APTITUDE

1. A man walks diagonally across a square plot. Approximately, what was percent he saved by not walking along edges ? (Approximately)

A. 10 B. 20

C. 30 D. 40

Solution : C. 30

If he walked along edges = 2x

If walked diagonally = sqrt(2)*x

He saved

= (2x – sqrt(2)*x) / 2x

= 30 % approx.

2. From a point P on a level ground, the angle of elevation of the top tower is 30º. If the tower is 100 m high, the distance of point P from the foot of the tower is:

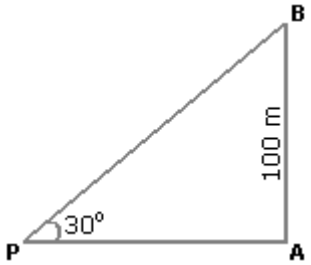
A. 149 m B. 156 m

C. 173 m D. 200 m

Solution : C. 173 m

Let AB be the tower.

Then, $\angle$APB = 30º and AB = 100 m.



$\frac{AB}{AP} = \tan 30^\circ = \frac{1}{\text{Sqrt}(3)}$

$\Rightarrow$ AP = (AB x sqrt(3)) m

= 100 x sqrt(3) m

= (100 x 1.73) m

= 173 m.

3. A train passes a station platform in 36 seconds and a man standing on the platform in 20 seconds. If the speed of the train is 54 km/hr, what is the length of the platform?

A. 120 m B. 240 m

C. 300 m D. None of these

Solution : B. 240 m

Speed = (54 x (5 / 18)) m / sec = 15 m / sec.

Length of the train = (15 x 20)m = 300 m.

Let the length of the platform be x metres.

Then, $\frac{x + 300}{36} = 15$

$\Rightarrow x + 300 = 540$

$\Rightarrow x = 240$ m.

4. A train can travel 50% faster than a car. Both start from point A at the same time and reach point B 75 kms away from A at the same time. On the way, however, the train lost about 12.5 minutes while stopping at the stations. The speed of the car is :

A. 100 kmph

B. 110 kmph

C. 120kmph

D. 130 kmph

Solution : C. 120 kmph

Let speed of the car be x kmph.

Then, speed of the train = $\frac{150}{100}x = \left(\frac{3}{2}x\right)$kmph.

$\therefore \frac{75}{x} - \frac{75}{(3/2)x} = \frac{125}{10 \text{ x } 60}$

$\Rightarrow \frac{75}{x} - \frac{50}{x} = \frac{5}{24}$

$\Rightarrow x = (25 \text{ x} 24) / 5 = 120$ kmph.

5. Srivatsa purchased 20 dozens of toys at the rate of Rs. 375 per dozen. He sold each one of them at the rate of Rs. 33. What was his percentage profit?

A. 3.5

B. 4.5

C. 6.5

D. 5.6

Solution : D. 5.6

Cost Price of 1 toy = Rs. $\left(\frac{37}{\frac{5}{12}}\right)$ = Rs. 31.25

Selling Price of 1 toy = Rs. 33

So, Gain = Rs. (33 - 31.25) = Rs. 1.75

$\therefore$ Profit % = $\left(\frac{1.75}{31.25} \text{ x } 100\right)\% = \frac{28}{5}\% = 5.6\%$

6. Six bells commence tolling together and toll at intervals of 2, 4, 6, 8 10 and 12 seconds respectively. In 30 minutes, how many times do they toll together ?

A. 4 B. 10

C. 15 D. 16

Solution : D. 16

L.C.M. of 2, 4, 6, 8, 10, 12 is 120.

So, the bells will toll together after every 120 seconds(2 minutes).

In 30 minutes, they will toll together $\frac{30}{2} + 1 = 16$ times.

7. How many 3-digit numbers can be formed from the digits 2, 3, 5, 6, 7 and 9, which are divisible by 5 and none of the digits is repeated?

A. 5 B. 10

C. 15 D. 20

Solution : D. 20

Since each desired number is divisible by 5, so we must have 5 at the unit place. So, there is 1 way of doing it.

