

## Fidelity Placement Papers

### Question 1

The average of all odd numbers up to 100 is:

- A. 50
- B. 60
- C. 40
- D. 55

Ans. A

Explanation:

1, 2, 3... n If n is odd, the formula is  $(n+1)/2$  th term The average of all odd numbers up to 100 is  $1+3+5+7+9+\dots+99$  Therefore here  $n = 99$   $(99 + 1) / 2 = 100/2 = 50$

### Question 2

How many words of 4 consonants and 3 vowels can be made from 12 consonants and 4 vowels, if all the letters are different?

- A.  $16C7 * 7!$
- B.  $12C4 * 4C3 * 7!$
- C.  $12C3 * 4C4$
- D.  $12C4 * 4C3$

Ans. B

Explanation:

4 consonants out of 12 can be selected in  $12C4$  ways. 3 vowels can be selected in  $4C3$  ways. Therefore, total number of groups each containing 4 consonants and 3 vowels =  $12C4 * 4C3$  each group contains 7 letters, which can be arranging in  $7!$  ways. Therefore required number of words =  $12C4 * 4C3 * 7!$

### Question 3

The ratio of boys to girls in a class is 5: 3. The class has 16 more boys than girls. How many girls are there in the class?

- A. 16
- B. 6
- C. 24

D. 64

Ans. C

Explanation:

Let the number of boys in the class be  $5k$ . And the number of girls in the class is  $3k$ . The class has 16 more boys. i.e., the difference between the number of boys and girls is 16 i.e.,  $5k - 3k = 16$   $2k = 16$  so,  $k = 8$ . Number of girls =  $3k = 2 * 8 = 24$ .

Question 4

The average of 7 consecutive numbers is 33. The largest of these numbers is:

A. 30

B. 80

C. 57

D. 36

Ans. D

Explanation:

Basic Formula: Let the numbers  $x, x+1, x+2, x+3, x+4, x+5, x+6$  Answer with Explanation: Given ( $x + x+1 + x+2 + x+3 + x+4 + x+5 + x+6$ ) / 7 = 33  $7x + 21 / 7 = 33$   $7x + 21 = 33 \times 7$   $7x + 21 = 231$   $7x = 231 - 21 = 210$   $x = 210 / 7 = 30$ . There for the largest number is  $x + 6 = 30 + 6 = 36$ .

Question 5

Kiran had 85 currency notes in all, some of which were of Rs.100 denomination and the remaining of Rs.50 denomination the total amount of all these currency note was Rs.5000. How much amount did she have in the denomination of Rs.50?

A. Rs. 3000

B. Rs. 3500

C. Rs.3200

D. Rs. 3100

Ans. B

Explanation:

Let the number of fifty rupee notes be  $x$  Then, number of 100 rupee notes =  $(85-x)$   $50x + 100(85-x) = 5000$   $x + 2(85-x) = 100$   $x=70$  So, required amount=Rs.  $(50*70) = \text{Rs. } 3500$

Question 6

A man is 24 years older than his son. In two years, his age will be twice the age of his son. The present age of his son is:

- A. 14 years
- B. 18 years
- C. 20 years
- D. 22 years

Ans. D

Explanation:

Let the son's present age be  $x$  years. Then, man's present age =  $(x + 24)$  years.  $(x + 24) + 2 = 2(x + 2)$   
 $x + 26 = 2x + 4$   
 $x = 22$ .

Question 7

A zookeeper counted the heads of the animals in a zoo and found it to be 80. When he counted the legs of the animals he found it to be 260. If the zoo had either pigeons or horses, how many horses were there in the zoo?

- A. 40
- B. 30
- C. 50
- D. 60

Ans. C

Explanation:

Let the number of horses =  $x$  Then the number of pigeons =  $80 - x$ . Each pigeon has 2 legs and each horse has 4 legs. Therefore, total number of legs =  $4x + 2(80 - x) = 260$   
 $4x + 160 - 2x = 260$   
 $2x = 100$   
 $x = 50$

Question 8

How many kgs of Basmati rice costing Rs.42/kg should a shopkeeper mix with 25 kgs of ordinary rice costing Rs.24 per kg so that he makes a profit of 25% on selling the mixture at Rs.40/kg?

- A. 20 kgs
- B. 12.5 kgs
- C. 16 kgs

D. 200 kgs

Ans. A

Explanation:

Let the amount of Basmati rice being mixed be  $x$  kgs. As the trader makes 25% profit by selling the mixture at Rs.40/kg, his cost /kg of the mixture = Rs.32/kg. i.e.  $(x * 42) + (25 * 24) = 32 (x + 25)$   
 $42x + 600 = 32x + 800$   
 $10x = 200$  or  $x = 20$  kgs

Question 9

Which is greater  $2^{300}$  or  $3^{200}$ ?

