Published

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Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Question	Answer	Marks
1(a)(i)	410 / 418 194 / 195 / 198 2 @ 1	**2**
1(a)(ii)	183	**1**
1(a)(iii)	Open landscape / rural / open space Lake / river Grassland / green areas Trees / woodland Modern / new building / office Lot of glass / windows **Three** storeys high Grey building 3 @ 1	**3**
1(b)(i)	Distributed throughout the industrial area / scattered / dispersed / spread out / in all parts of industrial area Uneven On edge / perimeter / outskirts/ border	**2**
1(b)(ii)	Share information / ideas / opinions Share research facilities / laboratories / materials / products / inputs for others Possible location near to universities (Have the same requirements) – green site / transport links / cheap land / open land/ space for parking / accessibility Can 'headhunt' staff from other companies more easily	**3**
1(b)(iii)	Completion of pie graph – technical consulting (8%) & others (10%) 1 mark for dividing line at 90% & 1 mark for shading	**2**
1(c)(i)	Plotting change for bio-medical (-7) and computer / telecommunications (+10) sectors 2 @ 1	**2**
1(c)(ii)	Hypothesis is **true** / correct - 1 mark reserve (✓HA) Evidence such as: Most / almost all (sectors / industries) **/** 5 out of 8 decreased Decrease in bio-medical / energy / environmental / technical consulting / other industries Increase in computer telecommunications / financial business 1 mark reserve for paired statistics to show change e.g. computer / telecommunications increased from 7 to 17 / by 10 Hypothesis is incorrect / partially correct should not be credited If no hypothesis conclusion do credit evidence	**4**

Question	Answer	Marks
1(c)(iii)	(General factors such as) cheap land / space for parking / transport links / green site / accessibility Customers / income from nearby companies 1 mark max for any of the following: Workers use (health club / gym) **for** exercise / before or after work / in free time OR Workers use (nursery) **for** children during the day OR Workers use (restaurant) **for** meals 2 @ 1	**2**
1(d)(i)	Completion of divided bar graph – university degree (23) & higher university degree (19) 1 mark for dividing line at 31 & 1 mark for shading	**2**
1(d)(ii)	Most / majority employees / 42 out of 50 / 84% had a degree OR 23 out of 50 / 46% had a university degree OR 19 out of 50 / 38% had a higher university degree Most / majority / 90% of employees / 45 out of 50 think that they are highly skilled Most / majority / 34 out of 50 / 68% are able to give advice (accept any quote from reasons with number of answers) / the main reason is they receive a lot of training. 3 @ 1	**3**
1(d)(iii)	**High** salary / job is **well-paid** Good working conditions / modern workplace Mixing with skilled / academic colleagues Pleasant environment in which to work Job satisfaction / status / respect / recognition Learn new skills Fringe / company benefits or e.g. such as healthcare 2 @ 1	**2**
1(e)	Links to universities in the local area Road, rail and air transport links make the area accessible 2 @ 1	**2**

Question	Answer	Marks
2(a)(i)	Quick / saves time / easy to read / instant measurement Gives exact / precise reading / accurate / reliable Less / no chance of human error No need to take measurements manually during night / don't have to be there all the time 2 @	**2**
2(a)(ii)	Atmospheric pressure = barometer Temperature = thermometer Wind direction = Wind vane 3 correct = 2 marks, 1 or 2 correct = 1 mark	**2**
2(a)(iii)	Diagram of traditional rain gauge: 1 mark maximum for diagram which includes funnel & collecting jar 2 marks maximum for labels: Measuring jar / container / cylinder / collecting jar Funnel Outer casing Scale / measurement / mm Put in / partially in ground No credit if diagram is a 'home-made' gauge or pluviometer	**3**
2(a)(iv)	Away from people / animals (D); so that rain gauge is not interfered with (E) Away from trees / clear of buildings / away from shelter / on open ground (D) so that there is no interception of rainfall / so trees / buildings don't block rain / to avoid drips from leaves (E) On grass / above ground level (D); so that rain doesn't splash into funnel (E) Accessible location (D) ; so measurements can be obtained (E) On flat / level ground (D) so won't fall over (E) 2 marks for description & 2 marks for explanation	**4**
2(a)(v)	Wind pushes the arrow or pointer / wind makes arrow or pointer spin / rotate / turn Arrow points to / shows the direction the wind is coming **from** N, E, S, W points allow direction to be worked out / show compass direction / compass points are fixed / don't move	**2**
2(b)(i)	Plotting rainfall bar 2.8 mm at 07.00 on day 2	**1**
2(b)(ii)	Highest pressure = 1017 Lowest pressure = 997 Need both for 1 mark	**1**

Question	Answer	Marks
2(b)(iii)	No / hypothesis is **incorrect** – 1 mark reserve (✓HA) Rainfall decreases when atmospheric pressure rises / rainfall increases when AP falls Most rainfall recorded when AP below 1000 / 1001mb No rainfall when AP is 1010mb or higher Credit 1 mark for supporting data to show pattern e.g. 4.6 mm of rain = 997mb & 0.2 mm of rain = 1007 (need 4 figures) No credit for Hypothesis is correct / partially correct If no hypothesis conclusion then credit evidence	4
2(c)(i)	Completion of ESE temperature graph 12° (measurement 4) & 10° (measurement 5) 2 @ 1	2
2(c)(ii)	North north west / NNW	1
2(c)(iii)	Temperatures are high / higher when wind blows (from) south / south east / SSE / ESE Temperatures are low / lower when wind blows (from) north west / NNW / N Temperatures 9° or more / 9 – 13° when winds from SE sector etc & 10° or below / 3 – 10° when winds from north west sector etc Credit paired data to 1 marks maximum e.g. 11° / 13° when wind from SE & 7° when wind from NW (need 2 stats & 2 directions from different sectors) Temperatures are higher when winds are from south **than** when winds are from the north = 2 marks No hypothesis mark	3
2(d)(i)	Sunshine / wind **speed** / relative humidity / cloud **cover / type**	1

Question	Answer	Marks
2(d)(ii)	Use a sunshine recorder / Campbell-Stokes recorder Sunshine recorder is placed south facing in northern hemisphere Put sunshine recorder in open space / not affected by shade / exposed to sun's rays / top of building / on a pedestal or stand Insert / replace card (paper) / put card (paper) into sunshine recorder Measure / record / see length of burn line Leave for / check after 24 hours / set period of time Use an anemometer Put anemometer in an open area / roof / top of building Read dial / meter Repeat / check reading regularly Record wind speed results in table / diary / chart / km or miles per hour Use a wet and dry (bulb) thermometer / hygrometer Put in Stevenson Screen Measure air temperature with a dry bulb thermometer Measure temperature shown by wet bulb thermometer OR Read the **temperatures** Calculate the temperature of the wet bulb minus the temperature of the dry bulb (depression of the wet bulb) Use relative humidity table to work out the relative humidity Record humidity results in table / diary / chart / percentage Digital hygrometer Read figures from screen Reset the instrument Record the results in table / diary / chart / percentage Choose the same time / examples of times Look up at the sky Identify cloud types using an identification chart / looking at shape / height of clouds Estimate the amount of cloud cover / use a home-made quadrat Measure / record cover in oktas / eighths Record names of cloud types / oktas **in** diary / table / chart If description does not match named weather element, credit description if appropriate	4