Class IX _ PSA Sheet 2(Reasoning)

Number of questions: 25

1. Identify one response which would be a correct inference from the given premises stated according to the following symbols:
'A' stands for less than
'D' stands for equal to
'B' stands for addition
'F' stands for subtraction
'G' stands for division
'E' stands for multiplication
'I' stands for greater than
Premises (3M I 4N) and (2N D 5K)
(A) 4M I 20K (B) 2M A K
(C) 2K I N (D) M I 2K

Directions: In question nos. 2 and 3, select the missing number from the given responses.

2. 21 27 14 58 33 71
6 9 ?
(A) 12 (B) 13
(C) 15 (D) 18

3. 2, 6, 12, 20, 30, ?
(A) 40 (B) 44
(C) 42 (D) 38

Directions: In question no. 4, select the related number / word / letters from the given alternatives.

4. OAGE : UGMK :: READ : ?
(A) WJGJ (B) XKGJ
(C) WJHK (D) XKHK

Directions: In question no. 5, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

5. a _ _ a a a b b _ b b a a _ b b
(A) bbaa (B) bbab
(C) aabb (D) abab

Directions: In question no. 6, select the one which is different from the other three responses.

6. (A) MUTE = 1321205
(B) PRAY = 1618125
(C) NEWS = 1452319
(D) BOLD = 2151204

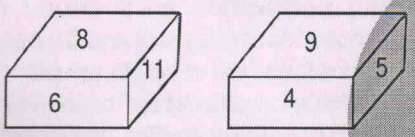
7. Dimple starts walking towards West. After walking 20 meters, she turns towards North and walks 25 meters. She then turns towards East and walks 30 meters, then again she walks 10 meters towards West. If she finally walks 15 meters towards South, then how far is she from her starting point and in which direction?
(A) 10 meters, East
(B) 25 meters, North
(C) 15 meters, West
(D) 10 meters, North

8. Average age of father, mother and their only child is 30 years. Ratio of ages of father and child is 12 : 1 while ratio of ages of mother and child is 19 : 2. What is the age of the child?
(A) 2 years (B) 4 years
(C) 6 years (D) 8 years

9. Amit is 2 years older than Mohan. Pinki is 3 years older than Mukesh. Mohan is 2 years older than Vikas. Pinki is 2 years younger than Amit. Who is the youngest of all?
(A) Mohan (B) Pinki
(C) Mukesh (D) Vikas

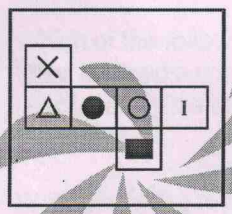
10. If each of the letters in the English alphabet is assigned odd numerical value beginning with A = 1, B = 3 and so on, what will the total value of the letters of the word 'STRONG'?
(A) 163 (B) 180
(C) 186 (D) 192

11. In the given blocks if 8 is at the bottom, then which number will be at the top?

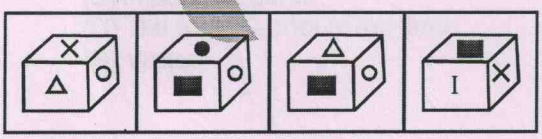


(A) 4 (B) 5
(C) 11 (D) 9

12. Which of the four cubes pictured below are correct view when the six squares are folded (in clockwise direction) into a cube?
Question figure :



Answer figures :



(A) (B) (C) (D)

13. The total cost of 8 pens and 15 notebooks is ₹244 and the total cost of 12 pens and 8 notebooks is ₹192. Find the cost of 6 pens and 5 notebooks.
(A) ₹96 (B) ₹108
(C) ₹120 (D) ₹144

14. A piece of work can be done by Diwakar and Sudhakar in 30 days, Sudhakar and Ramesh in 36 days and Diwakar and Ramesh in 45 days. Diwakar alone will complete the work in
(A) 50 days (B) 56 days
(C) 60 days (D) 72 days

15. A shopkeeper earns a profit of 15% on selling a table at 20% discount on printed price. The ratio of the cost price to printed price of the table is
(A) 16 : 23 (B) 32 : 25
(C) 50 : 63 (D) 17 : 24

Directions for questions 16 to 20: Read each of the following sentences to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is 'No error' the answer is (D).

