Dr. SNS RAJALAKSHMI COLLEGE OF ARTS AND SCIENCE (Autonomous)
Accredited by NAAC (Cycle-IV) with 'A+' Grade,
(Recognized by UGC & Approved by AICTE, New Delhi and Affiliated to Bharathiar University, Coimbatore)
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Subject: SUPPORTIVE / ALLIED MATHEMATICS-2: BUSINESS CALCULUS AND FINANCIAL COMPUTATION **Code:** 21UCR304

QUESTION AND ANSWER
UNIT: 2

1. Evaluate $\int (x + \frac{1}{x})^2 \ dx$
2. Integrate $\frac{x^3-x+4}{x^2}$ with respect to x .
3. Evaluate $\int_0^2 x^2 - 4x + 5 \ dx$
4. Evaluate $\int_1^3 2x^2 + 7 \ dx$
5. Integrate $\sqrt{5x+3}$ with respect to x by method of substitution
6. Evaluate $\int e^{10x}$ with respect to x by method of substitution
7. Evaluate $\int e^{7x}$ with respect to x by method of substitution
8. Evaluate $\int (x^3 + 3x + 4) dx$
9. Evaluate $\int (x^5 - x^2) dx$
10. Evaluate $\int xe^{mx} \ dx$ by integrate by parts
11. Evaluate $\int x^2 e^x \ dx$ by Integration by parts .
12. Evaluate $\int_0^5 [\sqrt{x} - 2e^x] \ dx$
13. Evaluate $\int_0^1 [3x^2 + 8x - 5] \ dx$
14. Evaluate $\int \frac{x}{2x^2-3} \ dx.$
15. Evalute $\int_0^3 [x^2 + 2x + 8] \ dx$
16. Evalute $\int_0^2 [x^3 + 4x^2 - 5x - 6] \ dx$
17. Evaluate $\int xe^x \ dx$ by Integration by parts
18. Evaluate $\int_0^1 (2x^3 - x^2 + 10) \ dx$
19. Evaluate $\int_0^4 [\sqrt{x} + e^x] \ dx$
20. Evaluate $\int x \ log \ x \ dx.$
21. Prove the integral by using substitution method $\int \frac{x}{1+x^2} \ dx = \frac{1}{2} log(1 + x^2)$.
22. Evaluate $\int x^3 e^x \ dx.$ by integration by parts