

2002 HIGHER SCHOOL CERTIFICATE EXAMINATION
Biology

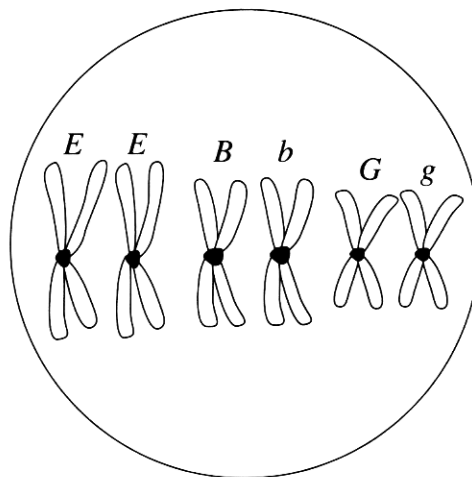
Section I – Part B (continued)

Marks

Question 22 (4 marks)

The diagram shows a cell containing three pairs of chromosomes just prior to a *meiotic* division.

4



Assuming that random segregation occurs, construct a table that lists the possible genotypes that could be produced and states the expected frequency for each genotype.

| Possible genotypes | Expected frequency |
|--------------------|--------------------|
| E B G | 1/4 |
| E b G | 1/4 |
| E B g | 1/4 |
| E b g | 1/4 |