chapter 5

Diagnostic Test

OVERVIEW

- Can I answer high school entrance examination questions in the time allowed?
- Diagnostic Test
- Evaluating your score and planning your study time

CAN I ANSWER HIGH SCHOOL ENTRANCE EXAMINATION QUESTIONS IN THE TIME ALLOWED?

The way to find out is to try. The Diagnostic Test offers a sampling of question styles and timing from both the SSAT and the ISEE. Follow the directions precisely and see how far you get. This will give you a feeling for the pacing you must aim for.

DIAGNOSTIC TEST

Take the Diagnostic Test and then check your answers. Try to take the entire Diagnostic Test in one sitting to make the experience similar to the conditions you will face on the actual test day.

EVALUATING YOUR SCORE AND PLANNING YOUR STUDY TIME

Use the Score Sheet and the Comparison Chart at the end of the Diagnostic Test to pinpoint your weaknesses. Knowing the skills you need to work on will help you better plan your study time.

DIAGNOSTIC TEST

Answer Sheet

SECTION 1: SYNONYMS

1 Ⓐ Ⓑ Ⓒ Ⓓ	7 Ⓐ Ⓑ Ⓒ Ⓓ	13 Ⓐ Ⓑ Ⓒ Ⓓ	19 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓐ Ⓑ Ⓒ Ⓓ	8 Ⓐ Ⓑ Ⓒ Ⓓ	14 Ⓐ Ⓑ Ⓒ Ⓓ	20 Ⓐ Ⓑ Ⓒ Ⓓ
3 Ⓐ Ⓑ Ⓒ Ⓓ	9 Ⓐ Ⓑ Ⓒ Ⓓ	15 Ⓐ Ⓑ Ⓒ Ⓓ	
4 Ⓐ Ⓑ Ⓒ Ⓓ	10 Ⓐ Ⓑ Ⓒ Ⓓ	16 Ⓐ Ⓑ Ⓒ Ⓓ	
5 Ⓐ Ⓑ Ⓒ Ⓓ	11 Ⓐ Ⓑ Ⓒ Ⓓ	17 Ⓐ Ⓑ Ⓒ Ⓓ	
6 Ⓐ Ⓑ Ⓒ Ⓓ	12 Ⓐ Ⓑ Ⓒ Ⓓ	18 Ⓐ Ⓑ Ⓒ Ⓓ	

SECTION 2: VERBAL ANALOGIES

1 Ⓐ Ⓑ Ⓒ Ⓓ	7 Ⓐ Ⓑ Ⓒ Ⓓ	13 Ⓐ Ⓑ Ⓒ Ⓓ	19 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓐ Ⓑ Ⓒ Ⓓ	8 Ⓐ Ⓑ Ⓒ Ⓓ	14 Ⓐ Ⓑ Ⓒ Ⓓ	20 Ⓐ Ⓑ Ⓒ Ⓓ
3 Ⓐ Ⓑ Ⓒ Ⓓ	9 Ⓐ Ⓑ Ⓒ Ⓓ	15 Ⓐ Ⓑ Ⓒ Ⓓ	
4 Ⓐ Ⓑ Ⓒ Ⓓ	10 Ⓐ Ⓑ Ⓒ Ⓓ	16 Ⓐ Ⓑ Ⓒ Ⓓ	
5 Ⓐ Ⓑ Ⓒ Ⓓ	11 Ⓐ Ⓑ Ⓒ Ⓓ	17 Ⓐ Ⓑ Ⓒ Ⓓ	
6 Ⓐ Ⓑ Ⓒ Ⓓ	12 Ⓐ Ⓑ Ⓒ Ⓓ	18 Ⓐ Ⓑ Ⓒ Ⓓ	

SECTION 3: SENTENCE COMPLETIONS

1 Ⓐ Ⓑ Ⓒ Ⓓ	7 Ⓐ Ⓑ Ⓒ Ⓓ	13 Ⓐ Ⓑ Ⓒ Ⓓ	19 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓐ Ⓑ Ⓒ Ⓓ	8 Ⓐ Ⓑ Ⓒ Ⓓ	14 Ⓐ Ⓑ Ⓒ Ⓓ	20 Ⓐ Ⓑ Ⓒ Ⓓ
3 Ⓐ Ⓑ Ⓒ Ⓓ	9 Ⓐ Ⓑ Ⓒ Ⓓ	15 Ⓐ Ⓑ Ⓒ Ⓓ	
4 Ⓐ Ⓑ Ⓒ Ⓓ	10 Ⓐ Ⓑ Ⓒ Ⓓ	16 Ⓐ Ⓑ Ⓒ Ⓓ	
5 Ⓐ Ⓑ Ⓒ Ⓓ	11 Ⓐ Ⓑ Ⓒ Ⓓ	17 Ⓐ Ⓑ Ⓒ Ⓓ	
6 Ⓐ Ⓑ Ⓒ Ⓓ	12 Ⓐ Ⓑ Ⓒ Ⓓ	18 Ⓐ Ⓑ Ⓒ Ⓓ	

