male-1 Female-2	Age last birthday (in years)	Literacy Illiterate-1 Literate-2	English know- ing-3	Present on day of investigation Present-1 Absent-2	Marital Status			Economic Status			Means of livelihood		
							Single-1	Married-2	Widowed-3	Separated-4	Divorced-5	Earning dependent-1	Non-earning dependent-3	Principal	Subsidiary

Block III. Births, marriages and deaths, during 5 years ended 15th June, 1953.

Serial no. of birth.	Births										Deaths										Sickness in month ended 15-6-53.																			
	at birth of child																																							
	Age of child in months—A	Sex : M-1; F-2.	Age of mother—B	Duration since marriage—C	Interval since previous issue—C	Age of father—D	Relation of mother—D	No. of previous issue—E	Employment status of mother—G	Where birth took place—H.	Serial no. of death	Age at death—H	Sex : M-1; F-2.	Religion—D	Cause of death—I	Occupation Status—G.	When death took place—H.	Serial No. of sickness	Age at sickness—H	Sex : M-1; F-2.	Religion—D	Sickness Code—J	Duration of sickness in days	Still sick on day of enquiry (Yes/No.)	Occupation Status—G.															

A : : If alive in number of completed months; if dead number of completed months of life at death.

B : : In completed years.

C : : In completed years from earliest marriage of mother and the previous issue to her. *

D : : Hindu—1; Muslim—2; Others—3.

E : : Same as previous issue to mother.

F : : Kothi—1; own account—2; unpaid household labour—3; not in labour force—5.

G : : Code in the household—1; in institutions like hospitals nursing homes etc.—2; at some other place in the same village; town—3; at other place—4.

H : : Malaria—1; Measles—2; Typhoid—3; other fevers undiagnosed—4; other fevers undiagnosed—5; tuberculosis—6; cholera—7; complications of child birth—8; accidents—9; other diseases diagnosed—0; other diseases undiagnosed—x.

Block IV. Expenditure on Services and Miscellaneous during month ended on 20-6-53

Sr. No.	Items	Expenditure (Rs. 00.00)	Sr. No.	Items	Expenditure (Rs. 00.00)	Sr. No.	Items	Expenditure (Rs. 00.00)	
(0.1)	(0.2)	(1)	(0.1)	(0.2)	(1)	(0.1)	(0.2)	(1)	
(1) Amusements									
1	Cinema		(3) Medicine and medical goods						(7) Services
2	Theatre		1	Medicine--Allopathic		1	Barber		
3	Toys		2	" Homoeo		2	Dhobi		
4	Sticks and files		3	" unani		3	Tailor		
5			4	" ayurvedi		4	Printer		
6			5	" Indigeneous		5	Print		
7	Others		6			6	Medical man		
8	Amusement sub-total		7	Others		7	Lawyer		
(2) Education									
1	Books and Journals		8	Medicine etc. sub-total		8	Scavenger		
2	Stationery		(4) Toilet						
3	Newspapers		1	Toilet soap		9	Robber		
4	Periodicals		2	Snow & Cream		10	Domestic servant		
5	School fees		3	Hair oil		11	Carpetier		
6			4	Comb, brush		12	Blacksmith		
7	Others		5	Shaving requisites		13	House repairing		
8	Education sub-total (2)		6	Others		14	Others		
(5) Petty articles									
1	Books and Journals		1	Washing soap		15	Others		
2	Stationery		2	" soda		16	Service sub-total (7)		
3	Newspapers		3	" Earthen ware		(6) Conveyance			
4	Periodicals		4	" "		1	Railway		
5	School fees		5	Others		2	Bus		
6			6			3	Steamer		
7	Others		7			4	Railock cart		
8	Education sub-total (2)		8	Medicine etc. sub-total		5	Cycle		
(6) Conveyance									
1	Books and Journals		9	Medicine etc. sub-total		6	Motor cart		
2	Stationery		10	Conveyance sub-total (6)		7	Motor car		
3	Newspapers		(7) Toilet						
4	Periodicals		1	Toilet soap		8	Toilet		
5	School fees		2	Snow & Cream		(8) Conveyance			
6			3	Hair oil		1	Railway		
7	Others		4	Comb, brush		2	Bus		
8	Education sub-total (2)		5	Shaving requisites		3	Steamer		
(7) Services									
1	Books and Journals		6	Others		4	Railock cart		
2	Stationery		7			5	Cycle		
3	Newspapers		8	Medicine etc. sub-total		6	Motor cart		
4	Periodicals		9	Medicine etc. sub-total		7	Motor car		
5	School fees		10	Conveyance sub-total (6)		8	Toilet		
6			(8) Conveyance						
7	Others		1	Toilet soap		(9) Conveyance			
8	Education sub-total (2)		2	Snow & Cream		1	Railway		
9			3	Hair oil		2	Bus		
10			4	Comb, brush		3	Steamer		
11			5	Shaving requisites		4	Railock cart		
12			6	Others		5	Cycle		
13			7			6	Motor cart		
14			8	Medicine etc. sub-total		7	Motor car		
15			9	Medicine etc. sub-total		8	Toilet		
16			10	Conveyance sub-total (6)		(10) Conveyance			
17			(11) Conveyance						
18			1	Toilet soap		(12) Conveyance			
19			2	Snow & Cream		(13) Conveyance			
20			3	Hair oil		(14) Conveyance			
21			4	Comb, brush		(15) Conveyance			
22			5	Shaving requisites		(16) Conveyance			
23			6	Others		(17) Conveyance			
24			7			(18) Conveyance			
25			8	Medicine etc. sub-total		(19) Conveyance			
26			9	Medicine etc. sub-total		(20) Conveyance			
27			10	Conveyance sub-total (6)		(21) Conveyance			
28			(22) Conveyance						
29			(23) Conveyance						
30			(24) Conveyance						
31			(25) Conveyance						
32			(26) Conveyance						
33			(27) Conveyance						
34			(28) Conveyance						
35			(29) Conveyance						
36			(30) Conveyance						
37			(31) Conveyance						
38			(32) Conveyance						
39			(33) Conveyance						
40			(34) Conveyance						
41			(35) Conveyance						
42			(36) Conveyance						
43			(37) Conveyance						
44			(38) Conveyance						
45			(39) Conveyance						
46			(40) Conveyance						
47			(41) Conveyance						
48			(42) Conveyance						
49			(43) Conveyance						
50			(44) Conveyance						

