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COURSE CODE MAT 101. {compiled by NoahLyMatics}

FULL NAME : .....
DEPARTMENT : .....
MATRIC NO : .....
LEVEL :.....
PHONE NO 1: .....PHONE NO 2.....

Take Quiz >>>>>>> {30 Questions}

Que 1

In a recent survey of 400 students in Palm Ville High College,100 were listed as smokers and 150 as Chewers of gum,75 were listed as both Smokers and Chewers of Gum. Find how many students are neither smokers nor gum chewers.

(a) 150 (b) 250 (c) 225 (d) 125

Que 2

Which term of the arithmetic progression 49,44,39,.... , is 9 ?

(a) second term (b) first term (c) seventh term (d) ninth term

Que 3

In a geometric series, the first term is 7,the last term is 448,and the sum is 889.find the common ratio 'r'

(a) r=3 (b) r=12 (c) r=14 (d) r=2

Que 4

Let x be the required arithmetic mean,then 8,x,16 form three successive terms in the arithmetic progression, find x

(a) 15 (b) 13 (c) 30 (d) 12

Que 5

What are the values of the x for which $\frac{x^3-3x^2+2x}{x^2+5x+5} = 0$

(a) x=0,–1,or –2 (b) x=0,1,or 3 (c) x=0,1,or –3 (d) x=0,–1,or 3

Que 6

The sum of five numbers in an arithmetic progression is 25 and the sum of their squares is 165. Find the common difference

(a) 3 (b) –2 (c) 2 (d) –3

Que 7

Find the value of x for which $\frac{(x^3+3x^2+2x+7)}{(x^2+5x+6)}$ is undefined

(a) x= –3 or –2 (b) x=3 (c) x= 2 or 3 (d) x=–2 or 3

Que 8

Find the number of terms in an Arithmetic progression whose first term is 5, common difference is 3,and sum is 55.

(a) n=5 (b) n=7 (c) n=9 (d) n=–8

Que 9

The sum of the first n terms of a series is $(2n^2 - n)$. Find the nth term

(a) 6n-3 (b) 4n-3 (c) 2n-3 (d) 5n-4

Que 10

Suppose $Z_1 = 5 + 12i$ *and* $Z_2 = 3 + 4i$, *express* $\frac{Z_1}{Z_2}$ in polar form

(a) $\frac{13}{5}[Cos(14.3) - iSin(14.3)]$ (b) $\frac{69}{25}[Cos(14.3) + iSin(14.3)]$

(c) $\frac{4}{5}[Cos(14.3) + iSin(14.3)]$ (d) $\frac{13}{5}[Cos(14.4) + iSin(14.3)]$

Que 11

The 383rd term of the series 5+8+11+... is ?

(a)120 (b) 128 (c) 89 (d) 150

Que 12

Suppose A={1,4} ,B={4,5} ,C={5,7} determine (A×B)n(A×C)

(a) {1,5},{4,10} (b) {1,5},{4,5} (c) {1,5},{4,5}{5,5} (d) {1,5},{5,5}

Que 13

In solving the quadratic equation $x^2 - 4x + 3 = 0$ the roots are .....

(a) imaginary (b) real (c) zero (d) equal

Que 14

A survey in a class Show that 15 out of the pupils play Cricket,11 play Tennis and 6 play Cricket and Tennis, How many pupils are there in the class. (Hint: assume that everyone plays at least one of these game)

(a) 15 (b) 21 (c) 20 (d) 31

Que 15

The sum of five numbers in an Arithmetic progression is 25 and the sum of their series squares is 165. find the numbers.

(a) $\pm 2\sqrt{2}$ (b) ± 2 (c) +2 (d) -2

Que 16

Find the number of terms in an A.P whose first term is 5,common difference 3,and the sum 55.

(a) 4 (b) 5 (c) 6 (d) 7

Que 17

m-6, m ,and m+8 are successive terms of a geometric series,which of the following is/are not true about m ?
(i) m is even (ii) m is odd (iii) m is prime

(a) (ii) and (iii) only (b) (ii) only (c) (i) and (iii) (d) (i) only

Que 18

Let x be the required geometric mean (G.M) between a and b then a,x,b are the successive terms in the G.P. find the GM

(a) $\sqrt{axb}$ (b) $\frac{ab}{x}$ (c) $\sqrt{ab}$ (d) x(ab)

Que 19

which of the following relations is a/are Functions ?
(i)$\{(x, y)|y = x^2 + 1\}$ (ii) $\{(x, y)|y^2 = x + 2\}$ (iii) (2,1),(3,1),(4,1)

(a) (i) and (iii) only (b) (ii) only (c) (iii) only (d) (i) only

Que 20

Let x be the required arithmetic mean, then 8,x,16 form three consecutive terms in the A.P ,find x

(a) 16 (b) 30 (c) 12 (d) 10

Que 21

Written in decimal notation, $(510^3) + (310^2) + (910^0) =$

(a) 5039 (b) 5390 (c) 539 (d) 5309

Que 22

what is the result when you put the expression $x^2 + 10x + 41$ into vertex form by completing the square ?

(a) $(x + 7)^2 = -8$ (b) $(x + 5)^2 = -16$ (c) $(x - 7)^2 = 8$ (d) $(x + 5)^2 = 16$

Que 22

The factors of $x^2 - 10x - 24$ are .....

(a) (x-12) and (x+2) (b) (x-8) and (x+3) and (c) (x-6) and (x+4) (d) (x+6) and (x-4)

Que 23

The set of elements in $\{x|x \ \ is \ \ a \ \ positive \ \ even \ \ integers \ \ less \ \ than \ \ 4\}$ is ?

(a) {0,2} (b) {1,2,3} (c) {2} (d) {...,-2,0,2}

Que 24

What is the square root of -9 i.e $\sqrt{-9}$

(a) -3 (b) A negative number cannot have a square root (c) 3 (d) 3i

Que 25

Which of the following expressok is equal to the expression below : {Hint:lne=1 i.e $log_e e$}

$ln e^4(\frac{5}{x^3})$

(a) 4-ln5+3lnx (b) 4+(ln5-ln3) (c) 4-ln5-ln3 (d) 4+(ln5+ln3)

Que 26

What is the square root of -144 ?

(a) 12i (b) -12i (c) -12 (d) none of the above

Que 27

In the equation $x^2 - 10x + 34 = 0$, x is equal to which of the following solution sets?

(a) (5+3i),(5,3i) (b) (5,3i),(5,-3i) (c) Not possible (d) (1,0),(0,1)

Que 28

What is the value of the Discriminant when using the Quadratic Formula to solve the equation $2x^2 + 10x - 8$?

(a) 6 (b) 7 (c) 8 (d) None

Que 29

Evaluate $Log_4 25$

(a) 1.756 (b) 2.322 (c) 6.25 (d) 4.753

Que 30

The expression (3i-2)(i+1)–7 can be simplified to which of the following expression ?

(a) 7-3i (b) i-12 (c) 3i-10 (d) i-5