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PH-003-001664 Seat No. _____

B. Sc. (Sem. VI) (CBCS) Examination

July - 2018

Statistics : Paper - S-603

(Programming With C++ & Vital Statistics)

(New Course)

Faculty Code : 003

Subject Code : 001664

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (1) Question. No. 1 carries 20 marks.

(2) Question. No. 2 and Q. No. 3 carries 25 marks each.

(3) Right side figures indicate marks of that question.

(4) Statistical table and graph provided on request.

(5) Students can use their own scientific calculator.

1 Filling the blanks : (Each 1 mark) **20**

(1) Population census is a sort of _____

(2) Vital statistics provide the _____ of a population.

(3) The greatest advantage of sampling registration system is that it provides estimates separately for _____ and _____ areas.

(4) Sampling registration system fails to record the volume of _____

(5) Age specific fertility rate create better ground for _____

(6) Population growth is measured in terms of _____

(7) Number of daughters expected to be born to 1000 newly born girls is equivalent to _____ per thousand.

(8) Gross reproduction rate cannot be _____ net reproduction rate.

(9) If NRR > 1, the population of a country will very likely _____

(10) The overall impact of developed medical aid on life expectancy can be evaluated from _____

(11) The C programs are converted into machine language using _____

(12) Each instruction in c program is terminated by _____

(13) The extension for c program files by default _____

(14) An interpreter reads the source code of a program _____

(15) A compiler complies the source code _____

(16) && sign is a _____ operator used in c language.

(17) = = sign is a _____ operator used in c language.

(18) The meaning of ++ a is _____.

(19) _____ is used to come out from switch case statement.

(20) _____ is format for integer variable in C language.

2 (A) Give the answer : (Any **Three**) **6**

(1) What is a language translator?

(2) Write difference between compiler and interpreter.

(2) Explain conditional operators in C language

(4) Define : Demography

(5) Define : GRR

(6) Among 20,000 children born in a city during one year 440 died within one year find infant mortality rate of the city.

(B) Give the answer : (Any **Three**) **9**

(1) Explain switch statement of C language

(2) Discuss while loop of C language.

(3) Write a C++ program for Fibonacci series also write its output.

(4) Explain the meaning of vital statistics

(5) Give the concept of a life table

(6) GFR of a city is 36. In the city the number of females per thousand males is 950, and 60% of the females are in the childbearing age groups. If the total population of the city is 3,90,000 find the estimate of the number of children likely to be born in the city in the next year.

(C) Give the answer : (Any **Two**) **10**

(1) Discuss the basic structures of C language

(2) Discuss in detail data input function of C language with example

(3) Discuss in detail for loop of C language with example.

(4) Explain in brief different methods of collecting vital statistics

(5) Find GFR and TFR from the following data :

Age	15 – 20	20 – 25	25 – 30	30 – 35	35 – 40	40 – 45	45 – 50
No of females	125	120	100	100	105	85	65
SFR	12	90	100	125	75	40	6

3 (A) Give the answer : (Any **Three**) **6**

(1) How many keywords in C language? Also write all keywords.

(2) Explain break statement with example

(3) Define Compiler

(4) Define : CDR

(5) Define : IMR

(6) According to 2001 census, the woman population of age 15 to 49 of a state was 4,00,000 if the live birth during a year were 27,066 find general fertility rate.

(B) Give the answer : (Any **Three**) **9**

(1) Give the comparison between machine language and assembly language

(2) Discuss relation and logical operators of C language with example

(3) Discuss do while loop of C language

(4) Write uses of demographic statistics

(5) Define : CBR, GFR, TFR.

(6) Fill in the blanks of the following table which are marked with question marks:

Age x	l_x	d_x	q_x	p_x	L_x	T_x	e_x
20	693435	?	?	?	?	35081126	?
21	690673	–	–	–	–	?	?

(C) Give the answer : (Any **Two**) **10**

(1) Discuss two categories of programming language. Further discuss C is middle level language.

(2) Discuss in detail if-else statement of C language with example

(3) Write the comment on the value of net reproduction rate (NRR).

(4) What are various uses of life tables?

(5) Compare the standards of health of the following two towns by taking town A as the standard one.

Age	**Town A**		**Town B**	
	Population	**No of death**	**Population**	**No of death**
0–5	6000	50	7000	45
5–25	30000	16	40000	18
25–45	44000	10	35000	13
45–60	16000	22	12000	20
Above 60	4000	25	6000	15