PCS Test 2

1
A $ B means A is the father of B; A # B means A is the sister of B; A * B means A is the daughter of B and A @ B means A is the brother of B. Which of the following indicates that M is the wife of Q?

( ) A. Q $ R # T @ M
( ) B. Q $ R @ T # M
( ) C. Q $ R * T # M
( ) D. Q $ R @ T * M

Explanation: Q $ R → Q is the father of R

R @ T → R is the brother of T Hence, → Q is the father of T T * M → T is the daughter of M Hence, → M is the mother of T Hence, M is the wife of Q.

2
If A $ B means A is the brother of B; B * C means B is the son of C; C @ D means C is the wife of D and A # D means A is the son of D, how C is related to A?

( ) A. Maternal grandmother
( ) B. Maternal aunt
( ) C. Aunt
( ) D. Mother

Explanation: A $ B → A is the brother of B

B * C → B is the son of C

Hence, → A is the son of C

C @ D → C is the wife of D

Hence, → C is the mother of A.

3
Pointing to a girl Sandeep said, "She is the daughter of the only sister of my father." How is sandeep related to the girl?

( ) A. Uncle
( ) B. Cousin
( ) C. Father
( ) D. Grandfather

Explanation:
The girl is the daughter of the sister of Sandeep's father. Hence, the girl is the cousin or Sandeep is the cousin of the girl.
4
Pointing to a boy in the photograph Reena said, "He is the only son of the only child of my grandfather." How Reena is related to that boy?

( ) A. Mother
( ) B. Sister
( ) C. Aunt
( ) D. Cannot be determined

Explanation: The boy in the photograph is the only son of Reena's grandfather's only son; i.e., the boy is the only son of Reena's father.

Hence, the boy is the brother of Reena or Reena is the sister of the boy.

5
1. A * B means A is the sister of B
2. A $ B means B is the mother of A
3. A + B means A is the brother of B
4. A = B means B is the father of A.

Which of the following means M is the maternal uncle of N?

( ) A. M = P + Q * N
( ) B. N + P = Q * M
( ) C. N * P $ Q * M
( ) D. None of these

6
Study the following table and answer the questions based on it.
Expenditures of a Company (in Lakh Rupees) per Annum Over the given Years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Item of Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Salary</td>
</tr>
<tr>
<td>1998</td>
<td>288</td>
</tr>
<tr>
<td>1999</td>
<td>342</td>
</tr>
<tr>
<td>2000</td>
<td>324</td>
</tr>
<tr>
<td>2001</td>
<td>336</td>
</tr>
<tr>
<td>2002</td>
<td>420</td>
</tr>
</tbody>
</table>
What is the average amount of interest per year which the company had to pay during this period?

( ) A. Rs. 32.43 lakhs  
( ) B. Rs. 33.72 lakhs  
( ) C. Rs. 34.18 lakhs  
( ) D. Rs. 36.66 lakhs

Explanation: Average amount of interest paid by the Company during the given period

\[
\frac{23.4 + 32.5 + 41.6 + 36.4 + 49.4}{5} = \text{Rs. } \frac{183.3}{5} \text{ lakhs} = \text{Rs. } 36.66 \text{ lakhs.}
\]

7
The total amount of bonus paid by the company during the given period is approximately what percent of the total amount of salary paid during this period?

( ) A. 0.1%  
( ) B. 0.5%  
( ) C. 1%  
( ) D. 1.25%

Explanation:

\[
\text{Required percentage} = \left[ \frac{(3.00 + 2.52 + 3.84 + 3.68 + 3.96)}{(288 + 342 + 324 + 336 + 420)} \times 100 \right] \%
\]

\[
= \left[ \frac{17}{1710} \times 100 \right] \%
\]

\[
\approx 1\%
\]

8
The total expenditure of the company over these items during the year 2000 is?

( ) A. Rs. 544.44 lakhs  
( ) B. Rs. 501.11 lakhs  
( ) C. Rs. 446.46 lakhs  
( ) D. Rs. 478.87 lakhs
Explanation: Total expenditure of the Company during 2000
= Rs. \((324 + 101 + 3.84 + 41.6 + 74)\) lakhs
= Rs. 544.44 lakhs.

9
The ratio between the total expenditure on Taxes for all the years and the total expenditure on Fuel and Transport for all the years respectively is approximately?

