

# AFCAT Memory Based Paper - 14 Feb 2022

- Q1** Select the option in which the words share the same relationship as that shared by the given pair of words.

Cobbler : Shoe :: Carpenter : ?

- (A) Bag (B) Car  
(C) Chair (D) Ring

- Q2** Select the option in which the words share the same relationship as that shared by the given pair of words.

Constitution : Preamble :: Book : ?

- (A) Chapter (B) Index  
(C) Page (D) Preface

- Q3** Four words are given, three of which are alike in a certain way while one is not. Select the odd one out word.

- (A) Opera (B) Google  
(C) Chrome (D) Edge

- Q4** Four words are given, three of which are alike in a certain way while one is not. Select the odd one out word.

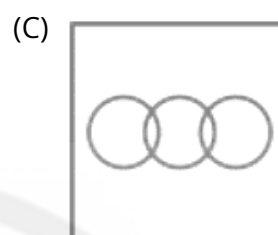
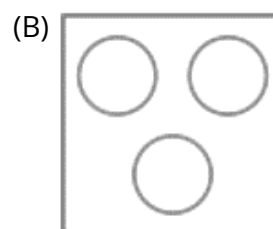
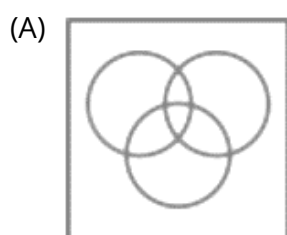
- (A) Telephone (B) Telegraph  
(C) Telesmatic (D) Television

- Q5 Directions :** Choose the correct option from the given ones that will complete the series.

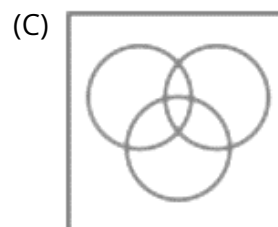
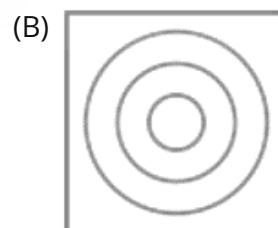
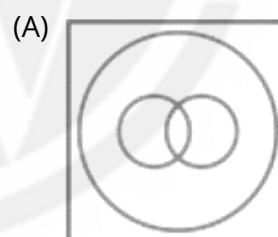
2, 5, 10, 17, 26, ?

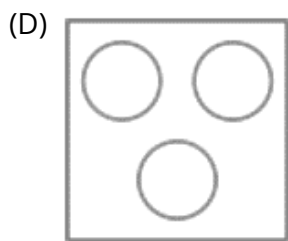
- (A) 39 (B) 35  
(C) 37 (D) 41

- Q6** Select the Venn diagram that best represents the relationship between the following word: Sports, Cricket, Football



- Q7** Select the Venn diagram that best represents the relationship between the following word: Year, Decade, Century





- Q8** Starting from point A, X walks 15 km towards north to reach point B, from there he turns left and walks 10 km to reach point C. Then he turns right, and walks 10 km to reach point D. And finally he turns right and walks 30 km to reach point E.

The shortest distance (in km) between the starting point and the end point is:

- (A)  $6\sqrt{41}$  (B)  $5\sqrt{42}$   
(C)  $2\sqrt{42}$  (D)  $5\sqrt{41}$

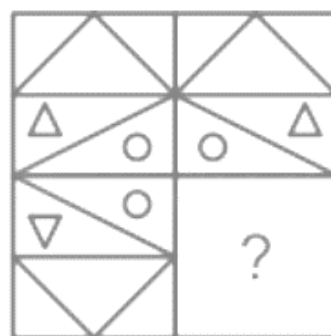
- Q9** Madhu points to a picture and says, "This is my mother's sister's daughter." How is the lady in the picture related to Madhu?

- (A) Wife  
(B) Cousin Sister  
(C) Daughter in law  
(D) Daughter

- Q10** If X is sister of Y, Z is mother of Y; W is father of Z; V is husband of Z, then brother of W will be \_\_\_\_\_ of X?

- (A) Maternal Grandfather  
(B) Brother  
(C) Maternal Uncle  
(D) Maternal Grandfather's Brother

- Q11** In which answer figure will complete the pattern in the following question figure?

