N M A T

NATIONAL MEDICAL ADMISSION TEST
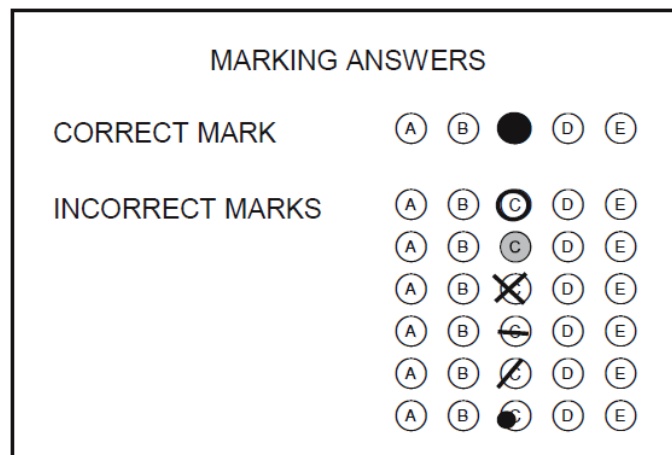
PRACTICE SET

PART I

μ

CENTER FOR EDUCATIONAL MEASUREMENT, INC.

GENERAL DIRECTIONS

Part I of the National Medical Admission Test consists of four subtests. Each subtest contains multiple-choice items.

For each item, select your answer from the options given. On your answer sheet, shade the circle marked with the letter of your chosen answer. For example, if your answer to an item is option C, then completely shade the circle marked C as shown below. Make sure your mark on the circle is dark. Your mark is not dark enough if the letter inside the circle can still be read. Avoid incorrect shading of circles as they may not be recognized as an answer.

MARKING ANSWERS

CORRECT MARK   (A) (B) ● (D) (E)

INCORRECT MARKS   (A) (B) (C) (D) (E)
                      (A) (B) (C) (D) (E)
                      (A) (B) (X) (D) (E)
                      (A) (B) (C) (D) (E)
                      (A) (B) (C) (D) (E)
                      (A) (B) (C) (D) (E)

Make sure you are marking the answer columns corresponding to the item number you are on. Mark only one answer for each item. If you want to change your answer, erase the first answer completely. Incomplete erasures will be interpreted as another answer thereby producing "multiple answers." Items with multiple answers are automatically considered wrong.

Do not write anything on this test booklet. Use the paper provided for your scratch work.

Follow carefully the specific directions for each subtest or section. When you finish a subtest, proceed to the next until you have completed the entire test.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

PRACTICE SET

TEST A. VERBAL

Section 1. Analogies

DIRECTIONS: Each item in this section consists of a series of words. The first word is related to the second in the same way as the third word is related to a fourth one which is missing. Select this missing word from the given choices.

Example:

MAN : WOMAN :: BOY :

(A) child   (C) baby
(B) friend   (D) girl

In this example, the correct answer is <u>D</u>, <u>girl</u>, because it is the only word that is related to BOY in the same way as MAN : WOMAN.

There are other relationships involved in the items aside from that illustrated above.