- A.  $2^{300}$
- B.  $3^{200}$
- C. Both are equal
- D. Both are equal

Ans. B

Explanation:

$2^{300} = (2^3)^{100} = 8^{100}$   $3^{200} = (3^2)^{100} = 9^{100}$  and since  $9 > 8$ ,  $3^{200}$  is greater than  $2^{300}$ .  $3^{200} > 2^{300}$ .

Question 10

The average age of a family of 5 members is 20 years. If the age of the youngest member be 10 years then what was the average age of the family at the time of the birth of the youngest member?

- A. 13.5
- B. 14
- C. 15
- D. 12.5

Ans. D

Explanation:

At present the total age of the family =  $5 * 20 = 100$  the total age of the family at the time of the birth of the youngest member =  $[100 - 10 - (10 * 4)] = 50$  Therefore, average age of the family at the time of birth of the youngest member =  $50/4 = 12.5$

Question 11

Study the following information and answer the questions based on it: A, B, C, D, E, F and G are sitting on a wall and all of them are facing east. C is on the immediate right of D. B is at an extreme end and has E as his neighbor. G is between E and F. D is sitting third from the south end. Who is sitting to the right of E?

- A. A
- B. C
- C. D
- D. F
- E. None of these

Ans. E

Explanation:

C is to the right of D. D is third from south. So, B will be at the extreme end from north because it should have E as its neighbour. G is between E and F. SO, the sequence is B-> E-> G-> F-> D-> C-> A-> G is sitting to the right of E.

Question 12

Name the person who should change places with C such that he gets the third place from the north end?

- A. E
- B. F
- C. C
- D. G

Ans. D

Explanation:

G should change place with C to make it third from north.

Question 13

Which of the following pairs of people are sitting at the extreme ends?

- A. AB
- B. AE
- C. CB

D. FB

Ans. A

Explanation:

A and B are sitting at the extreme ends.

Question 14

Who is sitting to the right of A?

- A. B
- B. C
- C. D
- D. F
- E. None of these

Ans. E

Explanation:

We know that sitting arrangement as follows: B-> E-> G-> F-> D-> C-> A-> G And G is sitting right of A. So, answer is "None of these"

Question 15

Immediately between which of the following pairs of people is D sitting?

- A. A C
- B. A F
- C. C E
- D. C F

Ans. D

Explanation:

D is sitting between C and F.

Question 16

Study the following information and answer the questions based on it: M,N,O,P,Q,R,S,T,U,V,W are 11 persons in a team. O is their captain who makes them sit in a row. P and R sit together and so do V and W. whereas there are exactly four seats in between these pairs. T and U sit together with T to the immediate right of S, who is next to Q. M and N sit in the same order at one extreme with no one to the left of P. Who sits at fourth place?

- A. S
- B. T
- C. U
- D. W

Ans. A

Explanation:

From the given information sitting arrangement as follows: P R Q S T U V W O M N And S will be sitting in fourth position.

Question 17

How many persons sit in between S and N?

- A. 4
- B. 5
- C. 6
- D. Cannot be determined

Ans. C

Explanation:

From sitting arrangement "P R Q S T U V W O M N" there are six people between S and N.

Question 18

How many ways of arrangements are possible?

- A. 1
- B. 2
- C. 3
- D. 4

Ans. A

Explanation:

Possible combination of sitting arrangement as follows: P R Q S T U V W O M N

Question 19

Who sits at last but one place?

- A. R
- B. M
- C. O
- D. Cannot be determined

Ans. B

Explanation:

Possible sitting arrangement as follows: " P R Q S T U V W O M N" And M is last but one person.

Question 20

Study the following information and answer the questions based on it: Joe, Larry, Ned, Mary, Paul, Willy, Crystal, Albert, Bob, Frank, Ellen, and Rick all live in the same 6-floor building. There are 2 apartments per floor. No more than 2 persons live in any apartment. Some apartments may be empty. 1. Larry and his roommate live 2 floors above Albert and his roommate Crystal. 2. Joe lives alone, 3 floors below Willy and 2 floors below Ellen. 3. Mary lives one floor below Albert and Crystal 4. Ned lives three floors above the floor on which Bob and Frank have single apartments 5. Rick and Paul live in single apartments, 2 floors below Mary Which of the following lists the persons named in the correct order, going from the bottom floor to the top?

