

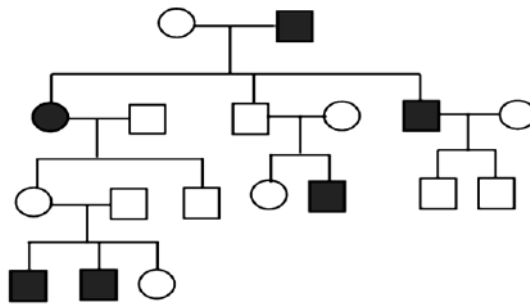
UNIVERSITY OF CALCUTTA
CITY COLLEGE CENTRE
Zoology Honours
Paper: CC12-P
[ZOOA-CC5-CC12-P Examination 2020; Online]
Principles of Genetics

Full Marks: 30

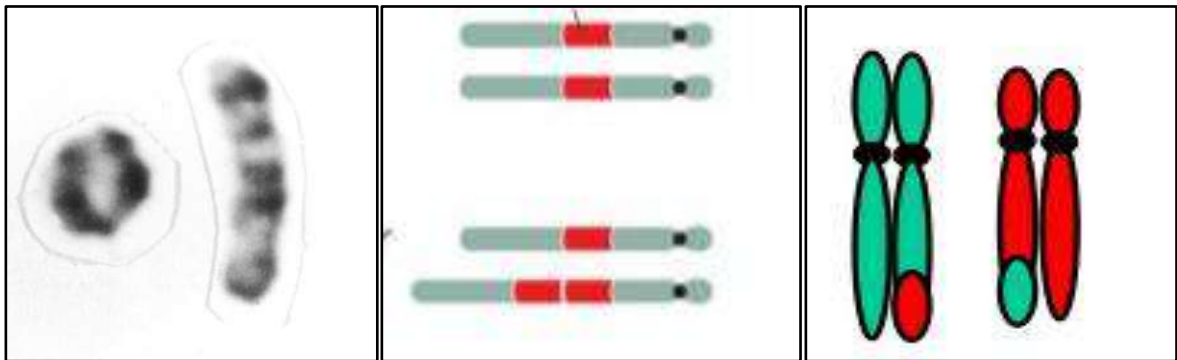
Time – 2 hours

The figures in the margin indicate full marks

1. Describe the following pedigree. Analyze with reasons the inheritance pattern of traits presented in the pedigree. Mention the genotype of all individuals and nature of the trait. 2+5+3+1=11



2. Identify the type of chromosomal aberrations as shown in the photographs (A, B and C) with important characters of each. (1+2) x 3 = 9



3. The progeny of a TEST CROSS between Round Yellow double heterozygote ($RrYy$) pea plant and wrinkled green homozygote pea plant ($rryy$) are: Round Yellow:154, Round green:124, wrinkled Yellow:144 and wrinkled green:146. Verify the goodness of fit of the results by chi square test and comments on it. 8+2 = 10