

## PCS Test 5

1

If  $A + B$  means A is the brother of B;  $A \% B$  means A is the father of B and  $A \times B$  means A is the sister of B. Which of the following means M is the uncle of P?

- A.  $M \% N \times P$
- B.  $N \times P \% M$
- C.  $M + S \% R \% P$
- D.  $M + K \% T \times P$

Explanation:  $M + K \rightarrow$  M is the brother of K

$K \% T \rightarrow$  K is the father of T

$T \times P \rightarrow$  T is the sister of P

Therefore, K is the father of P and M is the uncle of P.

2

Pointing to Varman, Madhav said, "I am the only son of one of the sons of his father." How is Varman related to Madhav?.

- A. Nephew
- B. Uncle
- C. Father or Uncle
- D. Father

Explanation: Madhav is the only son of one of the sons of Varman's father  $\rightarrow$  Either Varman is the father or uncle of Madhav.

3

Introducing a woman, Shashank said, "She is the mother of the only daughter of my son." How that woman is related to Shashank?

- A. Daughter
- B. Sister-in-law
- C. Wife
- D. Daughter-in-law

Explanation: The woman is the mother of Shashank's granddaughter. Hence, the woman is the daughter-in-law of Shashank.

**4**

If  $A + B$  means B is the brother of A;  $A \times B$  means B is the husband of A;  $A - B$  means A is the mother of B and  $A \% B$  means A is the father of B, which of the following relations shows that Q is the grandmother of T?

- ( ) A.  $Q - P + R \% T$   
 ( ) B.  $P \times Q \% R - T$   
 ( ) C.  $P \times Q \% R + T$   
 ( ) D.  $P + Q \% R - T$

Explanation:  $Q - P \rightarrow Q$  is the mother of P

$P + R \rightarrow R$  is the brother of P

Hence,  $\rightarrow q$  is the mother of R

$R \% T \rightarrow R$  is the father of T.

Hence, Q is the grandmother of T

**5**

1. A3P means A is the mother of P
2. A4P means A is the brother of P
3. A9P means A is the husband of P
4. A5P means A is the daughter of P

Which of the following means that K is the mother-in-law of M?

- ( ) A.  $M9N3K4J$   
 ( ) B.  $M9N5K3J$   
 ( ) C.  $K5J9M3N$   
 ( ) D.  $K3J9N4M$

Explanation:  $M9N \rightarrow M$  is the husband of N

$N5K \rightarrow N$  is the daughter of K

Hence,  $\rightarrow M$  is the son-in-law of K

$K3J \rightarrow K$  is the mother of J

Hence,  $\rightarrow K$  is a lady

Hence,  $\rightarrow K$  is the mother-in-law of M.

6

The following table shows the number of new employees added to different categories of employees in a company and also the number of employees from these categories who left the company every year since the foundation of the Company in 1995.

Year	Managers		Technicians		Operators		Accountants		Peons	
	New	Left	New	Left	New	Left	New	Left	New	Left
1995	760	-	1200	-	880	-	1160	-	820	-
1996	280	120	272	120	256	104	200	100	184	96
1997	179	92	240	128	240	120	224	104	152	88
1998	148	88	236	96	208	100	248	96	196	80
1999	160	72	256	100	192	112	272	88	224	120
2000	193	96	288	112	248	144	260	92	200	104

What is the difference between the total number of Technicians added to the Company and the total number of Accountants added to the Company during the years 1996 to 2000?

- ( ) A. 128
- ( ) B. 112
- ( ) C. 96
- ( ) D. 88

Explanation: Required difference

$$= (272 + 240 + 236 + 256 + 288) - (200 + 224 + 248 + 272 + 260)$$

$$= 88.$$

7

What was the total number of Peons working in the Company in the year 1999?

- ( ) A. 1312
- ( ) B. 1192
- ( ) C. 1088
- ( ) D. 968

Explanation: Total number of Peons working in the Company in 1999

$$= (820 + 184 + 152 + 196 + 224) - (96 + 88 + 80 + 120)$$

$$= 1192.$$

**8**

For which of the following categories the percentage increase in the number of employees working in the Company from 1995 to 2000 was the maximum?