Name of Investigator

Signature of Investigator

Time of receiving the schedule

Time of returning the schedule

Date

STATISTICAL FIELD SURVEY EXAMINATION, 1053.

PART IC : PRACTICAL (INDOOR)

WRITTEN INTELLIGENCE TEST

Time : 20 minutes

Full marks : 25

All answers should be written on this sheet only. No extra sheet of paper is allowed.

1. Name..... (0)
2. Examination Roll No..... (0)
3. Underline the shortest word in this sentence. (1)
4. Draw a line which goes below A, above C, below D and above E. (1)

A C D E

5. If $3 \times 7 = 21$ and $7 \times 8 = 46$ strike off the odd numbers below. If both are wrong strike off the numbers divisible by 2 without remainder. If only the first one is wrong strike off the number divisible by 3 without remainder; if only the second one is wrong strike off the numbers divisible by 5 with a remainder of 1. (3)

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13,

14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

6. If B comes after A and if Z does not come after Y put a cross below D. Otherwise put a cross under E. (1)

D E

7. Sankar's birth day this year falls on 15th August. Bose is 6 days younger than Sankar. This year independence day falls on Saturday. On which day of the week is Bose's birth day? (1)

Answer :

8. Are the following arguments correct : Put a (V) if correct or a (X) if wrong.
 (i) Lal owes Sankar two hundred rupees and Sankar owes Bose two hundred rupees. The debts will be squared if Bose pays two hundred rupees to Lal. (1)

Answer : ()

(ii) All members of the cricket club are members of the polo club. Smith is not a member of the polo club. Therefore he is not a member of the cricket club.

Answer : () (1)

(0) Add the following : (2)

Rs.	As.	P.
13570	12	9
375	10	2
11176	8	2
346	11	0
1437	2	0

(10) Supply the missing figures in the following :

(i) Addition—(2)

$$\begin{array}{r} 12^*72 \\ 9631^* \\ 571^*1 \\ 3^*333 \\ \hline 121 \end{array}$$

200000

(ii) Multiplication—(3)

$$\begin{array}{r} 37^{**} \times 1^*1 \\ \hline 37^*2 \\ 746^* \\ 373^* \\ \hline \end{array}$$

*5**72

(11) Observe the series below and supply the missing figures. Each series has a separate rule. (4)

(i) 7, 5, 5, 7, 5, 5,,

(ii) 4, 8, 10, 20, 22, 44;,

(iii) 9, 16, 25, 36,,

(iv) 8, 5, 16, 32,,

(12) I am asked to mark points on a straight line one inch apart starting from one end of the line. I stop after marking 5 points. How many inches have I proceeded after the starting point ? (1)

Answer :

(13) If the message "Ram scored five marks" is written in the following code. (4)

SBN TDPSFE GJWF NBSLT

write the following message in the same code.

"Make a trip to Delhi"

Answer :

.....

STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IIA : PRACTICAL

Full marks : 100

N.B. Figures in the margin indicate full marks.

Answer any *one* of the following :

1. Collect information for one of the three families listed below and fill up the attached form—form IIA-1. In the selection of the family the preference should be seriatim.

If you have to fill up your schedule with information collected from the second or the third family, state your reasons for not being able to fill it up with information for No. (1), or Nos. (1) and (2) as the case may be.

