

Question Number	Answer	Additional guidance	Mark
5(a)	1. renewable / eq ; 2. resources can be made available for future generations / will not run out / eq ; 3. more (Canola) plants can be grown / eq ;	2. ACCEPT not finite ACCEPT references to either oil or plants not running out	(2)

Question Number	Answer	Additional guidance	Mark
5(b)	1. amino acids OR proteins ; 2. idea of used in synthesis of { nucleic acids / DNA / ATP } ; 3. idea of how this organic compound is used in growth;	2. ACCEPT RNA, NAD, NADP, ADP, chlorophyll 3. (amino acids) for the synthesis of proteins, (proteins) as enzymes, (nucleic acids) for cell division, (ATP) as an energy source	(2)

Question Number	Answer	Mark
5(c) (i)	A a negative correlation ;	(1)

Question Number	Answer	Additional guidance	Mark
5(c)(ii)	1. correct values from graph, i.e. 2.40 and 3.30 ; 2. difference divided by 2.4, e.g. $(0.9 \div 2.4) \times 100$; 3. 37.5 (%) ;	Correct answer gains 3 marks 1. 2.4 and 3.3 2. $(3.30-2.40) \times 100 / 2.40$ ACCEPT (difference \div original value) \times 100 if incorrect values selected from graph	(3)

Question Number	Answer	Additional guidance	Mark
5(c)(iii)	1. idea of using genetically similar plants e.g. raised from seeds from same plant, clones ; 2. idea of repeats {at each level of nitrate fertiliser / used to produce mean data / to identify outliers or anomalies} ; 3. environmental variable related to soil controlled e.g. soil pH, concentration of other mineral ions ; 4. another environmental variable controlled e.g. temperature, light (intensity), water ; 5. idea of control described, e.g. no nitrate/ soil with no extra nitrate ; 6. idea of same method of extraction of oil used ;	IGNORE reference to time as the investigation is measuring seed production 1. ACCEPT cuttings 3. ACCEPT same area, location	(4)