- ( ) A. Managers
- ( ) B. Technicians
- ( ) C. Operators
- ( ) D. Accountants

In 1995 = 760.

$$\begin{aligned} \text{In 2000} &= (760 + 280 + 179 + 148 + 160 + 193) - (120 \\ &= 1252. \end{aligned}$$

∴ Percentage increase in the number of Managers

$$= \left[ \frac{(1252 - 760)}{760} \times 100 \right] \% = 64.74\%.$$

Number of Technicians working in the Company.

In 1995 = 1200.

$$\begin{aligned} \text{In 2000} &= (1200 + 272 + 240 + 236 + 256 + 288) - \\ &\quad (120 + 128 + 96 + 100 + 112) \\ &= 1936. \end{aligned}$$

∴ Percentage increase in the number of Technicians

$$= \left[ \frac{(1936 - 1200)}{1200} \times 100 \right] \% = 61.33\%.$$

Number of Operators working in the Company.

In 1995 = 880.

$$\begin{aligned} \text{In 2000} &= (880 + 256 + 240 + 208 + 192 + 248) - \\ &\quad (104 + 120 + 100 + 112 + 144) \\ &= 1444. \end{aligned}$$

∴ Percentage increase in the number of Operators

$$= \left[ \frac{(1444 - 880)}{880} \times 100 \right] \% = 64.09\%.$$

Explanation:

**9**

What is the pooled average of the total number of employees of all categories in the year 1997?

- A. 1325
- B. 1195
- C. 1265
- D. 1235

Explanation: Total number of employees of various categories working in the Company in 1997 are:

Managers =  $(760 + 280 + 179) - (120 + 92) = 1007$ .

Technicians =  $(1200 + 272 + 240) - (120 + 128) = 1464$ .

Operators =  $(880 + 256 + 240) - (104 + 120) = 1152$ .

Accountants =  $(1160 + 200 + 224) - (100 + 104) = 1380$ .

Peons =  $(820 + 184 + 152) - (96 + 88) = 972$ .

Pooled average of all the five categories of employees working in the Company in 1997

$$= (1/5) \times (1007 + 1464 + 1152 + 1380 + 972)$$

$$= (1/5) \times (5795)$$

$$= 1195.$$

**10**

During the period between 1995 and 2000, the total number of Operators who left the Company is what percent of total number of Operators who joined the Company?

- A. 19%
- B. 21%
- C. 27%
- D. 29%

Explanation: Total number of Operators who left the Company during 1995 - 2000

$$= (104 + 120 + 100 + 112 + 144)$$

$$= 580.$$

Total number of Operators who joined the Company during 1995 - 2000

$$= (880 + 256 + 240 + 208 + 192 + 248)$$

$$= 2024.$$

$$\text{Required Percentage} = [(580/2024) \times 100]\% = 28.66\% \approx 29\%.$$

**11**

Rover weighs less than Fido.

Rover weighs more than Boomer.

Of the three dogs, Boomer weighs the least.

If the first two statements are true, the third statement is

A. true

B. false

C. uncertain

Explanation: According to the first two statements, Fido weighs the most and Boomer weighs the least.

**12**

All the offices on the 9th floor have wall-to-wall carpeting.

No wall-to-wall carpeting is pink.

None of the offices on the 9th floor has pink wall-to-wall carpeting.

If the first two statements are true, the third statement is

A. true

B. false

C. uncertain

Explanation: If no wall-to-wall carpeting is pink and all the offices have wall-to-wall carpeting, none of the offices has pink wall-to-wall carpeting.

**13**

Class A has a higher enrollment than Class B.

Class C has a lower enrollment than Class B.

Class A has a lower enrollment than Class C.

If the first two statements are true, the third statement is

A. true

B. false

C. Uncertain

Explanation: From the first two statements, we know that of the three classes, Class A has the highest enrollment, so the third statement must be false.

14

The Shop and Save Grocery is south of Greenwood Pharmacy. Rebecca's house is northeast of Greenwood Pharmacy. Rebecca's house is west of the Shop and Save Grocery. If the first two statements are true, the third statement is

- A. true
- B. false
- C. uncertain

Explanation: Because the first two statements are true, Rebecca's house is also northeast of the Shop and Save Grocery, which means that the third statement is false.

