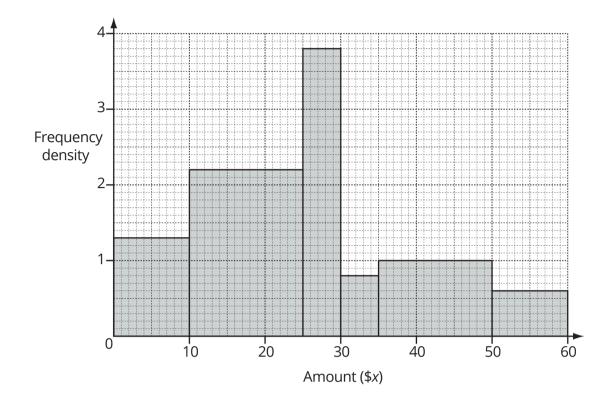
Histograms, Bar Charts, Pictograms, Scatter Diagrams & Frequency Distributions Question Paper 2

Level		IGCSE				
Subject		Maths (()580)			
Exam Boa	rd	Cambrid	ge Internatio	nal Examinat	ions (CIE)	
Paper Typ	е	Extende	d			
Торіс		Statistic	S			
Sub-Topic	:	Histogra	ms, Bar Char	ts, Pictogram	s, Scatter	
•		-		cy Distribution		
Booklet		Questio	n Paper 2			
Doomet						
Time Allov	ved:	57 minut	tes			
Score:		/47				
Score.		/=/				
	. .	-				
Percentage	e:	/100				
	e:	-				
	e:	-				
	e:	-				
Percentag		-				
		-				
Percentago Grade Bou	ndaries:	/100				
Percentag		-	C	D	E	U
Percentago Grade Bou	ndaries:	/100	C 45%	D 35%	E 25%	U <25%
Percentage Grade Bou	ndaries:	/100 B				_



Asurvey asked 90 people how much money they gave to charity in one month. The histogram shows the results of the survey.

(a)Complete the frequency table for the six columns in the histogram.

Amount (\$ <i>x</i>)	0 <xy 10<="" th=""><th></th><th></th><th></th></xy>			
Frequency			4	

[5]

(b) Use your frequency table to calculate an estimate of the mean amount these 90 people gave to charity.

Answer(b)\$[4]

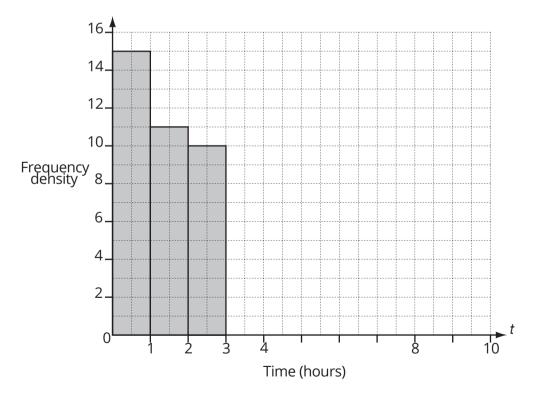
2 (a) 80 students were asked how much time they spent on the internet in one day. This table shows the results.

Time (<i>t</i> hours)	0 < <i>t</i> Y 1	1 < <i>t</i> Y 2	2 < <i>t</i> Y 3	3 < <i>t</i> Y 5	5 < <i>t</i> Y 7	7 < <i>t</i> Y 10
Number of student	s 15	11	10	19	13	12

(i) Calculate an estimate of the mean time spent on the internet by the 80 students.

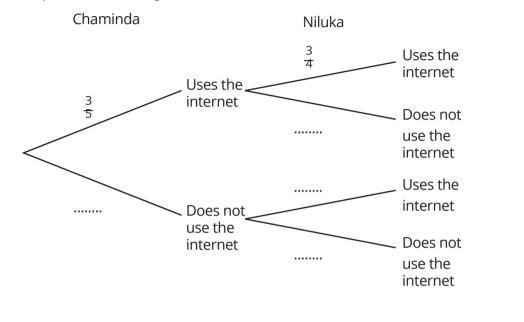
Answer(a)(i) hours [4]

(ii) On the grid, complete the histogram to show this information.



[4]

- (b) The probability that Chaminda uses the internet on any day is The probability that Niluka uses the internet on any day is 3.
 - (i) Complete the tree diagram.



