

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1	If $y = e^{2x}$ then $y_2 = :$			
	(A) e^{2x}	(B) $2e^{2x}$	(C) $4e^{2x}$	(D) $16e^{2x}$
2	$\int a^x dx = :$			
	(A) $\frac{\ln a}{a^x} + c$	(B) $\frac{a^x}{\ln a} + c$	(C) $\frac{1}{a^x \ln a} + c$	(D) $a^x \ln a + c$
3	$f(x) = ax + b, a \neq 0$ is :			
	(A) Trigonometric function	(B) Linear function	(C) Cubic function	(D) Quadratic function
4	$\int_0^{\frac{\pi}{2}} \cos x dx = :$			
	(A) $\frac{\pi}{2}$	(B) 0	(C) -1	(D) 1
5	$\lim_{n \rightarrow +\infty} \left(1 + \frac{1}{n}\right)^n = :$			
	(A) e^{-1}	(B) e^2	(C) $e^{\frac{1}{2}}$	(D) e^3
6	Differential of y is denoted by :			
	(A) $\frac{dy}{dx}$	(B) dy	(C) dx	(D) dy'
7	If $f(x) = \cos x$ then $f'(\pi) = :$			
	(A) 1	(B) 0	(C) -1	(D) 2
8	The value of $\frac{dy}{dx} = \frac{-2}{x^3}$ at $x = -1$ is :			
	(A) 4	(B) 5	(C) -2	(D) 2
9	Order of the differential equation $\frac{x d^2 y}{dx^2} + \frac{dy}{dx} - 2x = 0$ is :			
	(A) 1	(B) 2	(C) 3	(D) 4