15

joe is younger than Kathy.  
 Mark was born after Joe.  
 Kathy is older than Mark.  
 If the first two statements are true, the third statement is

- A. true
- B. false
- C. uncertain

Explanation: Joe is younger than Kathy and older than Mark, so Mark must be younger than Kathy.

16

Which one will replace the question mark ?

A <sub>2</sub>	C <sub>4</sub>	E <sub>6</sub>
G <sub>3</sub>	I <sub>5</sub>	?
M <sub>5</sub>	O <sub>9</sub>	Q <sub>14</sub>

- A. L10
- B. K15
- C. I15
- D. K8

$$A_2 \xrightarrow{+2} C_4 \xrightarrow{+2} E_6$$

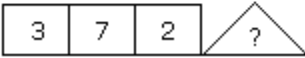
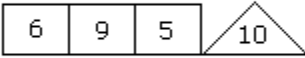
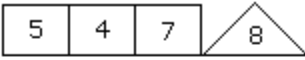
$$M_5 \xrightarrow{+2} O_9 \xrightarrow{+2} Q_{14}$$

$$G_3 \xrightarrow{+2} I_5 \xrightarrow{+2} K_8$$

Explanation:

17

Which one will replace the question mark ?



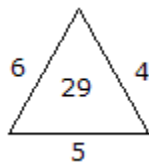
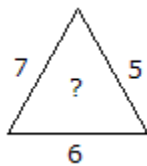
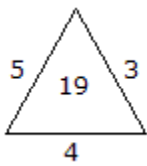
- A. 1
- B. 4
- C. 3
- D. 6

Explanation:  $(5 + 4 + 7)/2 = 8$

$(6 + 9 + 5)/2 = 10$   $(3 + 7 + 2)/2 = 6.$

18

Which one will replace the question mark ?



- A. 23
- B. 26
- C. 25
- D. 41

Explanation:

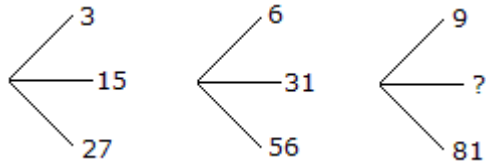
$(5 \times 3) + 4 = 19$

and  $(6 \times 4) + 5 = 29$  Therefore,  $(7 \times 5) + 6 = 41$



**19**

Which one will replace the question mark ?



- ( ) A. 45
- ( ) B. 41
- ( ) C. 32
- ( ) D. 40

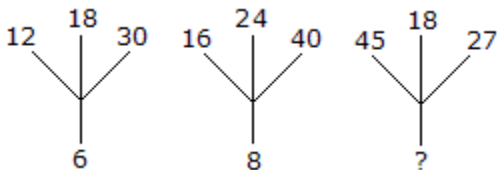
Explanation:  $(15 \times 2 - 3) = 27,$

$(31 \times 2 - 6) = 56$

and  $(45 \times 2 - 9) = 81$

**20**

Which one will replace the question mark ?



- ( ) A. 11
- ( ) B. 15
- ( ) C. 12
- ( ) D. 9

Explanation:  $(12 + 18 + 30)/10 = 6$

$(16 + 24 + 40)/10 = 8$

Similarly,  $(45 + 18 + 27)/10 = 9.$

**21**

All the six faces of a cube are coloured with six different colours - black, brown, green, red, white and blue.

1. Red face is opposite to the black face.
2. Green face is between red and black faces.
3. Blue face is adjacent to white face.
4. Brown face is adjacent to blue face.
5. Red face is in the bottom

The upper face is \_\_\_\_\_

- ( ) A. White  
 ( ) B. Black  
 ( ) C. Brown  
 ( ) D. None of these

ABEF → Red  
 DCHG → Black  
 ABCD → Green  
 EFGH → Blue  
 AFGD → White  
 BCHE → Brown

Explanation:

**22**

The face opposite to brown is \_\_\_\_\_

- ( ) A. Blue  
 ( ) B. White  
 ( ) C. Green  
 ( ) D. Red

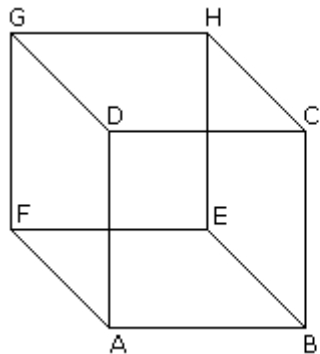
ABEF → Red  
 DCHG → Black  
 ABCD → Green  
 EFGH → Blue  
 AFGD → White  
 BCHE → Brown

Explanation:

**23**

Which of the following is adjacent to green ?

