Answers and mark guide

Q	Answer	Working	Marks
1	**65°**	The angle at the centre is twice the angle at the circumference.	3
2	**90°**	The angle in a semicircle is 90°.	2
3	**140°**	Opposite angles in a cyclic quadrilateral add up to 180°.	3
4	**90°**	A tangent is perpendicular to the radius at the point of contact.	2
5	**35°**	The angle at the centre is twice the angle at the circumference.	3
6	**90°**	The angle in a semicircle is 90°.	2
7	**110°**	Opposite angles in a cyclic quadrilateral add up to 180°.	3
8	**90°**	A tangent is perpendicular to the radius at the point of contact.	2
9	**45°**	The angle at the centre is twice the angle at the circumference.	3
10	**90°**	The angle in a semicircle is 90°.	2
11	**35°**	Angle at centre = 2 × angle at circumference.	4
12	**60°**	Angles in the same segment are equal.	3
13	**140°**	Opposite angles sum to 180°.	3
14	**15 cm**	Tangents from a point are equal in length.	3
15	**65°**	Triangle OAB is isosceles (OA = OB).	4
16	**55°**	Angle OAP = 90° (tangent and radius); angles in triangle OAP add to 180°.	5
17	**ADC = 130°, BAD = 140°**	Opposite angles sum to 180°.	5
18	**60° and 120°**	Angles in opposite segments of a cyclic quadrilateral sum to 180°.	5
19	**The angle between a tangent and a chord equals the angle in the alternate segment**	Standard theorem	4
20	**50°**	Half the angle at the centre	4

My score: _____ / **65** Questions 1–15 = 42 marks (Foundation focus)