(a) Describe in detail the difficulties encountered at the time of filling up the form and how you solved them. (5)

(b) Mention the defects in the form if any. (15)

(c) Viva voce on -above (15)

(85 marks for schedule filling as per detail below)

Block I	(3)
Block II	(5)
Block III	(6)
Block IV	(6)
Block V	(5)
Block VI	(5)
Block VII (a)	(15)
(b)	(20)

Marks will be deducted for any incomplete or inappropriate entries.

LIST OF FAMILIES

District..... P.S..... Village.....

Nearest Railway Station.....

Names of the heads of the families : Address :

(1)

(2)

(3)

FORM II(A)-1
COTTAGE INDUSTRY SURVEY.

(Any manufacturing industry carried out by a household with or without outside labour).

I. Details of the Sample:

(a) District..... (b) P.S..... (c) Town.....
 (d) Union/Street..... (e) Mauza..... (f) J.L. No./House No.....
 (g) Name of the head of the family.....

II. Name of the cottage industry followed by the family:

III. Stocks, Production and sale of finished goods:

Name of the Article	Unit of production	Quantity in stock on		Production during 12 months ending March 1953		Sale during 12 months ending March 1953	
		31-3-52	31-3-53	Quantity	Value (Rs.)	Quantity	Value (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

IV. Labour Account for 12 months ending March 1953:

Name of labourer (excluding family workers)	Age	Sex	Family member or hired labourer	No. of days of work during the year	Total amount the family had to pay to the hired labourer		
					Cash Ra.	Kind (value) Ra.	Total (Ra.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

V. Trading Expenses during 12 months ending March 1953:

Items consumed	Unit	Quantity consumed during the year	Purchase value (Rs.)	V(A).	Repair charges :	Rs.
(1)	(2)	(3)	(4)	V(B).	Replacement of machinery parts.	R
				V(C).	Any other expenditure.	Rs.
				V(D).	Total trade expenses excluding labour.	Rs.
Total						

VI. Details of family members:

Age group	Number	Names of earners of family	Months of employment during 12 months ending March 1953	Income during the year
(1)	(2)			
0—5				
6—10				
11—15				
16—50				
51 & above				
Total				

VII. Income and Expenditure of the family for 12 months ending March 1953 :

(a) Income		(b) Expenditure	
Source	Amount (Rs.)	Items of expenditure	Value (Rs.)
(1) Net income from :		(1) Rice/wheat products	.....
(a) Agriculture	(2) Pulses	.....
(b) Industry	(3) Fish, Meat, eggs etc.	.....
(c) Trade	(4) Food oils, spices, salt etc.	.....
(d) Service and labour	(5) Vegetables	.....
(e) Others	(6) Sweets & Tiffin	.....
(2) Profession	(7) Other food	.....
(3) Remittances from non-resident members	(8) Fuel	.....
(4) Sale of assets	(9) Rents, rates, taxes	.....
(5) Loans taken :		(10) Clothes, bedding, shoes etc.	.....
(a) For agricultural purposes	(11) Furniture & utensils	.....
(b) For industrial purposes	(12) Ceremonies (social & religious)	.....
(c) For business purposes	(13) Purchase of assets:	
(d) For maintaining the family	(a) for industrial purposes	.....
(2) for other purposes	(b) others	.....
(6)		(14) Repayment of loans/interest	.....
(7)		(15) Litigation	.....
		(16)	.....
		(17)	.....
		(18)	.....
		(19)	.....
		(20) Others	.....
Total (Rs.)			

Remarks if any :

Signature of examinee..... Date.....

Time taken : Journey.....to..... and

.....to..... Total hrs.....

Preliminariesto..... Total hrs.....

Filling up the form.....to..... Total hrs.....

N.B. Times are to be noted in presence of the examiner.

III. Details of Expenditure.

Serial No.	Item	Expenditure in Rupees (00.00) during the month ended on 20-6-1953.
(a) Food and drink :		
1.	Rice and Rice products.	
2.	Wheat and Wheat products.	
3.	Other cereals and cereal products.	
4.	Milk.	
5.	Ghee.	
6.	Other milk products.	
7.	Pulses and products.	
9.	Oil, oil-seeds and products :	
	(i) Mustard oil	
	(ii) Coconut oil	
	(iii)	
	(iv)	
	(v)	
	(vi)	
	(vii)	
9.	Vegetables.	
10.	Fruits and nuts.	
11.	Meat, fish eggs.	
12.	Sugar.	
13.	Salt.	
14.	Pansupari.	
15.	Spices	
16.	Tobacco, cigarettes etc.	
17.	Drugs and intoxicants.	
18.	Beverages and refreshments.	
19.	Others.	
Food and drink Sub-total (a)		

N.B. Blank spaces are provided to fill up other items of the same category which may occur.

III (contd.)

Serial No.	Item	Expenditure in Rupees (00.00) during the month ended on 20-8-1953.
(b) Fuel and light.		
1.	Cuko	
2.	Coal	
3.	Firowood	
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
Fuel and light sub-total (b)		
(c) Clothing.		
1.	Dhuti—handloom (excluding khaddar)	
2.	Khaddar	
3.	Mill mado	
4.	Sari—handloom	
5.	khaddar	
6.	Mill mado	
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.	Repairs to boots and shoes	
19.	Clothing repairs, cleaning, dying etc.	
20.	Others	
Clothing sub-total (c)		

N.B. Blank spaces are provided to fill up other items of the same category which may occur.