- ( ) A. Black, white, brown, red
- ( ) B. Blue, black, red, white
- ( ) C. Red, black, blue, white
- ( ) D. None of these



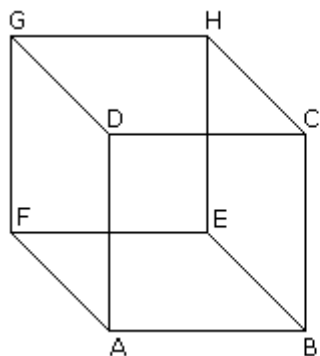
ABEF → Red  
 DCHG → Black  
 ABCD → Green  
 EFGH → Blue  
 AFGD → White  
 BCHE → Brown

Explanation:

**24**

Which face is opposite to green ?

- ( ) A. Red
- ( ) B. White
- ( ) C. Blue
- ( ) D. Brown



ABEF → Red  
 DCHG → Black  
 ABCD → Green  
 EFGH → Blue  
 AFGD → White  
 BCHE → Brown

Explanation:

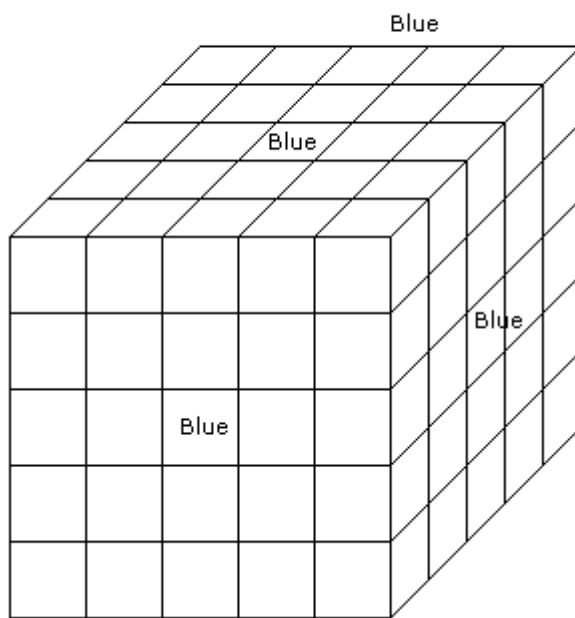
25

All the faces of a cube are painted with blue colour. Then it is cut into 125 small equal cubes.

How many small cubes will be formed having no face coloured ?

- ( ) A. 27
- ( ) B. 8
- ( ) C. 16
- ( ) D. 24

One side of the big cube =  $\sqrt[3]{125} = 5$  cm.



Explanation:

No. of small cubes having no face coloured =  $(x - 2)^3$

$$= (5 - 2)^3$$

$$= 27$$

26

C B A E D Z G F ?

A. X

B. H

C. Q

D. Y

Explanation: In this series, the third, sixth, and ninth letters are in reverse alphabetical order.

27

AK EO IS ? QA UE

A. HY

B. MW

C. AE

D. YZ

Explanation: In each term of the given series, the first letter is moved three steps forward while the second letter is moved three steps backward in order to obtain the next term.

28

AC EG IK MO ?

A. QS

B. DE

C. HJ

D. NP

Explanation: Here one letter has been skipped between the letters of each term and also between the second letter of a term and the first letter of the next term.

29

aaa - bb - aab - baaa - bb

A. babb

B. abab

C. bbaa

D. baab

Explanation: The series is aaa bbb aaa bbb aaa bbb

**30**

HS JQ LO NM ?

- A. GH
- B. IJ
- C. OP
- D. PK

Explanation: In order to obtain the corresponding letters of the next term, the first letter of each term is moved two steps forward and the second letter is moved two steps backward.

