

Modification Notes

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Combined QP	A4	36	2

Amended content:

Document / Question Number	Modification of Content/ Alt Text
QP Q1(a)	$y = e$ to the power of cosec squared x
QP Q1(b)	The integral from 1.5 to 2.5 of e to the power of (cosec squared x) dx
QP Q1(c)	The integral from 1.5 to 2.5 of e to the power of (cot squared x) dx
QP Q2(a)	f of x
	f of $x = f$ of A , + $(x \text{ minus } A)$ f dash of A , + start fraction $(x \text{ minus } A)$ squared over 2 factorial end fraction, f dash dash of A , + dot dot dot + start fraction $(x \text{ minus } A)$ to the power of r over r factorial end fraction, f to the power of (r) of A , + dot dot dot
	$d^2 y$ by dx squared + 3 dy by dx minus 2 $xy = 4$
	$d^4 y$ by dx to the power of 4 = A , dy by $dx + bx$, $d^2 y$ by dx squared + c , $d^3 y$ by dx cubed
QP Q2(b)	Dy by $dx = 1$
	$(x \text{ minus } 2)$ $(x \text{ minus } 2)$ to the power of 4

QP Q3	Start fraction $x^2 - 4$ over the modulus of $x - 5$ end fraction is greater than $4x + 8$
QP Q4(a)	$Y = \sqrt{(15 + e^{2x})}$
	$D_x y = \frac{e^{2x} (e^{2x} + 30)}{(15 + e^{2x})^2}$
QP Q4(b)	X^2
QP Q4(d)	Limit of start fraction, $\sqrt{(15 + e^{2x})}$ end root minus 4 over $\sin 3x$ end fraction, as x approaches 0 = $\frac{1}{12}$
QP Q5(a)	$t = \tan\left(\frac{x}{2}\right)$
	Integral start fraction $\frac{1}{1 + \csc x}$ end fraction $dx =$ integral start fraction $\frac{4t}{(1+t^2)(1+t)^2}$ end fraction dt
QP Q5(b)	Integral start fraction $\frac{1}{1 + \csc x}$ end fraction $dx =$ $A + x + \frac{B}{1 + \tan\left(\frac{x}{2}\right)} + k$
QP Q6(i)	Limit of start fraction, $\frac{1 - \cos 7x}{x \sin 9x}$ end fraction, as x approaches 0 = $\frac{49}{18}$
	$Y = x^2 e^{3x}$
QP Q6(ii)(a)	K is an element of N , the set of natural numbers
	$\frac{d}{dx} y = \frac{3x^2}{e^{3x} (Ax^2 + Bkx + Ck(k-1))}$
QP Q6(ii)(b)	$D_x y = 9x^8 = 0$
QP Q7(a)	$P \text{ mgm to the power of } -3$
	$\frac{1}{P}, \frac{dP}{dt} = 4tP^2 - 1$
	$X = \frac{1}{p^2}$
	$\frac{d}{dt} x - 2x = -8t$
QP Q7(b)	$P^2 = \frac{1}{4t + 2 + ke^{2t}}$ $0.034 \text{ mgm to the power of } -3$
QP Q8(a)	$\frac{X^2}{64 + \frac{y^2}{36}} = 1$
	$(16m^2 + 9)x^2 + 32cmx + 16c^2 + k = 0$
QP Q8(b)	(10 comma 20)
QP Q9(a)	$E(10 \text{ comma } -1 \text{ comma } -6), F(7 \text{ comma } -2 \text{ comma } 7), G(10 \text{ comma } 2 \text{ comma } 9), H(13 \text{ comma } 3 \text{ comma } -4)$
QP Q9(b)	$(\text{vector } r - \text{vector } A) \cdot \text{vector } b = 0$
	Vector A , and vector b
QP Q9(c)	Capital pie
	(25 comma minus 4 comma 13) lies in capital pie

