PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2017
(Second Semester)
Branch - **BIOTECHNOLOGY**
CLINICAL GENETICS

Time : Three Hours   Maximum : 75 Marks

SECTION-A (20 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks   (1 0 x 2 = 20)

1   What is its genotypic and phenotypic ratio of back cross?
2   Comment on Garrod's inborn error.
3   Comment on the effect of Alzheimer's disorder.
4   Define allele frequency.
5   What are the primary colours? Name the colour related to colour blindness.
6   Define Barr body,
7   what do meant by OMIM?
8   Comment on Multifactorial disorders.
9   What is coefficient of dispersion?
10   Define kurtosis. Name its types.

SECTION - B (25 MarksI
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

-11 a   Narrate on the non Mendelian inheritance.
                    OR
   b   Give a brief note on heteroplasmy.
12 a   Comment on the DNA repair disorders.
                    OR
   b   Write a note on abnormal chromosomal disorders.
13 a   Brief note on X linked recessive inheritance with example.
                    OR
   b   Give an account about genomic imprinting.
14 a   Elaborate on single gene inheritance.
                    OR
   b   Short note on Cystic Fibrosis and Diabetes mellitus.
15 a   Discuss on the merits and demerits of central tendency.
                    OR
   b   What is hardy Weinberg principle? Comment on the factors which affect equilibrium.

SECTION - C (30 Marks!
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 1 0 = 30)

16   Detailed account on genetic linkage and gene mapping.

17   How do we study the structure of chromosome? Comment on the methods and applications.

18   Illustrate on sex determination in humans.

19   Explain in detail about human genome complexity.

, 20   Write about correlation and its types. Calculate the coefficient of correlation for the following data.

Organic Fertilizer used (in tonnes) :	15	18	20	24	30	35	40	50
Production (in tonnes) :	85	93	95	105	120	130	150	160

Z-Z-Z   END