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SECTION 4: READING COMPREHENSION

1 Ⓐ Ⓑ Ⓒ Ⓓ	7 Ⓐ Ⓑ Ⓒ Ⓓ	13 Ⓐ Ⓑ Ⓒ Ⓓ	19 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓐ Ⓑ Ⓒ Ⓓ	8 Ⓐ Ⓑ Ⓒ Ⓓ	14 Ⓐ Ⓑ Ⓒ Ⓓ	20 Ⓐ Ⓑ Ⓒ Ⓓ
3 Ⓐ Ⓑ Ⓒ Ⓓ	9 Ⓐ Ⓑ Ⓒ Ⓓ	15 Ⓐ Ⓑ Ⓒ Ⓓ	21 Ⓐ Ⓑ Ⓒ Ⓓ
4 Ⓐ Ⓑ Ⓒ Ⓓ	10 Ⓐ Ⓑ Ⓒ Ⓓ	16 Ⓐ Ⓑ Ⓒ Ⓓ	22 Ⓐ Ⓑ Ⓒ Ⓓ
5 Ⓐ Ⓑ Ⓒ Ⓓ	11 Ⓐ Ⓑ Ⓒ Ⓓ	17 Ⓐ Ⓑ Ⓒ Ⓓ	
6 Ⓐ Ⓑ Ⓒ Ⓓ	12 Ⓐ Ⓑ Ⓒ Ⓓ	18 Ⓐ Ⓑ Ⓒ Ⓓ	

SECTION 5: QUANTITATIVE ABILITY

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

SECTION 6: QUANTITATIVE COMPARISONS

1 Ⓐ Ⓑ Ⓒ Ⓓ	7 Ⓐ Ⓑ Ⓒ Ⓓ	13 Ⓐ Ⓑ Ⓒ Ⓓ	19 Ⓐ Ⓑ Ⓒ Ⓓ
2 Ⓐ Ⓑ Ⓒ Ⓓ	8 Ⓐ Ⓑ Ⓒ Ⓓ	14 Ⓐ Ⓑ Ⓒ Ⓓ	20 Ⓐ Ⓑ Ⓒ Ⓓ
3 Ⓐ Ⓑ Ⓒ Ⓓ	9 Ⓐ Ⓑ Ⓒ Ⓓ	15 Ⓐ Ⓑ Ⓒ Ⓓ	
4 Ⓐ Ⓑ Ⓒ Ⓓ	10 Ⓐ Ⓑ Ⓒ Ⓓ	16 Ⓐ Ⓑ Ⓒ Ⓓ	
5 Ⓐ Ⓑ Ⓒ Ⓓ	11 Ⓐ Ⓑ Ⓒ Ⓓ	17 Ⓐ Ⓑ Ⓒ Ⓓ	
6 Ⓐ Ⓑ Ⓒ Ⓓ	12 Ⓐ Ⓑ Ⓒ Ⓓ	18 Ⓐ Ⓑ Ⓒ Ⓓ	

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SECTION 1: SYNONYMS

20 Questions • 10 Minutes

Directions: Choose the word or phrase closest in meaning to the CAPITALIZED word.

1. INTERMITTENTLY
   (A) constantly
   (B) annually
   (C) using intermediaries
   (D) at irregular intervals
2. DECEPTION
   (A) secrets
   (B) fraud
   (C) mistrust
   (D) hatred
3. ACCLAIM
   (A) amazement
   (B) laughter
   (C) booing
   (D) applause
4. ERECT
   (A) paint
   (B) design
   (C) destroy
   (D) construct
5. RELISH
   (A) care
   (B) speed
   (C) amusement
   (D) enjoy
6. FORTNIGHT
   (A) two weeks
   (B) one week
   (C) two months
   (D) one month
7. IMPOSE
   (A) disguise
   (B) escape
   (C) require
   (D) tax
8. ALIAS
   (A) enemy
   (B) sidekick
   (C) hero
   (D) other name
9. ITINERANT
   (A) traveling
   (B) shrewd
   (C) insurance
   (D) aggressive
10. AMPLE
    (A) plentiful
    (B) enthusiastic
    (C) well-shaped
    (D) overweight
11. STENCH
    (A) puddle of slimy water
    (B) pile of debris
    (C) foul odor
    (D) dead animal
12. SULLEN
    (A) grayish yellow
    (B) soaking wet
    (C) very dirty
    (D) angrily silent

