

WARDAYA COLLEGE – TOP UNIVERSITIES CLASS

TEST 1

Each question is scored 15

1. $\int \frac{x - \sqrt[3]{(\arctan 3x)^2}}{1 + 9x^2} dx$
2. $\int \frac{e^{3x} + 3e^{2x} + 5e^x}{e^x + 2} dx$
3. $\int \frac{x^4 - x^3 - 6x^2 + 13x + 5}{x^2 - 2x + 1} dx$
4. $\int \frac{3 + 2\sqrt{x}}{2 + \sqrt{x}} dx$
5. $\int \sqrt[4]{\frac{x + \sqrt{x^2 + 1}}{(x^4 + 2x^2 + 1)^2}} dx$
6. $\int \frac{x + \sqrt{x + 2} + 2}{x^2 + 3x + 2} dx$
7. $\int \sqrt{x - \sqrt{x - \sqrt{x - \dots}}} dx$
8. $\int \sqrt{x + 5 + \sqrt{8x + \sqrt{12x + \sqrt{24}}}} dx$