## AFCAT II 2020 Memory Based Questions: Solution

1. Ans. D.

Appeal is the correct synonym for - Allure.
Aversion, Repel and Repugnant are the antonyms for the given word.

## 2. Ans. B.

Ambiguous is the correct synonym for the given word.
Absolute, conclusive and straightforward are antonyms for Equivocal.

## 3. Ans. C.

Vogue is the most appropriate synonym for the given word - Fad.
Tradition, Boredom and Simplicity are antonyms for Fad.
4. Ans. C.

Unhappy is the correct synonym for - Sad.
Fortunate, Glad and Pleasant are antonyms for the given word.
5. Ans. C.

The 1951 Asian Games, officially known as the First Asian Games, was a multi-sport event celebrated in New Delhi, India from 4 to 11 March 1951. The Games received names like First Asiad and 1951 Asiad.
6. Ans. C.

Word Double fault is associated with the game Tennis. Double fault refers to two consecutive faults during service.
7. Ans. B.

Major Dhyan Chand scored 133 of the 338 Indian goals. In India, he is often referred to as Hockey ka Jaadugar which translates to "Magician of the game of Hockey".
8. Ans. C.

Leander Paes, an Indian tennis player who was one of the most successful doubles players in tennis history, with 8 career Grand Slam doubles titles and 10 career Grand Slam mixed doubles championships.
9. Ans. C.

Inherited - option $C$ is the correct answer to fill in the blank.
Inherited means - received as an heir at the death of the previous holder.
10. Ans. D.

Option D - Drawing is the correct answer to fill in the blank.
11. Ans. B.

Emulate- Option B is the correct answer to fill in the blank.
Emulate means to imitate or follow.
12. Ans. B.

Option B - Full of energy and life is the correct meaning of the given idiom.
13. Ans. D.

Option D - To act spontaneously is the correct meaning of the given idiom - Play it by ears.
14. Ans. C.

Option C - To allow a secret to be known is the correct meaning of the given idiom.

15. Ans. B

Option B - Deal decisively with a difficult or dangerous
situation correctly expresses the meaning of the idiom.
16. Ans. C.

Objection is the correct synonym for - demure.
Demure means raise objections or show reluctance.
Endorse, obedience, and sanction are antonyms for demure.

## 17. Ans. D.

Hindrance is the correct synonym for - impediment.
Benefit, support and aid are antonyms for impediment.
18. Ans. C.

Kind is the correct synonym for - Humane.
Beastly, pitiless and savage are antonyms for humane.
19. Ans. B.

Faultless is the correct synonym for - Impeccable.
Defective, imperfect and wicked are antonyms for impeccable.
20. Ans. B.

Determined is the correct synonym for - Dauntless.
Fragile means frail, easily breakable.
Timid and cowardly are antonyms for dauntless.
21. Ans. D.

Relaxed is the correct synonym for - Languid.
Spirited, Indefatigable and vigorous are antonyms for Languid.
22. Ans. D.

Option D - Held up is the correct answer to fill in the blank.

## Held up means cause a delay for someone or something, or to make them late.

23. Ans. C.

The error is in part $C$ of the given sentence.
'Are' before 'done' should be replaced with 'is' in part C as in the given sentence 'work' is an uncountable noun and is treated as singular.

The correct sentence should be - Only one-fourth of the work is done, and we are left with no time.
24. Ans. D.

The given sentence is error-free.
25. Ans. A.

Affect is the correct synonym for - Impinge.
Collision means to crash or smash.
Impact is the action of one object coming forcibly into contact with another.

Impress is to make (someone) feel admiration and respect.
26. Ans. B.

Soothe is the most appropriate synonym for - Mollify.
Nullify means to make legally null and void; invalidate.
Accumulate means to gather together or acquire an increasing number or quantity.

Grow means to undergo natural development by increasing in size and changing physically.
27. Ans. C.

Luxurious is the correct synonym for - Opulent.
Cheerful means noticeably happy and optimistic.
Luminous means giving off light; bright or shining.
Confident means feeling or showing confidence in oneself or one's abilities or qualities.

