## VERBAL REASONING

Complete the sentences by choosing the best option, from the given lettered choices ( $A$ to $D$ ) below each.

1. Can you tell me $\qquad$ ?
A. where does he live
B. where has he lived
C. where he lives
D. where is he living
2. He told me that he was not familiar $\qquad$ that subject.
A. about
B. on
C. to
D. with

Four lettered pairs ( $A$ to $D$ ) follow a related pair of words given in the question. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair in capital letters.
3. DISLIKABLE: ABHORRENT::
A. difficult: arduous
B. silly: young
C. tender: hard
D. trustworthy liar
4. DECISION: CONSIDERATION:
A. boat;'ship
B. Fulfillment: wish
C. gift: party
greed: charity

Each of the following questions consists of a sentence with all or part of the sentence underlined. Following the requirements of standard written English, select (A) if the
original is best; otherwise choose the best phrase from the options.
5. There is a small number of apples still remaining on the tree.
A. is a small number of
B. is a small amount of
C. is very few
D. are very few

Choose the lettered word or phrase that is MOST NEARLY OPPOSITE in meaning to the word in capital letters
6. COUNTERFEIT
A. Clear
B. Easy
C. Original
D. Positive
7. MEEK
A. Arrogant
B. Modest
C. Submissive
D. Unpretentious

Choose the lettered word or phrase that is MOST NEARLY SIMILAR in meaning to the word in capital letters.
8. WRATH
A. Angry
B. Dangerous
C. Pleased
D. Thin
9. VISAGE
A. Body
B. Dress
C. Face
D. Profession

Question 10 is based on the following paragraph.
Animal behaviorists have long held that aggression serves a spacing function. Territorial animals use aggressive behaviors to disperse competing individuals, freeing up vital resources such as food and mates for the aggressor. However, animal behaviorists have been puzzled by the role of aggression in the social species. In order for
the group to maintain cohesion, the dispersal function of aggression must somehow be mediated. De Waal has studied aggressive behavior in chimpanzees and concludes that the social animals, particularly primates, must have some sort of reconciliation mechanism that alleviates the impact of aggressive behavior. De Waal spent years observing a troupe of chimpanzees living in captivity at an animal preserve. He noted that the chimpanzees fought and squabbled frequently, but rather than keeping their distance from each other after a fight, the combatants sought each other out to "reconcile." In some cases, the former enemies would almost immediately restore goodwill after a conflict, with the two animals kissing, embracing, and engaging in grooming behaviors in other cases, though, De Waal noted that the reconciliation would not take place for a significant period, almost as if the creatures were waiting to see who would apologize first. But even in casesin which the tension between two primates lasted for hours, eventulally one chimpanzee would signal its desire for reconciliation byseeking to make eye contact with its foe.
10. The paragraph is primarily concerned with $\qquad$ .
A. demonstrating similarities between chimpanzee behavior and human behavior
B. describing the complex behaviors of chimpanzees
C. offering a possible solution to an enigmatic phenomenon
D. presenting the results of a controversial study

## ANALYTICAL REASONING

Any lender about to make a loan wishes to know the real rate of interest i.e., the contractual rate of interest less the rate of inflation. But what rate of inflation to use, past or expected? Past inflation is the better choice, because we have specific firm figures for.it so that the real rate of interest will also emerge as a specific figure.
11. Which of the following, if true, is the strongest point that an opponent of the position above might make in arguing that the rate of expected inflation is the proper figure to use?
A. No official rate of past inflation is computed for apy period shorter than a month
B. Since estimating the rate of expected inflation presupposes careful economic analysis, lenders might derive coincidental benefits from doing such an estimate
C. Since the contractual interest is futureincome to a prospective lender, it is more appropriate to adjust that income in terms of inflation expected for the future
D. The rate of expected inflation will differ little from the rate of past inflation when inflation is steady

It is no wonder that some domestic carcompanies have to attract potential buyers with rebates and lowinterest rates. Why do not those companies produce cars that are more fuel efficient? If all domestic manufacturers-built cars that were as fuel efficient as imported cars, rebates and lowinterest rates would not be needed.
12. The argument above tyould be most strengthened if which of the following were true?
A. For a majority of buyers of new cars, high fuel efficiency is the most important criterion in choosing a car
B. Many car buyers prefer to purchase midsize and larger cars
C. Some cars built by domestic manufacturers are more fuel efficient than many of the popular imported cars The offer of rebates has always signified that an industry is in decline

## Questions 13-16

A large office complex has exactly seven buildings $\mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{U}, \mathrm{V}, \mathrm{W}$, and $X$. A delivery service with four vans; van 1, van 2 , van 3, and van 4 carries packages by van from building to building at the complex. SAMPLE PAPER-HAT-ART AND HUMANITIES (PHD)