- A. Rick, Bob, Mary, Albert, Larry, Ned
- B. Rick, Frank, Ned, Ellen, Larry, Crystal
- C. Paul, Bob, Joe, Crystal, Ned, Larry
- D. Larry, Ellen, Albert, Mary, Frank, Rick

Ans. C

Question 21

Which of the following pairs must live on the same floor? I. Ned, Ellen II. Joe, Mary III. Albert, Larry



- A. I only
- B. III only
- C. I and II only
- D. II and III only

Ans. C

Question 22

An empty apartment or empty apartments may be found on the

- A. second floor only
- B. fourth floor only
- C. fifth floor only
- D. fourth or sixth floor or both

Ans. D

Question 23

Dorothy lives with a roommate. Her roommate could be any of the following EXCEPT

- A. Willy
- B. Mary
- C. Ned
- D. Ellen

Ans. A

Explanation:

As we know that only two people can live in a apartment and Larry & Willy are roommates. So, Dorothy cannot be Willy's roommate.

Question 24:

Joe arranges to move into an apartment two floors down, whose occupant moves into an apartment one floor up. The occupant of this apartment moves into one three floors up, whose occupant takes Joe's old apartment. The new occupant of Joe's old apartment is

- A. Bob or Frank
- B. Ned or Ellen
- C. Mary
- D. Rick

Ans. B

Explanation:

As Joe moves from 3rd floor to first floor, Rick or Paul from first floor moves to the 2nd floor. Bob or Frank from 2nd floor moves to 5th floor. So, Ellen or Ned from 5th floor occupies the Joe's old apartment.

Question 25:

Larry's roommate, assuming that he or she is one of the persons mentioned, is

- A. Ellen
- B. Willy
- C. Mary
- D. Ned

Ans. B

Question 26:

What will be the output of the program?

```
void main()
{
    int i=5,j=10;

    i=i&=i&=j&&10+2;

    printf("%d %d",i,j);
}
```

- A. 5 10
- B. 1 10
- C. 10 1
- D. Compiler Error

Ans. B

Question 27:

What will be the output of the program?

```
void main( )  
  
{  
  
int i=4, j=8;  
  
printf("%d, %d, %d\n", i|j&j|i, i|j&j|i, i^j);  
  
}
```

- A. 12, 12, 12
- B. 112, 1, 12
- C. 32, 1, 12
- D. -64, 1, 12

Ans. A

Question 28:

What will be the output of the program?

```
void main() {  
  
short int i = 0;  
  
for(i<=5 && i>=-1; ++i; i>0)
```

```
printf("%u", i);

}
```

- A. 1 ... 65535
- B. Expression syntax error
- C. No output
- D. 0, 1, 2, 3, 4, 5

Ans. A

Explanation:

for( $i \leq 5$  &&  $i \geq -1$ ;  $++i$ ;  $i > 0$ ) so expression  $i \leq 5$  &&  $i \geq -1$  initializes for loop. In for(  $i \leq 5$  &&  $i \geq -1$ ;  $++i$ ;  $i > 0$ ) expression  $i \leq 5$  &&  $i \geq -1$  evaluates to one. Loop condition always get evaluated to true. Also at this point it increases  $i$  by one. An increment\_expression  $i > 0$  has no effect on value of  $i$ .so for loop get executed till the limit of integer (ie. 65535)

Question 29:

What will be the output of the program?

```
void main( ) {

int i=-3, j=2, k=0, m;

m = ++i && ++j && ++k;

printf("%d, %d, %d, %d\n", i, j, k, m);

}
```

- A. -2, 3, 1, 1
- B. 2, 3, 1, 2
- C. 1, 2, 3, 1
- D. 3, 3, 1, 2

Ans. A

Explanation:

`m = ++i && ++j && ++k;` becomes `m = -2 && 3 && 1`; becomes `m = TRUE && TRUE`; Hence this statement becomes TRUE. So it returns '1'(one). Hence `m=1`. `printf("%d, %d, %d, %d\n", i, j, k, m);`  
In the previous step the value of `i,j,k` are incremented by '1'(one). Hence the output is "-2, 3, 1, 1".

Question 30:

What will be the output of the program?

```
void main() {  
  
    int i, a[] = {2, 4, 6, 8, 10};  
  
    change(a, 5);  
  
    for(i=0; i<=4; i++)  
  
        printf("%d, ", a[i]);  
  
}  
  
change(int *b, int n)  
  
{  
  
    int i;  
  
    for(i=0; i
```

- A. 7, 9, 11, 13, 15
- B. 2, 15, 6, 8, 10
- C. 2 4 6 8 10
- D. 3, 1, -1, -3, -5

Ans. B