## 28. Ans. C.

Alloys like nichrome is used as a heating instrument in electrical appliances because they have higher resistance as compared to other elements, since heat energy is directly proportional to resistance, according to joules law of heating, alloys are mostly preferred rather than elements
29. Ans. A.


The commonwealth event was first held in 1930, and has taken place every four years since then.
30. Ans. D.

Marquess of Queensberry rules, code of rules applied to boxing. The rules were written by John Graham Chambers, a member of the British Amateur Athletic Club. The rules were first published in 1867.

## 31. Ans. A.

Duck word is related to cricket. In cricket, a duck is a batsman's dismissal with a score of zero.
32. Ans. A.

Option A - To be in a dilemma is the correct meaning of the given idiom - Between the devil and the deep sea.
33. Ans. C.

Option C - To make a humble apology is the correct meaning of the idiom - to eat a humble pie.
34. Ans. D.

Spontaneous is the correct synonym for impulsive.
Heedful, cautious and premeditated are antonyms for impulsive.
35. Ans. B.

Genuine is the correct antonym for pretentious.
Showy, Artificial and Flamboyant are synonyms for the given word.
36. Ans. C.

Danger is the correct synonym for - Jeopardy.
Assurance, Safety and Protection are antonyms for jeopardy.
37. Ans. B.

Option B - Distant is the correct antonym for intimate.
Familiar, Cherished and Bosom are a synonym for intimate.
38. Ans. D.

Deceive is the correct synonym for hoodwink

## Hoodwink means to deceive or trick.

Forthright, sincere and straighten are antonym for hoodwink.
39. Ans. C.
40. Ans. A.
41. Ans. A.
42. Ans. C.
43. Ans. A.

Indian ornithologist. Sometimes referred to as the "Birdman of India" 44. Ans. A.

Time period - 7th Century (606-647 A.D)
45. Ans. A.
46. Ans. B.
47. Ans. D.
48. Ans. A.

Akbar built the Buland Darwaja - 1602 A.D. to commemorate his victory over Gujarat.
49. Ans. A.
50. Ans. A.

Quit India Movement was approved by Indian National Congress in its Bombay Session, 1942
51. Ans. B.
52. Ans. A.
53. Ans. D.

Nargis Dutt \{3 April 1980 - 3 May 1981 (her death) \} was nominated to the Rajya Sabha.
54. Ans. C.

Saket (1932), a famous Hindi epic poem by Maithili Sharan Gupt.
55. Ans. A.

Uranium Mines :

1. Jaduguda Mine, Purbi Singhbhum district of Jharkhand.
2. Andhra Pradesh - Lambapur, Tumanalapalle
3. Ans. C.
eagle is different (can fly) but other cannot.
4. Ans. A.

For factory we need fields but not for the coal mine
58. Ans. B

Some Bangles of glass and some spoons are also made of glass.
59. Ans. A.

All are different from each other.
60. Ans. A.

Every Mother and Daughter must be women. And every wife must be first daughter.

61. Ans. A.

Blacksmith uses anvil similarly carpenter uses saw.
62. Ans. C.

Table and chair come under Furniture. Table and chair are total different from each other.
63. Ans. A.

Ocean is the part of the earth and earth and sun are different from each other.
64. Ans. B.

Shark is the odd one out because it is a fish belonging to cartilaginous fishes.
65. Ans. C.

Molecules
66. Ans. B.

Gallon, Litre and Pint are use to measure the liquid. But ton is use for the measure
the solid
67. Ans. A.

Semantics is the study of the meaning of words, phrases and sentences
68. Ans. D.

Pearl is not a carbon Compound.
69. Ans. C.

President and Governor are the nominal heads of the country and the state respectively

## 70. Ans. C.

Travelers travel in any of the two vehicles Trains or Bus.
So, we can say some travellers travel by bus and some travellers travel by train.

So, the circle representing traveller will intersect with other two circles which represents Trains and Bus.

