

1. **(B) indulge: mollycoddle**

Embarrass: to place in doubt, self-conscious; mortify means to destroy strength (nearly same use)

Indulge: to give free rein or to treat with excessive consideration; mollycoddle means to treat with excessive indulgence (nearly same use)

Exhaustive: through or to consider all elements and careful means totally taking care (not related words)

Synopsis: condensed statement and conciseness means free from all elaboration. (nearly opposite use)

Bigot: a treating with hatred or intolerance; tolerance (opposite meaning)

Hence answer is (B)

2. **(B) gracious**

winsome means sweet, innocent, charming . Hence closest meaning is gracious (pleasant, kind)

3. **(B) old**

Senile means deterioration, decline, old aged etc. Hence answer is (b)

4. **(A) perturbed**

The word Since supports the two clauses of the sentence. Since the sense is falling down so it is obvious that the traders will be worried. The missing blank would be similar to the word concerned or worried. Perturbed (meaning worried) is the answer.

5. **(A) 48**

Let number of 1 rupee coin is x , 50 paisa coin is y , and 25 paisa coin is z . Then,
 $x + \frac{y}{2} + \frac{z}{4} = 51$.

Again $y = 2x$ and $y = 4z$ or $x = \frac{y}{2}$ and $z = \frac{y}{4}$

Thus, $\frac{y}{2} + \frac{y}{2} + \frac{y}{16} = 51 \Rightarrow y = 48, x = 24, z = 12$

6. **(D) can occur independently of human activity**

In the first paragraph, the author states that "some hypoxic areas ... occur naturally"

7. **(A) 5 rupees**

Each button does not give what it claims. So tea button may give coffee or random (either tea or coffee) and coffee button may give tea or random (either tea or coffee). The random button should give either coffee or tea. If we start with this random button with one 5 rupees coin, then it will work for either tea button providing tea or for coffee button providing coffee.

If random button works for tea, then tea button must be for coffee or random. As already random button is for tea, coffee button cannot be tea, and hence random. Thus random = tea, coffee = random, tea = coffee.

Similarly, if random button gives coffee while we put 5 rupees coin, then random = coffee, tea = random, coffee = tea

Thus by 1st chance only we can found out which button works for which selection with minimum money of 5 rupees only.

8. **(B) 1021**

Let to the first child(son-1) she gave "a" number of peanuts, to the 2nd child (girl-1) "b" number of peanuts, to the 3rd child(son-2) "c" numbers of peanuts and to the 4th child (son-2) "d" numbers of peanuts and the remaining numbers of peanuts is "e".

Thus total number of peanuts = $a + b + c + d + e$

According to question,

$$a = 1 + ((a + b + c + d + e - 1) * (1/4))$$

$$b = 1 + ((b + c + d + e - 1) * (1/4)) \Rightarrow a - b = a/4 \text{ or, } b = 3a/4$$

$$c = 1 + ((c + d + e - 1) * (1/4)) \Rightarrow b - c = b/4 \text{ or, } c = 3b/4 = 9a/16$$

$$d = 1 + ((d + e - 1) * (1/4)) \Rightarrow c - d = c/4 \text{ or, } d = 3c/4 = 27a/64$$

$$\text{again, } a + c - 100 = b + d$$

$$a + 9a/16 - 100 = 3a/4 + 27a/64 \text{ or, } a = 256, b = 192, c = 144, d = 108$$

$$d = 1 + ((d + e - 1) * (1/4)) \Rightarrow e = 321$$

$$\text{Total number of peanuts} = 1021$$

9. **(A) 9**

Sum of the digits of a number with any number of digits, which is divisible by 9 is 9. Try yourself with few and find out. Thus x=9. And hence y=9 and z=9.

10. **(C) 9**

$x = 100, f(x)$ = number of prime numbers less than x

Primes less than 20 = 2, 3, 5, 7, 11, 13, 17, 19,

Primes between 20 and 40 = 23, 29, 31, 37,

Primes between 40 and 60 = 41, 43, 47, 53, 59,

Primes between 60 and 80 = 61, 67, 71, 73, 79,

Primes between 80 and 100 = 83, 89, 97

$$f(100) = 25$$

$$\text{Thus, } f(f(100)) = f(25) = 9$$