13. TERSE
(A) pointed
(B) trivial
(C) nervous
(D) lengthy

14. INCREMENT
(A) an improvisation
(B) an increase
(C) feces
(D) specification

15. MISCONSTRUED
(A) followed directions
(B) led astray
(C) acting to supervise
(D) interpreted erroneously

16. VESTIGE
(A) design
(B) trace
(C) strap
(D) robe

17. CAPITULATE
(A) surrender
(B) execute
(C) finance
(D) retreat

18. EXTENUATING
(A) mitigating
(B) opposing
(C) incriminating
(D) distressing

19. SUBSERVIENT
(A) underestimated
(B) underhanded
(C) subordinate
(D) evasive

20. COLLUSION
(A) decision
(B) insinuation
(C) connivance
(D) conflict

SECTION 2: VERBAL ANALOGIES

20 Questions • 10 Minutes

Directions: Find the relationships among the words. Select the answer choice that best completes the meaning of the sentence.

1. Red is to pink as black is to
(A) beige
(B) white
(C) dark
(D) gray

2. Youth is to young as maturity is to
(A) people
(B) parents
(C) grandmother
(D) old

3. One is to two as three is to
(A) two
(B) five
(C) six
(D) thirty

4. Light is to lamp as heat is to
(A) furnace
(B) light
(C) sun
(D) room

5. Week is to month as season is to
   (A) year
   (B) spring
   (C) harvest
   (D) planting

6. Square is to circle as rectangle is to
   (A) round
   (B) triangle
   (C) oval
   (D) cube

7. Choir is to director as team is to
   (A) sport
   (B) coach
   (C) player
   (D) athlete

8. Sand is to beach as black dirt is to
   (A) earth
   (B) plants
   (C) water
   (D) farm

9. Table is to leg as automobile is to
   (A) wheel
   (B) axle
   (C) door
   (D) fuel

10. Arouse is to pacify as agitate is to
    (A) smooth
    (B) ruffle
    (C) understand
    (D) ignore

11. Margarine is to butter as
    (A) cream is to milk
    (B) lace is to cotton
    (C) nylon is to silk
    (D) egg is to chicken

12. Woodsman is to axe as
    (A) carpenter is to saw
    (B) mechanic is to wrench
    (C) soldier is to gun
    (D) draftsman is to ruler

13. Worried is to hysterical as
    (A) hot is to cold
    (B) happy is to ecstatic
    (C) lonely is to crowded
    (D) happy is to serious

14. Control is to order as
    (A) joke is to clown
    (B) teacher is to pupil
    (C) disorder is to climax
    (D) anarchy is to chaos

15. Horse is to foal as
    (A) donkey is to ass
    (B) cow is to calf
    (C) bull is to steer
    (D) whinny is to moo

16. Sleep is to fatigue as
    (A) water is to thirst
    (B) rest is to weary
    (C) pillow is to blanket
    (D) fatigue is to run

17. Island is to ocean as
    (A) hill is to stream
    (B) forest is to valley
    (C) oasis is to desert
    (D) tree is to field

18. Drama is to director as
    (A) class is to principal
    (B) movie is to scenario
    (C) actor is to playwright
    (D) magazine is to editor

19. Request is to demand as
(A) reply is to respond
(B) inquire is to ask
(C) wish is to crave
(D) seek is to hide

20. Wood is to carve as
(A) tree is to sway
(B) paper is to burn
(C) clay is to mold
(D) pipe is to blow

SECTION 3: SENTENCE COMPLETIONS

20 Questions • 10 Minutes

Directions: Each question is made up of a sentence with one or two blanks. The sentences with one blank indicate that one word is missing. The sentences with two blanks indicate that two words are missing. Each sentence is followed by four choices. On the answer sheet, mark the letter of the choice that will best complete the meaning of the sentence as a whole.