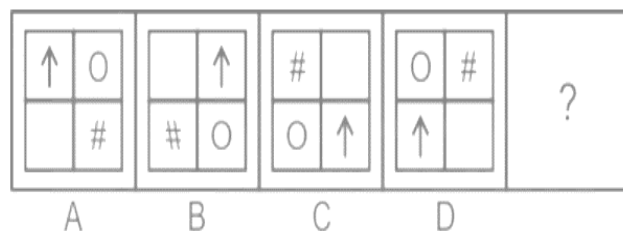


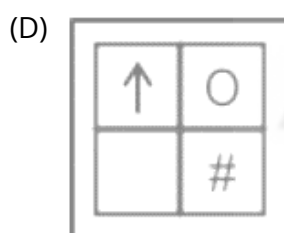
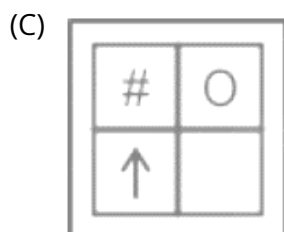
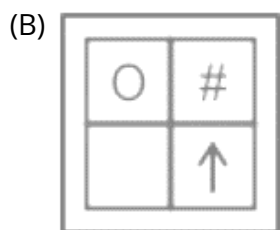
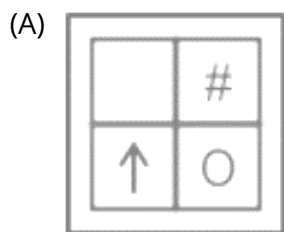
- (A)
- (B)
- (C)
- (D)

- Q12** Aman is older than Sahu, Sahu is younger than Komal but older than Millan. Komal is older than Aman but younger than Uday. Who is the third oldest among them?

- (A) Komal (B) Aman  
(C) Sahu (D) Uday

- Q13** Select the figure that will come next in the following series.





**Q14** If '!' means 'Division', '@' means 'Addition', '\$' means 'Multiplication' and '&' means 'Subtraction', then

$$135 ! 3 \& 45 \$ 4 @ 167 = ?$$

- (A) 30 (B) 35  
(C) 32 (D) 28

**Q15** Which sequence of signs will replace the letters B, C and D respectively to correctly solve the given equation.

$$24 A 3 B 2 C 2 D 8 = 22$$

- (A)  $\times$ ,  $+$ ,  $\div$ ,  $-$   
(B)  $\times$ ,  $-$ ,  $\div$ ,  $+$   
(C)  $\div$ ,  $\times$ ,  $-$ ,  $+$   
(D)  $\times$ ,  $\div$ ,  $+$ ,  $-$

**Q16** In a certain code language SHINCHAN is coded as TIJODIBO. How BREAKERS coded in that code language?

- (A) CFSLBSFT (B) SCBFFLST  
(C) CFSBSLFS (D) CSFBLFST

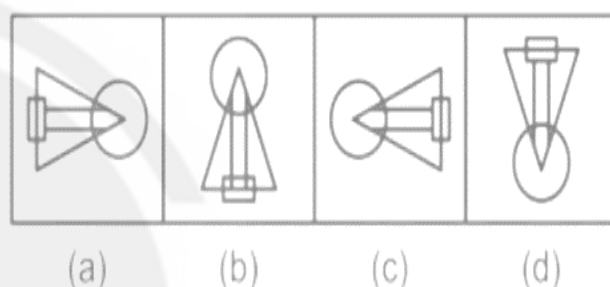
**Q17** In a certain code language, PERIOD is written as CNHQDO. How will LESSON be written in that language?

- (A) MNRRDK (B) MNRS DK  
(C) MNRRKD (D) NMRRDK

**Q18** In the following question, select the odd word from the given alternatives.

- (A) Narrate (B) Delineate  
(C) Depict (D) Natal

**Q19 Direction:** Out of the four given figures, three are similar in a certain way while one figure is not like the others. Find out the figure that does not belong in the group.



- (A) a (B) b  
(C) c (D) d

**Q20** Four words are given, three of which are alike in a certain way while one is not. Select the inconsistent word.

- (A) Chlorine (B) Oxygen  
(C) Bromine (D) Nitrogen

**Q21** In the following question, select the related letters/numbers from the given alternatives.  
MARKS : RFWPX :: SHEET : ?