1. WEIGHT : KILOGRAM :: VOLUME :

(A) liter   (C) intensity
(B) carat   (D) quantity

2. TITRATE : CHEMIST :: INSTALL :

(A) electrician (C) office
(B) equipment   (D) appointee

3. PRAISE : ODE :: LAMENT :

(A) epic   (C) tale
(B) elegy   (D) romance

4. BLOWTORCH : WELD :: DRILL :

(A) fasten   (C) rivet
(B) screw   (D) bore

5. HERO : ADULATION :: SAINT :

(A) asceticism   (C) humility
(B) reverence   (D) celibacy

6. VERTEBRAE : SPINE :: LINKS :

(A) cuff   (C) union
(B) golf   (D) chain

7. DARKEN : LIGHT :: SUPPRESS :

(A) crime   (C) freedom
(B) slavery   (D) justice

8. CONCERT : INTERMISSION :: TRIAL :

(A) summation   (C) interrogation
(B) defense   (D) recess

9. APPLAUSE : PRAISE :: CURTSY :

(A) exit   (C) obedience
(B) servility   (D) respect

10. PATRIOT : LOYAL :: SCHOLAR :

(A) skeptic   (C) intelligent
(B) studious   (D) erudite

11. HAMMER : POUND :: SPEAR :

(A) throw   (C) kill
(B) pierce   (D) hunt

12. TIMEPIECE : SUNDIAL :: MEDIA :

(A) journalist   (C) newscaster
(B) television   (D) communication

13. MUSIC : BEAT :: BALLET :

(A) pirouette   (C) performance
(B) shoes   (D) harmony

14. WATER : THIRST :: SALVE :

(A) ointment   (C) scar
(B) wound   (D) cure

15. BARREL : GUN :: DIAL :

(A) clock   (C) number
(B) channel   (D) hand

PRACTICE SET

16. INDEMNITY : DAMAGE :: BOND :

   (A) levy   (C) surety
   (B) fine   (D) reparation

17. MEETING : AGENDA :: TRAVEL :

   (A) passport   (C) schedule
   (B) destination (D) itinerary

18. CHIEFTAIN : TRIBE :: VICEROY :

   (A) church   (C) embassy
   (B) colony   (D) consulate

19. RECESS : INQUIRY :: REPRIEVE :

   (A) sentence   (C) obligation
   (B) trial   (D) guilt

20. WINE : FERMENTATION :: LIQUOR :

   (A) brewing   (C) distillation
   (B) frothing   (D) pasteurization

Section 2. Reading Comprehension

DIRECTIONS: This section contains several selections. Read each selection carefully, then choose the correct answer to each of the questions asked after the selection.

Selection 1

"Thou canst not stir a flower without troubling of a star," stated the mystical poet Francis Thompson. He exaggerated the links in the fabric of life, but his was, nonetheless, a true insight into the fact that there do exist ecological relationships between living things here on earth and the movements of the heavenly bodies. Not only are earthly organisms affected by light and warmth from the distant moon and sun, but many animals have also been shown to possess mechanisms which accurately measure the sun's position and react to the rhythm of the tides, the phases of the moon, and the motion of our planet.

Twice each day, at dusk and at dawn, there is a shift in the activity of the population that inhabits a community, amounting to almost a complete turnover of the species. Some kinds of plants and animals are stimulated to activity by light; other kinds retreat from it. The varying amounts of light and darkness act as triggers upon the physiology of numerous kinds of animals and plants, signaling them to many activities.

Many forms of life display fairly definite tendencies towards daytime or nighttime activity and many animals can alter their pattern in response to changing needs. In regions where game is hunted persistently, the hunted animals tend to become nocturnal, whereas the same species is diurnal in areas where man has not made deep inroads. Man, as an animal, also apparently possesses a number of built-in rhythms, and his body chemistry has been shown to operate in a rhythmic pattern.

PRACTICE SET

21. The statement "Thou canst not stir a flower without troubling of a star" means that

    (A) one should not disturb things in nature
    (B) there exists a relationship between living things and the universe
    (C) plants should be treated carefully
    (D) some life-forms are largely unaffected by the heavenly bodies

22. Based on the selection, which of the following statements is correct?

    (A) Most forms of life have biological rhythms which are permanent and unchanging.
    (B) Reactions to the seasonal cycle are uniform in different communities.
    (C) Of all the creatures in nature, man alone is independent of its revolving cycles.
    (D) Many animals can alter their diurnal or nocturnal patterns in response to changing needs and environment.

Selection 2

Gitanjali (1961-1977), terminally ill of cancer at 16, wrote one hundred eleven (111) poems in English, most of them about death. Not wishing to alarm her mother, she kept her poems. It was only several months after her death that her mother, Khushi Badruddin, discovered that her daughter was India's Emily Dickinson.

The comparison with the American poet is inevitable, since both women wrote secretly about death, nature, and God. Gitanjali likens death to an "honoured guest," as Dickinson does in "Because I Could Not Stop for Death." Gitanjali's grammatical lapses, in fact, recall those of Dickinson's. But the similarities stop there, because Gitanjali was actually facing death.

Although love of life sometimes overpowers her, Gitanjali repeatedly welcomes death "with open arms." This is not mere resignation. The poet feels that with more time on earth, she may end up having less faith in God. Dying young seems to assure salvation. The poems are indeed deeply religious; many of them are prayers. Gitanjali's parents are Sikhs, and she attended a Catholic school, but she always said her religion was love.

Curiously, some of the poems speak of the poet in the third person, as though Gitanjali was looking at herself objectively. She writes "Illness too is/A gift of God/And Gitanjali accepts it/With grace and in good stride." Perhaps, the strain had become too strong even for the brave young poet. Gitanjali means "song-offering," and the whole volume is an offering of songs to God about what it means to die so young.

