(1) 120, 99, 80, 63, 48, ?

[A] 35  
[B] 38  
[C] 39  
[D] 40  

Answer: [A]  

Explanation: 
The pattern is - 21, - 19, - 17, - 15, ....  
So, missing term = 48 - 13 = 35.

(2) 3, 10, 101, ?

[A] 10101  
[B] 10201  
[C] 10202  
[D] 11012  

Answer: [C]  

Explanation: 
Each term in the series is obtained by adding 1 to the square of the preceding term.  
So, missing term = (101)^2 + 1 = 10202.

(3) In the series 2, 6, 18, 54, ...... what will be the 8th term ?

[A] 4370  
[B] 4374  
[C] 7443  
[D] 7434  

Answer: [B]  

Explanation: 
Clearly, 2 x 3 = 6, 6 x 3 = 18, 18 x 3 = 54, ...... 
So, the series is a G.P. in which a = 2, r = 3. 
Therefore 8th term = a \cdot r^{8-1} = a \cdot r^{7} = 2 \times 3^{7} = (2 \times 2187) = 4374.

(4) 125, 80, 45, 20, ?

[A] 5  
[B] 8  
[C] 10  
[D] 12  

Answer: [A]  

Explanation: 
The pattern is - 45, - 35, - 25, .....  
So, missing term = 20 - 15 = 5.

(5) 589654237, 89654237, 8965423, 965423, ?

[A] 58965
[B] 65423
[C] 89654
[D] 96542

Answer: [D]

Explanation:
The digits are removed one by one from the beginning and the end in order alternately so as to obtain the subsequent terms of the series.

(6) ab aa bbb aaa bbba

[A] abba
[B] baab
[C] aaab
[D] abab

Answer: [B]

Explanation:
The series is ab/b/aa/bbb/aaa/bbba. Thus the letters are repeated twice, then thrice, then four times and so on.

(7) cccbb aa cc bbbaa c

[A] aebe
[B] baca
[C] baba
[D] acba

Answer: [B]

Explanation:
The series is c/c/b/bbb/aaa/c. Thus, the pattern ccc bbb aaa is repeated.

(8) a n b n c b ncb ncb

[A] abbbec
[B] abebeb
[C] bchbab
[D] bcabab

Answer: [D]

Explanation:
The series is ab/nb/c/nbb/c/nbb. Thus, the pattern 'abncb' is repeated.

(9) _ nmmn _ mmmn _ mnnm _

[A] nmmn
[B] mmmn
[C] nmmn
[D] nmmn

Answer: [C]

(10) a _ ba _ b _ b _ a _ b

[A] abaab  
[B] abbab  
[C] aabba  
[D] bbabb  

Answer : [D]

Explanation:  
The series is abb/abb/abb/abb. Thus, the pattern 'abb' is repeated.

(11) Question: Four subjects - Physics, Chemistry, Mathematics and Biology - were taught in four consecutive periods of one hour each starting from 8.00 a.m. At what time was the Chemistry period scheduled ?

Statements:
I. Mathematics period ended at 10.00 a.m., which was preceded by Biology.  
II. Physics was scheduled in the last period.  
III. Mathematics period was immediately followed by Chemistry.

[A] Only I  
[B] Either I only or II only  
[C] Only II  
[D] Only II and III  
[E] Only I and either II or III  

Answer : [E]

Explanation:  
From I and II, we conclude that Mathematics period began at 9.00 a.m., Biology period began at 8.00 a.m. and Physics period began at 11 a.m. So, the Chemistry period began at 10.00 a.m.

From I and III, we conclude that Mathematics period ended and Chemistry period began at 10.00 a.m.

(12) Question: How is the girl in the photograph related to Kunal?

Statements:
I. Pointing to the photograph, Kunal said, "She is the mother of my father's only granddaughter".
II. Kunal has no siblings.
III. Pointing to the photograph, Kunal said, "She is the only daughter-in-law of my mother."