1. Although fortune-tellers claim to _____ future happenings, there is no scientific evidence of their _____.
(A) cloud..ability
(B) effect..knowledge
(C) foretell..fees
(D) predict..accuracy

2. Great ideas have _____ youth: they are _____.
(A) no..petrified
(B) eternal..immortal
(C) constant..ephemeral
(D) little..frivolous

3. Each human relationship is unique, and the lovers who think there never was a love like theirs are _____.
(A) foolish
(B) blind
(C) prejudiced
(D) right

4. Rats give some _____ as scavengers, but this is over-balanced by their _____ activities.
(A) help..useful
(B) service..harmful
(C) problems..nocturnal
(D) trouble..breeding

5. Ancient societies gave authority to those who knew and preserved _____, for the idea of what was right lay in the past.
(A) order
(B) law
(C) intelligence
(D) tradition

6. The rare desert rains often come in _____, causing loss of life and property; thus, people living in an oasis think of rain with _____.
(A) floods..longing
(B) torrents..terror
(C) sprinkles..fear
(D) winter..snow

7. His admirers were not _____, for his essays were not widely known.
   (A) respected
   (B) numerous
   (C) ardent
   (D) interested

8. Archaeologists found ruins of temples and palaces, but no _____; it was as though these people never _____.
   (A) food..lived
   (B) tombs..died
   (C) plans..built
   (D) monasteries..worshipped

9. Safe driving prevents _____ and the endless _____ of knowing you have caused others pain.
   (A) disease..reminder
   (B) tragedy..remorse
   (C) accidents..hope
   (D) lawsuits..expense

10. A true amateur plays because he _____ the game and will not cheat because that would _____ the game.
    (A) studies..lose
    (B) understands..improve
    (C) knows..forfeit
    (D) loves..degrade

11. Companies have found it pays to have _____ handy when a meeting is likely to be _____.
    (A) food..prolonged
    (B) secretaries..enjoyable
    (C) telephones..successful
    (D) money..interesting

12. He _____ apart, for he prefers _____ to the company of others.
    (A) lives..books
    (B) stays..throngs
    (C) remains..vivacity
    (D) dwells..solitude

13. The Constitutional duty to "take care that the laws be faithfully executed" makes the president the head of law _____.
    (A) development
    (B) interpretation
    (C) education
    (D) enforcement

14. A reduction of the workweek to four days would certainly _____ the _____ industry.
    (A) destroy..automobile
    (B) stimulate..steel
    (C) improve..electrical
    (D) benefit..leisure

15. History tells us it took Athens less than a generation to change from a champion of _____ into a ruthless _____.
    (A) democracy..republic
    (B) freedom..tyrant
    (C) independence..commonwealth
    (D) dictatorship..liberator

16. The society was not _____ and required much outside aid.
    (A) philanthropic
    (B) destitute
    (C) democratic
    (D) self-sufficient

17. The _____ climate of the country _____ the delicate electronic equipment.
    (A) intolerable..restored
    (B) dry..vaporized
    (C) changeable..demoralized
    (D) humid..corroded

18. The value of _____ science to modern progress is _____.
    (A) research..unimportant
    (B) physical..unquestionable
    (C) medical..unlikely
    (D) statistical..unreliable

19. The final end of a nonadapting society is the same as for a nonadapting animal: _____.
    (A) admiration
    (B) resignation
    (C) extinction
    (D) immortality

20. Some temperamental actresses fail to understand that a director's criticism is aimed at their _____ and not at their _____.
    (A) weaknesses..conduct
    (B) stupidity..graciousness
    (C) performance..personality
    (D) prosperity..inability

SECTION 4: READING COMPREHENSION

22 Questions • 15 Minutes

Directions: Read each passage and answer the questions that follow it.

If you are asked the color of the sky on a fair day in summer, your answer will most probably be "blue." This answer is only partially correct. Blue sky near the horizon is not the same kind of blue as it is straight overhead. Look at the sky some fine day and you will find that the blue sky near the horizon is slightly greenish. As your eye moves upward toward the zenith, you will find that the blue changes into pure blue, and finally shades into a violet-blue overhead.

Have you heard the story of a farmer who objected to the color of the distant hills in the artist's picture? He said to the artist, "Why do you make those hills blue? They are green, I've been over there and I know!"

The artist asked him to do a little experiment. "Bend over and look at the hills between your legs." As the farmer did this, the artist asked, "Now what color are the hills?"

The farmer looked again, then he stood up and looked. "By gosh, they turned blue!" he said.

