Answers and mark guide

Q	Answer	Working	Marks
1	**2**	This is the square root of 4.	2
2	**5**	This is the cube root of 125.	2
3	**7**	This is the square root of 49.	2
4	**2**	This is the 4th root of 16.	2
5	**2**	This is the cube root of 8.	2
6	**8**	Take the root first, then the power; a negative power means 'one over'.	3
7	**9**	Take the root first, then the power; a negative power means 'one over'.	3
8	**27**	Take the root first, then the power; a negative power means 'one over'.	3
9	**1/9**	Take the root first, then the power; a negative power means 'one over'.	3
10	**1/8**	Take the root first, then the power; a negative power means 'one over'.	3
11	**1/2**	Reciprocal, root, then power.	3
12	**1/4**	Reciprocal, root, then power.	3
13	**1/125**	Reciprocal, root, then power.	3
14	**1/8**	Reciprocal, root, then power.	3
15	**1/16**	Reciprocal, root, then power.	3
16	**25/16**	Flip the fraction, then take the cube root and square.	5
17	**27/8**	Fourth root of top and bottom, then cube.	5
18	**$4x^4$**	Cube root of 8 is 2, squared is 4; $(x^6)^{(2/3)} = x^4$.	5
19	**$x = -3/2$**	$4^x = 2^{(2x)} = 2^{(-3)}$, so $2x = -3$.	6
20	**$1/(3x^2)$**	$81^{(-1/4)} = 1/3$; $(x^8)^{(-1/4)} = x^{(-2)}$.	5

My score: _____ / 66 Questions 1–15 = 40 marks (Foundation focus)