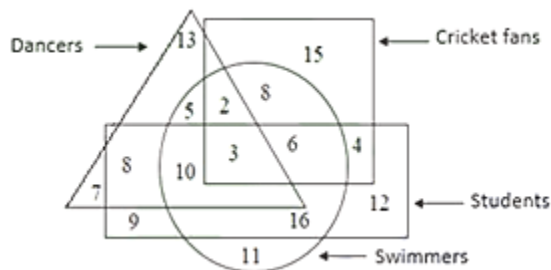## Reasoning & Military Aptitude Pdf for AFCAT 1 2023

Q1. In the following diagram the triangle represents 'dancers', the circles represents 'swimmers' the rectangle represents 'students' and the square represents 'cricket fans'. The numbers in different segments shown the number of persons.

How many students dancers are swimmers but not cricket fans?
(a) 15
(b) 10
(c) 3
(d) 13

Q2. In the following diagram. the (triangle represents 'players'. the circle represents 'students' and the rectangle represents 'high achievers'. The numbers in different segments show the number of persons.
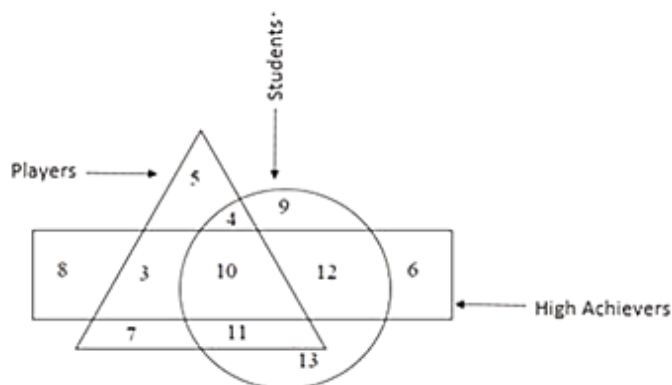
How many high-achieving students are not players?
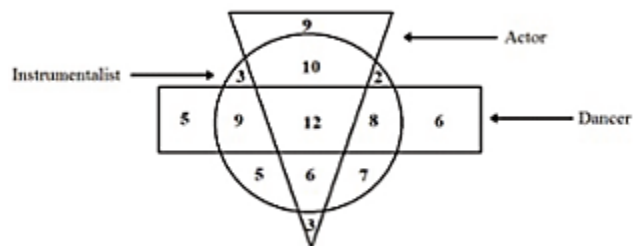(a) 15
(b) 13
(c) 12
(d) 3

Q3. In the following diagram.the triangle represents 'rich', the circle represents 'doctor' and the rectangle represents 'happy' persons. The numbers in different segments show the number of persons.
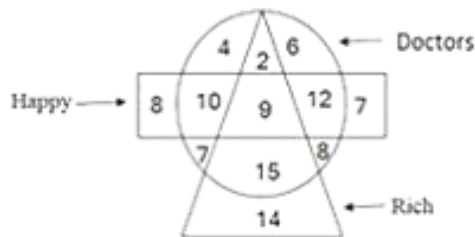
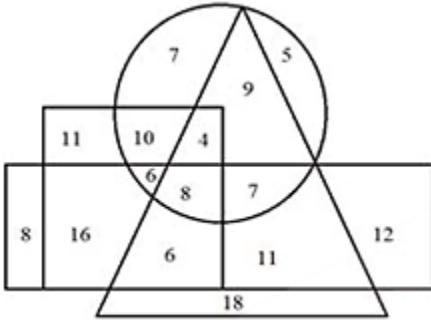How many rich doctors are not happy?
(a) 15
(b) 26
(c) 9
(d) 17

Q4. In the following diagram, the triangle represents 'actors', the circle represents 'instrumentalists' and the rectangle represents 'dancers'. The numbers in different segments show the number of persons.

How many dancers are instrumentalists but not actors?
(a) 21
(b) 11
(c) 17
(d) 20

Q5. In the following diagram, the triangle represents 'actors'. the circle represents 'male', the rectangle represents 'painters' and the square represents 'artists'. The numbers in different segments show the number of persons.


