****

Name: Salman Tahir

ID: 15173

Subject: Business Maths

Teacher: Dr Laiqat Ali

***Question No.1 10***

i The solutions of  are (a) (b) (c) (d) only (e) None of them  
**Answer. (e) None of them**

ii The equation shows (a)Linear cost function (b) Linear profit function (c) Linear revenue function (d) None of them  
**Answer. (b) Linear profit function**

iii The sum of two numbers is 40 and difference is 20 then the numbers are = (a) (33,10) (b) (30,10) (c) (60,30) (d) 53 (e)None of them  
**Answer. (b) (30,10)**

iv

(a) (b) 10 (c) 11.2(d) 41(e) None of them  
**Answer. ( e) None of them**

v A stair make an angle of inclination with the horizontal then its slope is

1. ( b ) (c) (d) None of them

**Answer. (d) None of them**

vi If and then is

1. ( b ) (c) (d) (e) ) None of them

**Answer. ( e) None of them**

vii The domain of a curve is (a) ( b ) (c) (d) (e) None of them

**Answer. (d) [-1.1]**

viii (a) 36 (b) -4 (c) 4 (d) 0 (e) None of them

**Answer. None of them**

ix A painter can paint 200 wall in 10 hours. Then the time required to paint 2000 wall will be .

is (a) 60 hours(b) 90 hours (c) 30 hours (d) 50 hours (e) None of them

**Answer. None of them**

x If of cost price is equal to 50% of sale price then the sale price will be

(a) (b) (c) (d) None of Them

**Answer. Non of the above**

***Note: Attempt all questions.***

***Question No.2 10***

1. The sum of the ages of a girl and her brother is 20 years. Two years ago her age was three times the age of her brother. Find the present age of girl and her brother.

SOLUTION:

G+B=20--------Eq 1  
2 years ago

(G-2) =3(B-2)-----------Eq 2

G-2 = 3B – 6

G = 3B-6+2

G = 3B -4-----------Eq 3

Putting Eq 3 in Eq 1

3B-4 + B= 20

4B = 20 + 4

4B = 24

B = 24/4

B= 6------------Eq 4

Putting Eq 4 in Eq 1

G+6=20

G=14

Present age of girl is 14 and her brother’s age is 6.

1. Cost price = $12

Markup = $7.20

Find markup percent on cost, also find Selling price

SOLUTION:

Given Cost price = $12  
Markup = $7.20  
Markup Percentage = (7.2/12)\*100  
 =.6\*100  
 =60 %

Selling Price = Cost price + Markup  
 =12+7.2  
 =$ 19.2

***Question No.3 10***

*a. Simplify by using exponential laws*

*SOLUTION:*

*=*

*=*

*=*

*=*    
 *=*

*=*

*=*

***Question No.4 10***

If

U= the set of odd numbers less than 25,

A=the set of numbers divisible by 3 less than 19,

B= the set of numbers divisible by 5 or 10 less than 15,

C= the set of numbers which are multiples of 3 and less than 21,

then find the following

1. *Show that and b.*

Answer

Set of A = C

Set of B = (5, 10)

Set of C = (3, 6, 9, 12, 15, 18)

= {(3, 5, 6, 9, 10, 12, 15, 18}

(1, 5, 7, 11, 13, 17, 19, 21, 23)

Complement of Set A = {1, 5, 7, 11, 13, 17, 19, 21, 23}

Complement of Set B = {1, 5, 7, 11, 13, 17, 19, 21, 23}

HENCE PROVED L.H.S=R.H.S

Part B

B {3, 5, 6, 9, 10, 12, 15, 18}

A

(A =

(A {3, 6, 9, 12, 15, 18}

(A

HENCE PROVED L.H.S=R.H.S

***Question No.5 10***

1. List price = $150

Trade discount = 20%, Find the net cost.

SOLUTION:

Trade discount = Trade discount rate x List price  
 = .2 x 150  
 = $ 30

Net cost = List price – Trade discount

= 150 – 30

= $120

1. Solve the following simultaneous for x and y

SOLUTION

----- Eq 1------- Eq 2

Multiplying Eq 1 by 12

------Eq 3

Adding Eq 2 & 3

------Eq 4

Putting Eq 4 in Eq 3