It is quite possible that you have looked at many colors that you did not really recognize. Sky is not just blue; it is many kinds of blue. Grass is not plain green; it may be one of several varieties of green. A red-brick wall frequently is not pure red. It may vary from yellow-orange to violet-red in color, but to the unseeing eye it is just red brick.

1. The title that best expresses the ideas of this passage is
   (A) "The Summer Sky."
   (B) "Artists vs. Farmers."
   (C) "Recognizing Colors."
   (D) "Blue Hills."

2. At the zenith, the sky is usually
   (A) violet-blue.
   (B) violet-red.
   (C) greenish-blue.
   (D) yellow-orange.

3. The author suggests that
   (A) farmers are color-blind.
   (B) perceived color varies.
   (C) brick walls should be painted pure red.
   (D) some artists use poor color combinations.

4. The word *zenith* in the first paragraph probably refers to
   (A) a color.
   (B) a point directly overhead.
   (C) a point on the horizon.
   (D) the hills.

While the Europeans were still creeping cautiously along their coasts, Polynesians were making trips between Hawaii and New Zealand, a distance of 3,800 miles, *(5)* in frail canoes. These fearless sailors of the Pacific explored every island in their vast domain without even the simplest of navigational tools.

In the daytime, the Polynesians guided *(10)* their craft by the position of the sun, the trend of the waves and wind, and the flight of seabirds.

Stars were used during long trips between island groups. Youths studying *(15)* navigation were taught to view the heavens as a cylinder on which the highways of navigation were marked. An invisible line bisected the sky from the North Star to the Southern Cross.

(20) In addition to single canoes, the Polynesians often used twin canoes for transpacific voyages. The two boats were fastened together by canopied platforms that shielded passengers from sun and *(25)* rain. Such crafts were remarkably seaworthy and could accommodate 60 to 80 people, in addition to water, food, and domestic animals. Some of these vessels had as many as three masts.

(30) These Pacific *mariners* used paddles to propel and steer their canoes. The steering paddle was so important that it was always given a personal name. Polynesian legends not only recite the names of the *(35)* canoe and the hero who discovered a new island but also the name of the steering paddle he used.

5. The best title for this selection is
   (A) "European Sailors."
   (B) "The History of the Pacific Ocean."
   (C) "The Study of Navigation."
   (D) "Early Polynesian Navigation."

6. The Polynesians made trips to
   (A) New Zealand.
   (B) the Atlantic.
   (C) the Southern Cross.
   (D) Europe.

7. The word *mariner* means
   (A) propeller.
   (B) seaman.
   (C) paddle.
   (D) navigation.

8. This passage suggests that the Polynesians
   (A) trained seabirds to guide their canoes.
   (B) had seen a line in the sky that was invisible to others.
   (C) used a primitive telescope to view the heavens.
   (D) were astronomers as well as explorers.

The seasonal comings and goings of birds have excited the attention and wonder of all sorts of people in all ages and places. The oracles of Greece and the augurs of *(5)* Rome wove them into ancient mythology. They are spoken of in the Books of Job and Jeremiah.

Nevertheless, it has been difficult for many to believe that small birds, espe- *(10)* cially, are capable of migratory journeys. Aristotle was convinced that the birds that wintered in Greece were not new arrivals, but merely Greece's summer birds in winter dress. According to a belief *(15)* persisting in some parts of the world to this day, swallows and swifts do not migrate, but spend the winter in hiberna-

tion. (Swifts and swallows *do* migrate, just as most other Northern Hemisphere birds do.) Another old and charming, but untrue, legend enlists the aid of the stork in getting small birds to and from winter quarters: Small birds are said to hitch rides on the European stork's back.

It is clear why Northern Hemisphere birds fly south in the fall; they go to assure themselves of food and a more favorable climate for the winter months. It is also clear where most of the migrants come from and where they go. Years of bird-banding have disclosed the routes of the main migratory species.

But there are other aspects of migration that remain, for all our powers of scientific investigation, as puzzling and mysterious to modern man as to the ancients. Why do migrant birds come north each spring? Why don't they simply stay in the warm tropics the whole twelve months of the year? What determines the moment of departure for north or south? Above all, how do birds—especially species like the remarkable golden plover, which flies huge distances directly across trackless ocean wastes—find their way?

9. The best title for this selection would be
   (A) "The Solution of an Ancient Problem."
   (B) "Mysterious Migrations."
   (C) "The Secret of the Plover."
   (D) "Aristotle's Theory."

10. Bird-banding has revealed
   (A) the kind of food birds eat.
   (B) why the birds prefer the tropics in the summer.
   (C) why birds leave at a certain time.
   (D) the routes taken by different types of birds.