16. 'Cheer up father, (A) / I'll go and will finish the (B)/ remaining work,' said Supandi. (C)/ No error (D)

17. There's Sabu, whom (A)/ they say is the best (B)/ wrestler in the town. (C) / No error (D)

18. Archie is one of (A)/ the cleverest boys that (B)/ has passed through the school. (C)/ No error (D)

19. The play started by (A)/ the time Tenali Raman arrived (B)/ at the biggest theater in the world. (C)/ No error (D)

20. Billu's taste in (A)/ comic books is (B)/ different than Pinky's (C)/ No error (D)

Directions for questions 21 to 25: You have 5 questions in the given passage. Read the passages carefully and choose the best answer to each question out of the four alternatives given.

Passage

The positive nutritional effects led the Olmec to believe chocolate drink possessed mystic qualities, so it was generally reserved for important figures at sacred ceremonies. The Olmec passed the chocolate drink on to the Maya civilization, who found that chocolate was a mood enhancer and energy booster. They passed it on to perhaps the beverage's most famous historical forefathers, the Aztecs. Legendary Aztec leader Montezuma II was known to demand cacao beans from conquered peoples and supposedly drank five goblets of hot chocolate every day in a display of power and opulence. Besides his own enjoyment of the beverage, he only allowed those who contributed military service to drink chocolate. When Hernan Cortes and his soldiers encountered the Aztecs, one of his men wrote about Montezuma's consumption of the curious cacao-made drink and how the Spanish themselves were also served the beverage "all frothed up." Ultimately, Cortes conquered the Aztecs, and brought the popular drink to Spain, from which it spread throughout Europe and, eventually, the world.

21. Which of the following civilizations might not have enjoyed a chocolate drink?
(A) Maya civilization (B) Aztec
(C) Olmec (D) Cortes

22. Who among the following must not have been allowed to drink chocolate during the rule of Montezuma II?
(A) Soldiers
(B) Important figures
(C) The Aztec leader of the time
(D) Visitors

23. Find an option that is same in meaning to the word given in bold.

Opulence
(A) Authority (B) Wealth
(C) Political control (D) Greatness

24. Which of the following is not a characteristic of the chocolate drink?
(A) Energy booster (B) Mood enhancer
(C) Nutritional (D) Intoxicating

25. What made Montezuma II drink five goblets of chocolate each day?
(A) He wanted to show how great he was.
(B) He wanted to assert his authority.
(C) He wanted to suppress his people.
(D) He felt energized after taking the drink.

Solutions

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1	D	2	B	3	C	4	B	5	A	6	D	7	D	8	B	9	C	10	B
11	D	12	B	13	B	14	D	15	A	16	D	17	A	18	C	19	A	20	C
21	D	22	B	23	B	24	D	25	B										

1. D Premises (3M I 4N) and (2N D 5K): 3M > 4N and 2N = 5K i.e. $M > \frac{10K}{3}$

Option (A): 4M I 20K means 4M > 20K i.e. M > 5K
Option (B): 2M A K means 2M < K
Option (C): 2K I N means 2K > N
Option (D): M I 2K means M > 2K
Hence, option (D) is true.

2. B $\frac{21+27}{8} = 6$

$\frac{14+58}{8} = 9$

$\frac{33+71}{8} = 13.$

3. C 2 6 12 20 30 42

+4 +6 +8 +10 +12

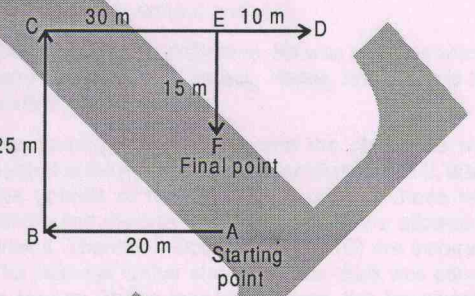
+2 +2 +2 +2

4. B O(15) + 6 = U(21)
A(1) + 6 = G(7)
G(7) + 6 = M(13)
E(5) + 6 = K(11)
Hence, the answer is XKGJ.

5. A abba / aabb / abba / aabb

6. D In coding of MUTE, PRAY and NEWS code for alphabet, whose position number is less than 10 is coded in single digit but in BOLD code for D is 04.

7. D



Hence, she is 10 m away in North direction.

8. B Sum of ages of father, mother and child = 30 × 3 = 90 years.
Ratio of their ages = 24 : 19 : 2

Hence, age of the child = $\frac{2}{45} \times 90 = 4$ years.

