## VERBAL REASONING

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

1. You mean you've been waiting $\qquad$ an hour.
A. before
B. for
C. just
D. since
2. You should always lock the door when $\qquad$ your room.
A. leave
B. leaving
C. left
D. to leave

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. BEE: HONEY::
A. cow: milk
B. frog: leap
C. rabbit: hare
D. spider: web
4. CROW: CAWः
A. ape: monkey
B. cat: kitten dog: kennel monkey: chatter

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. When the cat's away the mice will play.
A. When the cat's away the mice will play
B. As the cat's away the mice will play
C. If the cat's away the mice will play
D. Whenever the cat's away the mice will play

Choose the lettered word or phrase that is MOST NEARLY OPPOSITE in meaning to the word in capitapletters.
6. The rules of this organization are too STRINGENT and not $\qquad$ .
A. flexible
B. impractical
C. realistic
D. strict
7. The scientist declared that he found an EXOTIC flower which
$\qquad$ .
A. had a sweet smell
B. he did not see or read about earlier
C. was gigantic in size
D. was poisonous

Choose the dettered word or phrase that is MOST NEARLY SIMILAR in meaning to the word in capital letters.
8. If you BROOD over something you $\qquad$ it.
A. desire
B. feel afraid of
C. prepare for
D. think about
9. We expect a VERACIOUS account from you. So please be $\qquad$ .
A. careful
B. confident
C. honest
D. precise

## Question 10 is based on the following paragraph.

In 1606, two years after peace with Spain, the hands of destiny beckoned toward Virginia. A joint-stock company, known as the Virginia Company, of London received a charter from King James I of England for a settlement in the New World. The main attractions were the promise of gold and the hope of finding a passage through America to the Indies. Like most joint-stock companies of the day, the Virginia Company was intended to endure for only a few years, after which its stockholders intended to liquidate it for a profit. The arrangement put severe pressure on the luckless colonists, who were threatened with abandonment in the wilderness if they did not quickly strike it rich on the company's behalf. Few of the investors thought in terms of long-term colonization. Apparently, no one even faintly suspected that the seeds of a mighty nation were being planted.
The charter of the Virginia Company is a significantdocument in the American history. It guaranteed to the oversea settlers the same rights of Englishmen that they would have enjoyed if they had stayed at home. The precious boon was gradually extended to the other English colonies and became a foundation stone of American liberties. Setting sail from England in 1606, the colonists arrived in Virginia and choose a site for their settlement on the wooded but malarial banks of the James River. There on May 24, 1607, about a hundred English settlers, all men disembarked. They called the place Jamestown. The early years of Jamestown proved to be a nightmare for all concerned - except the buzzards. Once ashore, the settlers died by the dozens from disease, malnutrition, and starvation. Ironically, the woods rustled with game and the river flopped with fish, but the greenhorn settlers - many-of them gentlemen unaccustomed to fending for themselves-wasted valuable time grubbing for nonexistent gold when they should have been gathering provisions. Virginia was saved from utter collapse at the start largely by the leadership of resourcefulness of an intrepid young adventurer, Captain John Smith. Taking over in 1608, he whipped the gold-hungry colonists into line with the rule. "He who shall not work shall not eat." He was subjected to a mock execution by the Indian chieftain Powhatan whose daughter Pocahontas "saved" Smith by dramatically intecposing her head between his and the war clubs of his captors. Pocahontas became an intermediary between the Indians and the settlers, helping to preserve a shaky peace and provide needed food.
10. In the sentence "The early years of Jamestown proved to be a nightmare for all concerned except the buzzards." the word 'buzzards' refers to the $\qquad$ .
A. birds of prey
B. investors of Virginia company
C. local people
D. the king and his courtiers

## ANALYTICAL REASONING

## Questions 11-16

In a large factory there are, exactly seven supervisors of operations F, G, H, J, K M, and N. These supervisors communicate with each other in two ways:
Through a message circuit and by two-way radio.
Messages can be sent in only one direction along the message circuit from $F$ to $\mathbf{G}$, from $\mathbf{G}$ to $\mathbf{J}$, from $\mathbf{J}$ to $M$, from $M$ to $\mathbf{N}$, and from $\mathbf{N}$ to $\mathbf{F}$. Messages can be sent in either direction by two-way radio between $G$ and $H$, between $H$ and $N$, and between $J$ and $K$.
No other routes of communication are available for sending messages among the seven supervisors. Messages that cannot be'sent directly to the intended supervisor are sent through one or more intermediaries, who pass the messages along a possible route. Any supervisor, but only a supervisor, can be an intermediary.
11. A message from the first to the second supervisor in which of the following pairs can be sent using exactiy one intermediary?
A. F to M
B. H to F
C. $K$ to H
D. $\quad \mathrm{N}$ to K
12. Sending a message from the first to the second supervisor in which of the following pairs requires using both the message circuit and the two-way radio?
A. F to M
B. J to H
C. Kto J
D. Noto G
13. Sending a message from the first to the second supervisor in which of the following pairs requires a minimum of two intermediaries?
A. $\quad \mathrm{F}$ to K
B. $\quad \mathbf{G}$ to $\mathbf{N}$
C. H to J
D. $\quad \mathrm{M}$ to H
14. A message from $\mathbf{G}$ to $\mathbf{F}$ must be sent through $\qquad$ .
A. H
B. $K$
C. $\quad \mathbf{M}$
D. $\quad \mathbf{N}$
15. A message originating from which of the following supervisors requires the use of both the message circuit and the two-way radio if the message is to reach more than one supervisor?
A. $F$
B. $K$
C. $\quad \mathrm{M}$
D. $\quad \mathbf{N}$
16. A message sent through the fewest possible intermediaries from the first to the second supervisor in which of the following pairs requires exactly three in intermediaries?
A. $\quad$ to $\mathbf{N}$
B. J to H
C. $K$ to $G$
D. $\quad \mathrm{N}$ to K

