

Subjective Sheet No 3**INTEGRATION**

Q1) Find $\int x^2 dx$

Q2) Find $\int \sqrt[3]{x} dx$

Q3) Find $\int (x^2 + x + 1) dx$

Q4) Find $\int \left(\sqrt{x} + x + \frac{1}{x} + 1 \right) dx$

Q5) Find $\int \frac{1}{(7x-1)^2} dx$

Q6) Find $\int \frac{1}{(7x-1)} dx$

Q7) Find $\int (\sin(2x)) dx$

Q8) Find $\int (\cos(2x)) dx$

Q9) Find $\int (\sin^2(x)) dx$

Q10) Find $\int (\cos(2x+1)) dx$

Q11) Find $\int \frac{\sin(x) + \cos(x)}{\cos(x)} dx$

Q12) Find $\int \frac{1}{1 + \sin(x)} dx$

Q13) Find $\int \tan^2 x dx$

Q14) Find $\int_0^{\pi/4} \tan^2 \theta d\theta$

Q15) Given acceleration $a = t+2$. Find Displacement covered by the body.

Q16) Find $\int_{-1}^{-2} (x^2 + 1) dx$

Q17) Find $\int_x^y (V) dV$

Q18) Find $\int_{r_1}^{r_2} \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r^2} dr$

Q19) Find $\int_1^2 (px^2 + qx)dx$ where p and q are constants

Q20) Solve $\int_0^{\pi/2} (\sin(5x) + \cos(2x)) dx$

Q21) Solve $\int \frac{x}{\sqrt{x^2 + 2}} dx$ by substitution

CONCEPTS