Sample Paper
NAT
General Portion
VERBAL

Complete the sentences by choosing the most appropriate word, from the given lettered choices (A to D) below each.

1. Earthquakes cause vibrations to pass _____ around the earth in wave form.
   A. through
   B. through the
   C. through an
   D. through and

2. The first engine ______ heat to drive a machine was the steam engine.
   A. made use of
   B. to make use of
   C. of using
   D. of making use

Each question below consists of a related pair of words, followed by five lettered pairs of words. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair.

3. MAN: ROBOT::
   A. original: counterfeit
   B. true: sham
   C. brain: computer
   D. object: image

4. SLAKE: THIRST::
   A. accelerate: speed
   B. splinter: wood
   C. douse: fire
   D. pledge: loyalty

Choose the lettered word or phrase that is most nearly opposite in meaning to the word in capital letters.

5. COVETOUS:
   A. Greedy
   B. sympathetic
   C. generous
   D. niggardly
Choose the word most similar in meaning to the capitalized ones.

6. BATTERY:
   A. ambush  
   B. corner  
   C. precarious  
   D. group  
   E. delirium

Read the passage to answer question 7-10

Since the 1980s, the biggest influence on business has been electronic technology. Computers are being used for inventory control, sales analysis and forecasting, distribution control, and budget analysis. At-home electronic shopping is becoming commonplace. With this system, consumers view merchandise on a computer monitor and then use a modem, which links the computer to a telephone line, to signal the goods they want to order. Just as traveling salesman once brought wares to the home, electronic technology makes it possible for modern consumers to see and select from any array of goods in their homes.

7. The word “forecasting” is closest in meaning to:
   A. prediction  
   B. efficiency  
   C. accounting  
   D. decision making

8. The word “modem” refers to a type of:
   A. electronic shopping  
   B. electronic device  
   C. telephone  
   D. computer screen

9. The word “wares” is closest in meaning to:
   A. clothing  
   B. items for sale  
   C. messages  
   D. household appliances

10. The word “array” is closest in meaning to:
    A. pair  
    B. container  
    C. category  
    D. collection
ANALYTICAL REASONING

Now Sony Electronics brings tomorrow's technology to today's home stereo. The same space-age circuitry used by the Wanderer spacecraft to send images of the most distant planets back to earth has been incorporated in the new Sony X-2700 stereo system. If your home entertainment is important to you, why settle for an old-fashioned stereo system when the Sony X-2700 is priced at only a few rupees more?

11. The most serious logical weakness of this argument is its failure to
   A. provide technical data on the manufacturing specifications of the Sony X-2700
   B. show the relevance of space-age circuitry to the requirements of home stereo
   C. specify the exact price difference between the Sony X-2700 and old-fashioned stereo systems
   D. acknowledge the contributions of scientists in the space program to the development of the advanced circuitry mentioned
   E. explain the precise meaning of the technical terms used

According to Albert Einstein's famous theory of relativity, time travel is theoretically possible. Assuming that time travel were to be made possible through some technological breakthrough, it would be advantageous to send someone back in time to prevent the assassination of Archduke Franz Ferdinand in 1914 and thus keep World War I from ever occurring.

12. The argument above makes which of the following assumptions?
   A. It is not possible to alter a significant current in world history merely by changing a single event
   B. The technology necessary for time travel is likely to be developed in the near future
   C. If Franz Ferdinand had not been assassinated, some other catalytic event would have led to the start of World War I
   D. The assassination of Franz Ferdinand was the crucial event that triggered the start of World War I
   E. If time travel were to be developed in the future, evidence of time travelers would be apparent to those living today

Questions 13-18

In a telecommunications-cable assembly plant, cables are assembled by twisting plastic-coated wires together. There are wires of exactly six different solid colors red, yellow, violet, green, white, and black. Wires must be assembled into single cables according to the following rules:

Each cable must contain at least three wires and wires of at least three different colors.
At most two wires in a single cable can be black.
At most two wires in a single cable can be white.
There can be at most one wire of each of the other colors in a single cable.
If one wire is red, then one wire must be yellow.
If one wire is violet, then no wire can be green.
13. Which of the following could be the complete set of wires in an acceptable cable?
   A. A green wire, a white wire, and a violet wire
   B. A violet wire, a black wire, and a white wire
   C. A red wire, a black wire, and a green wire
   D. A yellow wire and exactly two black wires
   E. Exactly two black wires and exactly two white wires

14. The maximum number of wires that can be used in an acceptable cable is
   A. 8
   B. 7
   C. 6
   D. 5
   E. 4

15. If exactly one black wire and exactly one white wire are used in an assembled cable, which of the following must be true?
   A. The cable contains no more than five wires
   B. The cable contains exactly six wires
   C. The cable contains a yellow wire
   D. The cable does not contain a red wire
   E. The cable does not contain a violet wire

16. If a white wire and a violet wire must be among the wires chosen for a particular cable, any of the following pairs of wires could complete the cable EXCEPT a
   A. black wire and a second white wire
   B. yellow wire and a second white wire
   C. yellow wire and a black wire
   D. red wire and a yellow wire
   E. red wire and a black wire

17. If an assembled cable consists of exactly five wires, each a different color, it could be true that a color NOT used is
   A. black
   B. white
   C. green
   D. red
   E. yellow

18. If there is an additional requirement that violet must be used if yellow is used, which of the following must be true?
   A. No cable contains fewer than six wires
   B. No cable contains more than five wires
   C. Green is never used if red is used
   D. Red is always used if violet is used
   E. Black is used exactly once if yellow is used
19. Ali’s test scores were 98, 95, 84, 100 and 92. What would he need on his next test to have an average of 94?

A. 90  
B. 92  
C. 95  
D. 100  
E. It is not possible to get that average

20. The circumference of a circle whose diameter is 7 inches is approximately:

A. 22 inches  
B. 28 inches  
C. 38 inches  
D. 154 inches  
E. 14 inches

21. Express as a ratio in simplest form: 5 feet to 3 inches:

A. \(\frac{5}{3}\)  
B. \(\frac{3}{5}\)  
C. \(\frac{70}{3}\)  
D. \(\frac{1}{20}\)  
E. 20

22. Which of the following is closest to the value of \(\frac{3654 \times 248}{1756}\)?

A. 50  
B. 500  
C. 5,000  
D. 5

23. If \(3x + 2 = 12\), find \(x - \frac{1}{3}\)?

A. \(3\frac{1}{3}\)  
B. 3  
C. 10  
D. 4
24. What is 15% of 32?
   A. 4  
   B. 3.50  
   C. 4.80  
   D. 3.80

25. Solve the following equation for x:
   \[3x - 5 = 3 + 2x\]
   A. 8  
   B. 10  
   C. 6  
   D. 14

26. At a dairy it takes 90 seconds to fill 30 one-gallon jugs of milk. How many minutes does it take to fill 90 jugs of milk?
   A. 1  
   B. 3  
   C. 3.5  
   D. 4  
   E. 4.5

27. A number that is divisible by both 6 and 8 is also divisible by:
   A. 5  
   B. 9  
   C. 11  
   D. 16  
   E. 24

28. What is the average (arithmetic mean) of 8x + 5, -3x + 9, 0 and 7x-2?
   A. 3x + 1  
   B. 3x + 3  
   C. 4x + 1  
   D. 4x + 4  
   E. 12x + 12
## Answer Keys

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