III (contd.)

Serial No.	Item	Expenditure in rupees (00.00) during the month ended on 20-6-1953.
------------	------	--

(d) Conveyance

- | | | |
|----|---|--|
| | I. To and from place of work. | |
| 1. | Railway—(i) Season or contract ticket
(ii) Workman's cheap fares
(iii) Other Railway fares. | |
| 2. | Others (Bus, tram etc.) | |
| | II. Other than to and from place of work. | |
| 3. | Railway | |
| 4. | Others (Bus, tram, etc.) | |

Conveyance sub-total (d)

(e) Education

- | | | |
|----|--------------------|--|
| 1. | Books and Journals | |
| 2. | Stationery | |
| 3. | Newspapers | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |

Education sub-total (e)

(f) Amusements

- | | | |
|----|---------|--|
| 1. | Cinema | |
| 2. | Theatre | |
| 3. | | |
| 4. | | |
| 5. | | |

Amusement sub-total (f)

(g) Medicine and medical goods

- | | | |
|----|--------------------|--|
| 1. | Medicine—Alopathic | |
| 2. | “ —Homeo | |
| 3. | “ —Unani | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | Others | |

Medicine sub-total (g)

N.B. Blank spaces are provided to fill up other items of the same category which may occur.

III. (contd.)

Serial No.	Item	Expenditure in rupees (00.00) during the month ended on 20-8-1953.
<i>(h) Toilets</i>		
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
Toilets sub-total (h)		
<i>(i) Petty articles.</i>		
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
Petty articles sub-total (i)		
<i>(j) Other expenses.</i>		
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
Other expenses sub-total (j)		

Signature of candidate..... Date.....

Time of receiving schedule.....

Time of returning schedule.....

N.B. Blank spaces are provided to fill up other items of the same category which may occur.

STATISTICAL FIELD SURVEY EXAMINATION, 1953.

PART IIB : PRACTICAL

Time : 3 hours

Full marks : 100

- N.B. (a) Figures in the margin indicate full marks.
(b) Neatness carries 4 marks.
(c) Blank answer books will be supplied to the candidates one hour after supplying the question paper. During this time, the candidate can study the tables. 3 hours will be allowed for writing the answers after supplying the blank answer book.
(d) Matter which is not dealt with in the tables need not be discussed in the reports to be written.

Answer any two of the following.

1. Write a report on the data given in the seven attached tables. (Tables 1 to 7 in pages 2 to 8). (48)

2. Write a short report examining tables (8) to (12) on the background of utilisation of loans (advanced by the Government) for a population of destitute middle class refugee families, settled in a rural area about 15 miles away from nearest town. The purposes for which loans were granted (like house-building, agriculture, trade, etc.), and the purposes for which these were spent will be seen from table (8). In the report, discuss in particular whether (a) the distribution of Government loans for different purposes was adequate or well planned; (b) the majority of the families got fair chance to rehabilitate themselves with the loans etc. given, at least for living in the standards of lower middle class families. Also, make a general review of the tables (8) to (12) supplied on page 9. (48)

3. The data given in tables (13) to (16) were obtained as a result of sample enquiries conducted in West Bengal in the year 1947, regarding indebtedness of rural families at different economic levels. Write a short report on the basis of the results presented in tables (13) to (16) on page 10. (48)

Neatness

(4)

Q. 1. (continued)

TABLE 1. Expenditure by households on various items of consumption during the year, July 1949—June 1950 in rural areas.

ALL INDIA

No. of villages included for estimating items 1-15=1085; items 16-42=1070.