Hence, option C is correct.

71. Ans. A.

All mothers are women, and some mothers and some women may be engineers.
72. Ans. D.

Some women can be Doctor
Some Women can be Entrepreneur
Some women can be both Doctor and Entrepreneur
73. Ans. A.

Thief comes under the criminals But police is totally different from both of them.

Then

74. Ans. A.

Igloo is made up of Ice similarly marquee is made up of Canavs.

## 75. Ans. A.

let the speed of A and B are $x^{\mathrm{kmph}}$ and ${ }^{y}$ kmph respectively. and they take 9 hours to cover 27 km in same direction.
So, $9 \times(x-y)=27 \Rightarrow x-y=3$
And they take only 3 hours in opposite directions.
So, $3 \times(x+y)=27 \Rightarrow x+y=9$
From equation (i) and (ii), the speed of $A=6 \mathrm{kmph}$
76. Ans. A.

Total fuel used by car in 7 months (212 days) and 5 months (153 days)
$=105 \times 212+95 \times 153=36795$ liter
Total fuel used by Bike in 12 months ( 365 days)
$=96 \times 365=35040$ liter
Average fuel used by per vehicle

$$
=\frac{1}{2}\left(\frac{36795+35040}{365}\right)=98.40
$$

77. Ans. C.
let the price of a Cadbury is $R s . x$ and the price of a KitKat is $R x . y$.
So, Total money $=50 x+40 y$ and $5 x=4 y$
If he spends $10 \%$ money and buy Cadbury and KitKat by rest.
So, total Cadbury $=\frac{.9(50 x+40 y)-20 y}{x}$
$=\frac{45 x-16 y}{x}$
$=\frac{45 x-20 x}{x}$
$=25$
78. Ans. B
we have $\frac{1985}{125 \times 14}=6 x$
$x=\frac{1974}{125 \times 14 \times 6}=\frac{47}{250}=.0188$

## 79. Ans. D

Let $A$ does $6 x$ units of work in one day then B does $3 x$ units $\left(B=\frac{1}{2} A\right)$ of work in one day and $C$ does $9 x$ units $\left(C=\frac{3}{2} A\right)$ of work in one day.

They together do $=6 x+3 x+9 x=18 x$ units of work in one day.
So total work $=18 x \times 24=432 x$ units of work.
Now A and B work alternatively then they complete $6 x+3 x=9 x$ units of work in two days.

Since; $\frac{432 x}{9 x}=48$;
So, they takes $48 \times 2=96$ days to complete the work by working alternatively.
80. Ans. D.
let the rate of interest is $r \%$ and total interest $=720-600=120$

$$
120=\frac{600 \times r \times 4}{100} \Rightarrow r=5 \%
$$

Now, new rate $=5 \%+2 \%=7 \%$

$$
S I=\frac{600 \times 7 \times 4}{100}=168
$$

So, Final amount $=600+168=768$
81. Ans. D.
let the speed of Mahesh and Ravi is ${ }^{x}$ kmph and y kmph.
When Mahesh start the race after Ravi crossed 40 m .
$\frac{1000}{x}-\frac{1000-40}{y}=16$
$\frac{1000}{x}-\frac{960}{y}=16$
When Mahesh gives Ravi a 30 sec . advantages
$\frac{1000}{x}-\left(\frac{1000}{y}-30\right)=15$
$\frac{1000}{x}-\frac{1000}{y}=-15$

From. (i) and (ii)
$x=\frac{25}{19} \mathrm{~m} / \mathrm{s}, y=\frac{40}{31} \mathrm{~m} / \mathrm{s}$
So, required ratio $x: y=\frac{25}{19}: \frac{40}{31}=155: 152$
82. Ans. C.
we have $67.5^{2}-46.2^{2}-13.2^{2}$
$\Rightarrow 4556.25-2134.44-174.24$
$\Rightarrow 2247.57$
83. Ans. D.
let the initial speed of the train is $x$ kmph then it takes 8 hr . to cover a distance.

