

2002 HIGHER SCHOOL CERTIFICATE EXAMINATION
Biology

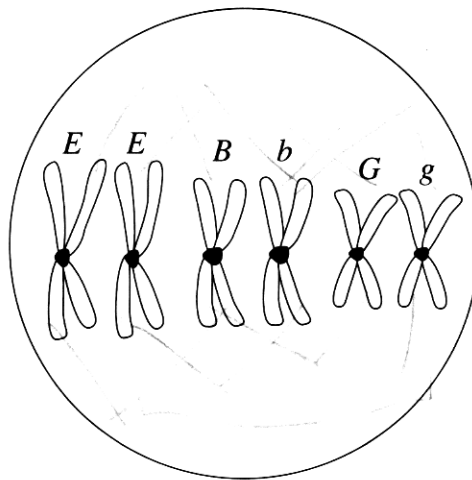
Section I – Part B (continued)

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.

Genotypes	E	E	B	b	G	g
E	EE	EE	EB	Eb	EG	Eg
E	EE	EE	EB	Eb	EG	Eg
B	BE	BE	BB	Bb	BG	Bg
b	bE	bE	bB	bb	bG	bg
G	GE	GE	GB	Gb	GG	Gg
g	gE	gE	Bg	gb	gG	gg