QUIZ REVISION FOR 1st SEM

Good Luck!


ICP

(D)B=-2 C=16

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 5

What is the range of short data type in Java?

(A)-128 to 127
(B)-32768 to 32767
(C)-2147483648 to 2147483647
(D)Non of the above

Ops: A. ○ A
B. ● B
C. ○ C
D. ○ D

reset answer

D. ○ D

Q 7

Which of these jump statements can skip processing the remainder of the code in its body for a particular iteration?

(A) break
(B) return
(C) continue
(D) exit

Ops: A. ○ A
B. ○ B
C. ● C
D. ○ D

reset answer

D. ○ D

Q 30

Which of the foll
loop even when co
initially false?

(A) do-while
(B) while
(C) for
(D) none of the m

Ops: A. ◉ A

B. ○ B

C. ○ C

D. ○ D

reset answer

D. ○ D

Q 27

Which of thes
Java?

(A) identifie
(B) keyword
(C) identifie
(D) none of t

Ops: A. ○ A

B. ◉ B

C. ○ C

D. ○ D

reset answer

Q 28

Which of thes

1 Questions

30 questions, 1 ma

Q 1 Which of these is necessary condition for automatic type conversion in Java?
(A) The destination type is smaller than source type
(B) The destination type is larger than source type
(C) The destination type can be larger or smaller than source type
(D) None of the mentioned

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 2 What is the correct suntax for main method of java class?

(A)public static int main(String[] args)
(B)public int main(String[] args)
(C)public static void main(String[] args)
(D)Non of the above

Reset answer

Q 6

Which of this statement is incorrect?

(A) switch statement is more efficient than a set of nested ifs

(B) two case constants in the same switch can have identical values

(C) switch statement can only test for equality, whereas if statement can evaluate any type of boolean expression

(D) it is possible to create nested switch statements.

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 7

```
        public static void
        {
            int a = -15;
            if (a++ <= -15
            {
                System.out.
            }
            else
            {
                System.out.

            }
        }
    }
```

(A)Hi
(B)HelloHi
(C)Hello
(D)Compilation error

Ops: A. A
B. B
C. C
D. D
reset answer

Q 11

What is Truncation is

(A) Floating-point va

Q 27

Find ouput of the following java statement.

```
public class Test{
    public static void  main(String[] args){
        int var = 65;
        switch (var)
        {
            case 'A' :
                System.out.print("Hello");

            case 65 :
                System.out.print("Hi");

            default :
                System.out.print("How are you?");
        }}}
```

(A)Hello
(B)HelloHi
(C)Hi
(D)Compilation error

Ops: A. ○ A

B. ○ B

Which of these selection statements test only for equality?

(A) switch
(B) if
(C) if & switch
(D) none of the mentioned

Ops: A. ◯ A
B. ◯ B
C. ◯ C
D. ◯ D

Q 11

Which of these can not be used for a variable name in Java?

(A) identifier
(B) keyword
(C) identifier & keyword
(D) none of the mentioned

Ops: A. ○ A
B. ○ B
C. ○ C

Q 22

Which right shift operator preserves the sign of the value?

(A) <<
(B) >>
(C) <<=
(D) >>=

Ops:

A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 7 In which format -ve numbers are represented in computer memory ?

(A) 1's Complement format
(B) 2' Complement format
(C) Original binary equivalent of the number
(D) none of the above

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D

reset answer

```
public static void main(String[] args)
{
    int x=47, y=-5, z=-5;
    z= (x>y)? (x <= z ? z: x) : (y >= z ? z: y);
    System.out.println(z);
}
}
```

(A)5
(B)6
(C)47
(D)Compilation error

Ops: A. ○ A

B. ○ B

C. ◉ C

D. ○ D

reset answer

Q 13

What is Truncation is Java?

(A) Floating-point value assigned to an integer type
(B) Integer value assigned to floating type
(C) Floating-point value assigned to an Floating type
(D) Integer value assigned to floating type

A. ○ A

B. ○ B

C. ○ C

. ○ D

C

D

answer

Find ouput of the following java statement.

```
public class Test
{
    public static void  main(String[] args)
    {
        int sum = 0;
        for (int i = 1, j = 0; i < 5 & j < 5; ++i
        sum += i;
        System.out.println(sum);
    }
}
```

(A)5
(B)6
(C)14
(D)Compilation error

A

B

C

D

et answer

What does the expression float a=45/0 retu

(A)0
(B)Not a Number

Q 29 **Find the output of**

```
public class Test
    public static
        String st
        System.ou
length());
        System.ou
    }
}
```

(A) 12522
(B) 4722
(C) 2622
(D) Non of these

Ops: A. A
B. B
C. C
D. D

reset answer

Q 30

Which of the fol
loop even when c

Modulus operator, %, can be applied to which of these?

(A) Integers
(B) Floating – point numbers
(C) Both Integers and floating – point numbers
(D) None of the mentioned

A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 30

Find ouput of the following java statement.

```
public class Test
{
    public static void  main(String[] args)
    {
        int sum = 0;
        for (int i = 1, j = 0; i < 5 & j < 5; ++i, j = i + 1)
        sum += i;
        System.out.println(sum);
    }
}
```

(A)5
(B)6
(C)14
(D)Compilation error

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Submit and Logout

Q 23

Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        for(int i=0; ;i++)
            System.out.println(i);
    }
}
```

(A) Compile time error
(B) No output
(C) infinite loop
(D) Run time exception

: A. ○ A

B. ○ B

(B) keyword
(C) identifier & keyword
(D) none of the mentioned

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D
reset answer

Q 25 Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        for(int i=1;i<=5;i++)
        {
            for(int j=5;j>=i;j--)
                System.out.print(j);
            System.out.print(" ");
        }
    }
}
```

(A) 12345 1234 123 12 1
(B) 54321 54321 54321 54321 54321
(C) 54321 4321 321 21 1
(D) 54321 5432 543 54 5

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 26 In which format -ve numbers are represented in computer memory ?

(A) 1's Complement format
(B) 2' Complement format
(C) Original binary equivalent of the number
(D) none of the above

Q7

Find ouput of the following java statement.

```
public class Test{
    public static void  main(String[] args){
        int var = 65;
        switch (var)
        {
            case 'A' :
                System.out.print("Hello");

            case 65 :
                System.out.print("Hi");

            default :
                System.out.print("How are you?");
    }}}
```

(A)Hello
(B)HelloHi
(C)Hi
(D)Compilation error

Ops: A. ○ A

B. ○ B

Q 28

Modulus operator, %, can be applied to which of these?

(A) Integers
(B) Floating – point numbers
(C) Both Integers and floating – point numbers
(D) None of the mentioned

Ops: A. ◯ A

B. ◯ B

C. ◯ C

D. ◯ D

Which of this statement

(A) switch statem

(B) two case cons

(C) switch statem

can evaluate a

(D) it is possible t

Ops: A. ○ A

B. ◉ B

C. ○ C

D. ○ D

reset answer

Q 23

If an expressio
the whole expre
data types?

(A) long
(B) int

Welcome Ayush Raj

```
public class Test {
    public static void main(String[] args) {
        int c=0,i;
        for(i=1;i<=100;i*=2);
            c++;
        System.out.println(i+" "+c);
    }
}
```

(A) 101 1
(B) 101 0
(C) 128 1
(D) 128 0

A

Q 20 Which of these is necessary condition for automatic type conversion in Java?

(A) The destination type is smaller than source type

(B) The destination type is larger than source type

(C) The destination type can be larger or smaller than source type

(D) None of the mentioned

Ops:

A. ○ A

B. ○ B

C. ○ C

D. ○ D

(D) Integer or Boolean

Ops: A. ○ A
B. ○ B
C. ○ C
D. ● D

reset answer

Q 16 Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        String str1="Welcome to CSE department";
        System.out.print(str1.indexOf('e')+str1.
length());
        System.out.print(str1.lastIndexOf('e'));
    }
}
```

(A) 12522
(B) 4722
(C) 2622
(D) Non of these

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 17 Find the output of the following Java code.

```
public class Test {
```

Q 23

If an expres
the whole ex
data types?

(A) long
(B) int
(C) double
(D) float

Ops: A. A
B. B
C. C
D. D

reset answer

Q 24 In which format

Q 8

Which of this statement is incorrect?

(A) switch statement is more efficient than a set of nested ifs

(B) two case constants in the same switch can have identical values

(C) switch statement can only test for equality, whereas if statement can evaluate any type of boolean expression

(D) it is possible to create nested switch statements.

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 1

Which of this statement is incorrect?

(A) switch statement is more efficient than a set of nested ifs

(B) two case constants in the same switch can have identical values

(C) switch statement can only test for equality, whereas if statement can evaluate any type of boolean expression

(D) it is possible to create nested switch statements.

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

returned by the operator &?

Q 28

Which of these jump statements can skip processing the remainder of the code in its body for a particular iteration?

(A) break
(B) return
(C) continue
(D) exit

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

(A) &
(B) &=
(C) |=
(D) <=

Ops: A. ○ A
B. ○ B
C. ○ C
D. ● D
reset answer

Q 7

Modulus operator, %, can be applied to which of these?

(A) Integers
(B) Floating – point numbers
(C) Both Integers and floating – point numbers
(D) None of the mentioned

Ops: A. ○ A
B. ○ B
C. ● C
D. ○ D
reset answer

Find the output of the following Java

```
public class Test {
    public static void main(String[]
        int i = 0;
        int res = 1;
        while ( true )
        {
            ++i;
            if ( i % 2 == 0 )
                continue;
            else if ( i % 5 == 0 )
                break;
            res *= 3;
        }
        System.out.println(res);
    }
}
```

(A) 9
(B) 27
(C) 81
(D) This loop does not terminate

A. ○ A
B. ○ B
C. ○ C
D. ○ D

```
public class Test
{
    public static void  main(String[] args)
    {
        int a = 12;
        int b = 0;
        int c = a++ * 2 - 7 - b-- * b++;
        System.out.println("b="+b+" "+"c = " + c);
    }
}
```

(A)b=-1 c=17
(B)b=-1 c=18
(C)b=0 c=17
(D)b=-2 c=16

Ops: A. ○ A

Which of these can not be used for a variable name in Java?

(A) identifier
(B) keyword
(C) identifier & keyword
(D) none of the mentioned

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D

reset answer

Q 15

Which of this statement is incorrect?

(A) switch statement is more efficient than a set of nested ifs

(B) two case constants in the same switch can have identical values

(C) switch statement can only test for equality, whereas if statement can evaluate any type of boolean expression

(D) it is possible to create nested switch statements.

Ops: A. ○ A
B. ◉ B

value?

preserves the sign of the

(A) <<
(B) >>
(C) <<=
(D) >>=

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D

reset answer

Q 19

What is the correct suntax for main method of java class?

(A)public static int main(String[] args)
(B)public int main(String[] args)
(C)public static void main(String[] args)
(D)Non of the above

Ops: A. ○ A
B. ○ B
C. ◉ C
D. ○ D

Q 19

Modulus operat

(A) Integers
(B) Floating –
(C) Both Intege
(D) None of the

Ops: A. ○ A

B. ○ B

C. ◉ C

D. ○ D

reset answer

Q 20

Find ouput of the

```
public class Test
{
    public static
    {
        int a = 1
```

Q 21

Which one of the following is a valid statement?

(A)char []c=new char()

(B)char []c=new char[5]

(C)char []c=new char(4)

(D)char []c=new char[]

Ops: A. ◯ A

B. ◯ B

C. ◯ C

D. ◯ D

Q 22

... to invert all the digits in a

Q8 Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        for(int i=0; ;i++)
            System.out.println(i);
    }
}
```

(A) Compile time error
(B) No output
(C) infinite loop
(D) Run time exception

s: A. ○ A

B. ○ B

C. ○ C

D. ○ D

C. ○ C

D. ○ D

Q 16

Which one of the f

(A)char []c=new ch

(B)char []c=new ch

(C)char []c=new ch

(D)char []c=new ch

Ops: A. ○ A

B. ◉ B

C. ○ C

D. ○ D

reset answer

Q 17 Find the output

public class Test

```
        }
    }
}
```

(A) 12345 1234 123 12 1
(B) 54321 54321 54321 54321 54321
(C) 54321 4321 321 21 1
(D) 54321 5432 543 54 5

Ops: A. ○ A
B. ○ B
C. ○ C
D. ◉ D

reset answer

Q 28

Q 29

Which right shift operator preserves the sign of the value?