Items	No. of households	Consumers expenditure		P.C. of total
		Rs. per household.	Rs. per capita	
(1)	(2)	(3)	(4)	(5)
1. Cereal & cereal products	3139	442.61	85.03	38.70
2. Pulses	3139	40.89	7.86	3.58
3. Edible oil	3140	43.31	8.32	3.79
4. Vegetables	3141	26.72	5.13	2.34
5. Milk and Milk products	3141	88.82	17.06	7.77
6. Meat, egg & fish	3141	24.57	4.72	2.15
7. Fruits	3141	12.15	2.33	1.06
8. Refreshments	3140	14.10	2.71	1.23
9. Salt	3138	4.82	0.93	0.42
10. Spices	3139	31.00	5.95	2.71
11. Sugar	3139	29.28	5.62	2.56
Food total :	x	258.27	145.66	66.31
12. Pan	3140	9.17	1.76	0.80
13. Tobacco	3141	20.46	3.93	1.79
14. Intoxicants	3141	8.96	1.72	0.78
15. Fuel & light	3139	37.14	7.14	3.25
16. Men's clothing	3123	36.01	6.92	3.16
17. Women's clothing	3123	42.36	8.14	3.70
18. Children's clothing	3123	9.84	1.89	0.86
19. Misc. clothing	3123	6.35	1.22	0.56
20. Headgear	3123	4.61	0.89	0.40
21. Bedding	3123	9.92	1.91	0.87
22. Tailoring service	3123	11.43	2.20	1.00
23. Footwear	3123	6.66	1.86	0.84
24. Cobbler service	3123	1.12	0.21	0.10
25. Toilet	3123	3.35	0.64	0.29
26. Toilet service	3123	5.74	1.10	0.50
27. Amusements	3123	6.04	1.16	0.53
28. Education	3123	2.92	0.56	0.26
29. Educational service	3123	4.95	0.95	0.43
30. Newspapers, periodicals etc.	3123	0.50	0.10	0.04
31. Medical expenses	3123	9.19	1.77	0.80
32. Medical service	3123	5.35	1.03	0.47
33. Misc. household articles	3123	8.25	1.59	0.72
34. Domestic & household services	3123	10.41	2.00	0.91
35. Food service	3123	1.68	0.32	0.15
36. Furniture	3123	2.87	0.55	0.25
37. Furniture service	3123	0.73	0.14	0.06
38. Utensils	3123	7.24	1.39	0.63
39. Ceremonials	3123	82.46	15.84	7.21
40. Non-recurring expenses	3123	3.01	0.58	0.26
41. Misc. (excl. remittance)	3123	17.20	3.30	1.50
42. House rent & taxes	3123	6.51	1.25	0.57
Grand Total :	x	1143.70	219.72	100.00

Q. 1. (continued)

TABLE 2. Expenditure by households on various items of consumption during the year July 1949—June 1950 in rural areas.

ZONE : NORTH INDIA

No. of villages tabulated for estimating items 1-14=154; items 16-42=154.

Items	No. of house- holds	Consumers expenditure		P.C. to total
		Rs. per house- hold.	Rs. per capita	
(1)	(2)	(3)	(4)	(5)
1. Central & cereal products	447	450.09	86.72	42.27
2. Pulses	446	54.58	10.36	5.05
3. Edible oil	447	41.88	7.95	3.87
4. Vegetables	447	22.49	4.27	2.08
5. Milk & Milk products	447	90.53	18.32	8.93
6. Meat, egg & fish	447	10.06	1.91	0.93
7. Fruits	447	9.14	1.73	0.85
8. Refreshments	447	2.80	0.53	0.26
9. Salt	447	4.24	0.80	0.39
10. Spices	447	22.45	4.26	2.08
11. Sugar	447	31.80	6.03	2.94
Food total :	x	752.00	142.88	69.65
12. Pan	447	3.69	0.70	0.34
13. Tobacco	447	19.34	3.67	1.79
14. Intoxicants	447	2.67	0.51	0.25
15. Fuel & light	447	40.28	7.64	3.73
16. Men's clothing	447	34.77	6.60	3.22
17. Women's clothing	447	38.00	7.22	3.52
18. Children's clothing	447	8.79	1.67	0.81
19. Misc. clothing	447	4.18	0.79	0.39
20. Headgear	447	2.19	0.42	0.20
21. Bedding	447	13.44	2.55	1.24
22. Tailoring service	447	13.82	2.62	1.28
23. Footwear	447	9.69	1.84	0.90
24. Cobbler service	447	0.60	0.11	0.05
25. Toilet	447	3.03	0.58	0.28
26. Toilet service	447	5.37	1.02	0.50
27. Amusement	447	4.05	0.94	0.46
28. Education	447	2.18	0.41	0.20
29. Educational service	447	1.70	0.32	0.16
30. Newspapers, periodicals etc.	447	0.01	0.00	0.00
31. Medical expenses	447	5.23	0.99	0.48
32. Medical service	447	2.28	0.43	0.21
33. Misc. household articles	447	4.29	0.81	0.40
34. Domestic household service	447	4.73	0.90	0.44
35. Food service	447	0.02	0.00	0.00
36. Furniture	447	2.02	0.38	0.19
37. Furniture service	447	0.66	0.12	0.06
38. Utensils	447	3.94	0.75	0.36
39. Ceremonials	447	70.86	13.45	6.56
40. Non-recurring expenses	447	2.58	0.49	0.24
41. Misc. (excluding remittance)	447	13.04	2.64	1.29
42. House rent and taxes	447	8.75	1.66	0.80
Grand total :	x	1081.02	205.11	100.00

Q. 1. (continued)

TABLE 3. Expenditure by households on various items of consumption during the year July 1949—June 1950 in rural areas.

ZONE : EAST INDIA INCLUDING ANDAMANS

No. of villages tabulated for estimating items 1—15=242; items 16—42=241.