11. Swallows and swifts
   (A) remain in Greece all year.
   (B) change their plumage in winter.
   (C) hibernate during the winter.
   (D) fly south for the winter.

12. The article proves that
   (A) nature still has secrets that man has not fathomed.
   (B) the solutions of Aristotle are accepted by modern science.
   (C) we live in an age that has lost all interest in bird lore.
   (D) man has no means of solving the problems of bird migration.

Using new tools and techniques, scientists, almost unnoticed, are remaking the world of plants. They have already remodeled sixty-five sorts of flowers, fruits, vegetables, and trees, giving us among other things tobacco that resists disease, cantaloupes that are immune to the blight, and lettuce with crisper leaves. The chief new tool they are using is colchicine, a poisonous drug, which has astounding effects upon growth and upon heredity. It creates new varieties with astonishing frequency, whereas such mutations occur but rarely in nature. Colchicine has thrown new light on the fascinating jobs of the plant hunters. The Department of Agriculture sends agents all over the world to find plants native to other lands that can be grown here and are superior to those already here. Scientists have crossed these foreign plants with those at home, thereby adding to our farm crops many desirable characteristics. The colchicine technique has enormously facilitated their work, because hybrids so often can be made fertile and because it takes so few generations of plants now to build a new variety with the qualities desired.

13. The title that best expresses the ideas of the paragraph is
    (A) "Plant Growth and Heredity."
    (B) "New Plants for Old."
    (C) "Remodeling Plant Life."
    (D) "A More Abundant World."

14. Mutation in plant life results in
    (A) diseased plants.
    (B) hybrids.
    (C) new varieties.
    (D) fertility.

15. Colchicine speeds the improvement of plant species because it
    (A) makes possible the use of foreign plants.
    (B) makes use of natural mutations.
    (C) creates new varieties very quickly.
    (D) can be used with sixty-five different vegetables, fruits, and flowers.

16. According to the passage, colchicine is a
    (A) poisonous drug.
    (B) blight.
    (C) kind of plant hunter.
    (D) hybrid plant.

Italy is a relatively small country. Its entire land area could be tucked into the borders of California, with plenty of room to spare, but Italy has a population of more than 45,000,000 people. The country is 760 miles long and, at most points, only 100 to 150 miles wide.

Italy's southern, eastern, and western borders are surrounded by water, making it a peninsula. To the north it is separated from France, Switzerland, Germany, and Yugoslavia by the towering mountain chain known as the Alps.

About two thirds of the Italian peninsula is mountainous. In addition to the Alps, there are the Apennines, which run almost the entire length of the country. This mountain chain is marked by the highly fertile river valleys that run across it.

Italy's climate is similar to that of Florida or California, except that winters in the northern part of the country tend to be colder than in either of these states. The result is a long, productive growing season in much of the country.

Tourists are often surprised at the full use to which the Italians put their soil. Because they are crowded in a small area, they cannot afford to let any land go to waste, and the Italians are accomplished farmers. They have cultivated the fertile valleys and banks of the rivers as well as the northern plains regions. Mountainous areas have even been utilized by cutting terraces into the steep slopes. Nearly half the population of Italy lives off the soil.

17. Which statement can be supported by the information in this passage?
    (A) Italy is separated from the rest of Europe by natural boundaries.
    (B) All of the Italian peninsula is a mountainous region.
    (C) Italy is a rather large country with a small population.
    (D) Few Italians cultivate the soil.

18. The winter climate of northern Italy is
    (A) similar to that of Texas.
    (B) comparable to that of Switzerland.
    (C) colder than winters in Florida.
    (D) similar to the winters in California.

19. The Italian peninsula
    (A) has a larger land area than California.
    (B) is 760 miles long and about 150 miles wide.
    (C) is longer than Florida.
    (D) has plenty of room to spare.

20. The Apennines are
    (A) river valleys.
    (B) plains.
    (C) mountains.
    (D) peninsulas.

21. Italy's northern border is formed by
    (A) rivers.
    (B) the Apennines.
    (C) water.
    (D) the Alps.

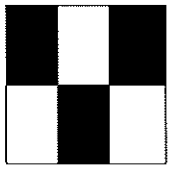
22. The northern plains and other flat areas of Italy make up how much of its land area?
    (A) About half
    (B) Two thirds
    (C) One third
    (D) Most of it

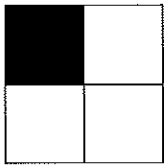
SECTION 5: QUANTITATIVE ABILITY

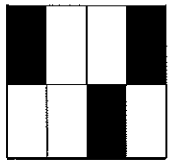
30 Questions • 30 Minutes

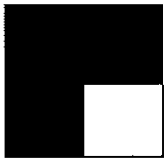
Directions: Choose the correct answer to each question.