(A) <<
(B) >>
(C) <<=
(D) >>=

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D

reset answer

Q 30

Which of this statement is incorrect?

efficient than a set of nested ifs

Q 16

Find ouput of the following java statement.

```
public class Test
{
    public static void  main(String[] args)
    {
        int x=47, y=-5, z=-5;
        z= (x>y)? (x <= z ? z: x) : (y >= z ? z: y);
        System.out.println(z);
    }
}
```

(A)5
(B)6
(C)47
(D)Compilation error

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 17 Which of these can be returned by the operator &?
(A) Integer

```
public class Test
{
    public static void main(String[] args)
    {
        int x=47, y=5, z=5;
        z= (x>y)? (x == z ? z: x) : (y == z ? z: y);
        System.out.println(z);
    }
}
```

(A)5
(B)6
(C)47
(D)Compilation error

Options A. ○ A
B. ○ B
C. ● C
D. ○ D

Reset answer

Q23 Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        for(int i=1;i<=5;i++)
        {
```

Q 5

Find ouput of the following java statement.

```
public class Test
{
    public static void  main(String[] args)
    {
        int x=47, y=-5, z=-5;
        z= (x>y)? (x <= z ? z: x) : (y >= z ? z: y);
        System.out.println(z);
    }
}
```

(A)5
(B)6
(C)47
(D)Compilation error

Ops: A. ○ A

B. ○ B

string, with leading and trailing whitespace omitted?

(A) valueOf()
(B) intern()
(C) split()
(D) trim()

Ops: A. ○ A
B. ○ B
C. ○ C
D. ◉ D

reset answer

Q 17

Find ouput of the following java statement.

```
public class Test{
    public static void  main(String[] args){
        int var = 65;
        switch (var)
        {
            case 'A' :
                System.out.print("Hello");
```

Q 4

Which of these selection statements test only for equality?

(A) switch
(B) if
(C) if & switch
(D) none of the mentioned

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 5

a package?

accessing the features of

(A)package

(B)import

(C)extends

(D)export

Ops: A. A

B. B

C. C

D. D

reset answer

Q 21

Which one of the following is a valid statement?

(A)char []c=new char()

(B)char []c=new char[5]

(C)char []c=new char(4)

(D)char []c=new char[]

Ops: A. A

B. B

C. C

```
public class Test {
    public static void main(String[] args) {
        for(int i=1;i<=5;i++)
        {
            for(int j=5;j>=1;j--)
                System.out.print(j);
            System.out.print(" ");
        }
    }
}
```

(A) 12345 1234 123 12 1
(B) 54321 54321 54321 54321 54321
(C) 54321 4321 321 21 1
(D) 54321 5432 543 54 5

Opsi A. ○ A
B. ○ B
C. ○ C
D. ● D

reset answer

Q24 Which of these can be returned by the operator &?
(A) Integer

Find the output

```
public class Te
    public sta
        for(in
        {
            fo

            Sy
        }
    }
}
```

(A) 12345 1234
(B) 54321 54321
(C) 54321 4321
(D) 54321 5432

Ops: A. ○ A
B. ○ B
C. ○ C
D. ● D

reset answer

D. ○ D

Q 15 Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        int i = 0;
        int res = 1;
        while ( true )
        {
            ++i;
            if ( i % 2 == 0 )
                continue;
            else if ( i % 5 == 0 )
                break;
            res *= 3;
        }
        System.out.println(res);
    }
}
```

(A) 9
(B) 27
(C) 81

Q 25

Which one of the following is a valid statement?

(A)char []c=new char()

(B)char []c=new char[5]

(C)char []c=new char(4)

(D)char []c=new char[]

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 26

Find ouput of the following java statement.

What does the expression float a=45/0 return?

(A)0
(B)Not a Number
(C)Infinity
(D)Run time Exception

ɔs: A. ○ A

B. ○ B

C. ○ C

D. ○ D

reset answer

Q 26

What is the range of short data type in Java?

(A)-128 to 127
(B)-32768 to 32767
(C)-2147483648 to 2147483647
(D)Non of the above

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D

reset answer

```
                    break;
                res *= 3;
            }
            System.out.println(res);
        }
    }
```

(A) 9
(B) 27
(C) 81
(D) This loop does not terminate

Ops: A. ○ A
B. ○ B
C. ◉ C
D. ○ D

reset answer

Q 23

Which of these selection statements test only for equality?

(A) switch
(B) if
(C) if & switch
(D) none of the mentioned

Ops: A. A
B. B
C. C
D. D

reset answer

Q 7

Which one of the following is a valid statement?

(A)char []c=new char()

(B)char []c=new char[5]

(C)char []c=new char(4)

(D)char []c=new char[]

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 8

Which right shift operator preserves the sign of the

Q 21

What does the expression float a=45/0 return?

(A)0
(B)Not a Number
(C)Infinity
(D)Run time Exception

Ops: A. ○ A
B. ○ B
C. ○ C
D. ◉ D

reset answer

Q 22 Find the output of the following Java code

D. ○ D

Q 5

Which of these is nec
type conversion in Ja
(A) The destination t
(B) The destination t
(C) The destination t
than source type
(D) None of the menti

Ops: A. ○ A

B. ◉ B

C. ○ C

D. ○ D

reset answer

Q 6

Find ouput of the fol

```
public class Test{
    public static voi
        int var = 65
        switch (var)
        {
            case 'A'
                Syste
```

reset answer

Q 6 Which of these can be returned by the operator &?
(A) Integer
(B) Boolean
(C) Character
(D) Integer or Boolean

Ops: A. ○ A
B. ○ B
C. ○ C
D. ◉ D

reset answer

Q 7 In which format -ve numbers are represented in computer memory ?

Q 4

Which keyword is used for accessing the features of a package?

(A) package

(B) import

(C) extends

(D) export

Ops: A. ○ A

B. ◉ B

C. ○ C

D. ○ D

reset answer

C. ○ C

D. ○ D

reset answer

Q 26

Which operator is
binary representat

(A) ~
(B) <<<
(C) >>>
(D) ^

Ops: A. ◉ A

B. ○ B

C. ○ C

D. ○ D

reset answer

Q 27

Q 22 In which format -ve numbers are represented in computer memory ?

(A) 1's Complement format
(B) 2' Complement format
(C) Original binary equivalent of the number
(D) none of the above

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

C. ○ C

D. ○ D

Q 24

In which format -ve
computer memory ?

(A) 1's Complement
(B) 2' Complement f
(C) Original binary
(D) none of the abo

Ops: A. ○ A

B. ◉ B

C. ○ C

D. ○ D

reset answer

Q 25

Which right shif
value?

(A) <<
(B) >>
(C) <<=
(D) >>=

Find ouput of the follow

```
public class Test{
    public static void
        int var = 65;
        switch (var)
        {
            case 'A' :
                System.

            case 65 :
                System.

            default :
                System.
        }}}
```

(A)Hello
(B)HelloHi
(C)Hi
(D)Compilation error

Ops: A. A
B. B
C. C
D. D

reset answer

Q 7

Q 18

Which operator is used to invert all the digits in a binary representation of a number?

(A) ~
(B) <<<
(C) >>>
(D) ^

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q14

Find ouput of the following java statement.

```
public class Test
{
    public static void  main(String[] args)
    {
        int x=47, y=-5, z=-5;
        z= (x>y)? (x <= z ? z: x) : (y >= z ? z: y);
        System.out.println(z);
    }
}
```

(A)5
(B)6
(C)47
(D)Compilation error

```
                System.out.print(" ");
            }
        }
    }
```

(A) 12345 1234 123 12 1
(B) 54321 54321 54321 54321 54321
(C) 54321 4321 321 21 1
(D) 54321 5432 543 54 5

Ops:

A. ○ A

B. ○ B

C. ○ C

D. ◉ D

reset answer

Q 9

Find the output of th

```
public class Test {
    public static vo
        for(int i=0;
            System.
    }
}
```

(A) Compile time err
(B) No output
(C) infinite loop
(D) Run time excepti

Ops: A. ○ A
B. ○ B
C. ◉ C
D. ○ D

reset answer

Q 10

Find ouput of the fol

```
public class Test
{
    public static voi
```

reset answer

Q 12 Which of these can
(A) Integer
(B) Boolean
(C) Character
(D) Integer or Boo

Ops: A. ○ A
B. ○ B
C. ○ C
D. ◉ D

reset answer

Q 13 Which keyword is
a package?

(A)package

(B)import

(C)extends

reset answer

Q 30

Which operator is used to invert all the digits in a binary representation of a number?

(A) ~
(B) <<<
(C) >>>
(D) ^

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q6

If an expression contains double, int, float, long, then the whole expression will be promoted into which of these data types?

(A) long
(B) int
(C) double
(D) float

Ops: A. ○ A
B. ○ B
C. ◉ C
D. ○ D

reset answer

Q7

Which of these can not be used for a variable name in

Q 11 Which right shift operator preserves the sign of the value?

(A) <<
(B) >>
(C) <<=
(D) >>=

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 12

Which of this statement is incorrect?

(A) switch statement is more efficient than a set of nested ifs

(B) two case constants in the same switch can have identical values

(C) switch statement can only test for equali

```
for(int i=0; ;i++)
        System.out.println(i);
    }
}
```

(A) Compile time error
(B) No output
(C) infinite loop
(D) Run time exception

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

reset answer

Q 14 Which of the String
string, with leadin

(A) valueOf()
(B) intern()
(C) split()
(D) trim()

Ops: A. ○ A
B. ○ B
C. ○ C
D. ◉ D

reset answer

Q 15

Find ouput of the

```
public class Test
{
```

Q 28

Which of th

(A) &
(B) &=
(C) |=
(D) <=

Ops: A. ○ A

B. ○ B

C. ○ C

D. ◉ D

reset answer

Q 29 Find the outp

```
public class
    public st
        Strin
        Syste
length());
```

Welcome Ayush Raj

Q7 Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        String str1="Welcome to CSE department";
        System.out.print(str1.indexOf('e')+str1.
length());
        System.out.print(str1.lastIndexOf('e'));
    }
}
```

(A) 12522
(B) 4722
(C) 2622
(D) Non of these

Q 11

What is Truncat

(A) Floating-po
(B) Integer val
(C) Floating-po
(D) Integer val

Ops: A. (●) A
B. ( ) B
C. ( ) C
D. ( ) D

reset answer

Q 12 Which of these can
(A) Integer
(B) Boolean
(C) Character
(D) Integer or Bool

Q1 Which of the String class method returns a copy of
string, with leading and trailing whitespace omitte

(A) valueOf()
(B) intern()
(C) split()
(D) trim()

Ops: A. ○ A
B. ○ B
C. ○ C
D. ◉ D

reset answer

D. ○ D

Which of the following loops will execute the body of loop even when condition controlling the loop is initially false?

(A) do-while
(B) while
(C) for
(D) none of the mentioned

A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 1

Which keyword is used for accessing the features of a package?

(A) package

(B) import

(C) extends

(D) export

Ops: A. ○ A

B. ● B

C. ○ C

D. ○ D

reset answer

Q 12

Which of this statement is incorrect?

(A) switch statement is more efficient than a set of nested ifs

(B) two case constants in the same switch can have identical values

(C) switch statement can only test for equality, whereas if statement can evaluate any type of boolean expression

(D) it is possible to create nested switch statements.

Ops: A ○ A
B ○ B
C ○ C
D ○ D

Q 13

Which of these can not be used for a variable name in Java?

(A) identifier
(B) keyword
(C) identifier & keyword
(D) none of the mentioned

Ops: A ○ A

Q 16 What is the correct suntax for main method of java class?

(A)public static int main(String[] args)
(B)public int main(String[] args)
(C)public static void main(String[] args)
(D)Non of the above

Ops: A. ◯ A
B. ◯ B
C. ◯ C
D. ◯ D

Q 17 Which of these can be returned by the operator &?
(A) Integer
(B) Boolean
(C) Character
(D) Integer or Boolean

Ops: A. ◯ A
B. ◯ B
C. ◯ C

Q 3

What is Truncation is Java?

(A) Floating-point value assigned to an integer type
(B) Integer value assigned to floating type
(C) Floating-point value assigned to an Floating type
(D) Integer value assigned to floating type

Ops: A. A
B. B
C. C
D. D

reset answer

C. ○ C

D. ○ D

If an expression contains double, int, float, long, then the whole expression will be promoted into which of these data types?

(A) long
(B) int
(C) double
(D) float

A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 4

What does the expr

(A)0
(B)Not a Number
(C)Infinity
(D)Run time Except

Ops: A. ○ A

B. ○ B

C. ○ C

D. ◉ D

reset answer

Q 5 Which of these is n
type conversion in
(A) The destination
(B) The destination
(C) The destination
than source type
(D) None of the ment

Q 1 Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        for(int i=0; ;i++)
            System.out.println(i);
    }
}
```

(A) Compile time error
(B) No output
(C) infinite loop
(D) Run time exception

Ops: A. A

B. B

C. C

D. D

Q 2

Modulus operator, %, can be applied to which of these?

(A) Integers
(B) Floating – point numbers
(C) Both Integers and floating – point numbers
(D) None of the mentioned

Ops: A. A

B. B

C. C

Q 4 Which of the following loops will execute the body of loop even when condition controlling the loop is initially false?