( ) A. 4:7
( ) B. 10:13
( ) C. 15:18
( ) D. 5:8

\[
\text{Required ratio} = \frac{(83 + 108 + 74 + 88 + 98)}{(98 + 112 + 101 + 133 + 142)}
\]
\[
= \frac{451}{586}
\]
\[
= \frac{1}{1.3}
\]

Explanation:

10
At the baseball game, Henry was sitting in seat 253. Marla was sitting to the right of Henry in seat 254. In the seat to the left of Henry was George. Inez was sitting to the left of George. Which seat is Inez sitting in?

( ) A. 251
( ) B. 254
( ) C. 255
( ) D. 256

Explanation: If George is sitting at Henry’s left, George’s seat is 252. The next seat to the left, then, is 251.
11
As they prepare for the state championships, one gymnast must be moved from the Level 2 team to
the Level 1 team. The coaches will move the gymnast who has won the biggest prize and who has
the most experience. In the last competition, Roberta won a bronze medal and has competed seven
times before. Jamie has won a silver medal and has competed fewer times than Roberta. Beth has
won a higher medal than Jamie and has competed more times than Roberta. Michele has won a
bronze medal, and it is her third time competing. Who will be moved to the Level 1 team?

( ) A. Roberta
( ) B. Beth
( ) C. Michele
( ) D. Jamie

Explanation: Beth won the biggest prize, described as a higher medal than Jamie's, which we've been
told was a silver medal. Roberta and Michele both won bronze medals, which are lower ranking medals
than silver. Beth is also described as having competed more times than Roberta who has competed
seven times. Jamie is described as having competed fewer times than Roberta, and Michele has
competed three times. Therefore, Beth has competed more times than the others and has won the
biggest prize to date.

12
Four friends in the sixth grade were sharing a pizza. They decided that the oldest friend would get
the extra piece. Randy is two months older than Greg, who is three months younger than Ned. Kent
is one month older than Greg. Who should get the extra piece of pizza?

( ) A. Randy
( ) B. Greg
( ) C. Ned
( ) D. Kent

Explanation:
If Randy is two months older than Greg, then Ned is three months older than Greg and one month older
than Randy. Kent is younger than both Randy and Ned. Ned is the oldest.

13
The high school math department needs to appoint a new chairperson, which will be based on
seniority. Ms. West has less seniority than Mr. Temple, but more than Ms. Brody. Mr. Rhodes has
more seniority than Ms. West, but less than Mr. Temple. Mr. Temple doesn't want the job. Who will
be the new math department chairperson?

( ) A. Mr. Rhodes
( ) B. Mr. Temple
C. Ms. West
D. Ms. Brody

Explanation: Mr. Temple has the most seniority, but he does not want the job. Next in line is Mr. Rhodes, who has more seniority than Ms. West or Ms. Brody.

14
Nurse Kemp has worked more night shifts in a row than Nurse Rogers, who has worked five. Nurse Miller has worked fifteen night shifts in a row, more than Nurses Kemp and Rogers combined. Nurse Calvin has worked eight night shifts in a row, less than Nurse Kemp. How many night shifts in a row has Nurse Kemp worked?

A. eight
B. nine
C. ten
D. eleven

Explanation: Nurse Kemp has worked more shifts in a row than Nurse Calvin; therefore, Kemp has worked more than eight shifts. The number of Kemp's shifts plus the number of Rogers's shifts (five) cannot equal fifteen or more, the number of Miller's shifts. Therefore, Kemp has worked nine shifts in a row (5 + 9 = 14).

15
Read the following information and answer the questions given below it:

(1) Seven students P, Q, R, S, T, U and V take a series of tests.

(2) No two students get similar marks.

(3) V always scores more than P.

(4) P always scores more than Q.

(5) Each time either R scores the highest and T gets the least or alternatively S scores the highest and U or Q scores the least.

If S is ranked sixth and Q is ranked fifth, which of the following can be true?

A. V is ranked first or fourth
B. R is ranked second or third
C. P is ranked second or fifth
D. U is ranked third or fourth

Explanation:
In terms of scores we have: \( V > P, P > Q \), i.e., \( V > P > Q \).

If R scores the highest, we have \( R > \ldots > T \).

If S scores the highest, we have \( S > \ldots > Q \)

or \( S > \ldots > U \).