(ii) Calculate the probability, that on any day, at least one of the two students uses the internet.

Answer(b)(ii)[3]

(iii) Calculate the probability that Chaminda uses the internet on three consecutive days.

*Answer(bį*iii)[2]

[2]

Height (<i>h</i> cm)	150 < <i>h</i> Ğ 160	160 < <i>h</i> Ğ 165	165 < <i>h</i> Ğ 180	180 < <i>h</i> Ğ 190
Frequency	5	9	18	10

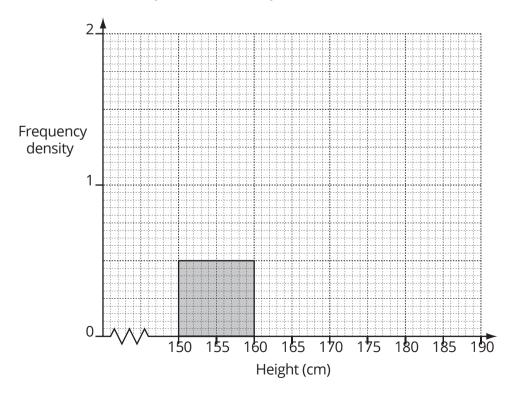
The table shows information about the heights of a group of 42 students.

(a)Using mid-interval values, calculate an estimate of the mean height of the students. Show your working.

Answer(a)..... cm [3]

(b) Write down the interval which contains the lower quartile.

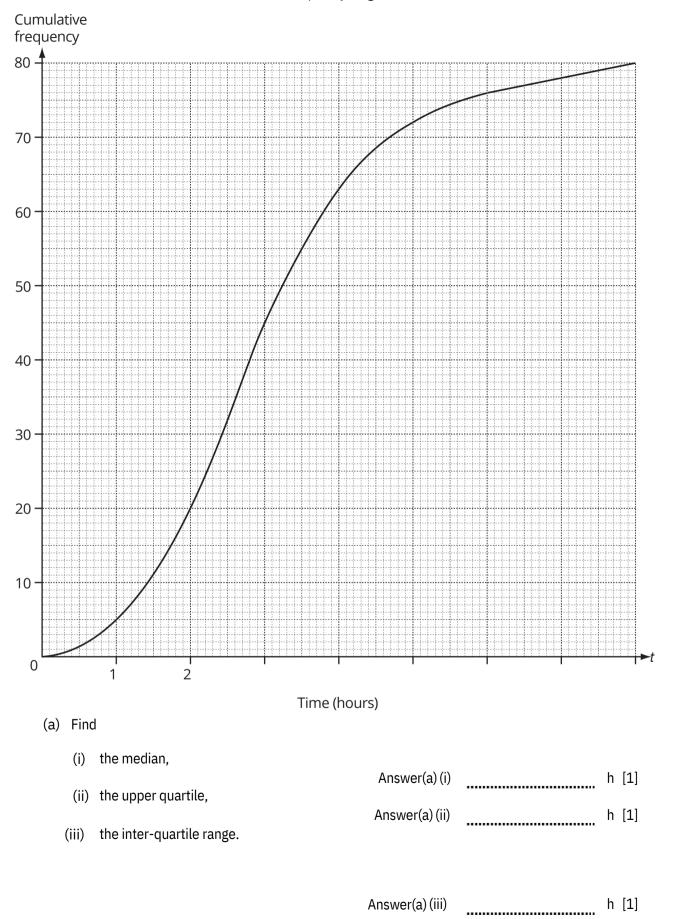
Answer(b)[1]



(c) Complete the histogram to show the information in the table. One column has already been drawn for you.

[4]

4 Felix asked 80 moto Froisr tms ohroe waw mesoamney G hCoSEu rasn dth Ae lierv ejlo ruesronueryce tso, voiskit t He used the results to dra w a cumulative frequency diagram.



(b) Find the number of motorists whose journey took more than 5 hours but no more than 7 hours.

Answer(b) [1]

(c) The frequency table shows some of the information about the 80 journeys.

Time in hours (t)	OIty 2	2I ty 3	3I tY 4	4ItY 5	5ItY 6	6ItY 8
Frequency	20	25	18			

(i) Use the cumulative frequency diagram to complete the table above. [2]

(ii) Calculate an estimate of the mean number of hours the 80 journeys took.

