

FA Part 2 Mathematics Full Book Test Online

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | Question Image | A. Continuous at $x = 1$ B. Not continuous at $x = 1$ C. Both a and b D. none |
| 2 | If the equation of the parabola is $x^2 = 4ay$, then opening of the parabola is to _____ of the x-axis: | A. Left B. Upward C. Right D. Downward |
| 3 | The two parts of a right circular cones are called: | A. Nappes B. Apex of the cone C. Generator D. Vertex |
| 4 | The condition for the line $y = mx + c$ to be a tangent to the circle $x^2 + y^2 = a^2$ is $c =$ _____: | |
| 5 | Question Image | A. One variable B. Three variable C. Two variable D. Four variable |
| 6 | The small change in the value of $f(x)$, positive or negative is called the ----- of x . | A. Increment B. Differential C. Derivative D. none of these |
| 7 | For any point (x, y) on x-axis: | A. $y = 1$ B. $y = 0$ C. $y = -1$ D. $y = 2$ |
| 8 | If the graph of f is entirely below the x-axis, then the definite integral is: | A. Positive B. Positive or negative C. Negative D. Positive and negative |
| 9 | Question Image | A. 0 B. 1 C. 2 D. 4 |
| 10 | Question Image | A. c B. 0 C. 1 D. $-c$ |
| 11 | Question Image | C. 28 D. 29 |
| 12 | Question Image | A. $2\cosh x$ B. $2\sinh x$ C. $2\sinh (2x)$ D. $-2\sinh (2x)$ |
| 13 | A circle is of radius 5 cm, the distance of a chord 8 cm long from its center is: | A. 4 cm B. 3cm C. 2.5cm D. 3.4cm |
| 14 | The center of circle $(x+3)^2 + (y-2)^2 = 16$ equals: | A. (-3, 2) B. (3, -2) C. (3, 2) D. (-3, -2) |
| 15 | The pair of lines of homogeneous second-degree equation $ax^2 + 2hxy + by^2 = 0$ are real and coincident, if: | A. $h^2 < ab$ B. $h^2 > ab$ C. $h^2 = ab$ D. None of these |
| 16 | Question Image | A. $\sec x \tan x$ B. $\sec^2 x$ C. $-\sec x \tan x$ D. $\sec x$ |

D. $-\sec^2 x$

17 Let $f(x) = \cos x$, then $f(x)$ is an:

- A. Even function
- B. Odd function
- C. Power function
- D. None of these

18 The point where the axis meets the parabola is called _____ of the parabola:

- A. Directrix
- B. Vertex
- C. Focus
- D. Eccentricity

19 The directrix of the parabola $x^2 = 4ay$ is:

- A. $x = a$
- B. $x = -a$
- C. $y = a$
- D. $y = -a$

20 The conic is a parabola, if:

- A. $e = 1$
- B. $e > 1$
- C. $0 < e < 1$
- D. $e = 0$