How many male actors are painters but not artists?
(a) 13
(b) 7
(c) 8
(d) 15

Q6. In the following diagram, the triangle represents 'rich'. the circle represents 'Farmer' and the rectangle represents 'rural. The numbers in different segments show the number of persons.
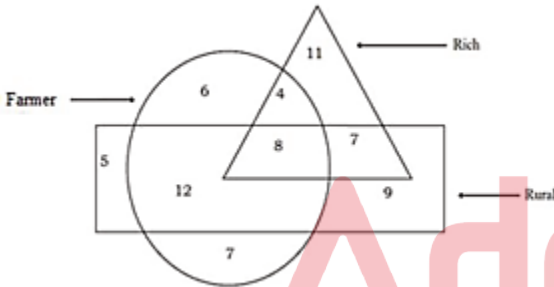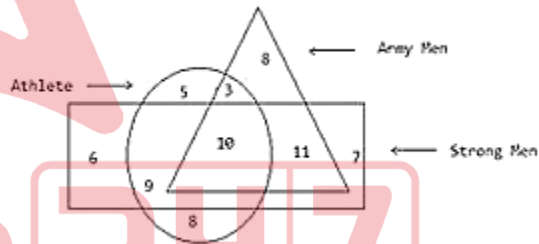

How many rich Farmers are not rural?
(a) 8
(b) 4
(c) 12
(d) 7

Q7. In the following diagram, the triangle represents 'cricket players', the circle represents 'students', the rectangle represents 'boys' and the square represents 'dancers'. The number in different segments show the number of persons.
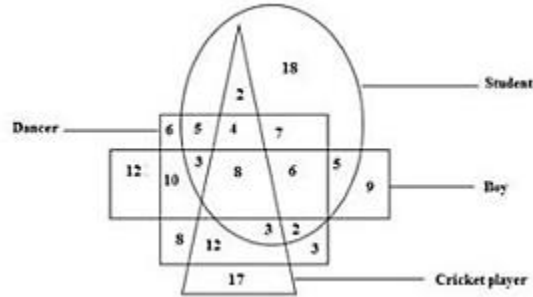

How many students are dancers and cricket players but not boys?
(a) 7
(b) 12
(c) 4
(d) 16

Q8. In the following diagram, the triangle represents 'army men', the circle represents 'athletes' and the rectangle represents 'strong men'. The numbers in different segments show the number of persons.

How many strong army men are not athletes?
(a) 13
(b) 19
(c) 11
(d) 10

Q9. In the following diagram, the triangle represents 'women', the circle represents 'graduates' and the rectangle represents 'teachers'. The numbers in different segment show the number of persons.
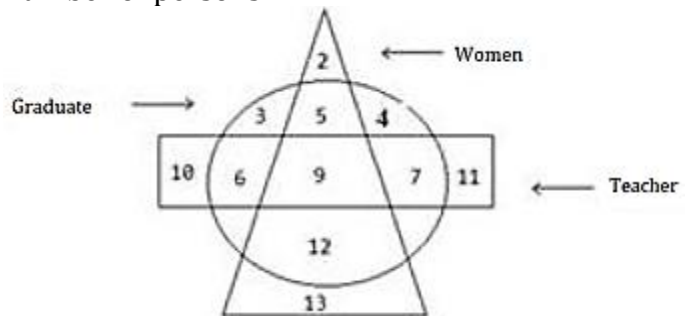
How many women graduates are not teachers?
(a) 9
(b) 12
(c) 17
(d) 5

Q10. In the following diagram, the triangle represents 'cricket players', the circle represents 'swimmers' and the rectangle represents 'students'. The numbers in different segments show the number of persons.
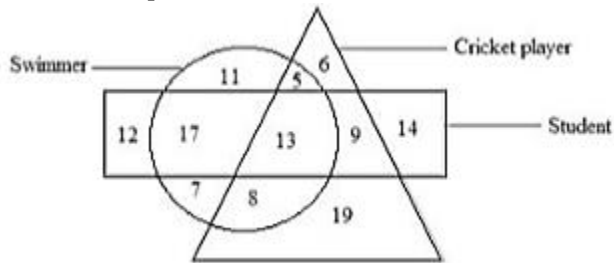
How many students are swimmers but not cricket players ?
(a) 17
(b) 8
(c) 13
(d) 18

Q11. In a code language, BANKER is written as NABREK. How will STRING be written as in that language?
(a) RSTGIN
(b) RTSGNI
(c) TSIRGN
(d) RTGSNI

Q12. If CAB = 12 and FED = 30, then HIDE =
(a) 44
(b) 68
(c) 52
(d) 48

Q13. In a code language, QUESTION is written as OPJUTFVR. How will FACTOR be written as in that language?
(a) SUPEGB
(b) BGDSPU
(c) SPUDBG
(d) QPUDBE