Items	No. of households.	Consumers expenditure		P.C. to total
		Rs. per household	Rs. per capita	
(1)	(2)	(3)	(4)	(5)
1. Coral & coral products	716	552.09	103.25	49.07
2. Pulses	717	40.36	7.54	3.58
3. Edible oil	716	43.09	8.05	3.82
4. Vegetables	717	30.52	5.70	2.71
5. Milk & Milk products	717	37.41	6.98	3.32
6. Meat, egg & fish	717	36.68	6.85	3.25
7. Fruits	717	8.81	1.64	0.78
8. Refreshments	717	7.00	1.31	0.62
9. Salt	717	5.43	1.01	0.48
10. Spices	717	23.37	4.36	2.07
11. Sugar	717	14.74	2.75	1.31
Food total :	x	800.40	149.44	71.01
12. Pan	717	0.27	1.73	0.82
13. Tobacco	717	17.24	3.22	1.53
14. Intoxicants	717	16.60	3.09	1.47
15. Fuel & light	717	32.33	6.04	2.87
16. Men's clothing	714	31.22	5.83	2.77
17. Women's clothing	714	29.12	5.44	2.58
18. Children's clothing	714	7.20	1.34	0.64
19. Misc. clothing	714	6.85	1.28	0.61
20. Headgear	714	0.34	0.06	0.03
21. Bedding	714	8.12	1.52	0.72
22. Tailoring service	714	5.43	1.01	0.48
23. Footwear	714	5.02	0.94	0.45
24. Cobbler service	714	0.39	0.07	0.03
25. Toilet	714	3.46	0.65	0.31
26. Toilet service	714	3.99	0.74	0.35
27. Amusement	714	4.20	0.78	0.37
28. Education	714	2.03	0.38	0.18
29. Educational service	714	2.31	0.43	0.21
30. Newspapers, periodicals etc.	714	0.53	0.10	0.05
31. Medical expenses	714	14.22	2.66	1.26
32. Medical service	714	7.01	1.31	0.62
33. Misc. household articles	714	8.50	1.59	0.75
34. Domestic and household service	714	13.13	2.45	1.17
35. Food service	714	2.80	0.52	0.25
36. Furniture	714	5.30	0.99	0.47
37. Furniture service	714	0.35	0.07	0.03
38. Utensils	714	7.00	1.31	0.62
39. Ceremonials	714	58.41	10.91	5.18
40. Non-recurring expenses	714	0.12	0.02	0.01
41. Misc. (excluding remittance)	714	18.72	3.50	1.68
42. House rent and taxes	714	5.48	1.02	0.50
Grand total :	x	1127.09	210.44	100.00

Q. 1. (continued)

TABLE 4. Expenditure by households on various items of consumption during the year July 1949—June 1950 in rural areas.

ZONE : SOUTH INDIA

No. of villages tabulated for estimating items 1—15=199; items 16—42=198.

Items	No. of households	Consumers expenditure		P.C. to total
		Rs. per household	Rs. per capita	
(1)	(2)	(3)	(4)	(5)
1. Cereal & cereal products	568	367.71	73.91	36.45
2. Pulses	569	35.30	7.10	3.50
3. Edible oil	569	47.79	9.61	4.74
4. Vegetables	569	29.76	5.98	2.95
5. Milk & milk products	569	45.20	9.08	4.48
6. Meat, egg & fish	569	37.08	7.57	3.73
7. Fruits	569	14.47	2.91	1.43
8. Refreshments	569	27.36	5.50	2.71
9. Salt	569	5.05	1.01	0.50
10. Spices	568	46.73	9.39	4.63
11. Sugar	569	22.72	4.57	2.25
Food total :	x	679.77	136.63	67.37
12. Pan	569	18.92	3.80	1.87
13. Tobacco	569	23.05	4.63	2.28
14. Intoxicants	569	5.85	1.18	0.58
15. Fuel & light	569	31.60	6.33	3.12
16. Men's clothing	566	30.67	6.17	3.04
17. Women's clothing	566	41.82	8.41	4.15
18. Children's clothing	566	0.68	1.95	0.96
19. Misc. clothing	566	8.33	1.67	0.83
20. Headgear	566	0.65	0.13	0.06
21. Bedding	566	6.07	1.22	0.60
22. Tailoring service	566	12.75	2.56	1.26
23. Footwear	566	2.80	0.56	0.28
24. Cobbler service	566	0.90	0.18	0.09
25. Toilet	566	3.05	0.61	0.30
26. Toilet service	566	6.82	1.37	0.68
27. Amusement	566	8.24	1.66	0.82
28. Education	566	4.18	0.84	0.41
29. Educational service	566	3.80	0.78	0.38
30. Newspapers, periodicals etc.	566	0.82	0.16	0.08
31. Medical expenses	566	8.32	1.67	0.82
32. Medical service	566	6.67	1.34	0.66
33. Misc. household articles	566	8.85	1.78	0.88
34. Domestic & household services	566	10.18	2.04	1.01
35. Food service	566	1.28	0.26	0.13
36. Furniture	566	1.49	0.30	0.15
37. Furniture service	566	0.69	0.14	0.07
38. Utensils	566	10.43	2.10	1.03
39. Ceremonials	566	42.11	8.46	4.17
40. Non-recurring expenses	566	1.25	0.25	0.12
41. Misc. (excluding remittance)	566	15.52	3.12	1.54
42. House rent and taxes	566	2.60	0.52	0.26
Grand total :	x	1009.10	202.82	100.00

Q. 1. (continued)

TABLE 5. Expenditure by households on various items of consumption during the year July 1949—June 1950 in rural areas.