[A] Any two of the three  
[B] Only I and II  
[C] Only II and III  
[D] Either only III or only I and II  
[E] None of these  

Answer : [D]

Explanation:  
From I, we conclude that the girl is either Kunal's or his brother's wife. But, according to II, Kunal has no siblings. So, from both I and II, we conclude that the girl is Kunal's wife.

From III, we find that the girl is the only daughter-in-law of Kunal's mother i.e. she is Kunal's wife.
(13) Question: What does 'come' represent in a code language?

Statements:

I. 'pit na tac' means 'come and go' in that code language.
II. 'ja ta da' means 'you are good' in that code language.
III. 'na da rac' means 'you can come' in that code language.

[A] Only I and II
[B] Only II and III
[C] Only I and III
[D] All I, II and III
[E] None of these

Answer: [C]

Explanation:
To find the code for 'come', we need to have two statements which have one common code word and 'come' as the common word, which is there in I and III.

(14) In a group of cows and hens, the number of legs are 14 more than twice the number of heads. The number of cows is

[A] 5
[B] 7
[C] 10
[D] 12

Answer: [B]

Explanation:
Let the number of cows be x and the number of hens be y.
Then, $4x + 2y = 2(x + y) + 14$
$4x + 2y = 2x + 2y + 14$
$2x = 14$
$x = 7.$

(15) A number consists of two digits whose sum is 11. If 27 is added to the number, then the digits change their places. What is the number?

[A] 47
[B] 65
[C] 83
[D] 92

Answer: [A]

Explanation:
Let the ten's digit be x. Then, unit's digit = (11 - x).
So, number = $10x + (11 - x) = 9x + 11$.
Therefore $9x + 11 + 27 = 10(11 - x) + x \
9x + 38 = 110 - 9x \
18x = 72 \
x = 4.
Thus, ten's digit = 4 and unit's digit = 7.
Hence, required number = 47.

(16) In a caravan, in addition to 50 hens, there are 45 goats and 8 camels with some keepers. If the total number of feet be 224 more than the number of heads in the caravan, the number of keepers is

[A] 5
[B] 8
[C] 10
[D] 15

Answer: [D]
Explanation:
Let number of keepers be $x$. Then,
Total number of feet = $2 \times 50 + 4 \times 45 + 4 \times 8 + 2x = 2x + 312$.
Total number of heads = $50 + 45 + 8 + x = 103 + x$.
Therefore $(2x + 312) = (103 + x) + 224$ or $x = 15$.

(17) A monkey climbs 30 feet at the beginning of each hour and rests for a while when he slips back 20 feet before he again starts climbing in the beginning of the next hour. If he begins his ascent at 8.00 a.m., at what time will he first touch a flag at 120 feet from the ground?

[A] 4 p.m.
[B] 5 p.m.
[C] 6 p.m.
[D] None of these

Answer : [C]

Explanation:
Net ascent of the monkey in 1 hour = $(30 - 20)$ feet = 10 feet.
So, the monkey ascends 90 feet in 9 hours i.e. till 5 p.m.
Clearly, in the next 1 hour i.e. till 6 p.m. the monkey ascends remaining 30 feet to touch the flag.

(18) 'Smoke' is related to 'Pollution' in the same way as 'War' is related to:

[A] Victory
[B] Treaty
[C] Defeat
[D] Destruction

Answer : [D]

Explanation: As 'smoke' leads to 'pollution' in the same way 'War' leads to 'destruction'.

(19) 'Dogs' is related to 'Bark' in the same way as 'Goats' is related to:

[A] Bleat
[B] Crow
[C] Grunt
[D] Howl

Answer : [A]

Explanation: As the cry of 'Dog' is called 'Bark' in the same way the cry of 'Goat' is called 'Bleat'.

(20) 'Calf' is related to 'Cow' in the same way as 'Kitten' is related to:

[A] Deer
[B] Bear
[C] Cat
[D] Duck

Answer : [C]

Explanation: As 'Calf' is the youngest of 'Cow' similarly 'Kitten' is the young one of 'Cat'.