

Integral Calculus-1
Model Exam Question paper - 1

11th Standard

Business Maths

Reg.No. :

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I. Answer all the questions

Time : 00:35:00 Hrs

Total Marks : 25

Part-A

5 x 1 = 5

- 1) The anti derivation of $5x^4$ is
(a) x^4 (b) x^5 (c) $4x^5 + c$ (d) $5x^4$
- 2) $\int 3dx =$
(a) 3 (b) $x + C$ (c) $3x$ (d) $3x + c$
- 3) $\int \frac{10}{x} dx$ is
(a) $\frac{1}{x}$ (b) $-\frac{1}{x^2}$ (c) $10 \log x + C$ (d) $\log x + C$
- 4) $\int e^{-x} dx$ is
(a) $-e^x + C$ (b) $e^x + C$ (c) $e^x + C$ (d) $-e^x + C$
- 5) $\int 21\sqrt{x} dx$ is
(a) $21x\sqrt{x}$ (b) $4x\sqrt{x} + C$ (c) $\int x\sqrt{x} + C$ (d) $\sqrt{x} + C$

Part-B

4 x 2 = 8

- 6) Evaluate the following:
 $\int (4x^3 - 1) dx$
- 7) Evaluate the following:
 $\int (2x^3 + 8x + \frac{5}{x} + e^x) dx$
- 8) Evaluate the following:
 $\int \left(\sqrt{x} + \frac{1}{\sqrt{x}} \right)^2 dx$
- 9) Evaluate the following:
 $\int \left(x + \frac{1}{x} \right)^3 dx$

Part-C

4 x 3 = 12

- 10) Evaluate $\int \sqrt{1 + \sin 2x} dx$
- 11) Evaluate $\int \frac{e^x - 2x^2 + xe^x}{x^2 e^x} dx$.
- 12) Evaluate $\int \frac{1}{x^2} e^{-1/x} dx$
- 13) Evaluate $\int \frac{dx}{x^2 - 7}$