The tens place can now be filled by any of the remaining 5 digits (2, 3, 6, 7, 9). So, there are 5 ways of filling the tens place.

The hundreds place can now be filled by any of the remaining 4 digits. So, there are 4 ways of filling it.

$\therefore$ Required number of numbers = (1 x 5 x 4) = 20.

8. If log 2 = 0.3010 and log 3 = 0.4771, the value of $\log_5 512$ is :

A. 2.870 B. 2.967

C. 3.876 D. 3.912

Solution : C. 3.876

$$\log_5 512 = \frac{\log 512}{\log 5}$$

$$= \frac{\log 2^9}{\log (10/2)}$$

$$= \frac{9 \log 2}{\log 10 - \log 2}$$

$$= \frac{(9 \times 0.3010)}{1 - 0.3010}$$

$$= \frac{2.709}{0.699}$$

$$= \frac{2709}{699}$$

$$= 3.876$$

9. At what time between 7 and 8 o'clock will the hands of a clock be in the same straight line but, not together?

A. 5 min. past 7

B. $5\frac{5}{11}$ min. past 7

C. $5\frac{3}{11}$ min. past 7

D. 6 min. past 7

Solution : B.

When the hands of the clock are in the same straight line but not together, they are 30 minute spaces apart.

At 7 o'clock, they are 25 min. spaces apart.

$\therefore$ Minute hand will have to gain only 5 min. spaces.

55 min. spaces are gained in 60 min.

5 min. spaces are gained in $\left(\frac{60}{55} \times 5 \right) = 5\frac{5}{11}$ min.

$\therefore$ Required time = $5\frac{5}{11}$ min. past 7.

10. A man's speed with the current is 15 km/hr and the speed of the current is 2.5 km/hr. The man's speed against the current is:

A. 8.5 km/hr

B. 9 km/hr

C. 10 km/hr

D. 12.5 km/hr

Solution : C. 10 km/hr

Man's rate in still water = (15 - 2.5) km/hr = 12.5 km/hr.

Man's rate against the current = (12.5 - 2.5) km/hr = 10 km/hr.

11. What will be the day of the week 15th August, 2010?

A. Sunday
B. Monday
C. Tuesday
D. Friday

Solution : A. Sunday

15th August, 2010 = (2009 years + Period 1.1.2010 to 15.8.2010)

Odd days in 1600 years = 0

Odd days in 400 years = 0

9 years = (2 leap years + 7 ordinary years) = (2 x 2 + 7 x 1) = 11 odd days = 4 odd days.

Jan. Feb. March April May June July Aug.
(31 + 28 + 31 + 30 + 31 + 30 + 31 + 15) = 227 days

∴ 227 days = (32 weeks + 3 days) = 3 odd days.

Total number of odd days = (0 + 0 + 4 + 3) = 7 = 0 odd days.

Given day is Sunday.

12. A, B and C jointly thought of engaging themselves in a business venture. It was agreed that A would invest Rs. 6500 for 6 months, B, Rs. 8400 for 5 months and C, Rs. 10,000 for 3 months. A wants to be the working member for which, he was to receive 5% of the profits. The profit earned was Rs. 7400. Calculate the share of B in the profit.

A. Rs. 1900
B. Rs. 2660
C. Rs. 2800
D. Rs. 2840

Solution : B. Rs. 2660

For managing, A received = 5% of Rs. 7400 = Rs. 370.

Balance = Rs. (7400 - 370) = Rs. 7030.

Ratio of their investments = (6500 x 6) : (8400 x 5) : (10000 x 3)

= 39000 : 42000 : 30000

= 13 : 14 : 10

∴ B's share = Rs. $\left(7030 \times \frac{14}{37}\right)$ = Rs. 2660.

13. Two numbers are respectively 20% and 50% more than a third number. The ratio of the two numbers is :

A. 2 : 5
B. 3 : 5
C. 4 : 5
D. 6 : 7

Solution : C. 4 : 5

Let the third number be x.

