## Free Mock Test

Q 1. A trip to a destination is made in the following way: 900 km by train at an average speed of 60 $\mathrm{km} / \mathrm{hr}, 3000 \mathrm{~km}$ by plane at an average speed of $500 \mathrm{~km} / \mathrm{hr}, 400 \mathrm{~km}$ by boat at an average speed of 25 $\mathrm{km} / \mathrm{hr}$, 15 km by taxi at an average speed of $45 \mathrm{~km} / \mathrm{hr}$. What is the approximate average speed of the entire journey?

1. 120
2. 135
3. 150
4. 175

Q 2. A cat takes 4 leaps for every 5 leaps of a rabbit but 3 leaps of a cat are equal to 4 leaps of the rabbit. Compare their speeds.

1. $12: 1$
2. $16: 15$
3. $17: 18$
4. $20: 19$

Q 3. A boat is 77 km from the shore, springs a leak which admits $9 / 4$ tonnes of water in $11 / 2$ minutes. 92 tonnes of water would sink it. But the pumps can throw out 12 tonnes of water per hour. Find the average rate of sailing so that the boat may just reach the shore as it begins to sink.

1. 13.7
2. 10.5
3. 12
4. 15

Q 4. If a sum doubles in 16 years, how much will it be in 8 years?

1. $2 / 3$
2. $3 / 4$
3. $1 / 4$
4. $3 / 2$

Q 5. Under the Urban Housing Scheme, Bangalore Development Authority allotted a house to Shekar for Rs $1,26,000 /$ - This payment is to be made in 3 equal instalments. If the money is reckoned at $5 \%$ per annum compound interest, then how much is to be paid by Shekar in each instalment?

1. 46305
2. 25000
3. 37000
4. 34589

Q 6. Two perpendicular crossroads of equal width run through a middle of a rectangular field of length 60 m and breadth 40 m . If the area of crossroads is $1875 \mathrm{~m}^{2}$, find the width of the roads.

1. 50
2. 25
3. 75
4. 16

Q 7. Find the largest size of the pole that can be placed in a square of area $225 \mathrm{~m}^{2}$.

1. 14.14
2. 16.61
3. 21.21
4. 18

Q 8. How many steel rods, each of length 14 m and diameter 4 cm can be made out of
$0.55 \mathrm{~m}^{3}$ of steel?

1. 40
2. 12
3. 27
4. 3

Direction (9-13): Rearrange the given 5 sentences in a proper sequence so as to form a meaningful paragraph

1. Fulfilling this duty requires, first and foremost, a comprehensive understanding of the challenges we face. Most of the world's 200 fact-checking organisations operate on the assumption that presenting the public with corrected information will generally convince them to update a false view.
2. According to fact-checkers at the Washington Post, US President Donald Trump has made more than 13,000 false or misleading claims since his inauguration. It is no wonder some
people doubt that the fact-checking of politicians' claims is an answer to the problems of this misinformation age.
3. When politicians and journalists from Europe, the Americas, Africa, and Asia met at the Global Conference for Media Freedom in London in July, they acknowledged that the rise of misinformation has contributed to the declining public trust in politicians and the media.
4. But effective solutions have not been forthcoming. When Europe's political and business elite met the same month for the conference Les Recontres Economiques d'Aix-en-Provence 2019, they too saw few options for renewing trust.
5. But that does not mean that there are none. As the leaders or founders of the fact-checking organizations in Africa, Latin America, and Europe, we know that our work can play a powerful role in countering the effects of misinformation and restoring faith in reliable sources.

Q 9. Which of the following statements is the last sentence of the paragraph?

1. 1
2. 5
3. 3
4. 2

Q 10. Which of the following statements is the first sentence of the paragraph?

1. 4
2. 2
3. 5
4. 1

Q 11. Which of the following statements is the second sentence of the paragraph?

1. 4
2. 1
3. 3
4. 2

Q 12. Which of the following statements is the third sentence of the paragraph?

1. 2
2. 3
3. 1
4. 4

Directions (14-18): Fill in the blanks with the appropriate word.
By abruptly ordering the withdrawal of US troops from Northern Syria, President Donald Trump's ----(14)----- approach to foreign policy has triggered a broader unravelling in the Middle East. Worse, by
trying to remove America from the regional equation, Trump has left the US less able to ----(15)--- its interests. In this big picture, Richard Haass of the Council of Foreign Relations tallies the far-reaching costs of Trumps decision to abandon Syria and America's Kurdish allies. Those costs were foreseen this summer when Georgetown's Charles and Sinan of EDAM argued ----(16)----- that a US withdrawal would trigger precisely the type of power shift that is now unfolding. Meanwhile, former Swedish Prime Minister Carl Bildt concludes that whatever the costs, it is time for all countries with a stake in Syria to start discussing a political ----(17)---- to the conflict. And former Israeli Foreign Minister Shlomo-BenAmi describes how Trumps latest actions fit into a broader pattern of ----perfidiousness--- in the region, including his unilateral withdrawal from the Iran nuclear agreement.

