

B.Sc. (Honours) Examination, 2020
Semester-V
Statistics
Course: DSE-2B (Practical)
(Demography and Vital Statistics)
Time: Two Hours **Full Marks: 20**

Questions are of value as indicated in the margin
 Notations have their usual meanings

1. Complete the following life table:

Age(x)	l_x	d_x	$1000q_x$	L_x	T_x	e_x^0
25	78046					
26	77614	400				
27						
28	76723		6.06			
29						
30	75523				2750493	

Hence determine the probability that a person of age 25 lbd will die before reaching age 30 lbd. 4+2

2. With the help of the following data, determine the crude death rate and the age-specific death rates, separately for males and females. 2+6

Age	Population(000)		Number of deaths	
	Male	Female	Male	Female
0	29.8	28.5	807	609
1-4	109.3	104.9	192	138
5-9	126.1	120.7	88	65
10-19	198.2	189.7	182	82
20-29	150.8	142.7	247	117
30-39	156.9	151.0	284	203
40-49	139.5	138.3	565	425
50-59	110.0	106.7	1230	746
60-69	70.1	80.9	2083	1464
70-79	45.4	54.5	3308	2650
80-	13.7	18.1	2195	2621
Total	1149.8	1136.8	11181	9120

3. Compute a summary index of age preference of the following table in ending by “0” using Whipple index in the range 15-66. Also calculate the age dependency ratio. 4+2

Age(in years)	Number	Age(in years)	Number	Age(in years)	Number
10	841356	37	242462	64	34381
11	581400	38	316210	65	102440
12	796786	39	225207	66	26445
13	619293	40	434156	67	35311
14	596592	41	128632	68	40711
15	565714	42	217881	69	20921
16	566942	43	169167	70	136771
17	538891	44	151142	71	13000
18	651318	45	319118	72	28017
19	491441	46	160329	73	16662
20	565801	47	160855	74	14490
21	494895	48	237287	75	50558
22	515823	49	155094	76	15010
23	456892	50	313636	77	11878
24	425212	51	78534	78	23353
25	522203	52	128935	79	9212
26	358549	53	93279	80	73791
27	376221	54	95715	81	5532
28	395766	55	163093	82	9331
29	300610	56	87754	83	5653
30	535924	57	71828	84	5089
31	333086	58	93049	85	18604
32	318481	59	72206	86	4803
33	246260	60	275436	87	5617
34	233700	61	31299	88	4388
35	401936	62	49634	89	4000
36	242659	63	40154		