Then, first number = 120% of x = $\frac{120x}{100} = \frac{6x}{5}$

Second number = 150% of x = $\frac{150x}{100} = \frac{3x}{2}$

$\therefore$ Ratio of first two numbers = $\left(\frac{6x}{5} : \frac{3x}{2}\right)$ = $12x : 15x = 4 : 5$.

14. Two pipes A and B can fill a cistern in 37.5 minutes and 45 minutes respectively. Both pipes are opened. The cistern will be filled in just half an hour, if the B is turned off after:

A. 5 min.

B. 9 min.

C. 10 min.

D. 15 min.

Solution : B. 9 min.

Let B be turned off after x minutes. Then,

Part filled by (A + B) in x min. + Part filled by A in (30 -x) min. = 1.

$\therefore x\left(\frac{2}{75} + \frac{1}{45}\right) + (30 - x).\frac{2}{75} = 1$

$\Rightarrow \frac{11x}{225} + \frac{(60 - 2x)}{75} = 1$

$\Rightarrow 11x + 180 - 6x = 225.$

$\Rightarrow x = 9.$

15. Tea worth Rs. 126 per kg and Rs. 135 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth Rs. 153 per kg, the price of the third variety per kg will be:

A. Rs. 169.50

B. Rs. 170

C. Rs. 175.50

D. Rs. 180

Solution : C. Rs. 175.50

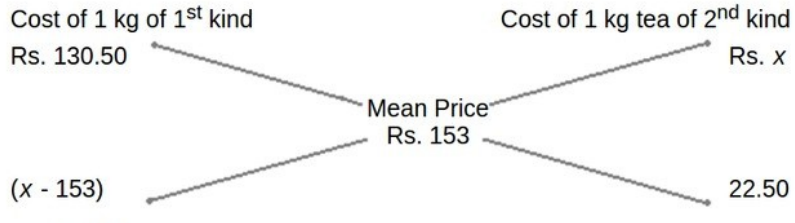
Since first and second varieties are mixed in equal proportions.

So, their average price = Rs. $\left(\frac{126 + 135}{2}\right)$ = Rs. 130.50

So, the mixture is formed by mixing two varieties, one at Rs. 130.50 per kg and the other at say,

Rs. x per kg in the ratio 2 : 2, *i.e.*, 1 : 1. We have to find x.

By the rule of alligation, we have:



$\therefore \frac{x - 153}{22.50} = 1$

$\Rightarrow x - 153 = 22.50$

$\Rightarrow x = 175.50$

16. The difference between the length and breadth of a rectangle is 23 m. If its perimeter is 206 m, then its area is:

A. 1520 m^2 B. 2420 m^2

C. 2480 m^2 D. 2520 m^2

Solution : D. 2520 m^2

We have: $(l - b) = 23$ and $2(l + b) = 206$ or $(l + b) = 103$.

Solving the two equations, we get: $l = 63$ and $b = 40$.

$\therefore$ Area = $(l \times b)$ = (63 x 40) m2 = 2520 m2.

17. A hall is 15 m long and 12 m broad. If the sum of the areas of the floor and the ceiling is equal to the sum of the areas of four walls, the volume of the hall is: (in m^3)

A. 720 B. 900

C. 1200 D. 1800

Solution : C. 1200 m^3

$2(15 + 12) \times h = 2(15 \times 12)$

$\Rightarrow h = \frac{180}{27}\text{m} = \frac{20}{3}\text{m}.$

$\therefore$ Volume $= \left(15 \text{ x } 12 \text{ x } \frac{20}{3} \right)\text{m3} = 1200 \text{ m3}.$

18. What is the probability of getting a sum 9 from two throws of a dice?

A. 1/6 B. 1/8

C. 1/9 D. 1/12

Solution : C. 1/9

In two throws of a dice, $n(S) = (6 \times 6) = 36$.

Let E = event of getting a sum ={(3, 6), (4, 5), (5, 4), (6, 3)}.

$\therefore$ $P(E) = \frac{n(E)}{n(S)} = \frac{4}{36} = \frac{1}{9}$.