ZONE : WEST INDIA

No. of villages tabulated for estimating items 1—15=127; items 16—42=127.

Items	No. of households	Consumers expenditure		P.C. to total
		Rs. per household	Rs. per capita	
(1)	(2)	(3)	(4)	(5)
1. Cereal & cereal products	373	319.28	58.40	23.09
2. Pulses	373	43.73	8.00	3.16
3. Edible oil	373	57.56	10.53	4.16
4. Vegetables	373	26.95	4.93	1.95
5. Milk & Milk products	373	134.86	24.67	9.78
6. Meat, egg & fish	373	14.77	2.70	1.07
7. Fruits	373	19.52	3.57	1.41
8. Refreshments	372	34.31	6.28	2.48
9. Salt	373	3.76	0.69	0.27
10. Spices	372	30.56	5.59	2.21
11. Sugar	373	61.53	11.26	4.45
Food total :	x	746.83	136.62	54.01
12. Pan	373	0.64	1.76	0.70
13. Tobacco	373	28.69	5.25	2.07
14. Intoxicants	373	0.06	0.01	0.00
15. Fuel & light	372	59.94	9.32	3.68
16. Men's clothing	373	61.79	9.47	3.74
17. Women's clothing	373	72.29	13.22	5.23
18. Children's clothing	373	12.68	2.32	0.92
19. Misc. clothing	373	9.30	1.70	0.67
20. Headgear	373	10.67	1.95	0.77
21. Bedding	373	14.06	2.74	1.08
22. Tailoring service	373	17.71	3.24	1.28
23. Footwear	373	17.37	3.18	1.26
24. Cobbler service	373	1.97	0.36	0.14
25. Toilet	373	4.30	0.79	0.31
26. Toilet service	373	8.53	1.56	0.62
27. Amusement	373	7.27	1.33	0.53
28. Education	373	5.00	0.92	0.36
29. Educational service	373	5.24	0.96	0.38
30. Newspapers, periodicals etc.	373	0.99	0.18	0.07
31. Medical expenses	373	10.64	1.93	0.76
32. Medical service	373	7.39	1.35	0.53
33. Misc. household articles	373	10.32	1.89	0.75
34. Domestic & household services	373	8.33	1.52	0.60
35. Food service	373	1.84	0.34	0.13
36. Furniture	373	3.02	0.55	0.22
37. Furniture service	373	0.33	0.06	0.02
38. Utensils	373	8.61	1.58	0.62
39. Ceremonials	373	215.37	39.40	15.58
40. Non-recurring expenses	373	0.02	0.00	0.00
41. Misc. (excluding remittance)	373	32.48	5.94	2.35
42. House rent & taxes	373	8.60	1.57	0.62
Grand total :	x	1383.08	253.01	100.00

Q. 1. (continued)

TABLE 6. Expenditure by households on various items of consumption during the year July 1940—June 1950 in rural areas.

ZONE : CENTRAL INDIA

No. of villages tabulated for estimating items 1—15=226; items 16.42=223.

Items	No. of households	Consumers expenditure		P.C. to total
		Rs. per household	Rs. per capita	
(1)	(2)	(3)	(4)	(5)
1. Cereal & cereal products	640	341.68	68.64	34.72
2. Pulses	639	30.03	7.84	3.67
3. Edible oil	640	34.80	6.99	3.54
4. Vegetables	640	24.08	4.84	2.45
5. Milk & milk products	640	70.85	14.23	7.20
6. Meat, egg & fish	640	18.02	3.80	1.92
7. Fruits	640	14.83	2.98	1.51
8. Refreshments	640	10.33	2.08	1.05
9. Salt	638	4.99	1.00	0.51
10. Spices	640	33.00	6.81	3.45
11. Sugar	639	24.20	4.88	2.47
Food total :	x	617.70	124.09	62.79
12. Pan	639	7.22	1.45	0.73
13. Tobacco	640	17.03	3.42	1.73
14. Intoxicants	640	8.60	1.73	0.87
15. Fuel & light	639	28.94	5.81	2.94
16. Men's clothing	637	34.91	7.01	3.55
17. Women's clothing	637	39.01	8.02	4.05
18. Children's clothing	637	9.87	1.98	1.00
19. Misc. clothing	637	3.27	0.66	0.33
20. Headgear	637	6.27	1.26	0.64
21. Bedding	637	9.14	1.84	0.93
22. Tailoring service	637	9.45	1.90	0.96
23. Footwear	637	10.67	2.14	1.08
24. Cobbler service	637	1.13	0.23	0.11
25. Toilet	637	3.21	0.65	0.33
26. Toilet service	637	6.02	1.21	0.61
27. Amusement	637	6.03	1.39	0.70
28. Education	637	2.84	0.57	0.29
29. Educational service	637	14.43	2.90	1.47
30. Newspapers, periodicals etc.	637	0.37	0.08	0.04
31. Medical expenses	637	5.13	1.03	0.52
32. Medical service	637	4.28	0.86	0.43
33. Misc. household articles	637	8.60	1.73	0.87
34. Domestic & household services	637	14.48	2.91	1.47
35. Food service	637	0.51	0.10	0.05
36. Furniture	637	0.78	0.16	0.08
37. Furniture service	637	1.46	0.29	0.15
38. Utensils	637	5.86	1.18	0.60
39. Ceremonials	637	80.08	16.27	8.23
40. Non-recurring expenses	637	3.98	0.80	0.40
41. Misc. (excluding remittance)	637	10.09	2.21	1.12
42. House rent and taxes	637	9.19	1.85	0.93
Grand total :	x	984.15	197.73	100.00