Answer(c)(ii) h [4]

(d) On the grid, draw a histogram to represent the information in your table in part (c).

	 						::		7 T T	 ··;·		: T T				: : :		- 77	- 77				223	··.;	-7-	-7-1		en a	;				$\gamma \gamma$: : :		- 7-	- 7 - 1			c	en i				-71	777			:	77	7
	 rri			<u>. 1</u>	- †-		†}		Ŷ	 +-		Υġ			÷		ΞŶ.	-1-	- †-	1.	÷	m	m	- †	-†-	÷	÷			+			ŶĽ	i	i		-÷	÷,	- †-	- 1	÷		÷	÷÷	- 1	1.	1	m	m	- †	+-		Ť	Ŷ	ţ.,	1	†	tr	÷
	 1-1-1	-1-1		11			†}	- 1-	<u>tri</u>	 +-		t t		-1	÷		- †	-1-	-1-	- <u>†</u>	1	111	11	-1	-†-	1.	t	1		+			†r	11	<u>†</u>	!!		÷		-1	÷	11	÷	÷	-1	1.	1	111	M				÷	Ŷ	tr	111	t	tr	1
	 	1		11			1		111	 		111		-1	t		÷	-1-	11	1.	1	111		-1	- † -	1	1	1					Ť	tri	111	1		÷	- 1-	111	1		÷	÷÷	- 1	1.	1	1	- 1	- 1			1	÷	tr	1	<u>†</u>	1-	1
	 			÷;	÷		÷			 ÷-	÷				÷		÷	÷÷	÷÷	÷	÷···	÷		÷	÷	÷	÷···				-÷-		÷	÷	÷	÷	÷		÷	÷÷÷	÷···		÷	÷		÷	÷···			÷	÷-	-÷-	÷	÷	÷	÷	÷	÷	÷
	 			÷;	·	-+	÷		÷	 ÷-	-÷				÷…			-+-	- † -	-÷	÷			÷	-+-	-÷	÷			+	·-+·		÷	÷	÷	÷	+		·-+-	· • • •	÷			÷÷		÷	÷			÷	·-+	·-÷-	÷		÷		÷	÷	÷
	 			÷			t		÷	 ÷-	-÷	÷			÷				- † -	-÷	÷			÷	-÷-		÷			+	÷-		÷	÷	÷	÷	·			· • • •	÷					÷	÷			÷	÷-	·		÷	÷		÷	÷	
	 5 - de - d						+		der de	 +-		b = b			÷	:	e de la composición d			- ÷	÷	(-1)	b = b				- (n	b = b		+		}	÷	4	÷	÷	$ \frac{1}{2}$				+	\$ \$				÷	÷		5 - S		+-		-2-	4.4	4	i	÷	÷	÷
	 1			A			1		A	 4 -		Sec. 2.				8 a a 6			- 4 -	- 4		6 a 2 a	1		- 4 - 1			1 A		A .			A	2	4	1 1						8 a N						Sec. 21						1.00	2	1 1	÷	÷	÷
																																															Ļ.,				÷-		4.	÷.,	į		÷	į.,	-
	 						i		<u>.</u>	 								-i-			÷				-÷-	÷.,							÷.,	į.,,	į.,						÷						÷						÷.,		<u>.</u>		į.,	į.,	
	 			1.1		.i	1	i	1	 	.i			.i	4			4	4.	4	i				4.	.i	.i						÷	i	i	i				.i	.i			4	4	4	i						4.	÷.,	į.,.		i	į.,	
	 			1.1		- 	1		÷	 		1.1		.i	4			4		4	i				4.	.i	.i						÷.,	į.,	i	i					i			4	4	4	i						4.	1.	į.,		i	į.,	
	 			1.1	į	. į	i		į., į	 	.i	L.	į.,	.i	.i			. į.		.i	i	L.,		į.	.i.,	.i	j.,			į.			į.,	į.,	i	i				.i	i				. į.,	.i	i	L.,					1.	į.,	į.,		i	į.,	
	 UJJ		i	1.1	j	. İ	ii	i.	1. j	 i	.i	i)	j.	.i	i			.j.		.i.,	i		w		.i.,	.i	i				i.		j.,	j.,	i	i				.i	i			. j.	.i	.i	i		w		. i.		1.	j.,	j.,		i	i	