19. A sum of money at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 years. The sum is:

A. Rs. 650 B. Rs. 690

C. Rs. 698 D. Rs. 700

Solution : C. Rs. 698

S.I. for 1 year = Rs. (854 - 815) = Rs. 39.

S.I. for 3 years = Rs.(39 x 3) = Rs. 117.

∴ Principal = Rs. (815 - 117) = Rs. 698.

20. I forgot the last digit of a 7-digit telephone number. If one randomly dials the final 3 digits after correctly dialling the first four, then what is the chance of dialling the correct number?

A. 1/1001 B. 1/1000

C. 1/999 D. 1/990

Solution : B. 1/1000

It is given that last three digits are randomly dialled. then each of the digit can be selected out of 10 digits in 10 ways.

Hence required probability

$=(1/10)^3$
$=1/1000$

LOGICAL REASONING

1. 22, 21, 23, 22, 24, 23, ... What number should come next?

A. 22 B. 24

C. 25 D. 26

Solution : C. 25

In this simple alternating subtraction and addition series; 1 is subtracted, then 2 is added, and so on.

2. Window is to pane as book is to

A. novel B. glass

C. cover D. page

Solution : D. Page

A window is made up of panes, and a book is made up of pages. The answer is not (choice a) because a novel is a type of book. The answer is not (choice b) because glass has no relationship to a book. (Choice c) is incorrect because a cover is only one part of a book; a book is not made up of covers.

3. **Statement:** Unemployment allowance should be given to all unemployed Indian youth above 18 years of age.

Assumptions:

1. There are unemployed youth in India who needs monetary support.
2. The government has sufficient funds to provide allowance to all unemployed youth.

A. Only assumption 1 is implicit

B. Only assumption 2 is implicit

C. Either 1 or 2 is implicit

D. Neither 1 nor 2 is implicit

E. Both 1 and 2 are implicit

Solution : A.Only assumption 1 is implicit

1 directly follows from the statement and so is implicit. Also, the statement is a suggestion and does not tell about a government policy or its position of funds. So, 2 is not implicit.

4. Here are some words translated from an artificial language.
Hapllesh means cloudburst
srenchoch means pinball
resbosrench means ninepin
Which word could mean "cloud nine"?

A. leshsrench

B. ochhapl

C. haploch

D. haplresbo

Solution : D. haplresbo

Hapl means cloud; *lesh* means burst; *srench* means pin; *och* means ball; and *resbo* means nine. *Leshsrench*(choice a) doesn't contain any of the words needed for cloud nine. We know that och means ball, so that rules out choices b and c. When you combine *hapl* (cloud) with *resbo* (nine), you get the correct answer

5. B_2CD , _____ , BCD_4 , B_5CD , BC_6D

A. B_2C_2D

B. BC_3D

C. B_2C_3D

D. BCD_7

Solution : B. BC_3D

Because the letters are the same, concentrate on the number series, which is a simple 2, 3, 4, 5, 6 series, and follows each letter in order.

6. ELFA, GLHA, ILJA, _____, MLNA

A. OLPA

B. KLMA

C. LLMA

D. KLLA

Solution : D. KLLA

The second and forth letters in the series, L and A, are static. The first and third letters consist of an alphabetical order beginning with the letter E.

7. Replace the question mark :
3 : 12 :: 5 : ?

A. 25 B. 35

C. 30 D. 40

Solution : C. 30

Square of first number + number = second number

8. Replace the question mark :
14 : 9 :: 26 : ?

A. 12 B. 13

C. 31 D. 15

Solution : D. 15

14 : 9 => (1+4) x 2 - 1 = 9
26 : ? => (2+6) x 2 – 1 = 15

9. Complete the series : 17,27,37,56,__

A. 49 B. 57

C. 78 D. 62

Solution : B. 57

1 + 7 = 8
2 + 7 = 9
3 + 7 = 10
5 + 6 = 11
5 + 7 = 12

10. In the question, three out of 4 alternatives contains letters of alphabet placed in particular form. Find one that doesn’t belong to the group.