Q14. If HECK is coded as 94410 and DIG is coded as 588, then how will BIKE be coded as?
(a) 38124
(b) 38115
(c) 19113
(d) 39105

Q15. If FAKE is coded as 52106 and MAD is coded as 1223, then how will DEER be coded as?
(a) 35418
(b) 36420
(c) 36419
(d) 47520

Q16. In a code language, MACHTNE is written as CAMHENI. How will MONSTER be written as in that language?
(a) NOMSRET
(b) OMNSETR
(c) NOMETSR
(d) SNOMRET

Q17. In a code language, BACHELOR is written as SNMDIBBA. How will COHESION be written as in that language?
(a) ONIFTJBP
(b) ONJRFGPB
(c) NPHTDIND
(d) BPJTFINO

Q18. If CAB = 13 and FEED = 41, then JADE =_____
(a) 35
(b) 43
(c) 41
(d) 45

Q19. If DIG = 41 and GOAD = 55, then FACT = _____.
(a) 45
(b) 61
(c) 53
(d) 63

Q20. In a code language, CONCERT is written as CNEROCT. How will SMARTER be written in that language?
(a) RATESMR
(b) RATEMSR
(c) RATMESR
(d) RETRAMS

Q21. Which number will replace the question mark (?) in the following series?
7, 9, 13, 15, ?, 21, 25
(a) 18
(b) 20
(c) 17
(d) 19

Q22. Which number will replace the question mark (?) in the following series?
5, 7, 11, 14, 23, ?, 43, 48
(a) 27
(b) 39
(c) 31
(d) 26

Q23. Which number will come next in the following series ?
1, 4, 4, 16, 64, _____
(a) 215
(b) 1024
(c) 128
(d) 1026

Q24. Which number will come next in the following series ?
3, 7, 16, 32, 57, _____
(a) 85
(b) 80
(c) 98
(d) 93

Q25. Which number in the given series is incorrect?
3, 7, 7, 11, 9, 13, 13, 17, 15, 23
(a) 17
(b) 9
(c) 23
(d) 13

Q26. Which number will come next in the following series?
136, 137, 135, 138, 134, 139, _____
(a) 136
(b) 138
(c) 139
(d) 133

Q27. Which number will come next in the following series?
1, 2, 5, _____, 677
(a) 11
(b) 26
(c) 95
(d) 25

Q28. Which number will come next in the following series?
5, 12, 31, 68, 129, _____
(a) 220
(b) 218
(c) 131
(d) 190

Q29. Which number will come next in the following series?
9, 196, 25, 169, 49, 144, 81, _____
(a) 121
(b) 100
(c) 64
(d) 36

Q30. Which number will replace the question mark (?) in the following series?

1, 5, 5, 25, ?, 3125

(a) 215
(b) 125
(c) 225
(d) 375

Q31. Which number will replace the question mark (?) in the following series?

3, 5, 7, 8, 15, ?, 31, 26

(a) 24
(b) 14
(c) 21
(d) 18

Q32. Which number will replace the question mark (?) in the following series?

7, 10, 16, 19, 25, ?

(a) 29
(b) 33
(c) 31
(d) 28

Q33. Which fraction will replace the question mark (?) in the following series?

$\frac{1}{4}, \frac{3}{5}, \frac{6}{7}, \frac{10}{11}, ?$

(a) 15/23
(b) 15/19
(c) 17/27
(d) 17/21

Q34. Which number will replace the question mark (?) in the following series?

0, 1, 5, 14, 30, ?

(a) 43
(b) 53
(c) 55
(d) 56

Q35. Which number will replace the question mark (?) in the following series?

4, 10, 18, 38, ?, 150

(a) 78
(b) 74
(c) 84
(d) 70

Q36. Which number will replace the question mark (?)in the following series?

3, 4, 7, 11, 18, ?

(a) 21
(b) 15
(c) 29
(d) 31

Q37. Which number will replace the question mark (?) in the following series?

3, 7, 13, 27, ?, 107, 213

(a) 63
(b) 53
(c) 58
(d) 49

Q38. Which number will replace the question mark (?) in the following series?

1, 3, 4, 7, ?, 18, 29

(a) 10
(b) 13
(c) 15
(d) 11

Q39. Which number will replace the question mark (?) in the following series?