Imran is not going to Lahore and Shahid is not goingto Islamabad. Imran and Saad go to different cities.
Feroz alone goes to Karachi.
17. Which city is Saad going to, if all four ofthem are going to different cities?
A. Islamabad
B. Karachi
C. Lahore
D. Can't say

If oven cleaner is added to household bleach the mixture emits chlorine gas. A mixture of bathtub cleanser and household bleach also emits chlorine gas. If ordinary soap is added to household bleach, no gases are emitted. When an unidentified cleaning agent was added to household bleach, no chlorine gas was emitted.
18. If the-statements above are all true, which of the following can be determined conclusively on the basis of them about the unidentified cleaning agent?
A. It contained ordinary soap and either oven cleaner or bathtub cleanser
B. It contained ordinary soap and neither oven cleaner nor bathtub cleanser
C. It was neither oven cleaner nor bathtub cleanser
D. It was ordinary soap

## Questions 19-20

Seven offices in an office building are to be painted. The offices, which are on one side of a hallway, are numbered consecutively, one to seven, from the front of the building to the back. Each office is to be painted one color only according to the following conditions: Two offices must be painted white; two offices must be painted blue, two offices must be painted green, and one office must be painted yellow.
The two offices painted green must be next to each other.
The two offices painted blue cannot be next to each other. The office painted yellow cannot be next to an office painted white. Office three must be painted white.
19. If office 2 is painted green, which of the following offices must also be painted green?
A. 3
B. 2
C. 1
D. 4
20. If office 5 is painted white, which of the following could be true?
A. Office 4 is painted yellow
B. Office 4 is painted green
C. Office 2 is painted yellow
D. Office 6 is painted blue

## QUANTITATIVE REASONING

21. The sum of the $4^{\text {th }}$ and $8^{\text {th }}$ term of an A.P is 24 and the sum of its $6^{\text {th }}$ and $10^{\text {th }}$ terms is 44 . Find the first term?
A. -9
B. $\mathbf{- 1 1}$
C. $\mathbf{- 1 3}$
D. $\mathbf{- 1 5}$
22. $5 / 3+7 / 6+9 / 3+7 / 2=$ $\qquad$ .
A. $112 / 3$
B. $28 / 3$
C. $14 / 6$
D. $28 / 6$
23. Find the value of $x$ and $y$. Where $3 x+y=20$ and $x / 3+10=y$.
A. $x=-3, y=-11$
B. $x=3, y=11$
C. $x=3, y=12$
D. $x=11, y=3$
24. Find the smaller number, when the sum of two numbers is 184 and if one-third of the one number exceeds one-seventh of the other by 8.
A. 62
B. 72
C. 82
D. 112
25. Two isosceles triangles have equal vertical angles, and their areas are in the ratio $9: 16$. What is the ratio of their corresponding altitudes?
A. $2: 3$
B. $3: 4$
C. $9: 16$
D. $16: 9$
26. A man covers some distance in 4 hours. Had he move slower $\mathbf{2 k m} / \mathrm{h}$, he will cover the same distance in $\mathbf{8}$ hours. The distance covered by man is $\qquad$ .
A. 4 km
B. 6 km
C. 12 km
D. 16 km
27. When the clock shows time 25 minutes past 2 , the angle between the hands is $\qquad$ .
A. $77 \frac{1}{2}^{0}$
B. $88^{\circ}$
C. $89 \frac{1}{2}^{0}$
D. $90^{\circ}$
28. If $\frac{5 a+3 b}{2 a-3 b}=\frac{23}{5}$, then the value of $a: b$ is
A. 1:2
B. $1: 4$
C. $3: 1$
D. $4: 1$
29. The average of 5 numbers is 12,6 , if the four numbers are 9,12 , 15 and 20 , what is the 5 th number?
A. 07
B. 09
C. 10
D. 11
30. The last (units) digit of the number $333^{444}$ is $\qquad$ .


ANSWER KEY

| $\mathbf{1}$ | B | 7 | B | 13 | A | 19 | C | 25 | B |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2}$ | B | 8 | D | 14 | D | 20 | D | 26 | D |
| 3 | A | 9 | C | 15 | B | 21 | C | 27 | A |


| 4 | D | 10 | A | 16 | D | 22 | B | 28 | D |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5 | A | 11 | B | 17 | D | 23 | B | 29 | A |
| 6 | A | 12 | B | 18 | C | 24 | B | 30 | A |