- (A) UNMMF (B) XMJJY  
(C) WBDDY (D) RFHHT

**Q22** Select the option in which the words share the same relationship as that shared by the given pair of words.

Board : Train :: Mount : ?

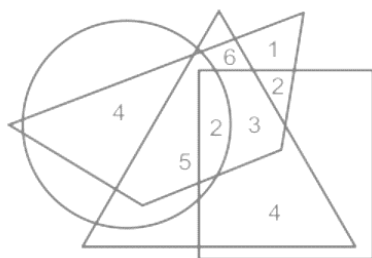
- (A) Hill (B) Horse  
(C) Building (D) Tree



**Q23** Find the odd letters from the given alternatives.

- (A) BCE (B) EGL  
(C) GKR (D) JKU

**Q24**



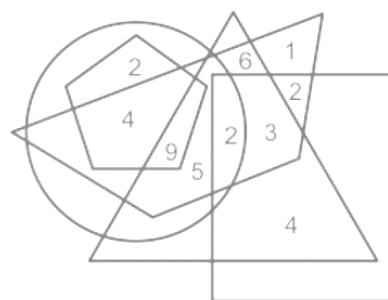
In the above diagram, find the ratio of sum of the numbers common in the circle, triangle, and trapezium only to the number common in triangle and trapezium only.

- (A) 2:3 (B) 3:4

(C) 4:5

(D) 5:6

**Q25**



According to the given figure, what is the sum of the numbers present in the common part of trapezium, triangle and rectangle only and the common part of the circle, triangle, trapezium and pentagon only?

- (A) 10 (B) 11  
(C) 12 (D) 14



## Answer Key

Q1 C  
Q2 D  
Q3 B  
Q4 C  
Q5 C  
Q6 D  
Q7 B  
Q8 D  
Q9 B  
Q10 D  
Q11 B  
Q12 B  
Q13 D

Q14 C  
Q15 C  
Q16 D  
Q17 A  
Q18 D  
Q19 B  
Q20 C  
Q21 B  
Q22 B  
Q23 D  
Q24 D  
Q25 C



# Hints & Solutions

Note: scan the QR code to watch video solution

## Q1 Text Solution:

### Explanation:

The logic followed here is:

**Cobbler : Shoe – Cobbler** is a person who makes or repairs shoes.

Similarly,

**Carpenter : Chair – Carpenters** traditionally worked with natural wood and did rougher work such as framing of **Chair**.

Hence, **Chair** will be the correct answer.

## Q2 Text Solution:

### Explanation:

The logic followed here is:

**Constitution : Preamble – An introductory** statement in a constitution that explains purpose and underlying philosophy.

Similarly,

**Book : Preface – A written introduction** to a book which is stating its subject, scope, or aims.

Hence, **Preface** will be the correct answer.

## Q3 Text Solution:

### Explanation:

The logic followed here is:

Opera, Chrome and Edge are **web browser** while **Google** is not a web browser.

Element	Types
Opera	It is a web browser.
Google	It specializes in Internet-related services and products. It is not a web browser.
Chrome	It is the web browser of Google.
Edge	It is the web browser of Microsoft.

## Q4 Text Solution:

### Explanation:

The logic follows here is:

Except Telesmatic all are the communication devices.

Therefore, "**Telesmatic**" is an odd one.

Hence, the correct answer is "**Telesmatic**"

Word	Meaning
Telephone	A telephone is a telecommunications device that permits two or more users to conduct a conversation.
Telegraph	Telegraph, any device or system that allows the transmission of information by coded signal over distance.
Telesmatic	Relating to a telesm or talisman; that is thought to have magical powers or bring good luck.
Television	It is a telecommunication medium used for transmitting moving images in black-and-white or in color.