				1.1			1		1.1	 					<u>.</u>						L.,												1.	<u>.</u>	<u>.</u>						i					1	L.,							J.,	j.,		i	i	
				1.1					1		1				1			1			1					1	1						1	1	1									1			1						1	1	1			1	
			1	1		1				1	1			1				1		1					1	1	1					1	Т	1										1	1								1	1	1			I.	
				11		1	111		111	1	1			1	1		1	11	11	T				1	T	1				1	1	1	Т	1	1		1		1					1	1	1					1	1	T	1	1			T	Î
	 r			111	- T	1	111		T	1	1		- 7	1	1		1	11	11	T		111	1	1	T	11	1			T	1	1	Т	1	1		1	1	1		1		1	11	1	1		-	- 1	- T	1	1	1	7	111			T	-
	 m		- T.	713	11	1	111		111		1	m	- 1-	111	1		1	11	11	T	1	111	11	1	1	111	111			11		1	Ť	111	111		1	1	11	111	1		1	77	11	T	111	11	11	1	1		71	71	T	1	111	T	-
••••••••••	 			<u></u>			****		<u> </u>	 		<u>, se a</u>						- 1-					1									· · · ·	γ.																					÷.,	1		••••		•
	 1-1-1			îΠ			1		î î	 †-		11		-1	1		÷	-1-	-1-	11		111		-1	-1-				1				Ť	111	111	1		÷					- t	77	-1	1.	1		11				1	Ť	tr	111	†	tr	-
	 			11			11		11	 +-	1	11		111	1			11	11	11	1	111		-1	11	1.	1			+-			1	111	111				1	111	1			11	-1	1	1						1	1	11	1	1	11	1
	 			÷.,	· · · ·		†		1	 +-	-†				÷			- 1-	- †-	÷÷	÷	÷		- 1	-†-	÷	· · · ·			+			÷	÷	÷	:i				· • • •	÷		÷	÷÷	- †	÷	÷			· • •			÷	-i	÷		÷	t-	1
	 h-i-i	-1-1		† i	- i-		tr		† i	 ÷-	-†	t-t	j-		÷		÷	- 1-	- † -	÷	÷			÷	-†-	÷			;	+	· - † -		÷	i	i	·	÷		÷	· • · ·	÷		÷	÷÷		÷	÷			÷	· · † ·	·	÷:-	÷	÷	1	÷	t-	1
	 8-9-9	-11		212		-+	t		Υt	 +-	-†	'nή		-+	÷		÷	- 1-	- † -	·†	÷	htt	r-1	÷	-+-	-†	÷	e é		+	·-+-		÷٦	÷	÷	÷	÷	÷	÷÷÷	· † · ·	÷		÷	÷÷	- † - •	÷	÷	htt	e d	÷	·-+·	·-+-	÷	÷	÷	::	÷	t-	
	 (+ (+	-11	}	÷			÷}	}	÷	 	-}	ł-ł	{		÷	}}	÷	- {-	- † -	-†	÷	<u>}</u>		٠ŀ	- † -	-}	÷···				}-	}	÷٠	{	÷	I	÷	÷		- į	÷	}}	÷	-÷-		÷	÷	}{		٠ł	† -	}-	÷	÷	ł	()	÷	÷-	
	 ÷			÷÷	÷	- i	÷		÷	 ÷-	- i	i-i		- į	÷		÷		- į-	-i	÷	÷		÷	- i -	- ÷ - ·	÷··						÷	i	÷	i	÷	÷	÷	- i	÷		÷	÷÷		÷	÷	·		÷	÷-		÷	÷	į	į;	÷	÷-	
	 			+		- -	÷		÷	 					÷					-÷	÷					÷	÷						÷	÷	÷					- .	÷			÷÷		÷	÷						÷	÷	÷		÷	ł-	
	 					- <u>+</u>	÷		+	 				-÷	÷				-÷-	- - ·	÷				-÷-	-÷	÷						÷	÷	÷					- .	÷				- ÷	÷	÷								÷			÷	
				: :			: :		: :	1	1	: :			1	: :	- 1		1			: :	: :		1				- 1			- 1	:			: :	:		- 1			: :	- 1	- 1	1	:		: :	: :	:							:	1	