

TCS Aptitude Questions with Answers

By

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1 . A box of 150 packets consists of 1kg packets and 2kg packets. Total weight of box is 264kg. How many 2kg packets are there ?

Sol) $x = 2$ kg Packs

$y = 1$ kg packs

$x + y = 150$ Eqn 1

$2x + y = 264$ Eqn 2

Solve the Simultaneous equation; $x = 114$

so, $y = 36$

ANS : Number of 2 kg Packs = 114.

2 . My flight takes off at 2am from a place at 18N 10E and landed 10 Hrs later at a place with coordinates 36N70W. What is the local time when my plane landed?

a) 6:00 am b) 6:40am c) 7:40 d) 7:00 e) 8:00

Sol) The destination place is 80 degree west to the starting place. Hence the time difference between these two places is 5 hour 20 min. ($= 24\text{hr} \times 80/360$).

When the flight landed, the time at the starting place is 12 noon (2 AM + 10 hours).

Hence, the time at the destination place is 12 noon – 5:20 hours = 6: 40 AM

3 . The size of the bucket is N kb. The bucket fills at the rate of 0.1 kb per millisecond. A programmer sends a program to receiver. There it waits for 10 milliseconds. And response will be back to programmer in 20 milliseconds. How much time the program takes to get a response back to the programmer, after it is sent?

Sol) see it doesn't matter that what the time is being taken to fill the bucket. after reaching program it waits there for 10ms and back to the programmer in 20 ms. then total time to get the response is 20ms + 10ms = 30ms

4 . Y catches 5 times more fishes than X. If total number of fishes caught by X and Y is 42, then number of fishes caught by X?

Sol) Let no. of fish x catches = p

no. caught by y = r

$$r = 5p.$$

$$r + p = 42$$

$$\text{then } p = 7, r = 35$$

5 . Three companies are working independently and receiving the savings 20%, 30%, 40%. If the companies work combinedly, what will be their net savings?

suppose total income is 100

so amount x is getting is 80

y is 70

$$z = 60$$

$$\text{total} = 210$$

but total money is 300

$$300-210=90$$

so they are getting 90 rs less

90 is 30% of 300 so they r getting 30% discount

6 . The ratio of incomes of C and D is 3:4.the ratio of their expenditures is 4:5. Find the ratio of their savings if the savings of C is one fourths of his income?

Sol) incomes:3:4

expenditures:4:5

$$3x-4y=1/4(3x)$$

$$12x-16y=3x$$

$$9x=16y$$

$$y=9x/16$$

$$(3x-4(9x/16))/((4x-5(9x/16)))$$

ans:12/19

7 . If $G(0) = -1$ $G(1) = 1$ and $G(N)=G(N-1) - G(N-2)$ then what is the value of $G(6)$?

ans: -1

$$\text{bcoz } g(2)=g(1)-g(0)=1+1=2$$

$$g(3)=1$$

$$g(4)=-1$$

$$g(5)=-2$$

$$g(6)=-1$$

8 . what's the answer for that :

A, B and C are 8 bit no's. They are as follows:

A -> 1 1 0 0 0 1 0 1

B \rightarrow 0 0 1 1 0 0 1 1

C \rightarrow 0 0 1 1 1 0 1 0 ($-$ =minus, u =union)

Find $((A - C) \cup B) = ?$

sol) To find A-C, We will find 2's compliment of C and then add it with A,

That will give us (A-C)

2's compliment of C = 1's compliment of C + 1

$= 11000101 + 1 = 11000110$

$A - C = 11000101 + 11000110$

$= 10001001$

Now $(A - C) \cup B$ is .OR. logic operation on (A-C) and B

10001001 .OR . 00110011

The answer is = 10111011 ,

Whose decimal equivalent is 187.

9 . One circular array is given (means memory allocation takes place in circular fashion) dimension (9X7) and starting add. is 3000, What is the address of (2,3).....

Sol) it's a 9×7 int array so it requires a 126 bytes for storing. b'z integer value needs 2 bytes of memory allocation. and starting add is 3000

so starting add of 2×3 will be 3012.

10 . A bus started from bus stand at 8.00am at the speed of 18mph and after 30 min staying at destination, it returned back to the bus stand. the destination is 27 miles from the bus stand. the speed of the bus 50 percent faster IN SPEED. SO AT what time it returns to the bus stand?

sol) a bus covers 27 miles with 18 mph in $= 27/18 = 1$ hour 30 min. and it waits at stand = 30 min.

after this speed of return increases by 50% so 50% of 18 mph = 9 mph

Total speed of returnig= $18+9=27$

Then in return it take $27/27=1$ hour

then total time in joureny= $1+1:30+00:30 =3$ hour

so it will come at $8+3$ hour= 11 a.m.

So Ans== 11 a.m