## Q5 Text Solution:

### Explanation:

The logic followed here is:

**Sum of odd number in each digit starting from the 3.**

Detailed explanation provided below,



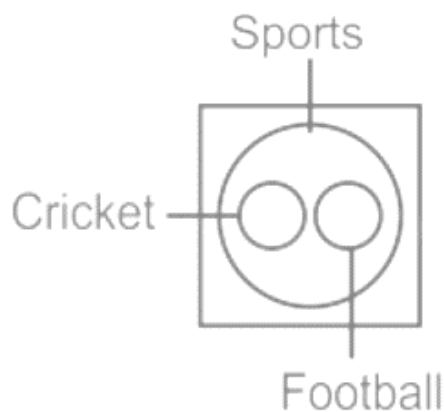
Hence, the correct answer will be 37

## Q6 Text Solution:

### Explanation:

The Venn diagrams best represent the relationship between - Sports, Cricket, Football figures are shown below:



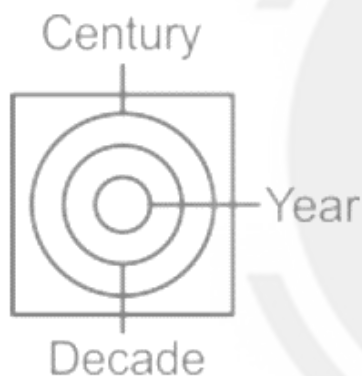


Both Cricket and Football comes under the category of Sport but the Cricket and Football are different types of sports, so they are separated here.

#### Q7 Text Solution:

##### Explanation:

The Venn diagram best represent the relationship between - Year, Decade, Century figures are shown below:



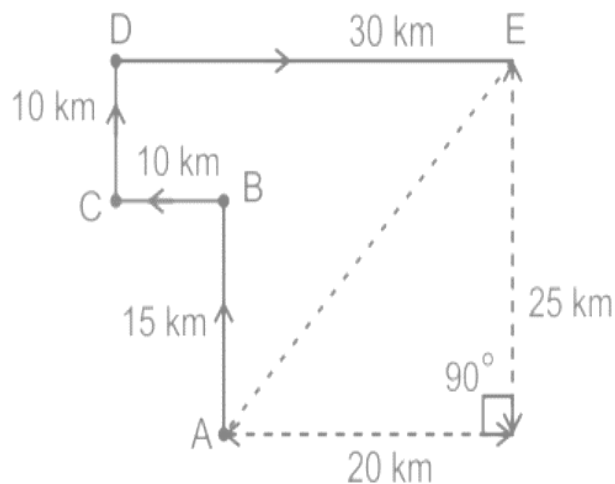
1 Decade = 10 Years, so the year comes under the Decade

1 Century = 10 Decades, so the decade comes under the Century

#### Q8 Text Solution:

##### Explanation:

The diagrammatic representation of the given information is as follows:



The distance between A and E are as follows:  
Applying Pythagoras Theorem:

$$AE^2 = (\text{Vertical Distance between } AE)^2 + (\text{Horizontal Distance between } AE)^2$$

$$AE^2 = 20^2 + 25^2$$

$$AE^2 = 400 + 625 = 1025 = (25 \times 41)$$

$$AE = 5\sqrt{41} \text{ KM}$$

The shortest distance between A and E is  $5\sqrt{41} \text{ km}$

#### Q9 Text Solution:

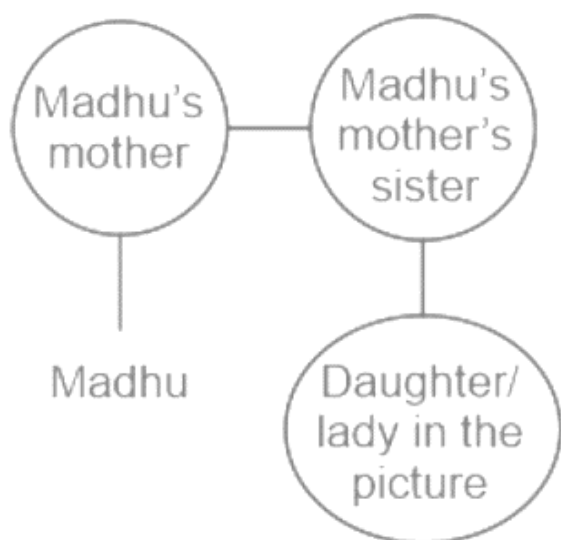
##### Explanation:

Symbol in Diagram	Meaning
○	Female
□	Male
==	Married Couple
—	Siblings
	Difference of A Generation





The family tree is given below:

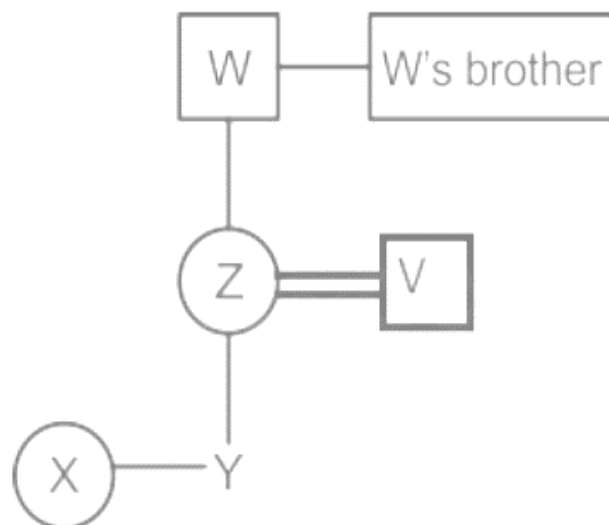


The lady in the picture is the cousin sister of Madhu.

**Q10 Text Solution:**  
**Explanation:**

Symbol in Diagram	Meaning
○	Female
□	Male
=	Married Couple
—	Siblings
	Difference of A Generation

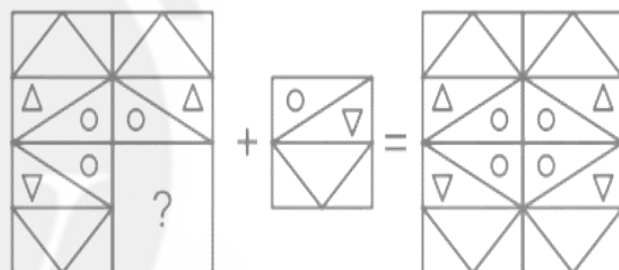
The family tree is given below:-



Brother of W will be X's maternal grandfather's brother.

**Q11 Text Solution:**  
**Explanation:**

The figure which complete the pattern of question figure is given below:



**Q12 Text Solution:**  
**Explanation:**

- Aman is older than Sahu  
Aman > Sahu
- Sahu is younger than Komal but older than Millan  
Komal > Sahu > Millan
- Komal is older than Aman but younger than Uday  
Uday > Komal > Aman  
Combining all the three statements, we get:  
Uday > Komal > Aman > Sahu > Millan





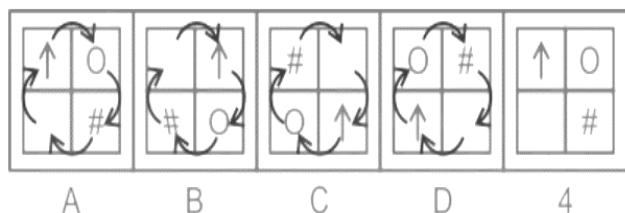
Clearly, Aman is the third oldest among them.

**Q13 Text Solution:**

**Explanation:**

The logic followed here is:

The symbols in the figure have been shifted to the next step in clockwise direction.



**Q14 Text Solution:**

**Explanation:**

By decoding the given information:

Symbol	!	@	\$	&
Meaning	÷	+	×	-

Given:  $135 ! 3 \& 45 \$ 4 @ 167 = ?$

After interchanging the symbol;

$$135 \div 3 - 45 \times 4 + 167$$

Using BODMAS rule,

$$= 45 - 45 \times 4 + 167$$

$$= 45 - 180 + 167$$

$$= 32$$

**Q15 Text Solution:**

**Explanation:**

Option 3 satisfy the given equation as follows:

Letters interchanging with signs:

Letter	A	B	C	D
Sign	÷	×	-	+

$$= 24 \div 3 \times 2 - 2 + 8$$

$$= 8 \times 2 - 2 + 8$$

$$= 16 - 2 + 8$$

$$= 22 = RHS$$

**Q16 Text Solution:**

**Explanation:**

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The pattern for the code is as follows,

+1 +1 +1 +1 +1 +1 +1 +1  
S H I N C H A N  
| | | | | | | |  
T I J O D I B O

In the same way-

+1 +1 +1 +1 +1 +1 +1 +1  
B R E A K E R S  
| | | | | | | |  
C S F B L F S T

**Q17 Text Solution:**

**Explanation:**

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The pattern followed here is:

P E R I O D  
| | | | | | | |  
C N H Q D O  
-1

Similarly,



**Q18 Text Solution:****Explanation:**

The logic followed here is:

Option (1):

Narrate : to tell a story

Option (2):

Delineate : to tell a story

Option (3):

Depict : to narrate

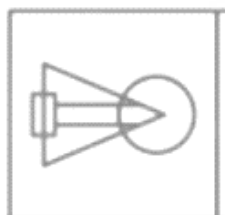
Option (4):

Natal : relating to birth

So, Natal is the odd word

**Q19 Text Solution:****Explanation:**

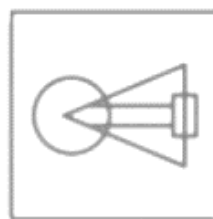
We have to check each options.

**Figure a:**

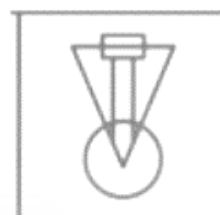
Here, figure has one triangle inserted in circle and triangle has two lines touching the rectangle

**Figure b:**

Here, figure has one triangle inserted in circle and triangle has two lines intersecting in the rectangle.

**Figure c:**

Here, figure has one triangle inserted in circle and triangle has two lines touching the rectangle.

**Figure d:**

Here, figure has one triangle inserted in circle and triangle has two lines touching the rectangle.

**Q20 Text Solution:****Explanation:**

The logic followed here is:

Chlorine, Oxygen, Nitrogen are Gases.

Whereas, Bromine is a liquid

**Q21 Text Solution:****Explanation:**

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

We observe the following pattern:

M	A	R	K	S
+5	+5	+5	+5	+5
R	F	W	P	X

Hence, using the same pattern for SHEET:



S H E E T  
 | +5 | +5 | +5 | +5 | +5  
 X M J J Y

**Q22 Text Solution:****Explanation:**

The logic followed here is:

Board : Train- Board or Boarding point is the point from where you will board the train.

Similarly,

Mount : Horse – Riding on a horse is called Mount

**Q23 Text Solution:****Explanation:**

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

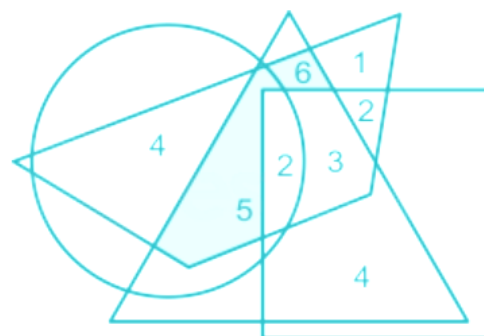
**Here,** in all options except option 4, 1st and 2nd elements are both prime numbers and the 3rd element is the sum of them.

Option (1): BCE–B=2, C=3 and 2+3=5=E

Option (2): EGL– E=5, G=7 and 5+7=12=L

Option (3): GKR– G=7, K=11 and 7+11=18=R

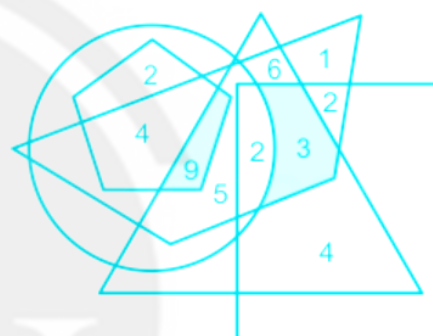
Option (4): JKU– J=10, K=11 and 10+11=21=U

**Q24 Text Solution:****Explanation:**

The Number Common in the circle, triangle and trapezium =5

The Number Common in the triangle and trapezium=6

Ratio between these two numbers=5:6

**Q25 Text Solution:****Explanation:**

Sum of the numbers present in the common part of the trapezium, triangle, and rectangle only and the common part of the circle, triangle, trapezium and pentagon only:

I. Number present in the common part of Trapezium, triangle and rectangle only=3

II. Number present in common part of circle, triangle, trapezium and pentagon only=9

Sum of these numbers = 3+9=12



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