(A) do-while
(B) while
(C) for
(D) none of the mentioned

Ops: A. A

B. B

C. C

D. D

Q 5 What is the range of short data type in Java?

(A)-128 to 127
(B)-32768 to 32767
(C)-2147483648 to 2147483647
(D)Non of the above

Ops: A. A

B. B

Q 8 Find the output of the following Java code.

```
public class Test {
    public static void main(String[] args) {
        String str1="Welcome to CSE department";
        System.out.print(str1.indexOf('e')+str1.
length());
        System.out.print(str1.lastIndexOf('e'));
    }
}
```

(A) 12522
(B) 4722
(C) 2622
(D) Non of these

ps: A. ○ A

Find ouput of the following java statement.

```
public class Test
{
    public static void  main(String[] args)
    {
        int a = 12;
        int b = 0;
        int c = a++ * 2 - 7 - b-- * b++;
        System.out.println("b="+b+" "+"c = " + c);
    }
}
```

(A)b=-1 c=17
(B)b=-1 c=18
(C)b=0 c=17
(D)b=-2 c=16

Ans: A. A

D. ○ D

Q 16 Which of these is necessary condition for automatic type conversion in Java?
(A) The destination type is smaller than source type
(B) The destination type is larger than source type
(C) The destination type can be larger or smaller than source type
(D) None of the mentioned

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 16

Which of these is necessary condition for automatic type conversion in Java?
(A) The destination type is smaller than source type
(B) The destination type is larger than source type
(C) The destination type can be larger or smaller than source type
(D) None of the mentioned

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

17

Q.9. What does the expression float a = 35 / 0 return?

1. 0
2. Not a Number
3. Infinity
4. Run time exception

Answer:- (3)

Q 24

Which of these can not be used for a var
Java?

(A) identifier
(B) keyword
(C) identifier & keyword
(D) none of the mentioned

Ops: A. ○ A
B. ○ B
C. ○ C
D. ○ D

Q 25

Which of the following loops will
loop even when condition controlli
initially false?

(A) do-while
(B) while
(C) for
(D) none of the mentioned

Q 15

Which one of the following is a valid statement?

(A)char []c=new char()

(B)char []c=new char[5]

(C)char []c=new char(4)

(D)char []c=new char[]

Ops: A. ○ A

B. ◉ B

C. ○ C

D. ○ D

reset answer

Q 16

Modulus operator, %, can be applied to which of these?

Find ouput of the following java statement.

```
public class Test
{
    public static void  main(String[] args)
    {
        int a = 12;
        int b = 0;
        int c = a++ * 2 - 7 - b-- * b++;
        System.out.println("b="+b+" "+"c = " + c);
    }
}
```

(A)b=-1 c=17
(B)b=-1 c=18
(C)b=0 c=17
(D)b=-2 c=16

Ops: A. ◯ A

B. ◯ B

C. ◯ C

Q 29 In which format -ve numbers are represented in computer memory ?

(A) 1's Complement format
(B) 2' Complement format
(C) Original binary equivalent of the number
(D) none of the above

Ops: A. ○ A

B. ○ B

C. ○ C

D. ● D

Q 23

Find ouput of the following java statement.

```
public class Test{
    public static void  main(String[] args){
        int var = 65;
        switch (var)
        {
            case 'A' :
                System.out.print("Hello");

            case 65 :
                System.out.print("Hi");

            default :
                System.out.print("How are you?");
    }}}
```

(A)Hello
(B)HelloHi
(C)Hi

Q 9

Which of these jump statements can skip processing the remainder of the code in its body for a particular iteration?

(A) break
(B) return
(C) continue
(D) exit

ps: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 30

Find ouput of the following java statement.

```
public class Test
{
    public static void  main(String[] args)
    {
        int a = -15;
        if (a++ <= -15 && (a / 20 > 10))
        {
            System.out.print("Hello");
        }
        else
        {
            System.out.print("Hi");

        }
    }
}
```

Q 10

If an expression contains double, int, float, long, then the whole expression will be promoted into which of these data types?

(A) long
(B) int
(C) double
(D) float

Ops: A. A

B. B

C. C

D. D

CALCULUS 1

Q 4 Evaluate $\int_0^1 \frac{1}{1+x^2} dx$ using Simpson's rule taking n=4

a) 0.96
b) 0.69
c) 1.69
d) -0.69

Ops: A. ○ a
B. ○ b
C. ○ c
D. ○ d

Q 5 The derivative of the function $y = \tan^{-1}\sqrt{x}$ is

Q 16

Investigate $\lim_{x \to 0} \sin \frac{x}{x}$.

a) 0
b) 1
c) 5
d) Doesn't exist

Ops: A. ○ a
B. ◔ b
C. ○ c
D. ○ d

Q 17

Find the center of mass of the system of objects that have masses 3 and 4 at the points (-1,1) and (2,-1) respectively.

A) $(\frac{29}{15}, 1)$

Q 17

Find the center of mass of the system of objects that have masses 3 and 4 at the points (-1,1) and (2,-1) respectively.

A) $(\frac{29}{18}, 1)$

B) $(\frac{5}{7}, 1)$

C) $(\frac{5}{7}, \frac{-1}{7})$

D) $(\frac{5}{7}, -1)$

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 24 Find the length of the arc of the curve from point P(-1, 1/2) to point Q(1, 1/2), where $y = x/2$

A) $\sqrt{5}$

B) $\sqrt{2}+\ln(1+\sqrt{2})$

C) 2

D) $\sqrt{3}$

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 25 The value of $\int_0^{\pi/2} sinxdx$ by trapezoidal rule using n=1 is

A) 1

B) π

C) $\pi/2$

D) $\pi/4$

Q 30 $\int_{\pi/2}^{\pi} tanxdx$ is a _____ integral

A) Proper

B) Improper integral of type I

C) Improper integral of type II

D) Indefinite

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 24

$\int_0^{\frac{\pi}{2}} cos2xdx =$ _____.

A) 1

B) ½

C) -1

D) 0

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

If the initial population is p(0) for an exponential growth model then the

is

(a) $p(0) = p(t)e^{\frac{t}{k}}$

(b) $p(0) = p(t)e^{kt}$

(c) $p(t) = p(0)e^{\frac{t}{k}}$

(d) $p(t) = p(0)e^{kt}$

Q 7 *Find the slope of tangent to the parametric curve* $x = t^2, y = t^3 - 3t$ at $t=2$

A) 0

B) 9/2

C) 9/4

D) 9

Opst: A. ○ A

B. ○ B

C. ○ C

D. ○ D

$g(x) = f(x)\sin x$ then $g'\left(\frac{\pi}{3}\right) =$

Q 9

$$\lim_{x \to \infty} \frac{\ln \ln x}{x} \text{ is}$$

(a) 1

(b) -1

(c) 0

(d) ∞

Ops: A. ◯ a

B. ◯ b

C. ◯ c

D. ◯ d

Q 6 Find the center of mass of the system of objects that have and (2,-1) respectively.

A) $(\frac{29}{15}, 1)$

B) $(\frac{5}{7}, 1)$

C) $(\frac{5}{7}, \frac{-1}{7})$

D) $(\frac{5}{7}, -1)$

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 7 The value of $\int_0^{\pi/2} sinxdx$ by trapezoidal rule using n=1 is

A) 1

B) π

C) $\pi/2$

D) $\pi/4$

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 8 The derivative of the fu

Q 12 The parametric equation $x = sint, y = 2sint + 4$ represents a

A) Circle

B) Parabola

C) Straight line

D) Ellipse

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

reset answer

Q 2 Find the area under one arch of the cycloid $x = 2(\theta - \sin\theta)$, $y = 2(1 - \cos\theta)$

A) 6π

B) 9π

C) 12π

D) 3π

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 6

Evaluate $\int_0^1 \frac{1}{1+x^2} dx$ using Simposn's rule taking n=4

a) 0.96
b) 0.69
c) 1.69
d) -0.69

Ops: A. ○ a
B. ○ b
C. ○ c

Q 8

Suppose $f\left(\frac{\pi}{3}\right)=4$ and $f'\left(\frac{\pi}{3}\right)=-2$, and $g(x)=f(x)\sin x$ then $g'\left(\frac{\pi}{3}\right)=$

(a) $2-\sqrt{3}$

(b) $2+\sqrt{3}$

(c) $3+\sqrt{2}$

(d) $3-\sqrt{2}$

Opts: A. ○ a

B. ○ b

○ c

Q 14

The domain of $f(x) = \sqrt{2 + \ln x}$ is

(a) $(-\infty, \infty)$

(b) $\left[e^{-2}, \infty\right)$

(c) $[e, \infty)$

(d) $[1, \infty)$

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

Q 27

The geometric series $\sum_{n=1}^{\infty} ar^{n-1}$ is convergent if

a) $|r|<1$ and the sum is $\frac{a}{1-r}$

b) $|r|>1$ and the sum is $\frac{a}{1-r}$ $\frac{a}{1-r}$

c) $|r|\leq 1$ and the sum is $\frac{a}{1-r}$

d) $|r|\geq 1$ and the sum is

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

Q 28 The line $x=a$ is called a vertical asymptote of the curve $y=f(x)$ if

a) $\lim_{x\to a} f(x)=1$

b) $\lim_{x\to a} f(x)=0$

c) $\lim_{x\to a} f(x)=7$

d) $\lim_{x\to a} f(x)=\infty$

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

Q 29 The parametric equation $x = sint, y = 2sint + 4$ represents a

A) Circle

B) Parabola

C) Straight line

D) Ellipse

67420

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 30 $\int_{\pi/2}^{\pi} tanxdx$ is a _____ integral

A) Proper

B) Improper integral of type I

Q 7

The Cartesian form of the polar equation $r\cos\theta = -4$ is

a) $X^2+y^2=16$

b) $X+y=-4$

c) $X=-4$

d) $Y=-4$

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

Q 6 $\int_0^{\pi/2} \cos^3 x \sin x \, dx =$

a) 0
b) 1
c) 0.333
d) 0.166

Ops: A. ○ a
B. ○ b
C. ○ c
D. ○ d

67420-

Q 27 *Find the slope of tangent to the parametric curve* $x = t^2, y = t^3 - 3t$ at t=2

A) 0

B) 9/2

C) 9/4

D) 9

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 28

Suppose $f\left(\frac{\pi}{3}\right) = 4$ and $f'\left(\frac{\pi}{3}\right) = -2$, and $g(x) = f(x)\text{Sin}x$ then $g'\left(\frac{\pi}{3}\right) =$

(a) $2-\sqrt{3}$

(b) $2+\sqrt{3}$

(c) $3+\sqrt{2}$

Q 25 $\int_{\pi/2}^{\pi} tanxdx$ is a _____ integral

A) Proper

B) Improper integral of type I

C) Improper integral of type II

D) Indefinite

Ops: A. ○ A

B. ○ B

C. ○ C

Q 30 For what value of x does the graph of $f(x) = e^x \cos x$ have a horizontal tangent.

(a) 1

(b) 2

(c) 0

(d) 3

Ops: A. ● a

B. ○ b

C. ○ c

D. ○ d

Mark for review

28

If a rock is thrown vertically upward and its height (in meter) after t second is $s(t) = 4t - 2t^2$, then the rock reaches its maximum height at

(a) 1sec.

(b)2sec.

(c)3sec.

(d)4sec.

Opps: A. a

B. b

C. c

D. d

Mark for review

27

The function $f(x)=|x|$ differentiable

(a) at $x=0$

(b) at all x except 0

(c) at all x

(d) at all x except 1

Options: A. a

B. b

C. c

D. d

Mark for review

D. d

Mark for review

Q 29 The parametric equation $x = sint, y = 2sint + 4$ represents a

A) Circle
B) Parabola
C) Straight line
D) Ellipse

Ops: A. A

B. B

C. C

D. D

Mark for review

9 Find the slope of tangent to the parametric curve $x = t^2, y = t^3 - 3t$

A) 6

B) 9/2

C) 9/4

D) 9

Ops: A. A

B. B

C. C

D. D

Mark for review

Q 8

Find the length of the arc of the curve from point P(-1, 1/2) to point Q(1, 1/2), wh

A) $\sqrt{5}$

B) $\sqrt{2}+\ln(1+\sqrt{2})$

C) 2

D) $\sqrt{3}$

Ops: A. ● A

B. ○ B

C. ○ C

D. ○ D

Mark for review

Q 6

Investigate $\lim_{x \to 0} \sin \frac{\pi}{x}$.

a) 0
b) 1
c) 5
d) Doesn't exist

Ops: A. a

B. b

C. c

D. d

Mark for review

Q 7 The derivative of 5^x is

Q 24

$$\int_0^{\frac{\pi}{2}} cos2xdx = \_\_\_\_\_.$$

A) 1

B) ½

C) -1

D) 0

Ops: A. A

B. B

C. C

D. D

Mark for review

Mark for review

Q 25 The line $x = a$ is called a vertical asymptote of the curve $y = f(x)$ if

a) $\lim_{x \to a} f(x) = 1$

b) $\lim_{x \to a} f(x) = -\infty$

c) $\lim_{x \to a} f(x) = 7$

d) $\lim_{x \to a} f(x) = 0$

Ops: A. a

B. b

C. c

D. d

Mark for review

Q 23 The integral $\int \frac{x^2+x-1}{x(2x-1)(x+2)} dx$ is evaluated by

A) integration by parts

B) substitution

C) partial fraction

D) trigonometric substitution

Ops: A. A

B. B

C. C

D. D

Mark for review

Q 24

$\int_0^{\frac{\pi}{2}} cos2xdx =$ _____.

