Histogram Past Paper Answers GCSE Edexcel - Calculator

1.

ion	Answer	Mark	Mark scheme	Additional guidance
(a)	Histogram drawn	B3	for fully correct histogram eg relative heights 6, 3, 4, 2, 2	
		(B2	for 4 correct blocks **or** all 5 frequency ÷ class interval **and** 1 correct block)	
		(B1	for at least 2 correct blocks of different widths **or** for frequency ÷ class interval for at least 3 frequencies)	
(b)	66 to 71	M1	indication of the median in the third interval **or** proportional method shown	Just stating the interval is sufficient for this mark May be implied by the number on the answer line
		A1	ft answer between 66 and 71	Median is at (approx.) 68.75 by a proportional method

2.

tion	Answer	Mark	Mark scheme	Additional guidance
(a)	4, 6, 5, 4	M1	for a correct method to find at least 2 frequencies from bars of different widths, eg 10×0.4 (=4), 10×0.6 (=6), 5×1 (=5), 20×0.2 (=4)	
		A1	cao	
(b)	10	M1	for $\frac{23+1}{4}$ (=6) **or** $\frac{23}{4}$ (=5.75) could ft from their table in (a)	
		A1	for 10 or 9.375	Be aware of 10 coming from incorrect working ft does not apply to the A1

3.

uestion	Working	Answer	Mark	Notes
(a)	1.5, 6, 10.2, 7.2, 1.2	Histogram drawn	C1	for 2 correct bars of different widths or at least 3 correct frequency densities.
			C1	for all bars in correct proportions or 4 correct bars with axes scaled and labelled.
			C1	for fully correct histogram with axes scaled and labelled.
(b)		$\frac{123}{150}$	M1	for a method to find number of students in interval, eg $30 + 51 + 36 + \frac{1}{3} \times 18$ (= 123) or $150 - 15 - \frac{2}{3} \times 18$ (= 123)
			A1	for $\frac{123}{150}$ oe or 0.82 or 82%

4.

	7	P1	for correct process to find any frequency, eg. "1.1" × 10 (= 11) or "2.8" × 10 (= 28) or "2.3" × 20 (= 46) or "1.4" × 20 (= 28) or "1.4" × 10 (= 14) or "0.7" × 30 (= 21) or for a correct process to find the total area and an area of any block, eg. using 1 cm^2 = 1 unit of area to get 53.6 and one of 4.4, 11.2, 18.4, 11.2, 5.6, 8.4
		P1	(dep P1) for complete process to find 20% of ("1.4" × 10 + "0.7" × 30), eg. $\frac{20}{100} \times$ "35" or $\frac{"5.6"+"8.4"}{"53.6"} \times 134 \times \frac{20}{100}$
		A1	cao

5.

uestion	Working	Answer	Notes
(a)		histogram	C1 for 2 correct bars of different widths or at least 3 correct frequency densities C1 all bars in correct proportions or 4 correct bars with axes scaled and labelled C1 fully correct histogram with axes scaled and labelled
(b)	81 ÷ 2 = 40.5 90 to 105 is 29	108.2	C1 for 81 ÷ 2 = 40.5 and 11.5 ÷ 18 × 5 (= 3.19..) C1 For answer in range 108 to 109

6.

	84	M1	for correct interpretation of given information leading to a method to find fd, eg. 20 ÷ 100 (thousand) or for an acceptable key
		P1	for a process to find at least two required frequencies, eg. 0.8 × 50 (= 40), 0.6 × 50 (= 30), 0.14 × 100 (= 14)
		A1	for 84 cao

7.

		C1	C1 for frequencies used for heights or areas not proportional to frequencies
		C1	C1 for 2nd mistake - final bar of wrong width
	Given result	C1	