1, 2, 6, 12, ?, 72, 216

(a) 24
(b) 32
(c) 36
(d) 48

Q40. Which number will replace the question mark (?) in the following series?

3, 5, 10, 18, 29, ?, 60

(a) 46
(b) 37
(c) 45
(d) 43

Solutions

S1. Ans.(b)
Sol. 10

S2. Ans.(c)
Sol. 12

S3. Ans.(d)
Sol. 15 + 2 = 17

S4. Ans.(c)
Sol. 8 + 9 = 17

S5. Ans.(b)
Sol. 7

S6. Ans.(b)
Sol. 4

S7. Ans.(a)

S8. Ans.(c)

S9. Ans.(c)

S10. Ans.(a)
Sol. 17

S11. Ans.(b)
Sol.

B A N K E R → N A B R E K
S T R I N G → R T S G N I

S12. Ans.(c)
Sol.

CAB
3 + 1 + 2 = 6 × 2 = 12

FED
6 + 5 + 4 = 15 × 2 = 30

HIDE
8 + 9 + 4 + 5 = 26 × 2 = 52

S13. Ans.(c)
Sol.
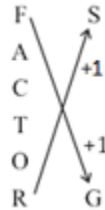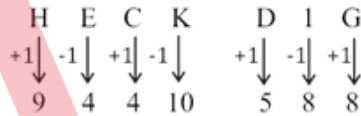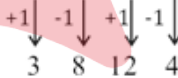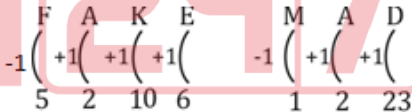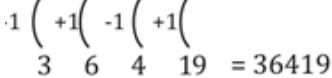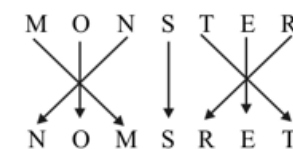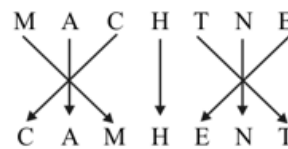
F   S
A
C   +1
T
O   +1
R   G

S14. Ans.(a)
Sol.

H E C K   D I G
+1 −1 +1 −1   +1 −1 +1
9 4 4 10   5 8 8

B I K E
+1 −1 +1 −1
3 8 12 4

S15. Ans.(c)
Sol.

F A K E   M A D
−1 +1 +1 +1   −1 +1 +1
5 2 10 6   1 2 23

D E E R
−1 +1 −1 +1
3 6 4 19 = 36419

S16. Ans.(a)
Sol.

M A C H T N E
C A M H E N T

M O N S T E R
N O M S R E T

S17. Ans.(b)
Sol.

This cycle is going on +1 and -1.

S18. Ans.(c)
Sol.

CAB = 13
$(3 + 1 + 2) \times 2 + 1$

FEED = 41
$(6 + 5 + 5 + 4) \times 2 + 1$

JADE
$(10 + 1 + 4 + 5) \times 2 + 1 = 41$

S19. Ans.(b)
Sol.
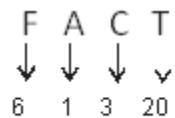
F   A   C   T
↓   ↓   ↓   ↓
6   1   3   20
$2(6 + 1 + 3 + 20) + 1 = 61$
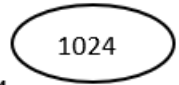
S20. Ans.(b)

S21. Ans.(d)
Sol.
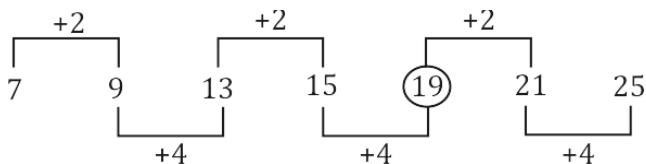
S22. Ans.(a)
Sol.

S23. Ans.(b)
Sol.

1024
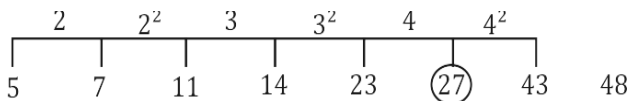
1, 4, 4, 16, 64

Multiply previous number to make next number.