9. C Let the age (in years) of each person be represented by his/her name.
Then, Amit = 2 + Mohan = 4 + Vikash (as Mohan = Vikash + 2)
Amit = 2 + Pinki = 5 + Mukesh (as Pinki = Mukesh + 3)
Hence, Mukesh is the youngest of all.

10. B Letters will be assigned value as
S = 37, T = 39, R = 35, O = 29, N = 27 and G = 13
Hence, the total value = 37 + 39 + 35 + 29 + 27 + 13 = 180.

Alternative Method:
The total value = 2 × (Sum of the position number of the letters) – Number of letters
= 2 × (19 + 20 + 18 + 15 + 14 + 7) – 6 = 180.

11. D Opposite to 8 is 9, opposite to 6 is 5 and opposite to 11 is 4.

12. B

13. B Let the cost of a pen and a notebook be ₹p and ₹n respectively. Then,
$8p + 15n = 244$ ... (i)
$12p + 8n = 192$ ... (ii)
On solving (i) and (ii), we get
$p = 8$ and $n = 12$
Hence, the cost of 6 pens and 5 notebooks $= 6 \times 8 + 5 \times 12$
$= 48 + 60 = ₹108$.

14. D Fraction of work done by Diwakar and Sudhakar in one day $= \frac{1}{30}$

Fraction of work done by Sudhakar and Ramesh in one day $= \frac{1}{36}$

Fraction of work done by Diwakar and Ramesh in one day $= \frac{1}{45}$

$\Rightarrow$ Fraction of work done by Diwakar, Sudhakar and Ramesh in one day $= \frac{1}{2}\left(\frac{1}{30}+\frac{1}{36}+\frac{1}{45}\right)=\frac{1}{24}$

$\Rightarrow$ Fraction of work done by Diwakar in one day $= \frac{1}{24}-\frac{1}{36}=\frac{1}{72}$

Hence, Diwakar alone will complete the work in 72 days.

15. A Let the cost price and the printed price be ₹c and ₹p.

Then, $c\left(1+\frac{15}{100}\right)=p\left(1-\frac{20}{100}\right)$

$\Rightarrow \frac{c}{p}=\frac{100-20}{100+15}=\frac{80}{115}=\frac{16}{23}$.

16. D The sentence does not have any grammatical error. Hence, part (D) is the correct answer.

17. A. 'Who' is the subject of the verb and is used when we talk about the doer of the action. 'Whom' is the object and is used when we talk about the receiver of an object. In the sentence, Sabu is the doer of the action and therefore, the correct sentence will take 'who' instead of 'whom'. Hence, part (A) is the correct answer.

18. C When the subject of the verb is a relative pronoun ('that', in this case), then the verb agrees in number and person with the antecedent of the relative (boys). Therefore, 'has' in part (C) is grammatically incorrect, rendering part (C) the answer. The correct sentence should be 'Archie is one of the cleverest boys that have passed through the school.'

19. A When two actions happened in the past, then past perfect tense is used for the one that happened before the other. In the sentence, the action (starting of the play) was completed before the second action (Tenali Raman's arrival). Thus, the correct sentence will be "The play had started by the time Tenali Raman arrived at the biggest theater in the world." Hence, part (A) is the correct answer.

20. C The preposition 'than' is used with 'different' when a noun is compared with a clause. For example: Her appearance was very different than I'd expected. When two nouns are compared, like in this case, then the preposition 'from' is used with 'different'. Hence, part (C) is the correct answer.

21. D 'Cortes' was not a civilization. He was a person whose army conquered the Aztecs. Hence, option (D) is the correct answer.

22. B The passage says that when the chocolate was passed to the Aztecs, their leader Montezuma II, drank five goblets of hot chocolate and only those who contributed towards military service were allowed to drink it. Therefore, Options (A) and (C) are incorrect. The passage further states that the drink was served to Hernan Cortes and his soldiers, the Spaniyards, when they encountered the Aztecs. This means that visitors were also served the drink. Thus, we can say that option (B), important figures is the correct answer.

23. B 'Opulence' means wealth, riches, capital or fortune. Hence, option (B) is the correct answer.

24. D Option (C) can be inferred from the first sentence of the passage. The passage further states that the Mayans found that the chocolate drink was a mood enhancer and energy booster. Nothing is said about the drink being intoxicating. Hence, option (D) is the correct answer.

25. B Look at the line "Legendary Aztec leader Montezuma II ...display of power and opulence." It says that Montezuma II drank five cups of chocolate drink each day because he wanted to display his power and wealth. Hence, option (B) is the correct answer.