1. Which square has half of its area shaded?

(A) 

(B) 

(C) 

(D) 

2. If 2 packages of cookies are enough for 10 children, how many will be needed for 15 children?
    (A) 6
    (B) 5
    (C) 4
    (D) 3

3. Which is equal to 9?
    (A) 4×5
    (B) 9×0
    (C) 9×1
    (D) 3×6

4. Jeff earns 12 dollars a week. Which of the following statements tells how many dollars he will earn in 5 weeks?
    (A) $12 - 5$
    (B) $12 \div 5$
    (C) $12 + 5$
    (D) 12×5

5. The distance from City X to San Francisco is 3 times the distance from City X to Chicago. How many miles away from City X is San Francisco? To solve this problem, what else do you need to know?
    (A) The distance from Chicago to San Francisco
    (B) The distance from City X to Chicago
    (C) The city of origination
    (D) Nothing else

6. If an odd number is subtracted from an odd number, which of the following could be the answer?
   (A) 1
   (B) 2
   (C) 7
   (D) 9

7. If $7 \times 6 = Y$, which is true?
   (A) $Y \div 7 = 6$
   (B) $Y \times 7 = 6$
   (C) $7 \div Y = 6$
   (D) $Y + 6 = 7$

8. $759 - 215 = \square$

   Which is closest to $\square$?
   (A) 200
   (B) 300
   (C) 400
   (D) 500

9. Edna bought 4 packages of balloons with 6 in each package, and 2 packages with 3 large balloons in each. How many balloons did Edna buy?
   (A) 10
   (B) 15
   (C) 26
   (D) 30

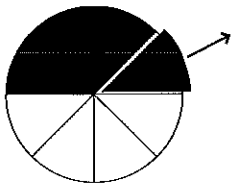
10. $a\overline{)4{,}028}$

    What number is a?
    (A) 0
    (B) 1
    (C) 7
    (D) 4,028

11. $7 + \square = 15$

    Which number is equal to $\square$?
    (A) $15 \div 7$
    (B) $15 - 7$
    (C) 15×7
    (D) $15 + 7$

12. Colleen is 14 years old. She baby-sits for \$4.50 an hour. Yesterday she baby-sat for $3\frac{1}{2}$ hours. Which shows how much she earned?
    (A) $14 \times \$4.50$
    (B) $2 \times 3\frac{1}{2}$
    (C) $3\frac{1}{2} \times \$4.50$
    (D) $(3\frac{1}{2} \times 2) \times \$4.50$

13. 

    Which of the following describes the picture?
    (A) $\frac{4}{8} - \frac{1}{8}$
    (B) $\frac{4}{8} + \frac{1}{8}$
    (C) $\frac{4}{12} - \frac{1}{12}$
    (D) $\frac{4}{12} + \frac{1}{12}$

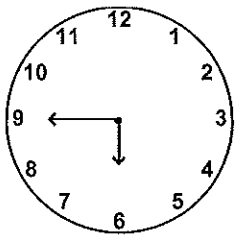
14. $8{,}862 < 8{,}\_\_62$

    What number should be inserted to make the above statement correct?
    (A) 9
    (B) 8
    (C) 7
    (D) It cannot be determined by the information given.

15. A fence is being installed around the 156-meter perimeter of a swimming pool. How many posts will be used if they are spaced 12 meters apart?
(A) 11
(B) 12
(C) 13
(D) 14

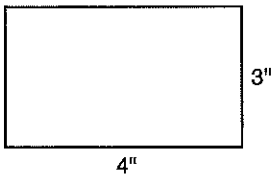
16. What is 28,973 rounded to the nearest thousand?
(A) 30,000
(B) 29,000
(C) 28,900
(D) 28,000

17. The bakery received a shipment of 170 cupcakes that will be sold by the box. If each box holds 12 cupcakes, approximately how many boxes will be needed?
(A) 8
(B) 14
(C) 20
(D) 25

18. 

