



You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill the relevant circle in front of that question number on computerized answer sheet. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero marks in that question. Attempt as many questions as given in objective type question paper and leave other circles blank.

Questions	A	B	C	D
$\int e^x(\cos x + \sin x) dx = :$	$e^x \cos x$	$e^x \sin x$	$e^x \tan x$	$\ln(\sin x)$
$\int (4-x^2)^{-\frac{1}{2}} (-2x) dx = :$	$2\sqrt{4-x^2}$	$\frac{1}{2}\sqrt{4-x^2}$	$\ln(4-x^2)$	$\ln\sqrt{4-x^2}$
$\int \ln x dx = :$	$\frac{1}{x}$	$\frac{(\ln x)^2}{2}$	$x \ln x$	$x \ln x - x + c$
$\int_0^x 3t^2 dt = :$	t^3	$\frac{t^3}{3}$	x^3	0
$\frac{1}{\sqrt{x^2-1}}$ is derivative of:	$\sinh^{-1} x$	$\cosh^{-1} x$	$\tanh^{-1} x$	$\coth^{-1} x$
$\frac{d}{dx} (\ln \cos x) = :$	$\tan x$	$\cot x$	$-\tan x$	$-\cot x$
If $y = \cosh x$, then $\frac{dy}{dx} = :$	$-\sinh x$	$\sinh y$	$-\cosh x$	$\sinh x$
$\frac{d}{dx} (f(u)) = :$	$f'(u)$	$f'(du)$	$f'(u) \frac{du}{dx}$	$f'(u) du$
If $f(x) = 2x - 8$, then $f^{-1}(x) = :$	$8 - 2x$	$8 + 2x$	$\frac{x+8}{2}$	$\frac{x-8}{2}$
The function $x^2 + xy + y^2 = 2$ is a / an:	Constant function	Even function	Implicit function	Explicit function
$ a \times b $ calculates the area of:	Triangle	Parallelogram	Tetrahedron	Parallelopiped
$\hat{k} \times \hat{i} = :$	$2\hat{i}$	$-\hat{i}$	$\hat{j}$	$-\hat{j}$
The end-points of minor axis of an ellipse are called:	Foci	Vertices	Covertices	Center
The vertex of the parabola $y^2 + 16x$ is:	$(0, 0)$	$(1, 0)$	$(0, 1)$	$(1, 1)$
The center of the circle $(x-1)^2 + (y+3)^2 = 9$ is:	$(-1, 3)$	$(-1, -3)$	$(1, 3)$	$(1, -3)$
The solution of the inequality $2x + y < 5$ is:	$(1, 2)$	$(2, 1)$	$(2, 3)$	$(5, 0)$
The perpendicular distance of a line $12x + 5y - 7 = 0$ from origin is:	$\frac{1}{13}$	$\frac{13}{7}$	$\frac{7}{13}$	13
The equation of line $\frac{x}{a} + \frac{y}{b} = 1$ is:	Normal form	Intercepts form	Point-slope form	Two-points form
The line $2x - y - 4 = 0$ cuts x-axis at point:	$(2, 0)$	$(0, -2)$	$(0, -4)$	$(4, 0)$
The distance between two points $A(-8, 3)$, $B(2, -1)$ is:	116	$(-6, 2)$	$2\sqrt{29}$	$\sqrt{58}$