If S is ranked sixth and Q is ranked

fifth, we have

\( \_ > \_ > \_ > \_ > Q > S > \_ \)

In this case, R will run the highest and thus T will rank the least.

we have \( R > \_ > \_ > \_ > Q > S > T \) Also, the order \( V > P > Q \) will be maintained i.e., \( V \) and \( P \) will have second, third or fourth places. So, statements (A), (B), (C), (E) cannot follow.

Thus (D) is the answer.

16
If R gets more, V should be ranked not lower than.

( ) A. second
( ) B. third
( ) C. fourth
( ) D. fifth

Explanation: if R ranks most, T ranks lowest and occupies seventh place. Since V always ranks above \( P \) and \( Q \) so in the maximum, \( P \) and \( Q \) will occupy fifth and sixth places. Thus, \( V \) will not rank lower than fourth.

17
If R is ranked second and Q is ranked fifth, which of the following

Must be true?

( ) A. S is ranked third
( ) B. T is ranked sixth
( ) C. P is ranked sixth
( ) D. V is ranked fourth
Explanation: If R is ranked second, S will rank first and Q and U lowest. But Q ranks fifth. So, U ranks lowest. Also, the order V > P > Q will be followed.

So, the arrangement will be S > R > V > P > Q > _ U. Thus, the sixth place will be occupied by T.

18
If S is ranked second, which of the following can be true?

  ( ) A. U gets more than V
  ( ) B. V gets more than S
  ( ) C. P gets more than R
  ( ) D. P gets more than V

Explanation: If S ranks second, R ranks first and T ranks lowest. The order V > P > Q will be followed. So, the arrangement will be R > S > _ > _ > _ > _ > T.

Clearly, statements (B), (C), (D) and (E) cannot follow. So, the answer is (A).

19
If V is ranked fifth, which of the following must be true?

  ( ) A. S scores the highest
  ( ) B. R is ranked second
  ( ) C. T is ranked third
  ( ) D. Q is ranked fourth

Explanation: If V ranks fifth, P and Q coming before it will occupy sixth and seventh places respectively, i.e., Q ranks least. So, S will score the highest.
A cube is cut in two equal parts along a plane parallel to one of its faces. One piece is then coloured red on the two larger faces and green on the remaining, while the other is coloured green on two smaller adjacent faces and red on the remaining. Each is then cut into 32 cubes of same size and mixed up.

How many cubes have only one coloured face each?

( ) A. 32
( ) B. 8
( ) C. 16
( ) D. 0

Explanation:
24 from (I) and 14 from (II)

How many cubes have no coloured face at all?

( ) A. 32
( ) B. 8
( ) C. 16
( ) D. None

Explanation:
There is no such cube in all, where all the faces are unclosured.
22
How many cubes have two red and one green face on each?
(A) 0  
(B) 8  
(C) 16  
(D) 4

Explanation: None from (I) and 4 from (II)

23
How many cubes have each one red and another green?
(A) 0  
(B) 8  
(C) 16  
(D) 24

Explanation: 16 from (I) and 8 from (II)
24
Arrange the words given below in a meaningful sequence.

1. Infant
2. Old
3. Adult
4. Adolescent
5. Child

( ) A. 5, 4, 3, 2, 1
( ) B. 3, 4, 2, 1, 5
( ) C. 2, 3, 4, 5, 1
( ) D. 1, 5, 4, 3, 2

Explanation: The correct order is:
Infant Child Adolescent Adult Old

25
Arrange the words given below in a meaningful sequence.

1. Leaves
2. Branch
3. Flower
4. Tree
5. Fruit

( ) A. 4, 3, 1, 2, 5
( ) B. 4, 2, 5, 1, 3
( ) C. 4, 3, 2, 1, 5
( ) D. 4, 2, 1, 3, 5

Explanation: The correct order is:
Tree Branch Leaves Flower Fruit
26
Arrange the words given below in a meaningful sequence.


( ) A. 5, 2, 1, 3, 4
( ) B. 2, 5, 1, 4, 3
( ) C. 2, 5, 1, 3, 4
( ) D. 2, 5, 3, 1, 4

Explanation: The correct order is:
Seed Plant Tree Flowers Fruit
2 5 1 3 4

27
ZA5, Y4B, XC6, W3D, _____

( ) A. E7V
( ) B. V2E
( ) C. VE5
( ) D. VE7

Explanation: There are three series to look for here. The first letters are alphabetical in reverse: Z, Y, X, W, V. The second letters are in alphabetical order, beginning with A. The number series is as follows: 5, 4, 6, 3, 7.