Q 14.

1. Impulsive
2. Cagey
3. Circumspect
4. Scrupulous

Q 15.

1. Disregard
2. Safeguard
3. Hindsight
4. Ignorance

Q 16.

1. Imprudently
2. Profligately
3. Presciently
4. Fecklessly

Q 17.

1. Indecisiveness
2. Irresoluteness
3. Inconclusiveness
4. Resolution

Q 18.

1. Perfidiousness
2. Allegiance
3. Staunchness

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4. Piety

Q 19. Which is the next number in the series?
$5,18,43,84,145,230$,?

1. 343
2. 256
3. 478
4. 213

Q 20. Which of the following is the next number in the series?
$4,10,22,42,72,114, ?$

1. 160
2. 170
3. 190
4. 210

Directions (21-25): Study the following information and answer the questions given below.
Seven specialist doctors A, B, C, D, E, F and G visit a polyclinic on the four days - Tuesday, Wednesday, Friday and Saturday in a week. At least one doctor but not more than 2 doctors visit the polyclinic on each of these days. Each of them is a specialist of different fields - ENT, Orthopaedics, Paediatrics, Neurology, Ophthalmology, Radiology and Oncology. D visits on Friday with Radiologist, Paediatrician does not visit on Saturday nor with E and G. Oncologist F visits alone on Tuesday. B visits on Wednesday and he is not a Paediatrician. C visits on Wednesday. G is not Radiologist.
Paediatrician visits with ENT specialist. Neurologist visits on Friday. A is neither Orthopaedics nor Radiologist.

Q 21. What is the profession of $D$ ?

1. Ophthalmologist
2. Paediatrics
3. ENT
4. Neurologist

Q 22. What is the speciality of $A$ ?

1. Paediatrics
2. Ophthalmologist
3. ENT
4. Data Inadequate

Q 23. On which of the following days do the specialists in Orthopaedic and Ophthalmology visit?

1. Wednesday
2. Friday
3. Saturday
4. None of these

Q 24. On which day of the week does $E$ visit?

1. Wednesday
2. Friday
3. Saturday
4. None of these

Q 25. Who among them visits the polyclinic along with $A$ ?

1. None
2. D
3. E
4. $G$

## Answer Keys:

| Q 1.3 | Q 2. 2 | Q 3.2 | Q 4.4 | Q 5.1 |
| :--- | :--- | :--- | :--- | :--- |
| Q 6.2 | Q 7. 3 | Q 8.4 | Q 9.1 | Q 10.2 |
| Q 11.3 | Q 12.4 | Q13. | Q14.1 | Q 15.2 |
| Q 16.3 | Q 17.4 | Q 18.1 | Q 19.1 | Q 20.2 |
| Q 21.4 | Q 22.2 | Q 23.3 | Q 24.2 | Q 25.4 |

## Solution 1:

Total distance travelled $=(1600+3500+200+15) \mathrm{Km}=5315 \mathrm{~km}$.
Total time taken $=(1600 / 80+3500 / 700+200 / 20+15 / 45) \mathrm{hr}$

$$
\begin{aligned}
& =(20+5+10+1 / 3) \mathrm{hr} \\
& =106 / 3 \mathrm{hr}
\end{aligned}
$$

Hence, Average speed for the whole journey
$=5315$ * ( $3 / 106$ ) km/hr
Approximately 150 Km/hr

## Solution 2:

Let the distance covered in 1 leap of the cat be ' $a$ ' and that covered in 1 leap of the rabbit be ' $b$ '
Then, $3 \mathrm{a}=4 \mathrm{~b}$
Then, $a=(4 / 3) * b$
$4 a=(16 / 3) * b$
The ratio of speeds of cat and rabbit = Ratio of distances covered by them in the same time.