S24. Ans.(d)
Sol.
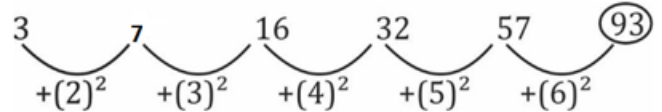
S25. Ans.(c)
Sol.
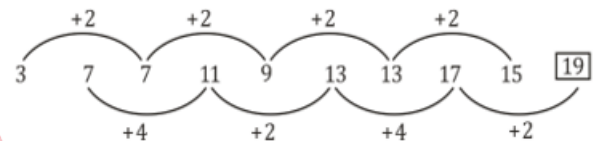
S26. Ans.(d)
Sol.
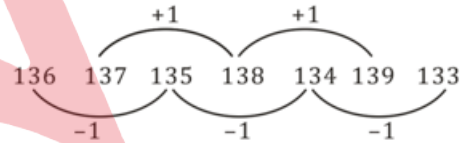
S27. Ans.(b)
Sol.

S28. Ans.(a)
Sol.
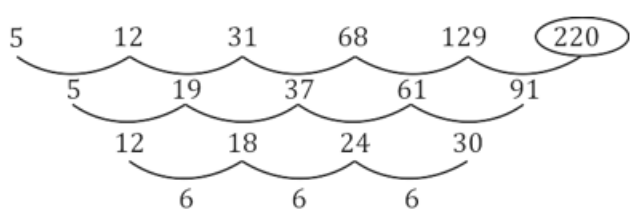
S29. Ans.(a)
Sol.
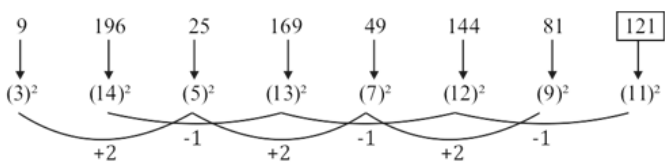
S30. Ans.(b)
Sol. $1 \times 5 = 5$
$5 \times 5 = 25$
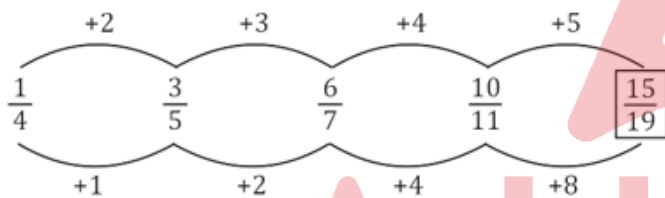$25 \times 5 = 125$
$125 \times 25 = 3125$

S31. Ans.(b)
Sol.
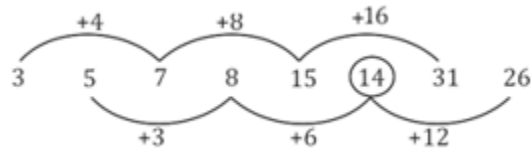
S32. Ans.(d)
Sol.
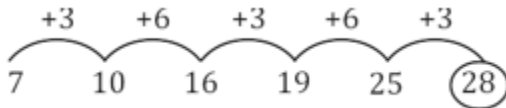
S33. Ans.(b)
Sol.

S34. Ans.(c)
Sol.
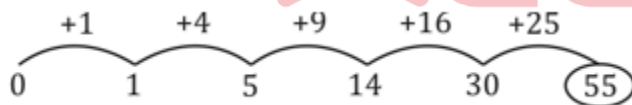
S35. Ans.(b)
Sol.
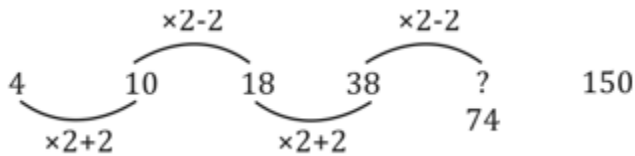
S36. Ans.(c)
Sol.
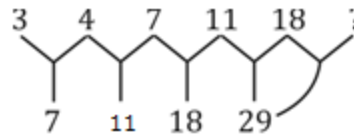
S37. Ans.(B)
Sol.
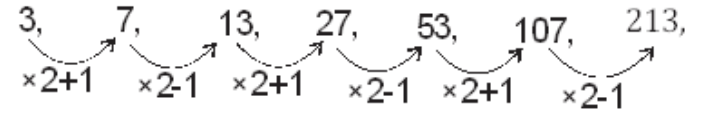
S38. Ans.(D)
Sol.

S39. Ans.(C)
Sol. ×2, ×3 ,x2, x3series

S40. Ans.(d)
Sol.