**31**

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

He dislikes the word dislike, isn't he.

- A. didn't he
- B. doesn't he
- C. hasn't he
- D. does he

**32**

We must take it granted that Madhu will not come for today's function.

- A. take it for granted
- B. taking it granted
- C. took it as granted
- D. have it granted

**33**

The research study is an eye-opener and attempts to acquaint us with the problems of poor nations.

- A. attempted to acquaint
- B. attempts at acquainting
- C. attempt to acquaint
- D. attempting to acquaint

**34**

It was unanimously resolved that the parties should unitedly undertook launching of popular programmes.

- A. should be unitedly undertook
- B. should be unitedly undertaken
- C. should be unitedly undertake
- D. should unitedly undertake

**35**

They continued to work in the field despite of the heavy rains.

- A. even though there is heavy rain
- B. although heavily rains
- C. in spite the heavy rains
- D. even though it rained heavily

**36**

Read the following passage and answer the following question:

Mr. Harding was not a happy man as he walked down the palace pathway, and stepped out into the close. His position and pleasant house were a second time gone from him; but that he could endure. He had been schooled and insulted by a man young enough to be his son; but that he could put up with. He could even draw from the very injuries which had been inflicted on him some of that consolation which, we may believe, martyrs always receive from the injustice of their own sufferings. He had admitted to his daughter that he wanted the comfort of his old home, and yet he could have returned to his lodgings in the High Street, if not with exultation, at least with satisfaction, had that been all. But the venom of the chaplain's harangue had worked into his blood, and sapped the life of his sweet contentment. New men are carrying out new measures, and are carting away the useless rubbish of past centuries! "What cruel words these had been- and how often are they now used with all the heartless cruelty of a Slope! A man is sufficiently condemned if it can only be shown that either in politics or religion he does not belong to some new school established within the last score of years. He may then regard himself as rubbish and expect to be carted away. A man is nothing now unless he has within him a full appreciation of the new era; an era in which it would seem that neither honesty nor truth is very desirable, but in which success is the only touchstone of merit. We must laugh at everything that is established. Let the joke be ever so bad, ever so untrue to the real principles of joking; nevertheless we must laugh - or else beware the cart. We must talk, think, and live up to the spirit of the times, or else we are naught. New men and new measures, long credit and few scruples, great success or wonderful ruin, such are now the tastes of Englishmen who know how to live! Alas, alas! Under such circumstances Mr. Harding could not but feel that he was an Englishman who did not know how to live. This new doctrine of Mr. Slope and the rubbish cart sadly disturbed his equanimity. 'The same thing is going on throughout the whole country!' 'Work is now required from every man who receives wages!' And had he been living all his life receiving wages, and doing no work? Had he in truth so lived as to be now in his old age justly reckoned as rubbish fit only to be hidden away in some huge dust-hole? The school of men to whom he professes to belong, the Grantlys, the Gwynnes, are afflicted with no such self-accusations as these which troubled Mr. Harding. They, as a rule, are as satisfied with the wisdom and propriety of their own conduct as can be any Mr. Slope, or any Bishop with his own. But, unfortunately for himself, Mr. Harding had little of this self-reliance. When he heard himself designated as rubbish by the Slopes of the world, he had no other resource than to make inquiry within his own bosom as to

the truth of the designation. Alas, alas! the evidence seemed generally to go against him.

The main cause of Mr. Harding's unhappiness as he leaves the Bishop's Palace is

- A. the loss of his house
- B. the loss of his position
- C. the need to live with his daughter
- D. the thought-provoking words of the chaplain

**37**

It can be inferred that Slope is

- A. the chaplain
- B. the Bishop
- C. a foreigner
- D. a politician

**38**

The word 'equanimity' most nearly means

- A. status
- B. happiness
- C. justice
- D. composure

**39**

It can be inferred that Mr Harding is especially disturbed because he

- A. does not feel himself to be old
- B. is offended by the young man's impertinence
- C. believes no one else feels as he does
- D. feels there may be some truth in regarding himself as 'rubbish'

**40**

Mr. Harding differs from others of his 'school' because they

- A. do not believe Slope
- B. have never been called 'rubbish'
- C. are sure their conduct is irreproachable
- D. have already examined their consciences