A) 1

B) ½

C) -1

6 The derivative of the function $y = \tan^{-1}\sqrt{x}$ is

(a) $\frac{\sqrt{x}}{\sqrt{1-x^2}}$

(b) $\frac{x}{\sqrt{x^2+1}}$

(c) $\frac{1}{2\sqrt{x}(x+1)}$

(d) $\frac{x}{\sqrt{x^2-1}}$

s: A. a

B. b

C. c

D. d

Mark for review

3
4
25
26
27
28
29
30

9 The value of $\int_0^{\pi/2} sinxdx$ by trapezoidal rule using $n=1$ is

A) 1
B) π
C) $\pi/2$
D) $\pi/4$

s: A. A

B. B

C. C

D. D

Mark for review

24

25

26

27

28

29

30

20

Investigate $\lim_{x \to 0} x^2 \sin \frac{\pi}{x}$.

a) 0
b) 1
c) 5
d) Doesn't exist

s: A. a

B. b

C. c

D. d

The value of y' if $x^3 + y^3 = 6xy$ is

(a) $\frac{3y + x^2}{y^2 - 2x}$

(b) $\frac{3y + x^2}{y^2 + 2x}$

(c) $\frac{2y - x^2}{y^2 - 2x}$

(d) $\frac{2y + x^2}{y^2 - 2x}$

s: A. a

B. b

C. c

D. d

2 Suppose $f\left(\frac{\pi}{3}\right)=4$ and $f'\left(\frac{\pi}{3}\right)=-2$, and $g(x)=f(x)\sin x$ then $g'\left(\frac{\pi}{3}\right)=$

(a) $2-\sqrt{3}$

(b) $2+\sqrt{3}$

(c) $3+\sqrt{2}$

(d) $3-\sqrt{2}$

ps: A. a

B. b

C. c

D. d

Mark for review

Q 22

The number 2.3171717...expressed in ratio of integers as

a) 1148/495

b) 1147/495

c) 1248/495

d) 2147/495

Ops: A. ○ a

B. ◉ b

C. ○ c

D. ○ d

reset answer

Q 23 Find the length of the arc of the curve from point P(-1, 1/2) to point Q(1, 1/2), where

A) $\sqrt{5}$

B) $\sqrt{2}+\ln(1+\sqrt{2})$

C) 2

D) $\sqrt{3}$

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 11

The domain of $f(x)=\sqrt{2+\ln x}$ is

(a) $(-\infty,\infty)$

(b) $\left[e^{-2},\infty\right)$

(c) $[e,\infty)$

(d) $[1,\infty)$

Ops: A. a

B. b

C. c

D. d

Mark for review

$$\lim_{x \to \infty} \frac{\ln \ln x}{x} \text{ is}$$

(a) 1

(b) -1

(c) 0

(d) ∞

: A. a

B. b

C. c

D. d

$\int_{\pi/2}^{\infty} tanxdx$ is a _____ integral

A) Proper

B) Improper integral of type I

C) Improper integral of type II

D) Indefinite

s: A. A

B. B

C. C

D. D

Mark for review

Q 26

The line $x = a$ is called a vertical asymptote of the curve $y = f(x)$ if

a) $\lim_{x \to a} f(x) = 1$

b) $\lim_{x \to a} f(x) = 0$

c) $\lim_{x \to a} f(x) = 7$

d) $\lim_{x \to a} f(x) = \infty$

Opps: A. a

B. b

C. c

D. d

Mark for review

Q 27

The function $f(x) = |x|$ differentiable

(a) at $x = 0$

(b) at all x except 0

The derivative of 5^x is

(a) 5^{x-1}

(b) $x5^{x-1}$

(c) $5^x \ln x$

(d) $5^x \ln 5$

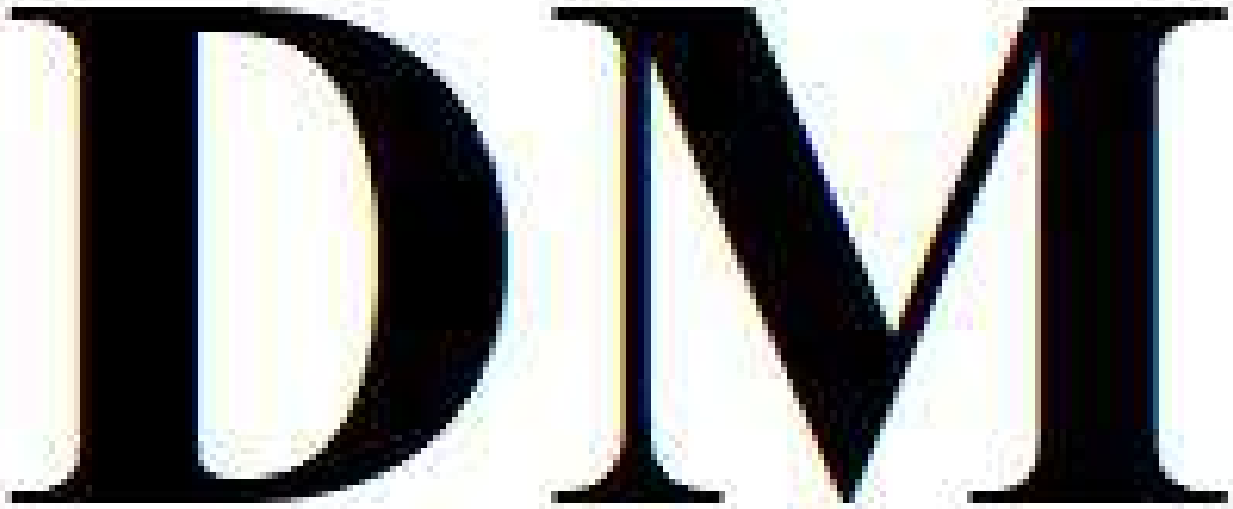
Ops: A. a

B. b

C. c

D. d

Mark for review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1 Questions

Q 1 Which of the following is not a tautology?

A $(p \wedge (p \rightarrow q)) \rightarrow q$

B $(\neg q \wedge (p \rightarrow q)) \rightarrow \neg p$

C $(\neg p \wedge (p \rightarrow q)) \rightarrow \neg q$

D $((p \vee q) \wedge \neg p) \rightarrow q$

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

Q 2 How many ways are there for 5 women and 8 men to stand in a line so

Q 3

If $a_n = \left\lfloor \frac{n}{2} \right\rfloor + \left\lceil \frac{n}{2} \right\rceil$ is the nth term of a sequence then what is a_3 ?

A 1
B 2
C 3
D 4

ps: A. ○ A
B. ○ B
C. ○ C

27

Which is the inverse of the conditional statement " I come to class whenever there is going to be a quiz."

A If I come to class, then there will be no quiz.
B If there is no quiz, then I come to class.
C If I do not come to class, then there will not be a quiz.
D If there is not going to be a quiz, then I do not come to class."

os: A. A

B. B

C. C

1 Questions

30 questions, 1 mark each

Q 1

How many nonzero entries does the matrix representing the relation R on $A = \{1, 2, 3, ..., 100\}$ consisting of the first 100 positive integers have if $R = \{(a, b) \mid a \neq b\}$.

A 100
B 99
C 9900
D 4950

Ops:

A. A

B. B

C. C

D. D

Q 2

Among a group of 100 people there are atleast how many people who share the same birth month?

A 10
B 9
C 8
D 7

Ops:

A. A

B. B

9

How many ways are there to select 11 unordered elements from a set with 3 elements when repetition is allowed?

A 11
B 3
C 33
D 78

: A. A

B. B

C. C

D. D

Mark for review

If a function assigns to a bit string the number of one bits in the string then the ran
the function is

Q 3

Which of the following is the linear combination representing gcd(21, 55)?

A 21(21) + 55(-7)
B 21(21) + 55(-8)
C 21(20) + 55(9)
D 21(22) + 55(-10)

Ops: A. A

B. B

C. C

D. D

reset answer

Q 4

$3^n < n!$ .where n is an integer for

A $n > 3$
B $n > 4$
C $n > 5$
D $n > 6$

Ops: A. A

B. B

C. C

D. D

reset answer

reset answer

Q 5 Which of the following is not a Carmichael number?

A 561
B 1729
C 2820
D 2821

Ops: A. A

B. B

C. C

D. D

reset answer

Q 6 Which of the following set represents the equivalence class of 14 with respect to the congruence modulo 4?

A {...,−8,−4,0,4,8,...}
B {...,−7,−3,1,5,9,...}
C {...,−6,−2,2,6,10,...}
D {...,−5,−1,3,7,11,...}

Ops: A. A

B. B

C. C

D. D

Q 1

Which is the inverse of the conditional statement " I come to class whenever there is going to be a quiz."

A If I come to class, then there will be no quiz.
B If there is no quiz, then I come to class.
C If I do not come to class, then there will not be a quiz.
D If there is not going to be a quiz, then I do not come to class."

Ops: A. ○ A

B. ○ B

C. ○ C

D. ◉ D

reset answer

Q 2

The recursive definition for the Fibonacci numbers are

A $f_n = f_{n-1} + f_{n-2}$
B $f_n = f_{n-1} - f_{n-2}$
C $f_n = 2f_{n-1} + f_{n-2}$
D $f_n = f_{n-1} + 2f_{n-2}$

Ops: A. ◉ A

B. ○ B

C. ○ C

D. ○ D

reset answer

Q 7

How many comparisons are performed in sorting the sequence 6,2,3,1,4,5 in increasing order by the bubble sort algorithm?

A 12
B 13
C 14
D 15

Ops: A. (•) A

B. ( ) B

C. ( ) C

D. ( ) D

reset answer

Q 8

What is the value of $\sum_{i=1}^{3}\sum_{j=0}^{2} i$?

A 18
B 15
C 12
D 9

Ops: A. (•) A

B. ( ) B

C. ( ) C

D. ( ) D

reset answer

D transitive

Ops: A. A

B. B

C. C

D. D

reset answer

Q 20

If $a_n = \left\lfloor \frac{n}{2} \right\rfloor + \left\lceil \frac{n}{2} \right\rceil$ is the nth term of a sequence then what is a_3 ?

A 1
B 2
C 3
D 4

Ops: A. A

B. B

C. C

D. D

reset answer

Q 21

Which of the following is not a tautology?

A $(p \wedge (p \rightarrow q)) \rightarrow q$
B $(\neg q \wedge (p \rightarrow q)) \rightarrow \neg p$
C $(\neg p \wedge (p \rightarrow q)) \rightarrow \neg q$
D $((p \vee q) \wedge \neg p) \rightarrow q$

reset answer

Q 17

If $f(0)=1, f(n)=-f(n-1)$ for $n \geq 1$ is a valid recursive definition of a function f then the formula for $f(n)$ is given by

A $f(n)=(-1)^n$
B $f(n)=(-1)^{n+1}$
C $f(n)=(-2)^n$
D $f(n)=-1$

Ops:

A. ○ A

B. ○ B

C. ○ C

D. ◉ D

reset answer

Q 18

If a function assigns to a bit string the number of one bits in the string then the range of the function is

A the set of integers
B the set of positive integers
C the set of negative integers
D the set of nonnegative integers

Ops:

A. ◉ A

B. ○ B

C. ○ C

D. ○ D

Q 2

What is the value of $\sum_{i=1}^{3}\sum_{j=0}^{2} i$?

A	18
B	15
C	12
D	9

Ops: A. ○ A

B. ○ B

C. ○ C

D. ○ D

C. ○C

D. ○D

Q 26 Which of the following is the linear combination representing gcd(21, 55)?

A $21(21) + 55(-7)$

B $21(21) + 55(-8)$

C $21(20) + 55(9)$

D $21(22) + 55(-10)$

Ops: A. ○A

B. ◉B

C. ○C

D. ○D

reset answer

Q 27 Which is the inverse of the conditional statement " I come to class whenever there is going to be a quiz."