What time will it be in $3\frac{1}{2}$ hours?
(A) 9
(B) 9:15
(C) 9:30
(D) 9:45

19. Which of these number sentences is NOT true?
(A) $\frac{3}{3}=\frac{5}{5}$
(B) $\frac{5}{5}=\frac{6}{6}$
(C) $\frac{8}{8}=1$
(D) $\frac{7}{8}=\frac{8}{7}$

20. 

What is the area of this figure?
(A) 1 sq. inch
(B) 7 sq. inches
(C) 12 sq. inches
(D) 14 sq. inches

21. In order to make $\frac{7}{8}$ cup of salad dressing with our recipe, you add $\frac{1}{4}$ cup of vinegar to the oil. How much oil will you use?
(A) $\frac{3}{8}$ cup
(B) $\frac{5}{8}$ cup
(C) $\frac{6}{8}$ cup
(D) $\frac{3}{4}$ cup

22. Which digit is in the thousandths place?

A BC
↓ ↓↓
5,000.072

(A) Only A
(B) Only B
(C) Only C
(D) B and C

23. Which is NOT true?

(A) $\frac{6}{8} = \frac{3}{4}$
(B) $\frac{2}{3} = \frac{6}{12}$
(C) $\frac{3}{4} = \frac{12}{16}$
(D) $\frac{3}{9} = \frac{6}{18}$

24. Which sequence of fractions is arranged in order of least to greatest?

(A) $\frac{1}{3}, \frac{1}{18}, \frac{1}{11}, \frac{1}{7}$
(B) $\frac{1}{18}, \frac{1}{11}, \frac{1}{7}, \frac{1}{3}$
(C) $\frac{1}{3}, \frac{1}{7}, \frac{1}{11}, \frac{1}{18}$
(D) $\frac{1}{8}, \frac{1}{7}, \frac{1}{11}, \frac{1}{3}$

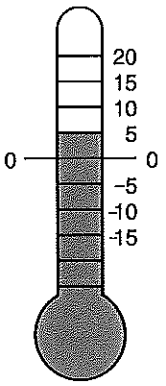
25. In which of the following numbers does the digit 6 have a value 10 times greater than the value of the 6 in 603?

(A) 60
(B) 600
(C) 6,000
(D) 60,000

26. Which quotient would be approximately 5?

(A) $20\overline{)205}$
(B) $20\overline{)500}$
(C) $20\overline{)1000}$
(D) $200\overline{)1005}$

27.



If the temperature decreases by 15 degrees below that shown on the thermometer, what will the new temperature be?

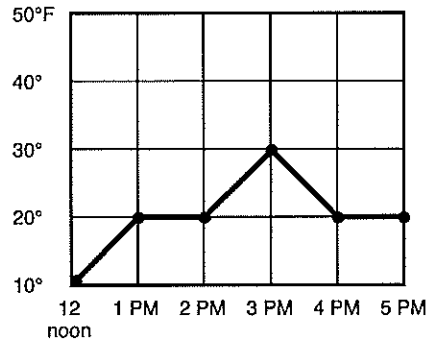
(A) 20°
(B) 10°
(C) –10°
(D) –20°

28. $5 \times (2 + x) = 15$
What number is x?

(A) 1
(B) 2
(C) 4
(D) 5

29. Which of the following has a quotient that is NOT smaller than the dividend?

(A) $0 \div 8$
(B) $1 \div 8$
(C) $2 \div 8$
(D) $8 \div 8$

30. 

Which of the following is shown by the graph?

(A) There was no change in temperature between 1 and 2 p.m.

(B) There was no change in temperature between 3 and 4 p.m.

(C) The highest temperature occurred at 12 noon.

(D) The lowest temperature occurred at 5 p.m.

SECTION 6: QUANTITATIVE COMPARISONS

20 Questions • 20 Minutes

Directions: For each of the following questions, two quantities are given—one in Column A, the other in Column B. Compare the two quantities and mark your answer sheet as follows:

(A) if the quantity in Column A is greater

(B) if the quantity in Column B is greater

(C) if the quantities are equal

(D) if the relationship cannot be determined from the information given

Notes

- Information concerning one or both of the compared quantities will be centered above the two columns for some items.
- Symbols that appear in both columns represent the same thing in Column A as in Column B.
- Letters such as x, n, and k are symbols for real numbers.
- Figures are drawn to scale unless otherwise noted.

	Column A	Column B
1.	$2x + 3 = 5$ $3y + 7 = 10$	
	x	y

	Column A	Column B
2.	$\frac{x}{36} = \frac{1}{3}$	
	$\frac{4}{x}$	$\frac{1}{3}$