28
QPO, NML, KJI, _____, EDC

( ) A. HGF
( ) B. CAB
( ) C. JKL
( ) D. GHI

Explanation: This series consists of letters in a reverse alphabetical order.
29
DEF, DEF₂, DE₂F₂, _____, D₂E₂F₃,
( ) A. DEF₃
( ) B. D₃EF₃
( ) C. D₂E₃F
( ) D. D₂E₂F₂

Explanation: In this series, the letters remain the same: DEF. The subscript numbers follow this series: 111, 112, 122, 222, 223, 233, 333, ...

30
Which of phrases given below each sentence should replace the phrase printed in UNDERLINED type to make the grammatically correct?

The small child does whatever his father was done.
( ) A. has done
( ) B. did
( ) C. does
( ) D. had done

31
You need not come unless you want to.
( ) A. You don't need to come unless you want to
( ) B. You come only when you want to
( ) C. You come unless you don't want to
( ) D. You needn't come until you don't want to

32
There are not many men who are so famous that they are frequently referred to by their short names only
( ) A. initials
( ) B. signatures
( ) C. pictures
( ) D. middle names

33
The man to who I sold my house was a cheat.
( ) A. to whom I sell
( ) B. to who I sell
( ) C. who was sold to
( ) D. to whom I sold
34
They were all shocked at his failure in the competition.
( ) A. were shocked at all
( ) B. had all shocked at
( ) C. had all shocked by
( ) D. No correction required

35
The tea-estate administration is in such mess there is no leader to set the things right.
( ) A. in such a mess here
( ) B. in a such mess that here
( ) C. in such a mess that there
( ) D. with such a mess that there

36
Read the following passage and answer the questions:

Nobody ever wrote a dull autobiography. If one may make such a bull, the very dullness would be interesting. The autobiographer has two qualifications of supreme importance in all literary work. He is writing about a topic in which he is keenly interested, and about a topic upon which he is the highest living authority. It may he reckoned, too, as a special felicity that an biography, alone of all books, may be more valuable in proportion to the amount of misrepresentation which it contains. We do not wonder when a man gives a false character to his neighbour, but it is always curious to see how a man contrives to present a false testimonial to himself. It is pleasant to he admitted behind the scenes and trace the growth of that singular phantom which is the man's own shadow cast upon the coloured and distorting mists of memory. Autobiography for these Reasons is so generally interesting, that I have frequently thought with the admirable Benvenuto Cellini that it should be considered as a duty by all eminent men; and, indeed, by men not eminent. As every sensible man is exhorted to make his will, he should also be bound to leave to his descendants some account of his experience of life. The dullest of us would in spite of themselves say something profoundly interesting, if only by explaining how they came to be so dull--a circumstance which is sometimes in great need of explanation. On reflection, However, we must admit that autobiography done under compulsion would he in danger of losing the essential charm of spontaneity. The true autobiography is written by one who feels an irresistible longing for confidential expansion; who is forced by his innate constitution to unbosom himself to the public of the kind of matter generally reserved for our closest intimacy.

The word 'bull' would most likely mean
( ) A. generalization
( ) B. paradoxical statement
( ) C. general rule
( ) D. confession
37
The 'phantom' is a person's

( ) A. uniquely clear perception of himself
( ) B. distortion of his memories to suit the impression he wishes to create
( ) C. tendency to denigrate others
( ) D. enhancement of autobiography by authentic memories

38
The author of passage II mentions Cellini as

( ) A. an eminent yet dull man
( ) B. a biographer of distinction
( ) C. a confidant of the author
( ) D. an authority who has advocated the writing of autobiography

39
The author of passage 2 seems to think that misrepresentation in an autobiography

I is to be expected
II adds to the interest
III reveals insight into character

( ) A. I only
( ) B. II only
( ) C. I and II
( ) E. only I, II and III

40
In the sentence 'On reflection...', the author

( ) A. qualifies his opinion stated earlier
( ) B. defines the most important attribute of biography
( ) C. introduces his main point
( ) D. enlarges on his theme