23. The main purpose of the author in writing the selection is to show

    (A) the similarities between Dickinson's and Gitanjali's poems
    (B) Gitanjali's prowess in writing poems
    (C) Gitanjali's sentiments towards death as expressed in her poems
    (D) Gitanjali's fears and frustrations

24. Which of the following statements is NOT true of Gitanjali and Dickinson?

    (A) Both wrote about nature and God.
    (B) Both of their works contain grammatical lapses.
    (C) Both likened death to an honored guest.
    (D) Both died at an early age.

25. The third paragraph implies that Gitanjali was

    (A) losing faith in God
    (B) afraid of death
    (C) afraid of life
    (D) not sure of herself

PRACTICE SET

Selection 3

Television, radio, and stereo can be vehicles for great drama, beautiful music, or even redeeming words. But who can claim that for the vast majority of people, these devices are anything other than agents of noise? They are not listened to; they are only heard.

Modern man begins his day with radio noise to wake him up, he has a car radio or CD player to carry him to his work, continues with pipe-in music in the elevator and "on hold" on the office telephone, relaxes by the videoke at the bar, and concludes his day with television chatter. Those who cannot sleep in the silence that descends when the TV is shut off resort to machines that produce "white noise."

Silence has become a vacuum which modern man abhors. It is no longer normal or good in itself. It is understood only as absence of noise. Before noise (B.N.), there were sounds distinguishable from noise, because sounds came out of silence. Silence was the background for sounds.

City dwellers, awash in constant noise, become nervous in the country because the sounds of the country – from the crickets, birds, and animals – are made against the background of silence. There is also less talk in the country because to interrupt the silence, one must have something to say.

In the city, words are part of the general noise – one can say anything in order not to stop talking – and silence is always interpreted as awkwardness. There seems to be a fear that if the noise stops, the city will collapse in silence.

Before the days of widespread TV, the Swiss thinker, Max Picard, offered the notion that people play the radio to make sure that they are still there. This proposition neatly reverses the old conundrum: If a tree falls in a forest, does it make a sound if there is no one there to hear it? This question presumes man exists and asks if sound exists without man's hearing it. The modern form of this question, à la Picard, would reverse these presumptions and have modern man asking, "If there is no noise, how do I know I am really here?"

Solitude and silence are the crucibles of serious thought. To flee them is to flee the conditions necessary for the self-examination that makes life worth living. It is to flee as well the peace that comes only from the orientation of one's life to the ultimate realities – realities that can intrude only when one is still and quiet and open to them.

I am often told that people turn on the radio and television because they are lonely. Noise is used as a tonic for loneliness. It is an acoustic drug. But loneliness is a longing for something which should not be drowned in noise. If one quietly searches for loneliness, one can begin to ask why one is lonely and for what. Loneliness lets us know that we really have nothing adequate for our deepest longing – not in our friends, not in our family, nor in our worldly goods or pleasures.

In what then or in whom are we to find the object of our deepest desire? This is perhaps the most important question that can be asked, and it can be answered only in SILENCE.

26. What conclusion can be deduced from the second paragraph?

    (A) Man is a lover of noise-producing machines.
    (B) Man depends on sounds to keep him functioning.
    (C) Man likes inventions because these are signs of progress.
    (D) Man finds complete relaxation only when surrounded by noise.

27. As used in the selection, what does "conundrum" mean?

    (A) Belief
    (B) Proposition
    (C) Riddle
    (D) Saying

28. What are the effects of solitude and silence on serious thoughts?

    (A) They intensify self-examination.
    (B) They purify the process of thought.
    (C) They heighten loneliness and isolation.
    (D) They develop introspection.

29. Silence is the background for sounds. This statement means that sounds

    (A) are carefully listened to when there is noise
    (B) are heard more distinctly when there is silence
    (C) are easily produced when there is silence
    (D) cannot exist without silence

30. The author believes that

    (A) there can never be silence
    (B) man abhors and tends to avoid solitude
    (C) noise in itself produces silence
    (D) questions are better-answered in silence

Selection 4

When we talk today of the need for some symbol to fuse us into a great people, we seem to forget that all over the country, there lies this wealth of a "usable past" – of symbols that have grown through and through the soil of the land and the marrow of its people. But the past can become "usable" only if we are willing to enter into its spirit and to carry there a reasonably hospitable mind. As long as we regard it with hatred, contempt, and indignation, it will remain hateful and closed to us.

