

## ECAT (Pre-Eng) Mathematics Chapter 19 Integration

| Sr | Questions                                                                                                 | Answers Choice                                                                                       |
|----|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 1  | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   | A. 1<br>B. 2<br>C. 3<br>D. 4                                                                         |
| 2  | If the lower limit of an integral is a constant and the upper limit is a variable, then the integral is a | A. Constant function<br>B. Variable value<br>C. Function of upper limit<br>D. All                    |
| 3  | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   |                                                                                                      |
| 4  | Which of the following integrals can be evaluated                                                         |                                                                                                      |
| 5  | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   | A. $5x^{>4} + c$<br>B. $\frac{1}{6} x^{>6} + c$<br>C. $5x^{>2} + c$<br>D. $\frac{1}{5} x^{>6} + c$   |
| 6  | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   |                                                                                                      |
| 7  | The differential equation of all st. lines which are at a constant distance to form the origin is         |                                                                                                      |
| 8  | The area between the x-axis the curve $y = 4x - x^2$ is :                                                 | A. $\frac{32}{2}$<br>B. 15<br>C. 18<br>D. 21                                                         |
| 9  | Archimedes approximate the function by horizontal function and the area under f by the sum of small       | A. Parallelograms<br>B. Squares<br>C. Rectangles<br>D. Polygons                                      |
| 10 | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   | A. $a \operatorname{cosec}(ax + b) + c$<br>B. $-a \operatorname{cosec}(ax + b) + c$                  |
| 11 | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   | A. $\cot x + c$<br>B. $\tan x + c$<br>C. $-\cot x + c$<br>D. $-\tan x + c$                           |
| 12 | The differential equations of all conis whose axes coincide with the co-ordinate axis is                  |                                                                                                      |
| 13 | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   | A. A variable<br>B. A constant<br>C. 0<br>D. None of these                                           |
| 14 | $\int f(x)$ is known as:                                                                                  | A. Definite itegral<br>B. Indefinite integral<br>C. Fixed integral<br>D. Multiple integral           |
| 15 | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   | A. $Y = -x \log x - x + c$<br>B. $Y = x \log x + x$<br>C. $Y = x \log x - x + c$<br>D. None of these |
| 16 | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   |                                                                                                      |
| 17 | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   |                                                                                                      |
| 18 | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   |                                                                                                      |
| 19 | Question Image <input style="width: 500px; height: 20px;" type="text"/>                                   |                                                                                                      |
| 20 | The area under the curve $y = 1/x^2$ between $x = 1$ and $x = 4$ is:                                      | A. -25<br>B. 0.75<br>C. -0.35<br>D. -10                                                              |