A If I come to class, then there will be no quiz.

university will close. The university today."

A Modus Ponens
B Modus Tollens
C Hypothetical Syllogism
D Simplification

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D

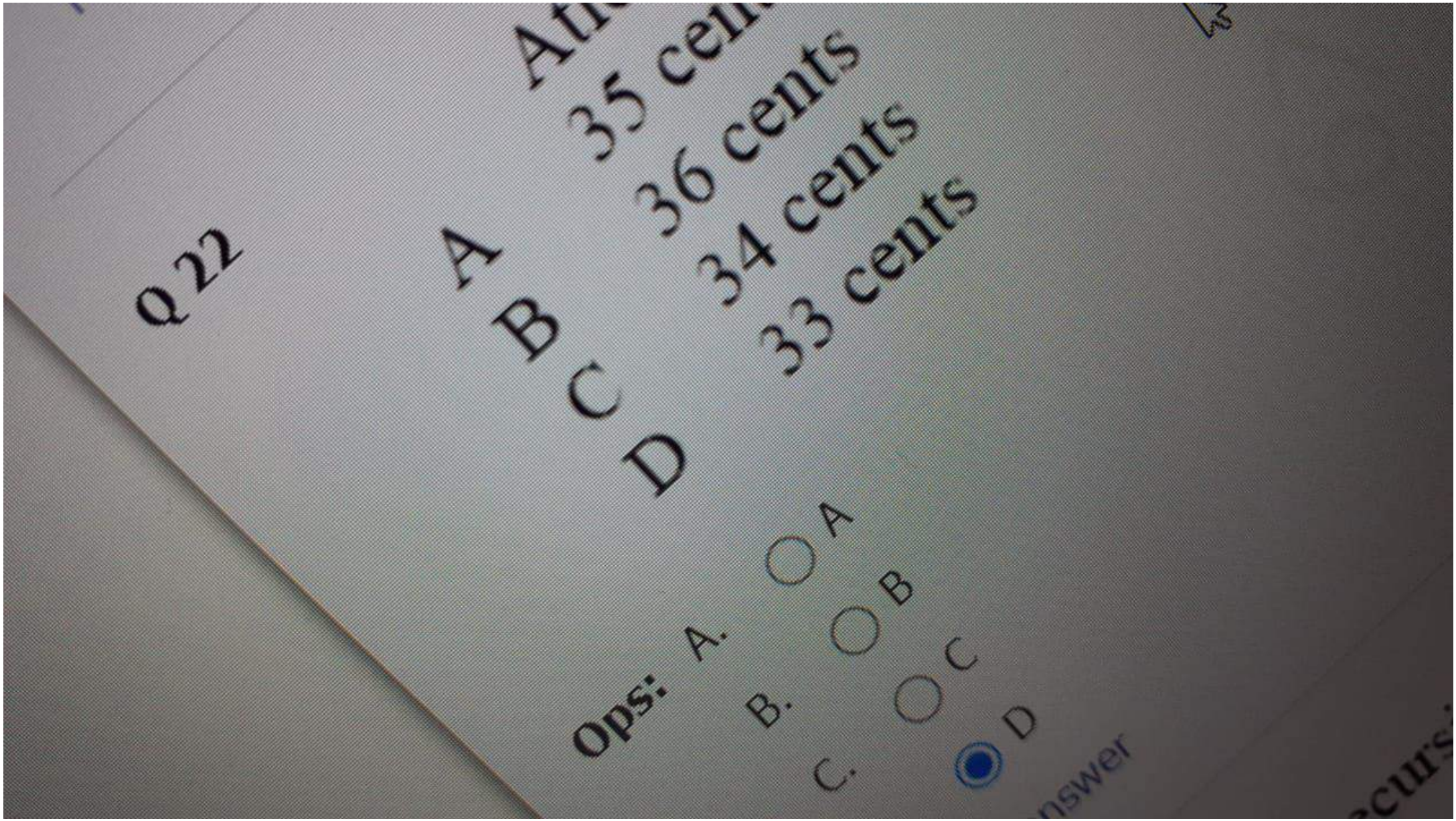
reset answer

Q 5 What is the hexadecimal representation of the

A $(80E)_{16}$
B $(8E)_{16}$
C $(10D)_{16}$
D $(E08)_{16}$

Ops: A. (•) A
B. ( ) B
C. ( ) C
D. ( ) D

reset answer


Q 22
A
B
C
D
35 cents
36 cents
34 cents
33 cents
ops:
A.
B.
C.
D
A
B
C
D

Q 8

Among a group of 100 people there are atleast how many people who share the same birth month?

A 10
B 9
C 8
D 7

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D

reset answer

D. D

Q 5

$3^n < n!$,where n is an integer for

A $n > 3$

B $n > 4$

C $n > 5$

D $n > 6$

Ops: A. A

B. B

C. C

D. D

reset answer

C. ○ C

D. ○ D

reset answer

Which of the following two compound propositions a

A $\neg(p \leftrightarrow q)$ and $p \leftrightarrow \neg q$

B $(p \leftrightarrow q)$ and $p \leftrightarrow \neg q$

C $\neg(p \leftrightarrow q)$ and $\neg p \rightarrow \neg q$

D $\neg(p \leftrightarrow q)$ and $\neg q \rightarrow p$

◉ A

○ B

○ C

Which of the following is not a tauto

A $(p \wedge (p \rightarrow q)) \rightarrow q$

B $(\neg q \wedge (p \rightarrow q)) \rightarrow \neg p$

C $(\neg p \wedge (p \rightarrow q)) \rightarrow \neg q$

D $((p \vee q) \wedge \neg p) \rightarrow q$

- (●) A
- ( ) B
- ( ) C
- ( ) D

Q 16

How many comparisons are performed in sorting the sequence 6,2,3,1,4,5 in increasing order by the bubble sort algorithm?

A 12
B 13
C 14
D 15

Ops: A. ◯ A
B. ◯ B
C. ◯ C
D. ◯ D

C ... then I come to class.

D If I do not come to class, then there will not be a quiz.
If there is not going to be a quiz, then I do not come to class."

Ops: A. ○ A
B. ○ B
C. ◉ C
D. ○ D

reset answer

Q 3

If $f : Z \times Z \to Z$ is a function, where Z is the set of integers, then which of the following functions is not a onto function?

A $f(m,n) = m+n$

B $f(m,n) = m^2 - 4$

C $f(m,n) = 2m - n$

D $f(m,n) = m+n+1$

Ops: A. ○ A
B. ◉ B
C. ○ C
D. ○ D

Q 11

The recursive defi

A $f_n = f_{n-1} + f_{n-2}$

B $f_n = f_{n-1} - f_{n-2}$

C $f_n = 2f_{n-1} + f_{n-2}$

D $f_n = f_{n-1} + 2f_{n-2}$

Ops: A. (●) A

B. ( ) B

C. ( ) C

D. ( ) D

reset answer

Q 12

If a function assigns
the function is

A the set of integers

B the set of positive int

Q 28

What is the hexadecimal representation of the binary expansion $(100000001110)_2$?

A $(80E)_{16}$
B $(8E)_{16}$
C $(10D)_{16}$
D $(E08)_{16}$

Ops: A. (•) A
B. ( ) B
C. ( ) C
D. ( ) D

reset answer

...ordered elements from a set with 3 elements

Q 7

What is the coefficient of x^5y^8 in the expansion of $(x+y)^{13}$?

A 1200
B 1250
C 1287
D 1288

Ops: A. ○ A
B. ○ B
C. ● C
D. ○ D

reset answer

Q 8

Which elements of the poset $(\{2,4,5,10,12,20,25\},|)$ are maximal?

A 25
B 20 and 25
C 12 and 25
D 12, 20 and 25

Ops: A. ○ A

If A and B are

A	$(A \cap B) \subseteq A$
B	$(A \cup B) \subseteq A$
C	$(A \cap B) \subseteq (A$
D	$(A \cup B) \subseteq (A$

Ops:

A. ○ A

B. ○ B

C. ◉ C

D. ○ D

reset answer

Q 2

Which of the fo

A	561
B	1729
C	2820

D. ○ D

reset answer

Q 6 Which is the inverse of the conditional statement " I come to class whenever there is going to be a quiz."

A If I come to class, then there will be no quiz.

B If there is no quiz, then I come to class.

C If I do not come to class, then there will not be a quiz.

D If there is not going to be a quiz, then I do not come to class."

ps: A. ○ A

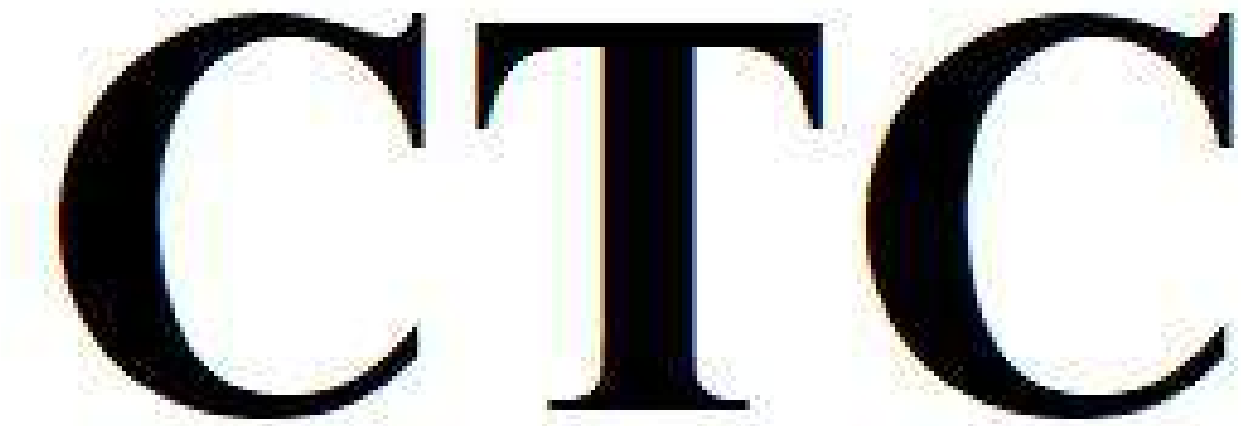
B. ○ B

C. ○ C

D. ○ D

$$\begin{bmatrix} 0 & 1 & 0 \end{bmatrix}$$

represents a relation R then the matrix representing


CTC

Q 4 Claims are of _____ types.

Ops: A. ○ Four

B. ○ Two

C. ◉ Six

D. ○ Three

reset answer

Q 5 Body language is _____ conditioned.

Ops: A. ○ Emotionally

D. ○ All of the above

Q 5 The three purposes of public speaking are

Ops: A. ○ Instruct, direct and ask

B. ○ Entertain , enjoy and listen

C. ◉ Inform, persuade and entertain

D. ○ None of the above

reset answer

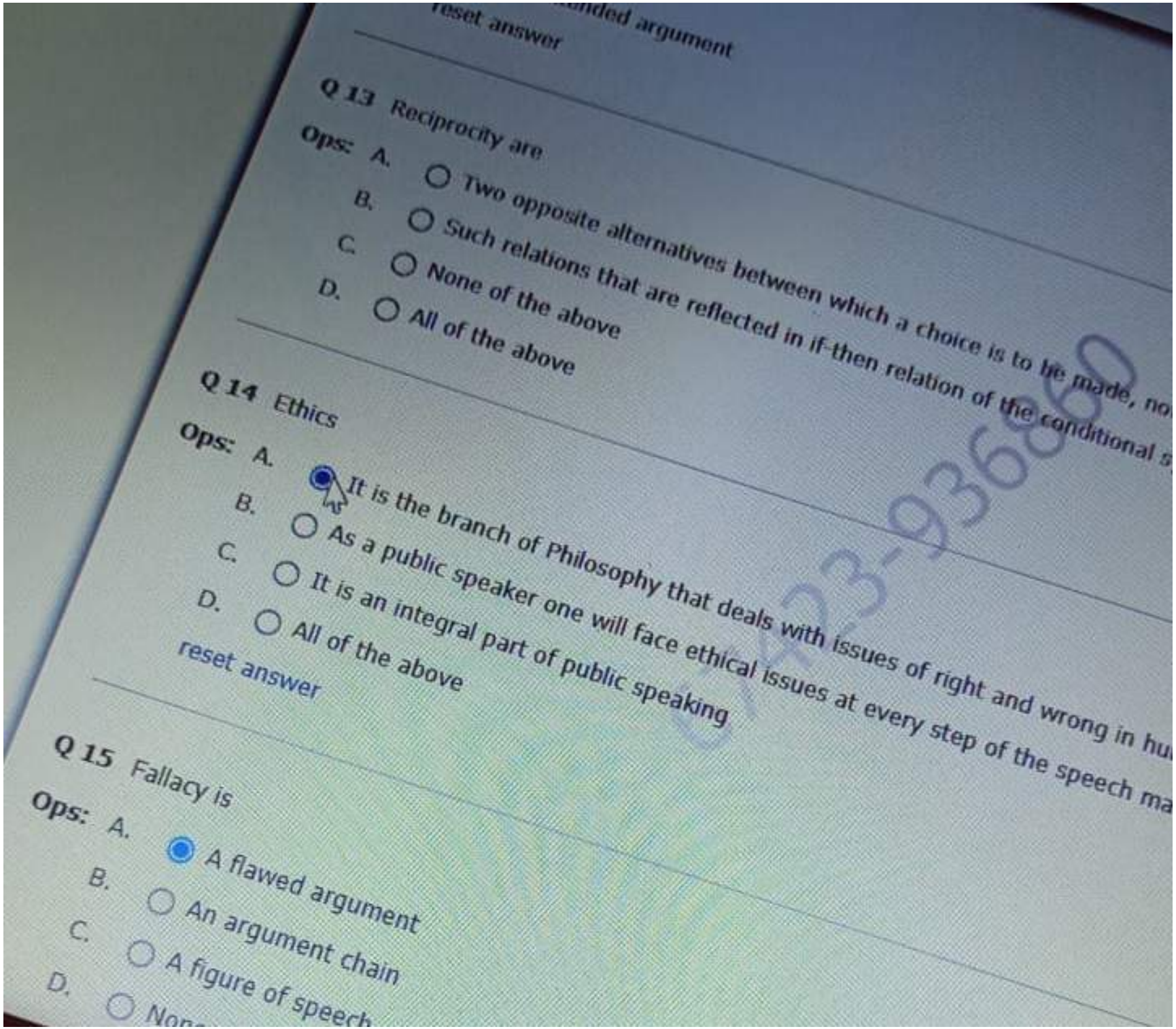
Q 6 Sent message and received message are not the same due to the presence of_____ in channel.