And as long as we remain estranged from it, we will remain a garish and uncouth and upstart people, without graces because without background. Towards our Spanish past, especially, it is time we become more friendly; bitterness but inhibits us.

To accuse the Spanish, over and over again, of having brought us all sorts of things, mostly evil, among which we can usually remember nothing very valuable except, perhaps, religion and national unity, is equivalent to saying of a not very model mother that she has given her child nothing except life. For in the profoundest possible sense, Spain did give birth to us—as a nation, as a historical people.

The poetry of Housman, "Oh, why did I awake? When shall I sleep again?" – expresses a resentment that underlies much of our present vengefulness towards the Spanish. It should also help to explain the sluggishness of which we have been accused, and which, along with the equally famous "fatalism" of ours, may be no more than our blood's memories of the communal tribe-house, where custom and taboo lay heavy upon life, predetermining all action, all speech even; within whose rigid circle – everything being preordained, preestablished – men moved as in a trance, without having to exercise their will, and therefore, without creating history. The dreaminess thick in our nature, our incapacity for decisive thought or action may, if analyzed, be found to derive from our failure so far to break loose completely from primeval carryovers, from those submerged longings for the tight, fixed web of tribal obedience.

The prime work of Christianity for us has been this awakening of the self, this release and expansion of the consciousness, a work undoubtedly still in progress, we being not yet fully awake nor perfectly conscious; immature Christians at best; Catholics but not catholic; enclosed within the Faith as within a sect; having still to realize that to open oneself to this "one of the great, conjoint, and so to term it – necessary products of the human mind . . . rich in the world's experience," is to let in "a great tide of that experience and to make, as it were, with a single step, a great experience of one's own, and with great consequent, increase to one's sense of color, variety, and relief, in the spectacle of men and things."

31. The selection suggests that our lives can have more meaning if we

    (A) become more religious
    (B) profess colonial influence
    (C) accept our past with openness
    (D) study our pre-Spanish customs

32. The writer obviously thinks well of

    (A) our pre-Spanish culture
    (B) our Spanish heritage
    (C) the piety of the Filipino
    (D) the Filipino character

33. Our defects as a people are mostly due to

    (A) attitudes and superstitions from our pre-Spanish past
    (B) ideas taught us by the Spaniards
    (C) our bitterness against Spain
    (D) our refusal to face reality

Selection 5

Buddhism is both a philosophy and a practice. Buddhist philosophy is rich and profound. Buddhist practice is called *Tantra,* a Sanskrit word meaning "to weave."

Buddhist philosophy reached its ultimate development in the second century A.D. No one has been able to improve much on it since then. The distinction between Buddhist philosophy and *Tantra* is well defined. Buddhist philosophy can be intellectualized, *Tantra* cannot. Buddhist philosophy is a function of the rational mind, *Tantra* transcends rationality.

The most profound thinkers of the Indian civilization discovered that words and concepts can take them only so far. Beyond that point came the actual doing of a practice, the experience of which was ineffable. This did not prevent them from progressively refining the practice into an extremely effective and sophisticated set of techniques, but it did prevent them from being able to describe the experience which the techniques produce.

The practice of *Tantra* does not mean the end of rational thought. It means the integration of thought based on symbols into larger spectrums of awareness.

The development of Buddhism in India shows that a profound and penetrating intellectual quest into the ultimate nature of reality can culminate in, or at least, set the stage for, a quantum leap beyond rationality. In fact, on an individual level, this is one of the roads to enlightenment. Tibetan Buddhism calls it the Path without Form or the Practice of the Mind. The Path without Form is prescribed for the people of intellectual temperament. The science of physics is following a similar path.

The development of physics in the twentieth century has already transformed the consciousness of those involved with it. The study of complementarity, the uncertainty principle, the quantum field theory, and the Copenhagen interpretation of quantum mechanics produce insights into the nature of reality very similar to those produced by the study of Eastern philosophy. The profound physicists of this century have increasingly become aware that they are confronting the ineffable.

Max Planck, the father of quantum mechanics, wrote "Science . . . means unresting endeavor and continually progressing development toward an aim which the poetic intuition may apprehend, but which the intellect can never fully grasp."

We are approaching "the end of science." "The end of science" does not mean the end of "unresting endeavor and continually progressing development" of more and more comprehensive and useful physical theories. "The end of science" means the coming of Western civilization, in its own time and in its own way, into the higher dimensions of human experience.