A. ZS12 B. PM4

C. RJ16 D. FD12

Solution : C. RJ12

The number is 2 x no of letters between given 2 alphabets

11. Pointing to a photograph of a boy Suresh said, "He is the son of the only son of my mother." How is Suresh related to that boy?

A. Brother B. Uncle

C. Cousin D. Father

Solution : D. Father

The boy in the photograph is the only son of the son of Suresh's mother i.e., the son of Suresh. Hence, Suresh is the father of boy.

12. If A + B means A is the mother of B; A - B means A is the brother B; A % B means A is the father of B and A x B means A is the sister of B, which of the following shows that P is the maternal uncle of Q?

A. Q - N + M x P

B. P + S x N - Q

C. P - M + N x Q

D. Q - S % P

Solution : C. P - M + N x Q

P - M → P is the brother of M

M + N → M is the mother of N

N x Q → N is the sister of Q

Therefore, P is the maternal uncle of Q.

13. A, B, C, D and E are sitting on a bench. A is sitting next to B, C is sitting next to D, D is not sitting with E who is on the left end of the bench. C is on the second position from the right. A is to the right of B and E. A and C are sitting together. In which position A is sitting ?

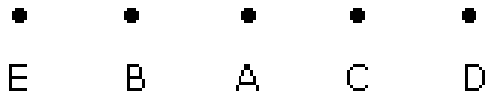
A. Between B and D

B. Between B and C

C. Between E and D

D. Between C and E

Solution : B. Between B and C



14. **Question :** In which year was Rahul born ?
Statements :

I. Rahul at present is 25 years younger to his mother.

II. Rahul's brother, who was born in 1964, is 35 years younger to his mother.

A. I alone is sufficient while II alone is not sufficient

B. II alone is sufficient while I alone is not sufficient

C. Either I or II is sufficient

D. Neither I nor II is sufficient

E. Both I and II are sufficient

Solution : E.

From both I and II, we find that Rahul is (35 - 25) = 10 years older than his brother, who was born in 1964. So, Rahul was born in 1954.

15. **Question :** How many children does M have ?
Statements:

I. H is the only daughter of X who is wife of M.

II. K and J are brothers of M.

A. I alone is sufficient while II alone is not sufficient

B. II alone is sufficient while I alone is not sufficient

C. Either I or II is sufficient

D. Neither I nor II is sufficient

E. Both I and II are sufficient

Solution : D. Neither I nor II is sufficient

From I, we conclude that H is the only daughter of M. But this does not indicate that M has no son. The information given in II is immaterial.

TECHNICAL

1. Predict the output of below program:

```
#include <stdio.h>
 int main()
 {
 int arr[5];
 // Assume that base address of arr is 2000 and size of integer
    // is 32 bit
 arr++;
 printf("%u", arr);

 return 0;
 }
```

A. 2002

B. 2004

C. 2020

D. Error

Solution : D. Error

Array name in C is implemented by a constant pointer. It is not possible to apply increment and decrement on constant types.

2. Predict the output of following program?

```
#include "stdio.h"
int main()
{
  char arr[100];
  printf("%d", scanf("%s", arr));
  /* Suppose that input value given for above scanf is "FossCamp" */
  return 1;
}
```

A. 8

B. 9

C. 1

D. 100

Solution : C. 1

3. What is the output of following program?

```
# include <stdio.h>
 void fun(int x)
 {
 x = 30;
 }

 int main()
{
 int y = 20;
 fun(y);
 printf("%d", y);
 return 0;
}
```

A. 30

B. 20

C. Compiler Error

D. Runtime Error

Solution : B. 20

Parameters are always passed by value in C. Therefore, in the above code, value of y is not modified using the function fun(). So how do we modify the value of a local variable of a function inside another function. Pointer is the solution to such problems. Using pointers, we can modify a local variable of a function inside another function. See the next question. Note that everything is passed by value in C. We only get the effect of pass by reference using pointers.