Ops: A. ○ Noise

B. ○ Feedback

C. ○ Encoding

D. ○ Decoding


reset answer
Q 13 Reciprocity are
Ops: A. Two opposite alternatives between which a choice is to be made, no
B. Such relations that are reflected in if-then relation of the conditional s
C. None of the above
D. All of the above
Q 14 Ethics
Ops: A. It is the branch of Philosophy that deals with issues of right and wrong in hu
B. As a public speaker one will face ethical issues at every step of the speech ma
C. It is an integral part of public speaking
D. All of the above
reset answer
Q 15 Fallacy is
Ops: A. A flawed argument
B. An argument chain
C. A figure of speech
D.

Ops: A. (●) Insruct, direct and ask

B. ( ) Entertain , enjoy and listen

C. ( ) Inform, persuade and entertain

D. ( ) None of the above

reset answer

Q 2 There are _____groups of fallacy:

Ops: A. ( ) 5

B. (●) 2

C. ( ) 4

D. ( ) 6

reset answer

Q 3 What is an important characteristic feature of a proposition?

Ops: A. ( ) Causal Arguments

B. ( ) Spontanity

C. (●) Controversiality

D. ( ) Audience based fallacies

reset answer

C. ◯ Gender

D. ◯ All of the above

Q 6 Body language is _____ conditioned.

Ops: A. ◯ Emotiinally

B. ◉ Culturally

C. ◯ Socially

D. ◯ None of the above

reset answer

Q 7 What are the elements of reasoning?

Ops: A. ◯ The traits of disciplined mind

B. ◉ Reasoning the process of drawing conclusion

C. ◯ Standards for reasoning

D. ◯ All of the above

reset answer

Q 2 The three purposes of public spesking are

Ops: A. ○ Insruct, direct and ask

B. ○ Entertain , enjoy and listen

C. ◉ Inform, persuade and entertain

D. ○ None of the above

reset answer

Q 3 Sent message and received message are not the same due to the presence of_____ in channel.

Ops: A. ○ Noise

B. ○ Feedback

C. ◉ Encoding

D. ○ Decoding

reset answer

Q 4 establishes a rational link between claim and evidence.

Q 10 Talking to oneself

Ops:

A. ○ Interpersonal

B. ○ Group Communication

C. ● Intrapersonal Communication

D. ○ None

reset answer

D. ◯ All of the above

Q 2 Critical thinking is requred in_____ type of listening

Ops: A. ◯ Casual

B. ◯ Emotional

C. ◉ Comprehensive

D. ◯ Selective

reset answer

Q 4 Which is a barrier

Ops:

A. ◉ Emotions

B. ○ Empathy

C. ○ Understanding

D. ○ Focussed

reset answer

Q 3 Body language is _____ conditioned.

Ops:

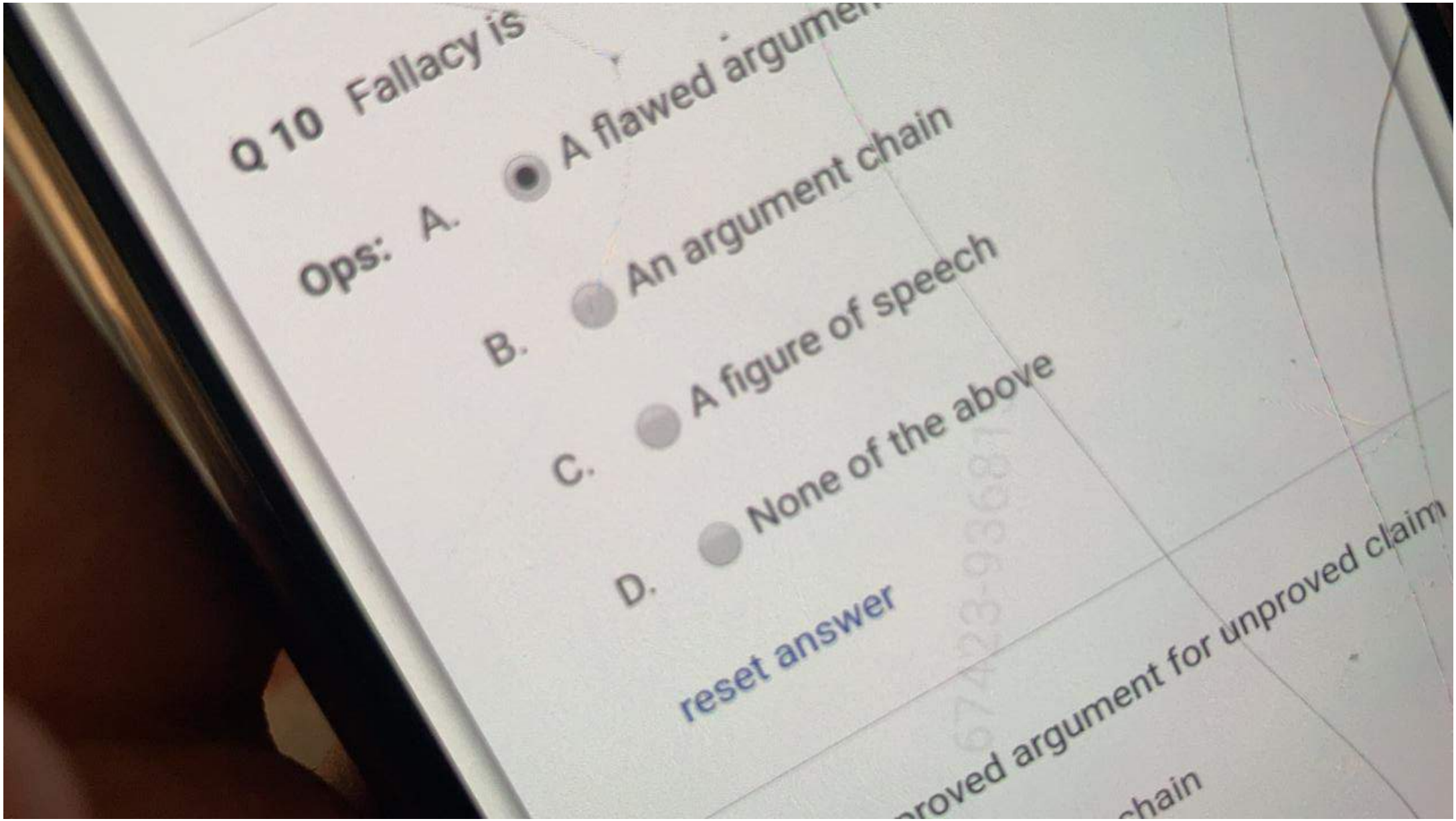
A. ○ Emotiinally

B. ◉ Culturally

C. ○ Socially

D. ○ None of the above

reset answer


Q 10 Fallacy is
Ops: A. A flawed argumen
B. An argument chain
C. A figure of speech
D. None of the above
reset answer
roved argument for unproved claim
chain

Q 3 Listening is a _____ and _____ activity.

Ops: A. ○ Easy and natural

B. ◉ Voluntary and active

C. ○ Spontanious and easy

D. ○ All of the above

reset answer

Q 4 __ is an example of nonverbal communication.

Q 1 Motivation

Ops: A. (•) Effective Communication

B. ( ) Looses interest

C. ( ) Causes Depression

D. ( ) None

reset answer

Q 2 -- uses proved argument for unproved claim

Ops: A. ( ) Argument chain

B. ( ) Proposition

C. ( ) Disposition

D. (•) Extended argument

reset answer

Q 9 Critical thinking is required in _____ type of listening

Opts: A. ○ Casual

B. ○ Emotional

C. ● Comprehensive

D. ○ Selective

reset answer

Q 10 Claims are of _____ types.

Opts: A. ○ Four

B. ○ Two

C. ○ Six

D. ○ Three

Q 11 What are the elements of reasoning?

Opts: A. ○ The traits of disciplined mind

Q 4 __ is an example of nonverbal communication.

Ops: A. ○ Sketch

B. ○ Map

C. ○ Chart

D. ◉ All of the above

reset answer

Q 5 Sent message and received message are not the same due to the preser

Q 8 Fallacy is

Ops: A. ◉ A flawed argument

B. ○ An argument chain

C. ○ A figure of speech

D. ○ None of the above

reset answer

Q 9 The three purposes of public spesking are

Ops: A. ○ Insruct, direct and ask

B. ○ Entertain , enjoy and listen

C. ◉ Inform, persuade and entertain

D. ○ None of the abov

reset answer

Q 8 Body language is _____ conditioned.

Ops: A. Emotionally

B. Culturally

C. Socially

D. None of the above

Q 3 What are the causes of poor listening?

Ops: A. ○ Not concentrating

B. ○ Focusing on manner of delivery

C. ○ Listening too hard

D. ◉ All of the above

reset answer

Q 4 Organizing Techniques cover

Ops: A. ○ Stating conclusion, Presenting weak arguments, Presenting strong arguments

B. ◉ Stating conclusion, Presenting both sides, Presenting weak arguments, Presenting strong arguments

C. ○ Presenting both sides, Presenting weak arguments, Presenting strong arguments

D. ○ Stating conclusion, Presenting both sides, Presenting weak arguments

reset answer

...ning answers the question

...idence to the claim?"

...their audience?

Q 9 Which is a barrier

Ops: A. Emotions

B. Empathy

C. Understanding

D. Focussed

Q 10 What is an important characteristic of a proposition?

Ops: A. Causal Arguments

B. Spontanity

C. Controversiality

D. Audience based fallacie

Ops: A. ○ Reasoning

B. ○ Proposition

C. ○ Fallacy

D. ○ Amphiboly

Q 27 What is inference?

Ops: A. ◉ Part of the argument containg reasoning

B. ○ Part of the premise

C. ○ Part of the claim

D. ○ None of the above

reset answer

Q 28 Which perspective emphasizes on accuracy.

Ops: A. ○ Dialectical

C. ○ It is an integral part of public speaking

D. ○ All of the above

Q 15 Fallacy is

Ops: A. ◉ A flawed argument

B. ○ An argument chain

C. ○ A figure of speech

D. ○ None of the above

reset answer

Q 16 Claims are of _____ types.

Ops: A. ○ Four

B. ○ Two

C. ◉ Six

D. ○ Three

reset answer

Q 17 Sent message and received message are not the same due to the presence of_____ in c

Ops: A. ◉ Noise

B. ○ Feedback

C. ○ Encoding

D. ○ Decoding

reset answer

C. ○ Spontanious and easy

D. ○ All of the above

Q 19 __ is an example of nonverbal communication.

Ops: A. ○ Sketch

B. ○ Map

C. ○ Chart

D. ◉ All of the above

reset answer

Q 20 What is counterclaim?

