Construction

Mark Scheme

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Topic	Shape, Space and Measures
Sub Topic	Construction
Booklet	Mark Scheme

Time Allowed: 19 minutes

Score: /16

Percentage: /100

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	75%	70%	60%	55%	50%	<50%

Question	Working	Answer	Mark	Notes
1.		Intersecting arcs from P and Q Perpendicular bisector joining both arcs	2	B1 arcs must intersect above and below line PQ B1 dep
				Total 2 marks

2.	Arcs of length 6cm from A **and** B			M1
	Arc of length 10 cm from A **or** B			M1
	Arc of length 6 cm from correct top vertex			M1
	Correct rhombus within overlay tolerance		4	A1 Dependent on M3 sc B1 for correct rhombus with no construction lines.
				Total 4 marks

3.	arc centre *B* cutting *BA* and *BC* at (say) *P* and *Q*	2	M1
	arcs centres *P* and *Q* of equal radii which intersect at *R* (say) and *BR* joined (overlay)		A1 dep
			Total 2 marks

4.	Circular arc, centre *B*, to intersect both lines *AB* and *BC*			M1
	Equal length arcs, from intersections on each line, meeting to give a point on the bisector.	correct bisector	2	A1 dep on M1 Full construction shown.
				Total 2 marks

Question	Working	Answer	Mark	Notes
5.	One bearing line at 260° (± 2°) or one 9.6 cm line (± 2mm) from A			M1
		Intersection of 2 lines in boundary of overlay	2	A1 Condone omission of *D* label Correct position of *D* within tolerance without any lines scores M1A1.
				Total 2 marks

Question	Working		Mark	Notes	
6.	Arc centre *B* cutting *BA* and *BC* at *P* and *Q* where *BP = BQ* **and** arcs drawn from *P* and *Q*			M1	for all relevant arcs (those drawn from *P* and *Q* may fall outside guidelines)
		correct bisector	2	A1	for angle bisector in guidelines with all necessary arcs
					Total 2 marks

| **7.** | | | bisector with construction arcs | 2 | B2 | for bisector within guidelines with two pairs of relevant construction arcs seen

If not B2 then B1 for a bisector within guidelines with no arcs present **or** relevant arcs present with no bisector |
| | | | | | | **Total 2 marks** |