4. What is the output of following program?

```
# include <stdio.h>

int main()
{
  char str1[] = "LCCSJCE";
  char str2[] = {'L', 'C', 'C', 'S', 'J', 'C', 'E'};
  int n1 = sizeof(str1)/sizeof(str1[0]);
  int n2 = sizeof(str2)/sizeof(str2[0]);
  printf("n1 = %d, n2 = %d", n1, n2);
  return 0;
}
```

A. n1 = 8, n2 = 7

B. n1 = 7, n2 = 8

C. n1 = 8, n2 = 8

D. n1 = 7, n2 = 7

Solution : A. n1 = 8, n2 = 7

The size of str1 is 10 and size of str2 9. When an array is initialized with string in double quotes, compiler adds a '\0' at the end.

5. Predict the output :

```
#include <stdio.h>
int main()
{
  printf("%d", main);
  return 0;
}
```

A. Address of main function

B. Compiler Error

C. Runtime Error

D. Some random value

Solution : A. Address of main function

Explanation: Name of the function is actually a pointer variable to the function and prints the address of the function. Symbol table is implemented like this.

6. Predict the output :

```
#include <stdio.h>
int main()
{
    int (*ptr)(int ) = fun;
    (*ptr)(3);
    return 0;
}
int fun(int n)
{
```

```
    for(;n > 0; n--)
        printf("LCC ");
    return 0;
}
```

A. LCC LCC LCC

B. Compiler Error

C. Runtime Error

D. LCC LCC

Solution : B. Compiler Error

The only problem with program is fun is not declared/defined before it is assigned to ptr. The following program works fine and prints "LCC LCC LCC "

```
int fun(int n);
int main()
{
    // ptr is a pointer to function fun()
    int (*ptr)(int ) = fun;

    // fun() called using pointer
    (*ptr)(3);
    return 0;
}

int fun(int n)
{
  for(;n > 0; n--)
    printf("LCC ");
}
```

7. Let A be a square matrix of size n x n. Consider the following program. What is the expected output?

```
C = 100
for i = 1 to n do
for j = 1 to n do
{
   Temp = A[i][j] + C
   A[i][j] = A[j][i]
   A[j][i] = Temp - C
}
for i = 1 to n do
for j = 1 to n do
   Output(A[i][j]);
```

A. Transpose of matrix A

B. Adding 100 to the upper diagonal elements and subtracting 100 from diagonal elements of A

C. The matrix A itself

D. None of the above

Solution : C. The matrix A itself

If we take look at the inner statements of first loops, we can notice that the statements swap A[i][j] and A[j][i] for all i and j. Since the loop runs for all elements, every element A[l][m] would be swapped twice, once for i = l and j = m and then for i = m and j = l. Swapping twice means the matrix doesn't change.

8. What is the output of following program?

```
#include<stdio.h>
void swap(char *str1, char *str2)
{
  char *temp = str1;
  str1 = str2;
  str2 = temp;
}
int main()
{
  char *str1 = "LCC SJCE";
  char *str2 = "FOSS CAMP";
  swap(str1, str2);
  printf("str1 is %s, str2 is %s", str1, str2);
  return 0;
}
```

A. str1 is FOSS CAMP, str2 is FOSS CAMP

B. str1 is FOSS CAMP, str2 is LCC SJCE

C. str1 is LCC SJCE, str2 is LCC SJCE

D. str1 is LCC SJCE, str2 is FOSS CAMP

Solution : D. str1 is LCC SJCE, str2 is FOSS CAMP

The above swap() function doesn't swap strings. The function just changes local pointer variables and the changes are not reflected outside the function. See following for more details.

9. What is the output of following program?

```
#include <stdio.h>
int main()
{
        float c = 5.0;
        printf ("Temperature in Fahrenheit is %.2f", (9/5)*c + 32);
        return 0;
}
```

A. Temperature in Fahrenheit is 41.00

B. Temperature in Fahrenheit is 37.00

C. Temperature in Fahrenheit is 0.00

D. Compiler Error

Solution : B. Temperature in Fahrenheit is 37.00

Since 9 and 5 are integers, integer arithmetic happens in subexpression (9/5) and we get 1 as its value. To fix the above program, we can use 9.0 instead of 9 or 5.0 instead of 5 so that floating point arithmetic happens.

