Internal Examination, 2020

Subject: Statistics Paper/Course: DSE-2B (Demography Practical) Date: 28/11/2020 Time: 1 hour Full marks: 10

1. Age-groups (in years) of mothers, female population (in '000) and number of live-births (in'00) to the mothers are given for a small country with total population 2286×10^3 .

| Age-group (in year) | Female population (in '000) | Number of live-births (in'00) | |
|---------------------|-----------------------------|-------------------------------|--|
| 15-19 | 85 | 23.4 | |
| 20-24 | 70 | 145.4 | |
| 25-29 | 73 | 167.4 | |
| 30-34 | 76 | 102.4 | |
| 35-39 | 75 | 51.3 | |
| 40-44 | 72 | 14.2 | |
| 45-49 | 67 | 1.0 | |

Obtain (a) the crude birth rate, (b) the general fertility rate and (c) the total fertility rate for the country. If the crude rate of natural increase is 10 (per 1000), what is the crude death rate for the country?

2. Compute a summary index of age preference of the following table in ending by "0" using Whipple index in the range 25-76. Also calculate the age dependency ratio.

| Age(in | Number | Age(in | Number | Age(in | Number |
|--------|--------|--------|--------|--------|--------|
| years) | | years) | | years) | |
| 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 | | |