Ops: A. ○ Stronger claim

B. ○ Inference

C. ◉ Opposing veiw of claim

D. ○ Inference

reset answer

Q 21 Ethics

Ops: A. ◉ It is the branch of Philosophy that deals with issues of right and wrong in human affairs

D. ○ All of the above

Q 13 EVIDENCE consists of

Ops: A. ● Facts that are objectively observable

B. ○ Conclusions previously established

C. ○ Beliefs generally accepted as true

D. ○ All of the above

reset answer

Q 14 There are _____ groups of fallacy:

Ops: A. ○ 5

B. ○ 2

C. ○ 4

D. ○ 6

Q 2 Body language is _____ conditioned.

Ops: A. ○ Emotinally

B. ◉ Culturally

C. ○ Socially

D. ○ None of the above

reset answer

Q 3 Causal argument

Ops: A. ○ Asserts that one condition brings another condition

B. ○ Evidence is the physical presence of cause and effect

C. ○ ☐Inference is that, One condition or event brings about the other

D. ○ All of the above

Q 4 EVIDENCE consists of

Ops: A. ◉ Facts that are objectively observable

B. ○ Conclusions previously established

C. ○ Beliefs generally accepted as true

D. ○ All of the above

reset answer

Q 14 EVIDENCE consists of

Ops: A. ○ Facts that are objectively observable

B. ● Conclusions previously established

C. ○ Beliefs generally accepted as true

D. ○ All of the above

reset answer

Q 15 Sent message and received message are not the same due to the presence of_____ in channel.

Ops: A. ● Noise

B. ○ Feedback

C. ○ Encoding

D. ○ Decoding

reset answer

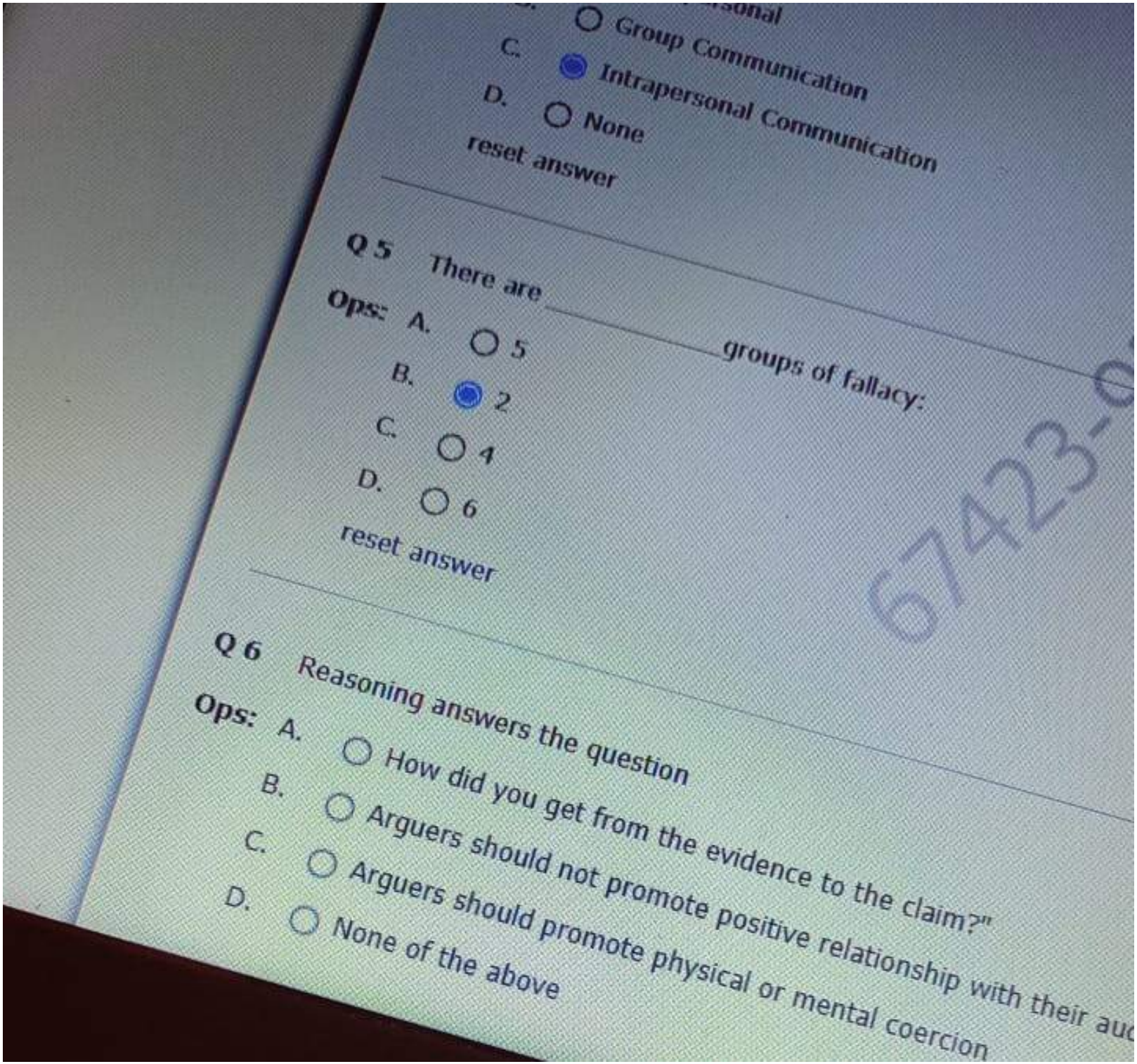
Q 16 Fallacy is

Ops: A. ● A flawed argument

B. ○ An argument chain

C. ○ A figure of speech

D. ○ None of the above


Group Communication
C. Intrapersonal Communication
D. None
reset answer
Q 5 There are _____ groups of fallacy:
Ops: A. 5
B. 2
C. 4
D. 6
reset answer
Q 6 Reasoning answers the question
Ops: A. How did you get from the evidence to the claim?"
B. Arguers should not promote positive relationship with their au
C. Arguers should promote physical or mental coercion
D. None of the above

D. ○ None of the above

reset answer

Q 26 What is counterclaim?

Ops: A. ○ Stronger claim

B. ○ Inference

C. ◉ Opposing veiw of claim

D. ○ Inference

reset answer

Q 27 Body language is _____ conditioned.

Ops: A. ○ Emotiinally

B. ◉ Culturally

C. ○ Socially

D. ○ None of the above

reset answer

Q 28 Sent message and received message are not the same due to the presence of_____ in channel.

Ops: A. ◉ Noise

B. ○ Feedback

Q 21 Talking to oneself

Ops:

A. (●) Interpersonal

B. ( ) Group Communication

C. ( ) Intrapersonal Communication

D. ( ) None

reset answer

C. ○ Presenting both sides, Presenting weak arguments, Presenting strong arguments

D. ○ Stating conclusion, Presenting both sides, Presenting weak arguments

Q 8 What is counterclaim?

Ops: A. ○ Stronger claim

B. ○ Inference

C. ◉ Opposing veiw of claim

D. ○ Inference

reset answer

Q 9 What are the elements of reasoning?

Ops: A. ○ The traits of disciplined mind

B. ○ Reasoning the process of drawing conclusion

C. ○ Standards for reasoning

Q 3 Motivation

Ops: A. Effective Communication

B. Looses interest

C. Causes Depression

D. None

reset answer

Q 4 What are the causes of poor listening?

Ops: A. Not concentrating

B. Focusing on manner of delivery

C. Listening too hard

D. All of the above

PME

D. ◯ foreigners

reset answer

Q 18 Suppose in an hypothetical economy milk and cookies are the two goods produced. What happen to the PPF if disease kills half of the economy"s cows?

Ops: A. ◯ Cookies production increases, while milk production remains same

B. ◯ Milk production decreases, cookie production decreases

C. ◯ Milk production decreases, but cookies production remain same

D. ◯ None of the above

Q 19 All costs included, it costs your local restaurant Rs.12 to serve you your favourite meal.You pay Rs. 21 for it. What is the producer surplus?

Ops: A. ◯ Rs. 9

B. ◯ Rs. 12

C. ◯ Rs. 21

D. ◯ Rs. 33

Q 20 MPL =

Ops: A. ◉ ΔQ/ΔL

Ops: A. ○ Giving a subsidy

B. ◉ Imposing a corrective tax.

C. ○ Generating an equilibrium quantity

D. ○ Without Government interference in the market

reset answer

Q 5 If goods X and Y are substitutes, then which of the following could be the value of the cross price elasticity of demand?

Ops: A. ○ -1

B. ○ -2

C. ○ Neither a nor b

D. ○ Both a and b

Q 6 Total utility is maximum when, marginal utility is

Ops: A. ◉ Zero

B. ○ Equal to average

C. ○ At its highest point

D. ○ When average utility is maximum

Q 29 The following is a characteristic of a direct tax -

Ops: A. ○ Incidence may be shifted

B. ○ Imposes more burden on poor

C. ○ The impact and incidence are on the sam

D. ○ All of the above

B. ○ Streetlight

C. ○ Both of the above

D. ○ None of the above

reset answer

Q 29 If the quantity supplied exceeds the quantity demanded, then there is

Ops: A. ○ A shortage and the price is below the equilibrium price

B. ○ A surplus and the price is below the equilibrium price

C. ○ A surplus and the price is above the equilibrium price

D. ○ A shortage and the price is above the equilibrium price

allowed and a country exports or imports a good,

D. ◉ Wealth tax

reset answer

Q 24 If you choose to spend $500 to go to watch a movie , your opportunity cost of going

Ops: A. ○ Your time only

B. ○ $500 (because you could have used the $500 to buy other things) plus th

C. ○ $500 (because you could have used the $500 to buy other things) plu purchased at the theater

D. ○ $500 only

A price ceiling set above the equilibrium price will:

D. ○ all of society

reset answer

Q 4 All costs included, it costs your local restaurant Rs.12 to serve you your favourite meal.You pay Rs. 21 for it. What is

Ops: A. ○ Rs. 9

B. ○ Rs. 12

C. ○ Rs. 21

D. ○ Rs. 33

Q 5 If you choose to spend $500 to go to watch a movie , your opportunity cost of going to the theater is

time only

D. ○ When average utility is maximum

reset answer

Q 13 *If goods X and Y are substitutes, then which of the following could be the valu*

Ops: A. ○ -1

B. ○ -2

C. ○ Neither a nor b

D. ○ Both a and b

milk and cookies are the two go

D. ○ all of society

reset answer

Q 4 All costs included, it costs your local restaurant Rs.12 to serve you your favourite meal.You pay Rs. 21 for it. What is

Ops: A. ○ Rs. 9

B. ○ Rs. 12

C. ○ Rs. 21

D. ○ Rs. 33

Q 5 If you choose to spend $500 to go to watch a movie , your opportunity cost of going to the theater is

time only

B. ◉ the producer

C. ○ the consumer

D. ○ foreigners

reset answer

Q 18 Suppose in an hypothetical economy milk and cookies are the two goods produced. What happen to the PPF if disease kills half of the economy

Ops: A. ○ Cookies production increases, while milk production remains same

B. ○ Milk production decreases, cookie production decreases

C. ○ Milk production decreases, but cookies production remain same

D. ○ None of the above

Q 19 All costs included, it costs your local restaurant Rs.12 to serve you your favourite meal.You pay Rs. 21 for it. What is the producer surplus?

Ops: A. ○ Rs. 9

B. ○ Rs. 12

C. ◉ Rs. 21

D. ○ Rs. 33

reset answer

Q 21 If the price elasticity of demand equals to 0.3 in absolute value, then what percentage change in pr

Ops: A. ○ 0.03

B. ○ 0.06

C. ◉ 0.2

D. ○ 0.5

reset answer

Q 22 Which of the following is a private good?

Ops: A. ○ Ipod

B. ○ Streetlight

D. ○ None of these

reset answer

Q 17 Which tax cannot be shifted to others?