Each van has a unique route, which it repeats throughout the day:
Van 1 travels only from $R$ to $S$, from $S$ to $T$, from $T$ to $U$, from $U$ to $V$, and from V to R.
Van 2 travels only from S to W and back to S.
Van 3 travels only from $T$ to $V$ and back to $T$.
Van 4 travels only from $U$ to $X$ and back to $U$.
Vans stop at each building to which they travel, and packages can be picked up or delivered at any stop. Any van can also leave a package for any other van to pick up at any building where both vans stop.
13. A package sent by van can be delivered with no intermediate stops if it is sent from:
A. $\quad \mathrm{R}$ to W
B. $\quad \mathrm{S}$ to R
C. $\quad \mathbf{T}$ to R
D. $\quad \mathbf{t}$ to T
14. On its way to any building in the complex, a package sent by van from W must travel to $\qquad$ .
A. $R$
B. S
C. $\quad \mathbf{T}$
D. U
15. What is the minimum number of intermediate stops for a package sent by van from $R$ to $V$ ?
A. One
B. Two
C. Three
D. Four
16. Which of the following lists all of the vans, in the order of use, that would be needed to send a package by van from $X$ to $T$ with the minimum number of intermediate stops?
A. Van 1, van 2, van 3
B. Van 3, van 1
C. Van 4, van 1
D. Van 4, van 1, van 3

To be mentally healthy, people must have self-respect. People can maintain self-respect only by continually earning the respect of others they esteem. They can earn this respect only by treating these others morally.
17. Which of the following conclusions can be properly drawn from the statements above?
A. People can expect to be treated morally by others only if they esteem these others
B. People who are mentally healthy must have self-respect in order to be treated morally by others
C. People who are mentally healthy will be treated morally by others
D. People who are mentally healthy will have treated morally those they esteem

## Questions 18-19

Mercury, one of the deadliest toxins, makes up approximately fifty percent of the amalgam used by dentists in silver fillings. The effects of acute mercury poisoning are well known kidney failure, muscie tremors, memory loss, and even death. It is clear that responsible dentists should remove all of their patients' silver fillings andreeplace them with fillings of plastic composites.
18. Which of the following, if true, most seriously weakens the author's argument?
A. A patient's exposure to mercury frommultiple silver fillings is at a harmless level
B. Most dental insurance plans do not consider the replacing of silver fillings to be necessary
C. Most patients are satisfied with the durability of their silver fillings
D. Plastic composite fillings are more expensive than silver fillings
19. Which of the following, if true, most strengthens the author's argument?
A. It is difficult to measure the amount of mercury in a person's body
B. Mercury poisoning produces a range of subtle but distinctive symptoms
C. Silver fillings gradually corrode and small amounts of mercury leak from the amalgam
D. Some patients have more than one filling per tooth

Five truoks 1, 2, 3, 4 and 5 are standing in a row facing south. Five cars $A, B, C, D$ and $E$ are standing in front of them in a row, each one facing one of them. All these are not necessarily in the same serial order.

3 is facing $\mathbf{C}$.
2 and 5 are not facing $D$.
1 is at one of the ends.
$E$ is fourth to the right of $A$ and is facing 5.
$B$ is between $A$ and $C$.
20. Which pair occupies the middle position of the rows?
A. 2, D


## QUANTITATIVE REASONING

21. The smallest squared number, which is exactly divisible by $2,3,4$, $5,6,9,18,30$ and 60 , is $\qquad$ _.
A. 100
B. 900
C. 1600
D. 3600
22. An interest received from a bank on Rs. 400 for 2 years is Rs. 96. What is the rate of interest?
A. 2\%
B. 12\%
C. $16 \%$
D. $48 \%$
23. If the product of roots of equation $x^{2}-3(2 a+4) x+16 a+81=0$ is unity, then "a" can take the values as
A. $-41 / 16$
B. -5
C. $41 / 8$
D. 5
24. The L.C.M of $4.5,0.009$, and 0.18 is $=$ $\qquad$ .
A. 0.225
B. 2.25
C. 4.5
D. 45
25. $\left(x^{b+c}\right)^{b-c} \cdot\left(x^{c+a}\right)^{c-a} \cdot\left(x^{a+b}\right)^{a-b}$ is equivalent to $\qquad$ -
A. 1
C. 2
D. 4
26. The average age of three boys is 15 years. If their age are in ratio $3: 5: 7$, the age of youngest boy is $\qquad$ _.
A. 9 years
B. 15 years
C. 18 years
D. 21 years
27. The ratio of ages of Maria and Nazia is 4: 3. The sums of their ages is $\mathbf{2 8}$ years. After $\mathbf{8}$ years the ratio of their ages will be
$\qquad$ .
A. 2:3
B. $3: 5$
C. $5: 3$
D. $6: 5$
28. A, B and C invest Rs. 2000, Rs. 3000 and Rs. 4000 in a business. If the net profit after two years be Rs. 2700, the A's share in the profit is $\qquad$ _.
A. Rs. 600
B. Rs. 700
C. Rs. 900
D. Rs. 1200
29. A man purchased a watch for Rs. 400 and sold it at a gain of $\mathbf{2 0 \%}$ of the selling price. The selling price of the watch is $\qquad$ .
A. Rs. 400
B. Rs. 450
C. Rs. 500
D. Rs. 550
30. What angle is formed when the hour hand is at 06:00 and the minute hand is at $12: 00$ ?
A. $90^{\circ}$
B. $100^{\circ}$
C. $120^{\circ}$
D. $180^{\circ}$

| 1 | C | 7 | A | 13 | D | 19 | C | 25 | B |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | D | 8 | A | 14 | B | 20 | D | 26 | A |
| 3 | A | 9 | C | 15 | B | 21 | B | 27 | D |
| 4 | B | 10 | C | 16 | D | 22 | B | 28 | A |
| 5 | D | 11 | C | 17 | D | 23 | D | 29 | C |
| 6 | C | 12 | C | 18 | A | 24 | C | 30 | D |

