

Hypotheses Mark Scheme

Q1.

Question	Scheme	Marks
(a)	It is a question (not a hypothesis)	B1 (1)
(b)	Temperature Altitude / height (above sea level)	B1 B1 (2)
Notes		
(a)	B1 for recognising that a question is not acceptable as a hypothesis	
(b)	B1 for temperature o.e. e.g. '°C' or 'how hot it is' B1 but e.g. 'weather' is B0 B1 for altitude/height o.e. e.g. 'metres above sea level' Accept temperature/height seen within a sentence. Two correct answers may be seen on one line.	

Q2.

Question	Answer	Additional guidance	Mark
	B1 for e.g. <ul style="list-style-type: none"> • Boys at the school do more exercise than girls • There is no difference between the amount of exercise boys and girls at the school do 	B1 any sensible hypothesis about boys and girls and exercise (B0 for a question)	(1)

Q3.

Question	Answer	Additional guidance	Mark
	B1 eg Longer films have higher box office takings / make more money	B1 for any appropriate hypothesis relating box office takings to film runtime.	(1)

Q4.

Question	Scheme	Marks
(a)	e.g. Newer books are borrowed for longer than older books.	B1 (1)
(b)	Age of book, and length of loan (o.e.)	B1 (1)

Notes		
(a)	Allow equivalent or converse statements regarding age and length of loan, but must not be a question.	
(b)	Accept equivalent descriptions for the correct pair of variables (both needed) Condone 'age' for age of book, but units or 'time' alone for either variable is B0	

Q5.

Question	Scheme	Marks
(a)	e.g. Rich countries win more <u>medals</u> than poor countries. or, The richer the country the more <u>medals</u> they win.	B1 (1)

Notes		
(a)	Any sensible hypothesis (not a question) which implies wealth as a cause and <u>medals</u> as response. (Must mention 'medals' here.) Accept converse. (e.g. Poorer countries win more <u>medals</u>) Condone "number of <u>medals</u> is affected by wealth" B0 for a question	

Q6.

5ST1H_01 Scheme		Marks
(a)	A relevant hypothesis relating to books	B1 (1)
Notes		
(a)	B1 e.g. Students buy less ebooks than books from shops or More students buy ebooks than books from shops or The amount spent on ebooks is the same as the amount spent on books at shops (B0 for a question)	

Q7.

5ST1F_01 Mark Scheme		Marks
	Using the new fertiliser gives a heavier crop (than if the previous/no fertiliser is used) oe.	B1 (1)
Notes		
Must be a statement, not a question. Other hypotheses possible and converses acceptable. Must mention <u>new fertiliser</u> and <u>wheat/crop</u> AND imply a comparison. Condone 'wheat grows faster with new fertiliser' e.g. 'new fertiliser produces a <u>higher</u> crop' B1 BUT 'new fertiliser produces a <u>high</u> crop' B0 (no comparison) 'Will new fertiliser produces a higher crop' B0 (a question) 'He will find out if the new fertiliser produces a higher crop' B0 (an aim not a hypothesis about what will happen)		

Q8.

Question	Scheme	Marks
	e.g. people feel less (or more) safe in the evening, OR older people feel less (or more) safe than younger people.	B1 (1)
Notes		
Many hypotheses are possible but must refer to idea of <u>safety</u> AND to <u>age</u> and/or <u>time of day</u> . (Allow equivalent wording if meaning is clear.) Condone prefixed with 'I believe that...' etc BUT must be a statement NOT a question. Allow 'more people feel safe in the a.m.' or 'more old people feel unsafe' etc		

Q9.

Question	Scheme	Marks
(a)	e.g. longer concerts are more expensive	B1 (1)
(b)	<u>Length of concert</u> / <u>number of hours</u> / <u>number of songs</u> Cost, or price (of ticket)	B1 B1 (2)

Q10.

Question	Scheme	Marks
10)	Any relevant hypothesis relating to height and time/speed	B1 (1)

Q11.

Question	Answer	Additional guidance	Mark
11)	B1 e.g. Students who score highly in GCSE Mathematics also score highly in A-level Mathematics	B1 for a suitable hypothesis regarding relative performance in the two exams	(1)

Q12.

Question	Answer	Additional guidance	Mark
	<p>B1 for each of five correct comments e.g.</p> <ul style="list-style-type: none"> • the hypothesis should be a statement not a question • time intervals are not exhaustive (e.g. there is no option for 0 or 7+) • time intervals need to be longer as many students are likely to spend more than 6 hours a week • a scatter graph is not appropriate (as horizontal axis is not numerical data) • it might be difficult for students to know the times as they might go on social media multiple times a day for short periods • it is not necessary to know the name of the student • he has not planned to collect the relevant information for a time series graph • calculating estimates of the means is sensible • finding the gender of the student is relevant 	B1 for each correct comment on the appropriateness of the hypothesis or plans for collecting, processing and presenting the data	(5)