INDIAN SCHOOL NIZWA - WORKSHEET

MATHEMATICS

CH-8. Application of Integrations

Name_____ Date:16-10-24 Class: XII Sec: A

1.	Find the area under the given curves and given lines: (i) $y = x^2$, $x = 1$, $x = 2$ and x-axis (ii) $y = x^4$, $x = 1$, $x = 5$ and x-axis
2.	Sketch the graph of $y = \|x+3\|$ and evaluate $\int_{-6}^{0}\|x+3\|dx$.
3.	Find the area of the region bounded by the line $y = 3x + 2$, the x-axis and the ordinates $x = -1$ and $x = 1$.
4.	Find the area under the curve $y = \cos x$ between $x = 0$ and $x = 2\pi$.
5.	Find the area bounded by the curve $y = \sin x$ between $x = 0$ and $x = 2\pi$.
6.	The area bounded by the curve $y = x\|x\|$, x-axis and the ordinates $x = -1$ and $x = 1$ is given by
7.	Find the area enclosed by the circle $x^2 + y^2 = a^2$.
8.	Find the area enclosed by the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$
9.	Find the area bounded by the curve $\|x\| + \|y\| = 1$
10.	Find the area of the parabola $y^2 = 4ax$ bounded by its latus rectum