10. A program P reads in 500 integers in the range [0..100] exepresenting the scores of 500 students. It then prints the frequency of each score above 50. What would be the best way for P to store the frequencies?

A. An array of 50 numbers

B. An array of 100 numbers

C. An array of 500 numbers

D. A dynamically allocated array of 550 numbers

Solution : A. An array of 50 numbers

An array of size 50 looks the best option to store number of students for each score. We need to store frequencies of scores above 50. We can ignore scores below 50 and to index the scores above 50, we can subtract 50 from the score value/

11. Predict the output :

```
#include <stdio.h>
int main()
{
    if (sizeof(int) > -1)
            printf("Yes");
    else
            printf("No");
    return 0;
}
```

A. Yes

B. No

C. Compiler Error

D. Runtime Error

Solution : B. No

In C, when an intger value is compared with an unsigned it, the int is promoted to unsigned. Negative numbers are stored in 2's complement form and unsigned value of the 2's complement form is much higher than the sizeof int.

12. What is the return value of following function for arr[] = {9, 12, 2, 11, 2, 2, 10, 9, 12, 10, 9, 11, 2} and n is size of this array.

```
int fun(int arr[], int n)
{
int x = arr[0];
for (int i = 1; i < n; i++)
   x = x ^ arr[i];
return x;
}
```

A. 9

B. 0

C. 2

D. 12

Solution : A. 9

Note that 9 is the only element with odd occurrences, all other elements have even occurrences. If the input array has all elements with even occurrences except one, then the function returns the only element with odd occurrences. Note that XORing an element with itself results 0 and XOR of 0 with a number x is equal to x.

13. What does the following function do?

```
int fun(unsigned int n)
{
   if (n == 0 || n == 1)
      return n;
   if (n%3 != 0)
      return 0;
```

```
    return fun(n/3);
}
```

A. It returns 1 when n is a multiple of 3, otherwise returns 0

B. It returns 1 when n is a power of 3, otherwise returns 0

C. It returns 0 when n is a multiple of 3, otherwise returns 1

D. It returns 0 when n is a power of 3, otherwise returns 1

Solution : B

Find yourself

14. Output of following Java program?

```
class Main {
    public static void main(String args[]) {
        System.out.println(fun());
    }
    int fun()
    {
        return 20;
    }
}
```

A. 20

B. 1

C. Compiler Error

D. Runtime Error

Solution : C.

Main is static and the function fun() is non-static

ALGORITHM

For First Year Students :
Extract number from string (Example : Given a string - “print 20 and 30”, the output should be -> 20 30).

For Second Year Students :
Given an array of distinct integers, print all the pairs having positive value and negative value of a number that exists in the array. (Example : Given array a=[1,8,5,6,-8,9,-1], then print –> 1 -1 8 -8

For Third Year Students :
Given an input string and a dictionary of words, find out if the input string can be segmented into a space-separated sequence of dictionary words. (Example : If the given dictionary is {“LCC”,”SJCE”,”Presents”,”FOSS”,CAMP”,”2017”} and the string “FOSSCAMP2017”, you need to print 1 since the string can be formed from the dictionary.For “FOSSCAMPING” print 0 since it cannot be obtained from the dictionary. Using Brute Force will fetch you no marks.

PUZZLE

There are 4 persons (A, B, C and D) who want to cross a bridge in night.

A takes 1 minute to cross the bridge.

B takes 2 minutes to cross the bridge.

C takes 5 minutes to cross the bridge.

D takes 8 minutes to cross the bridge.

There is only one torch with them and the bridge cannot be crossed without the torch. There cannot be more than two persons on the bridge at any time, and when two people cross the bridge together, they must move at the slower person’s pace. What is the minimum time with which all of them can cross the bridge.

ANSWER :

EXPLANATION :