

MIDTERM EXAMINATION
Spring 2010
MTH001- Elementary Mathematics

Date: 06 Dec 2010
Time: 60 min
Marks: 40

Total 26 question
But
Here some question is Missing

Question # 1

$$\emptyset \in \{x\}$$

- ▶ True
- ▶ False

Question # 2

The text concatenation operator is used to

- ▶ combine two text strings.
- ▶ include “.” and “,”
- ▶ calculate exponentiation: ^
- ▶ make comparisons.

Question # 3

Union of any two sets satisfies commutative law.

- ▶ True

► False

Question # 4

If $A = \{1, 2, 3, 4\}$ then A is proper subset of A .

► True

► False

Question # 5

In Sets ordered pairs order of elements doesn't matters.

► True

► False

Question # 6

Let $a_1, a_2, a_3, \dots, a_n$ be an arithmetic sequence, then sum of the sequence $S_n =$

► True

► False

Question # 7

Let $A = \{1, 2, 3\}$ and $B = \{\{1, 2\}, 3\}$
then $A \cup B$

► $\{1\}$

► $\{2\}$

► $\{1, 2\}$

► $\{\{1, 2\}\}$

Question # 8



The above relation shows _____.

- ▶ not a function
- ▶ injective function
- ▶ surjective function
- ▶ Bijective function

Question # 9

The n th term of an A. P (Arithmetic Progression) is:

- ▶ $a + (n - 1) d$
- ▶ $a - (n - 1) d$
- ▶ $a - (n - 1) d$
- ▶ $a + (n + 1) d$

Question # 10

?% of 360=129.6

Question # 11

Let f be defined by

$$f(x) = 4x + 2$$

Prove that f is an onto function.

Question # 12

Let $A = \{0, 1, 2, 3\}$ and R is a relation defined on A such that

$R = \{ (0,0), (0, 1), (1, 1), (1,0), (2,2), (0,3), (3,3), (3,0) \}$

Is R reflexive and symmetric but not Transitive.

Question # 13

Find the sum of first five terms of following geometric series:

$1 + 4 + 16 + \dots$

Question # 14

Television sale \$300. The sale price 20% less than regular price.

What is regular price?