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$4 a: 5 b$
Already from the above, we can see that $4 \mathrm{a}=(16 / 3)^{*} \mathrm{~b}$
$=16 / 3 \mathrm{~b}: 5 \mathrm{~b}$
$=16 / 3: 5$
= 16: 15

## Solution 3:

Quantity of the water let in by the leak in 1 min
$=[(9 / 4) /(11 / 2)]$ tonnes
$=9 / 22$ tonnes
Quantity of water thrown out by the pumps in 1 min
1 hour $=60 \mathrm{~min}$
$=(12 / 60)$ tonnes
$=(1 / 5)$ tonnes
Net quantity of water filled in the ship in $1 \mathrm{~min}=(9 / 22)-(1 / 5)$
$=(23 / 110)$ tonnes of water is filled in 1 min .
92 tonnes of water is filled in $(110 / 23)$ * 92
$=440 \mathrm{~min}$
$=22 / 3 \mathrm{hrs}$
Hence required speed $=77$ / (22/3)
$=10.5 \mathrm{Km} / \mathrm{hr}$

## Solution 4:

Let the sum $=$ Rs $x$

If the sum doubles then the new sum will be $=R s 2 x$

This implies S.I is Rs x .

Hence, Rate $=\left[(100\right.$ * x$\left.) /\left(\mathrm{x}^{*} 16\right)\right]$
$=25 / 4 \%$

Now, Sum = Rs $x$, Time $=8$ years, Rate $=25 / 4 \%$
S.I. $=\left[\left(x^{*} 25\right.\right.$ * 8$) /(100$ * 4) $]$
$=R s x / 2$
Sum $=x+x / 2$
$=3 x / 2$
$=3 / 2$ times

## Solution 5:

$\{X /(1+5 / 100)\}+\left\{x /(1+5 / 100)^{2}\right\}+\left\{x /(1+5100)^{3}\right\}=126100$
$(20 x / 21)+(400 x / 441)+(8000 x / 9261)=126100$
$(8820 x+8400 x+8000 x) / 9261=126100$
$X=46305$

## Solution 6:



Let the width of the rectangle $A B C D$ and PQRS be ' $x$ ' mts.
Area of crossroads $=$ Area of rectangle ABCD + Area of rectangle PQRS - Area of square EFGH

$$
2500=60 x+40 x-x^{2}
$$

$$
x^{2}-100 x+1875=0
$$

Solving the equation we get
$(x-75)(x-25)=0$
$X$ is not equal to 75 m , hence $X=25 \mathrm{~m}$
Hence the width of the crossroads $=25 \mathrm{~m}$

## Solution 7:

Side of the square $=\sqrt{ } 225$
$=15$ metre
The largest size of the pole = Length of the diagonal of the square

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Length of the diagonal of the square is given as a $\sqrt{ } 2$
$=15 \sqrt{ } 2 \mathrm{~m}$
$=21.21 \mathrm{~m}$

## Solution 8:

The volume of 1 steel rod $=\pi r^{2} h$
Here h can be taken as the length of 14 m .
Radius $=$ Diameter $/ 2=4 / 2=2 \mathrm{~cm}$.
$=(22 / 7) \times(2 / 100) \times(2 / 100) \times 14$
$=11 / 625 \mathrm{~m}^{3}$
The volume of steel $=0.55 \mathrm{~m}^{3}$
The number of steel rods $=0.55 \times(625 / 11)$
Rounding off we can make 31 steel rods from the given quantity of steel.

## Solution 19:

$5+\left(2^{2}+3^{2}\right)=5+4+9=18$
$18+\left(3^{2}+4^{2}\right)=18+9+16=43$
$43+\left(4^{2}+5^{2}\right)=43+16+25=84$
$84+\left(5^{2}+6^{2}\right)=84+25+36=145$
$145+\left(6^{2}+7^{2}\right)=145+36+49=230$
$230+\left(7^{2}+8^{2}\right)=230+49+64=343$

## Solution 20:

$4+(3 \times 2)=4+6=10$
$10+(4 \times 3)=10+12=22$
$22+(5 \times 4)=22+20=42$
$42+(6 \times 5)=42+30=72$
$72+(7 \times 6)=72+42=114$
$114+(8 \times 7)=114+56=170$

## Solution 21:

| Tuesday | Wednesday | Friday | Saturday |
| :--- | :--- | :--- | :--- |
| F - Oncologist | B - ENT specialist | D - Neurologist | G - Orthopaedic |
|  | C - Paediatrician | E - Radiologist | A - Ophthalmologist |

From the table, we can conclude that D is the Neurologist.

## Solution 22:

From the table, we can conclude that A is the Ophthalmologist.

## Solution 23:

From the table, we can conclude that the specialists in Ophthalmology and Orthopaedic visit on Saturday.

## Solution 24:

From the table, we can conclude that $E$ visits on Friday.

Solution 25:
From the table, we can conclude that $G$ visits the polyclinic along with $A$.