Now new speed is $x+5 \mathrm{kmph}$ then it takes $6: 40 \mathrm{hr}$. to cover the same distance.

Since, distance $=$ speed $\times$ time , So
$d=x \times 8=(x+5) \times\left(6 \frac{2}{3}\right)$
$\Rightarrow 24 x=20 x+100$
$\Rightarrow 4 x=100$
$\Rightarrow x=25 \mathrm{kmph}$
84. Ans. A.

Since both are walking in opposite direction, then distance between them after a hour $=20 \times 1+30 \times 1=50 \mathrm{~km}$
85. Ans. B.
let the sum of principle amount is $P$. then,
$S I=\frac{P \times 3 \times 20}{100}=\frac{3 P}{5}$
And $C I=P\left[\left(1+\frac{20}{100}\right)^{3}-1\right]=\frac{91 P}{125}$
Given that,
$C I-S I=\frac{91 P}{125}-\frac{3 P}{5}=48$

$$
\begin{aligned}
\frac{16 P}{125} & =48 \\
P & =375
\end{aligned}
$$

86. Ans. B.

A takes to complete a work $=9$ days
Since B is $50 \%$ more efficient than A, So B takes $=\frac{9}{1.5}=6$ days
Let there are 18 units of work then $A$ does 2 units per day and $B$ does 3 units per day.

Both together does 5 units per day.
So, required time to complete the whole work $=\frac{18}{5}=3.6$ days
87. Ans. A.
let the income of komal and Shyam is $x$ and ${ }^{y}$.
And $x+y=6100$
So, new income of Komal and Shyam is $1.25 x$ and $1.2 y$
Given that,

$$
\begin{align*}
1.25 x & =150 \% \text { of } 1.2 y \\
1.25 x & =1.8 y \\
25 x & =36 y \tag{ii}
\end{align*}
$$

From (i) and (ii)

$$
x=3600, y=2500
$$

Hence the income of Shyam is Rs. 2500.
88. Ans. D.

Quantity of silver containing first alloy $=\frac{2}{5} \times 50=20 \mathrm{~kg}$
Quantity of gold containing first alloy $=\frac{3}{5} \times 50=30 \mathrm{~kg}$
Quantity of silver containing second alloy $=\frac{4}{9} \times 150=\frac{200}{3} \mathrm{~kg}$
Quantity of gold containing second alloy $=\frac{5}{9} \times 150=\frac{250}{3} \mathrm{~kg}$
So, ratio in new mixture $=\left(20+\frac{200}{3}\right):\left(30+\frac{250}{3}\right)$
$=260: 340$
$=13: 17$
89. Ans. A.
let the distance between Mumbai to Bangalore is $d$ km. first train cover it in 4 hr . and second train cover it in 2 hr .

So the speed of first train is $\frac{d}{4} \mathrm{kmph}$ and speed of second train is $\frac{d}{2} \mathrm{kmph}$.

When $2^{\text {nd }}$ train start the remining distance between them $=d-\frac{d}{4} \times 2=\frac{d}{2} \mathrm{~km}$ Let they take thr . after $2^{\text {nd }}$ train starts, so total distance by them in t hr.

$$
\begin{aligned}
& \frac{d}{4} \times t+\frac{d}{2} \times t=\frac{d}{2} \\
& t=\frac{2}{3} h r=40 \mathrm{~min}
\end{aligned}
$$

So they meet at 8:40 PM
90. Ans. D.
total child population $=25 \%+35 \%=60 \%$
So, total adult population = 100\%-60\% = 40\% = 20000
If $40 \%=20000$
$1 \%=500$
So, $100 \%=50000$
91. Ans. D.
the man give the rent as Rs.1000, Rs.2000, Rs.1000,....
So, $1000+2000+1000+\ldots \ldots . x$ days $=30000$
Let $x=2 k=$ even
$(1000+1000+\ldots k$ times $)+(2000+2000+\ldots . k$ times $)=20000$

$$
\begin{aligned}
1000 k+2000 k & =30000 \\
k & =10
\end{aligned}
$$

So total days $x=2 k=20$ days
92. Ans. C.
let the distance between the home and school is $d \mathrm{~km}$
So, $\frac{d}{3}+\frac{d}{2}=5 \Rightarrow d=6 \mathrm{~km}$
93. Ans. C.
ratio of speed of Lorry, Bike and Van is $1: 2: 3$