Q. 1. (continued)

TABLE 7. Expenditure by households on various items of consumption during the year July 1949—June 1950 in rural areas.

ZONE : NORTH WEST INDIA

No. of villages tabulated for estimating items 1—15=137; items 16—42=134.

Items	No. of households	Consumers expenditure		P.C. to total
		Rs. per household	Rs. per capita	
(1)	(2)	(3)	(4)	(5)
1. Cereal & cereal products	395	610.82	115.80	36.03
2. Pulses	395	23.18	5.35	1.70
3. Edible oil	395	35.02	6.64	2.12
4. Vegetables	395	21.22	4.03	1.28
5. Milk & milk products	395	314.70	59.71	19.03
6. Meat, egg & fish	395	9.00	1.71	0.54
7. Fruits	395	8.13	1.54	0.49
8. Refreshments	395	9.08	1.72	0.55
9. Salt	394	4.57	0.87	0.28
10. Spices	395	29.53	5.61	1.70
11. Sugar	394	53.45	10.41	3.23
Food total :	×	1123.72	213.21	67.94
12. Pan	395	0.22	0.04	0.01
13. Tobacco	395	22.91	4.35	1.38
14. Intoxicants	395	17.37	3.29	1.05
15. Fuel & light	395	57.96	11.00	3.50
16. Men's clothing	386	47.88	9.08	2.89
17. Women's clothing	386	59.87	11.36	3.63
18. Children's clothing	386	16.93	3.21	1.02
19. Misc. clothing	386	6.91	1.31	0.42
20. Hoadgear	386	21.01	3.99	1.27
21. Bedding	386	12.56	2.38	0.76
22. Tailoring service	386	18.17	3.45	1.10
23. Footwear	386	28.39	5.39	1.72
24. Cobbler service	386	3.82	0.72	0.23
25. Toilet	386	3.33	0.63	0.20
26. Toilet service	386	5.17	0.98	0.31
27. Amusement	386	5.44	1.03	0.33
28. Education	386	1.67	0.32	0.10
29. Educational service	386	2.72	0.52	0.16
30. Newspapers, periodicals etc.	386	0.31	0.06	0.02
31. Medical expenses	386	9.92	1.88	0.60
32. Medical service	386	2.70	0.51	0.16
33. Misc. household expenses	386	10.65	2.02	0.64
34. Domestic & household services	386	8.39	1.59	0.51
35. Food service	386	4.67	0.89	0.28
36. Furniture	386	4.28	0.81	0.26
37. Furniture service	386	1.21	0.23	0.07
38. Utensils	386	8.16	1.55	0.49
39. Ceremonials	386	106.88	20.28	6.47
40. Non-recurring expenses	386	19.07	3.62	1.15
41. Miso. (excluding remittance)	386	15.70	2.98	0.95
42. House rent and taxes	386	6.31	1.20	0.38
Grand total :	×	1854.30	313.88	100.00

Q 2. (continued)

TABLE 15. P.C. of total debt borne by Income levels.

Annual income in rupees	P.C. composition of surveyed families	P.C. of interest bearing debt borne
Below Rs. 600	44.3	18.1
— Rs. 1200	35.0	30.3
— Rs. 1800	10.9	22.1
— Rs. 2400	5.1	16.5
— Rs. 3000	2.1	3.4
— Rs. 3600	1.0	1.0
Rs. 3601 & above	1.6	2.6
Total	100.0	100.0

TABLE 16. P.C. debt by Principal Occupation.

Principal Occupation	P.C. composition of surveyed families	P.C. of interest bearing debt borne
Proprietor	1.3	2.4
Farmer	4.0	10.9
Cultivator	30.3	47.4
Share-Cropper	7.2	6.2
Agri-Labour	26.5	11.6
Craftsman	2.6	1.5
Liberal Profession	7.2	6.5
Trade	9.1	5.6
Others	11.8	4.8
Total	100.0	100.0