Ops: A. ○ Excise duty

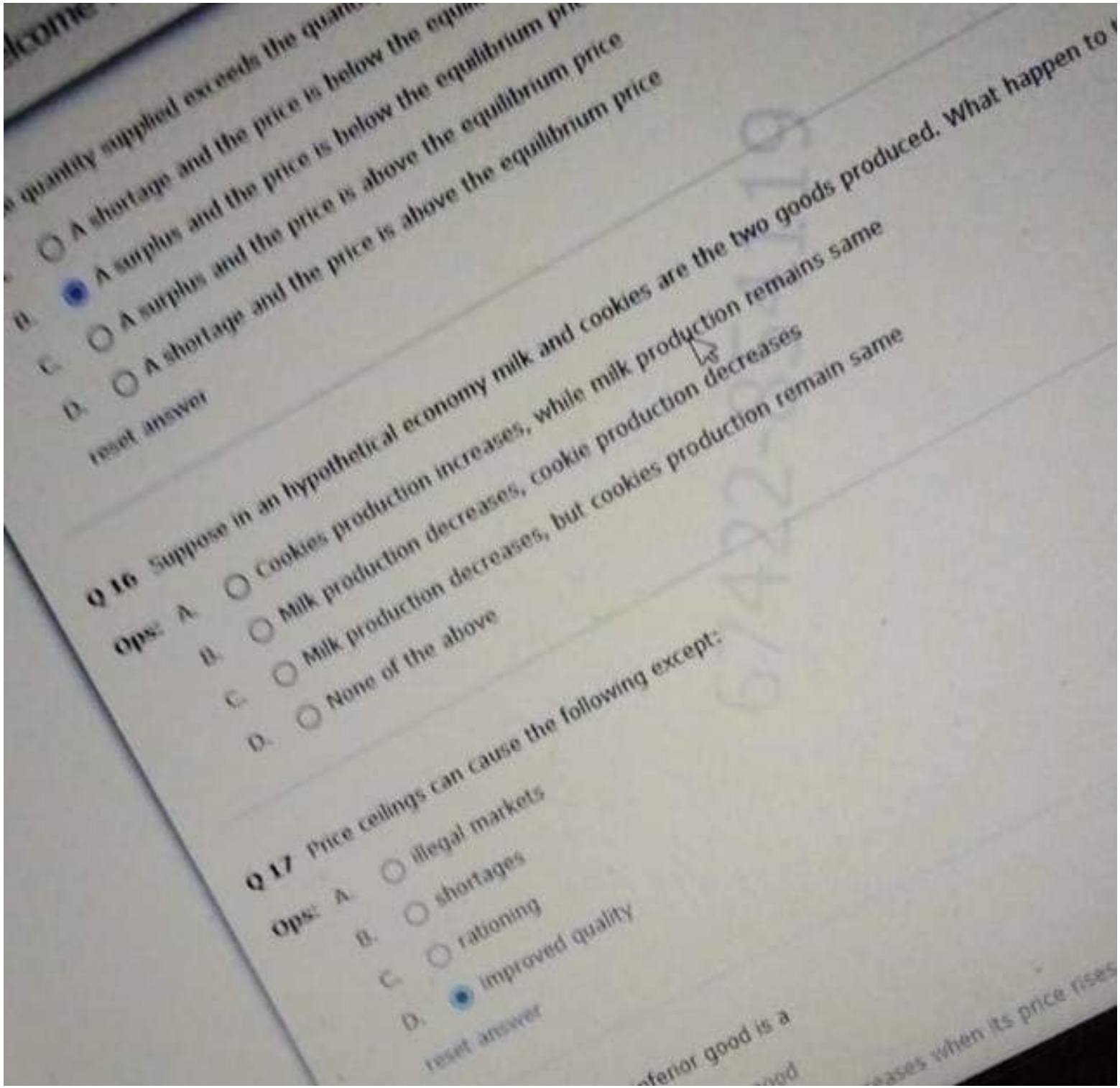
B. ○ Sales Tax

C. ○ Entertainment tax

D. ○ Wealth tax

Q 18 Price floors are usually introduced to help:

Ops: A. ○ the wealthy



quantity supplied exceeds the quan

B. A shortage and the price is below the equ

C. A surplus and the price is below the equilibrium pri

D. A surplus and the price is above the equilibrium price

A shortage and the price is above the equilibrium price

reset answer

Q 16 Suppose in an hypothetical economy milk and cookies are the two goods produced. What happen to

Ops: A. Cookies production increases, while milk production remains same

B. Milk production decreases, cookie production decreases

C. Milk production decreases, but cookies production remain same

D. None of the above

Q 17 Price ceilings can cause the following except:

Ops: A. illegal markets

B. shortages

C. rationing

D. improved quality

reset answer

eferior good is a

ood

eases when its price rises

Q 12 Price ceilings can cause the following except:

Ops: A. illegal markets
B. shortages
C. rationing
D. improved quality

reset answer

Q 13 Suppose in an hypothetical economy milk and cookies are the two goods produced. What happen to the PPF if disease kills half of the economy's cows?

Ops: A. Cookies production increases, while milk production remains same
B. Milk production decreases, cookie production decreases
C. Milk production decreases, but cookies production remain same
D. None of the above

reset answer

Q 14 A common resource is

Ops: A. Rival and nonexcludable
B. Nonrival and excludable
C. Nonrival and nonexcludable
D. Regulated and excludable

reset answer

Q 20 All costs included, it costs your local restaurant Rs.12 to serve you your favourite meal.You pay

Ops: A. ○ Rs. 9

B. ○ Rs. 12

C. ○ Rs. 21

D. ○ Rs. 33

Ops: A. ○ civil servants
B. ● consumers
C. ○ producers
D. ○ all of society
reset answer

Q 20 A consumer is willing to pay Rs.11 for his first coke, Rs.7 for his second coke, Rs.4 for his third coke, Rs.2 for his fourth coke, and Rs.1 for his fifth coke. If the price of coke is Rs.2, his total consumer surplus is :

Ops: A. ○ Rs. 22
B. ○ Rs.18
C. ○ Rs.16
D. ○ Rs.20

Q 21 A tax levied at 5% on the first Rs.10,000 of income,10% on the next Rs.20,000 and 12% on the next Rs.30,000 would be:

Ops: A. ● Progressive
B. ○ Degressive
C. ○ Regressive
D. ○ Proportional
reset answer

Q 22 The following is a characteristic of a direct tax -

Ops: A. ○ Incidence may be shifted
B. ● Imposes more burden on poor

Q 8 If goods X and Y are substitutes, then which of the following could be the value of the cross price elasticity of demand?

Ops: A. ○ 1

B. ○ -2

C. ● Neither a nor b

D. ○ Both a and b

reset answer

Q 9 A price ceiling set above the equilibrium price will:

Ops: A. ○ create a shortage

B. ○ create a surplus

C. ● have no impact on the market

D. ○ All of the above

reset answer

Q 10 A limited edition package is sold only to 200 customers for Rs.130 each. The average value of the package for the 200 customers is Rs. 280. What is the total consumer surplus?

Ops: A. ○ Rs. 150

B. ○ Rs. 15,000

C. ● Rs. 30,000

D. ○ Rs. 1,50,000

reset answer

Q 16 A firm under perfect competition is a

Opts: A. Price Maker

B. Price Breaker

C. Price Taker

D. Price Shaker

reset answer

Q 17 If the quantity supplied exceeds the quantity demanded, then there is

Opts: A. A shortage and the price is below the equilibrium price

B. A surplus and the price is below the equilibrium price

C. A surplus and the price is above the equilibrium price

D. A shortage and the price is above the equilibrium price

reset answer

Q 18 If free trade is allowed and a country exports or imports a good,

Opts: A. the total surplus rises

B. the total surplus falls

C. the total surplus remain constant

D. None of these

reset answer

Ops: A. Excise duty
B. Sales Tax
C. Entertainment tax
D. Wealth tax

reset answer

Q 5 Total utility is maximum when, marginal utility is

Ops: A. Zero
B. Equal to average
C. At its highest point
D. When average utility is maximum

Q 6 By definition, an inferior good is a

Ops: A. Normal substitute good
B. Good for which demand decreases when its price rises
C. Want that is not expressed by demand
D. Good for which demand decreases when income increases

reset answer

Q 7 If you choose to spend $500 to go to watch a movie , your opportunity cost of going to the theater is

Ops: A. Your time only
B. $500 (because you could have used the $500 to buy other things) plus the value of your time spent at the theater
C. $500 (because you could have used the $500 to buy other things) plus the value of your time spent at the theater, plus the cost of the dinner you purchased at the theater


UPM

Q 23

What is the relation between coefficient of static and kinetic friction?

(a) $\mu_s < \mu_k$

(b) $\mu_s = \mu_k$

(c) $\mu_s > \mu_k$

(d) None of these

ps: A. ○ a

B. ○ b

C. ○ c

D. ○ d

C. ○ c

D. ○ d

Q 20 Torque of the force F with respect to a reference point is

(a) $\vec{\tau} = \vec{F} \times \vec{r}$

(b) $\vec{\tau} = \vec{r} \times \vec{F}$

(c) $\vec{\tau} = \vec{F} . \vec{r}$

(d) None of these

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

Q 6

Vector $\vec{A}$ has magnitude 10.0 m and vector $\vec{B}$ has magnitude 20.0 m. The magnitude of the vector product $|\vec{A} \times \vec{B}|$ is 100 m^2. What is the magnitude of the scalar product between these two vectors?

(a) 0 m^2

(b) 173 m^2

(c) 180 m^2

(d) None of these

reset answer

10

A 15.0-kg fish swimming at 1.10 m/s suddenly gobbles up a 4.50 kg fish that is initially stationary. Neglect any drag effects of the water. What is the speed of the large fish just after it eats the small one?

(a) 0.248 m/s

(b) 0.846 m/s

(c) 1.10 m/s

(d) 2.46 m/s

a

b

Q 18

A ball is projected with velocity 30 m/sec at angle of 30° with the horizontal surface. The vertical speed of the ball after 2 second will be (Use g=10m/sec^2)

(a) 5 m/s

(b) 20 m/s

(c) -5 m/s

(d) None of these

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

Q 28 Let a lever is inclined to the horizontal with an angle θ. A force P being applied vertically downward to one end of the lever of length L . Then the magnitude of the torque of this force about the point where the lever touches the ground is

(a) P L sin θ

(b) P L cos θ

(c) P L tan θ.

(d) P L cot θ.

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

B. ○ b

C. ● c

D. ○ d

reset answer

Q 29

If the position versus time graph is curved upward, then what is the nature of acceleration?

(a) Positive

(b) Negative

(c) Zero

(d) Constant.

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

C. ○ c

D. ○ d

reset answer

A ball is projected with velocity 30 m/sec at angle of 30° with the horizontal surface. The vertical speed of the ball after 2 second will be (Use g=10m/sec^2)

(a) 5 m/s

(b) 20 m/s

(c) -5 m/s

(d) None of these

○ a

Work done by an engine in 5 sec is 1000 joules. What is the power generated by the engine in watt?

(a) 5000 W

(b) 1000 W

(c) 200 W

(d) 60 W

- ○ a
- ○ b
- ◉ c

Q 5

Force exerted on a body can change it's

(a) Direction of motion

(b) Momentum

(c) Kinetic energy

(d) All the above

Ops: A. ◉ a

B. ○ b

C. ○ c

D. ○ d

reset answer

Q 6 Each of the four jet engines on an Airbus A380 airliner develops a t

000 N. When the airplane is flying at 25

Q 4 If the dot product of the two vectors $\vec{A}$ and $\vec{B}$ is zero, what is the angle between them

(a) 0^0

(b) 90^0

(c) 180^0

(d) None of these

Ops: A. ◉ a

B. ○ b

C. ○ c

D. ○ d

reset answer

Q 5 Force exerted on a body can change it's

(a) Direction of motion

Q 2

Which law of conservation is used in the working of rocket motion

(a) Mass

(b) Linear Momentum

(c) Kinetic Energy

(d) Angular Momentum

Ops: A. ○ a

B. ◉ b

C. ○ c

D. ○ d

reset answer

the crate moving.

Q 10

A 15.0-kg fish swimming at 1.10 m/s suddenly gobbles up a 4.50 kg fish that is initially stationary. Neglect any drag effects of the water. What is the speed of the large fish just after it eats the small one?

(a) 0.248 m/s

(b) 0.846 m/s

(c) 1.10 m/s

(d) 2.46 m/s

Ops: A. ○ a

B. ◉ b

C. ○ c

The moment of inertia of a hollow cylinder of uniform mass density with length L, inner radius R_1 and outer radius R_2 about its axis of symmetry.

(a) $I = \frac{1}{2} M\left(R_2^2 - R_1^2\right)$

(b) $I = \frac{1}{2} M^2\left(R_2^2 + R_1^2\right)$

(c) $I = \frac{1}{2} M\left(R_2^2 + R_1^2\right)$

(d) None of these

Ops: A. ○ a

B. ○ b

C. ◉ c

D. ○ d

reset answer

An athlete completes one round of a circular track of radius R in 30s. What will be the displacement at the end of 1 minute?

(a) 0

(b) 2R

(c) $2\pi R$

(d) None of these

Ops: A. ○ a

B. ○ b

C. ◉ c

D. ○ d

reset answer

Q 14

A ball thrown vertically upward with some initial speed reaches a maximum height h. If its initial speed becomes 4 times, what is its new maximum height?

(a) 8h

(b) 9h

(c) 16h

(d) None of these

Ops: A. ○ a

B. ○ b

C. ○ c

Q 28

Passengers on a carnival ride move at constant speed in a horizontal circle of radius 5.0 m, making a complete circle in 4.0 s. Their acceleration is

(a) 12 m/s²

(b) 24 m/s²

(c) 10 m/s²

(d) 6 m/s²

Ops: A. ○ a

B. ○ b

C. ○ c

D. ○ d

29

formula for a centripetal force?