If Lorry covers 360 km in 12 hr , then speed of Lorry $=\frac{360}{12}=30 \mathrm{kmph}$ So, the speed of Bike $=60 \mathrm{kmph}$ and the speed of Van $=90 \mathrm{kmph}$ 94. Ans. C.

The ratio of pole to its shadow will be same
Let the length of the pole is ${ }^{x} \mathrm{~m}$ then
$\frac{x}{12}=\frac{42}{14} \Rightarrow x=36 m$
95. Ans. A.
we have $m: n=2: 3$ or $m=2 k$ and $n=3 k$
$\frac{3 m+n}{6 m-n}=\frac{6 k+3 k}{12 k-3 k}=\frac{9 k}{9 k}=1$
96. Ans. A.

Speed of first train $=72 \mathrm{kmph}=20 \mathrm{~m} / \mathrm{s}$
Speed of second train $=54 \mathrm{kmph}=15 \mathrm{~m} / \mathrm{s}$
They are moving at right-angle then relative speed between them $=\sqrt{20^{2}+15^{2}}=25 \mathrm{~m} / \mathrm{s}$

So distance between them after 30 second $=25 \times 30=750 \mathrm{~m}$
97. Ans. B.
if man spends Rs. 4000 per year then consumption of petrol each year
$1^{\text {st }}$ year $=\frac{4000}{8}=500$ liter
$2^{\text {nd }}$ year $=\frac{4000}{9}=444 \frac{4}{9}$ liter
$3^{\text {rd }}$ year $=\frac{4000}{10}=400$ liter

Then average consumption $=\frac{500+444 \frac{4}{9}+400}{3}=448.148$ liter
98. Ans. C.
total weight of section $x=30 \times 50=1500$
Total weight of section $y=32 \times 45=1440$
So, Average weight of whole class $=\frac{1500+1440}{30+32}=47.42$
99. Ans. A.

$$
\begin{aligned}
\text { difference } & =P\left[\left\{\left(1+\frac{r}{100}\right)^{t}-1\right\}-\frac{r \times t}{100}\right] \\
604 & =P\left[\left\{\left(1+\frac{2}{100}\right)^{3}-1\right\}-\frac{3 \times 2}{100}\right] \\
& =P\left[1+\left(\frac{2}{100}\right)^{3}+3 \times\left(\frac{2}{100}\right)^{2}+3 \times\left(\frac{2}{100}\right)-1-\frac{3 \times 2}{100}\right] \\
& =P\left(3+\frac{2}{100}\right)\left(\frac{2}{100}\right)^{2} \\
& =P\left(\frac{1208}{100^{3}}\right) \\
P & =\frac{604}{1208} \times 100^{3} \\
& =5,00,000
\end{aligned}
$$

100. Ans. B.

$$
\begin{aligned}
& \text { given that } P=6400, r=10 \%, t=1 \\
& \text { for quarterly } \mathrm{r}=10 / 4 \% \text { and } \mathrm{t}=4 \\
& C I=P\left[\left(1+\frac{r}{100}\right)^{t}-1\right] \\
& =6400\left[\left(1+\frac{10}{4 \times 100}\right)^{4}-1\right] \\
& =6400\left[\left(\frac{41}{40}\right)^{4}-1\right] \\
& =6400\left[\left(\frac{41}{40}\right)^{2}+1\right]\left[\left(\frac{41}{40}\right)+1\right]\left[\left(\frac{41}{40}\right)-1\right] \\
& =6400 \times \frac{3281}{1600} \times \frac{81}{40} \times \frac{1}{40} \\
& =664.4025
\end{aligned}
$$