PRACTICE SET

34. Science is seen as an "unresting endeavor" because

    (A) man is never content with his technological gains
    (B) nature is blind
    (C) scientists are too intelligent to stop searching
    (D) man will always seek the truth about himself and nature

35. As used in the selection, the term "ineffable" means

    (A) delightful
    (B) confusing
    (C) inexpressible
    (D) sacred

36. The author suggests that a true scientific pursuit would involve

    (A) a personal confrontation with a supreme force
    (B) an intellectual openness
    (C) a denial of the validity of present formulas
    (D) the wholehearted support of the entire scientific community

37. In referring to "the end of science," the author means that

    (A) science will no longer be needed today
    (B) an entirely new study shall emerge to replace physics
    (C) science can no longer be separate from man's search for truth beyond the physical
    (D) man is approaching the age of extrasensory development

38. The phrase "*Tantra* transcends rationality" means that

    (A) the experience of truth is subject to reason
    (B) practice is equal to theory
    (C) insights gained cannot be put down in words
    (D) symbolic thought becomes part of greater realms of awareness

39. In the second paragraph, the word "transcends" most closely means

    (A) elevates
    (B) exceeds
    (C) ascends
    (D) escapes

40. Which of the following statements show that physics is following a path similar to Tibetan Buddhism?

    (A) Recent trends in the science require a jump beyond existing theories.
    (B) Physicists are actually philosophers.
    (C) Physics is Tibetan in origin.
    (D) Physical hypotheses coincide with Buddhist doctrine.

TEST B. INDUCTIVE REASONING

Section 1. Figure Series

DIRECTIONS: In each of the following items, the series of figures at the left shows a continuously changing pattern. Discover this pattern of change. From the five figures at the right, choose the one which should come next in the series.

Example:

(A)   (B)   (C)   (D)   (E)
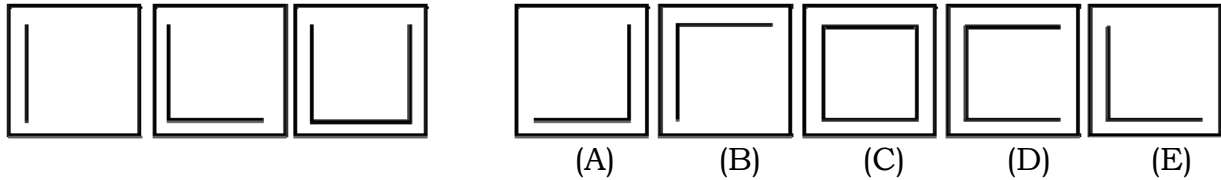
In the example, the three diagrams at the left show a line increasing progressively in such a way as to approach a closed figure. If another line is added, the resulting form would look exactly like figure <u>C</u> at the right. Thus, the correct answer is <u>C</u>.

There are other principles involved in the items aside from that illustrated in the example.
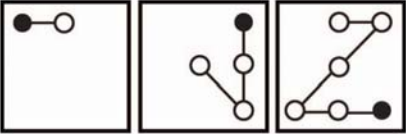
1.   (A)   (B)   (C)   (D)   (E)

2.   (A)   (B)   (C)   (D)   (E)

3.   (A)   (B)   (C)   (D)   (E)

GO ON TO THE NEXT PAGE ⇨

4.

(A) (B) (C) (D) (E)

5.

(A) (B) (C) (D) (E)

6.

(A) (B) (C) (D) (E)

7.

(A) (B) (C) (D) (E)

8.

(A) (B) (C) (D) (E)

9.

(A) (B) (C) (D) (E)

PRACTICE SET

Section 2. Figure Grouping

DIRECTIONS: Each item in this section consists of five figures, four of which are similar in some respect. Choose the figure that is different from the other four.

Example:

(A) (B) (C) (D) (E)
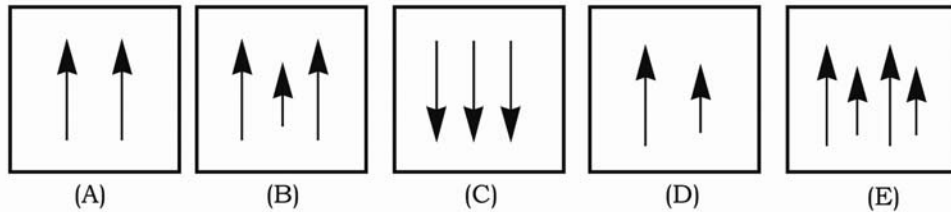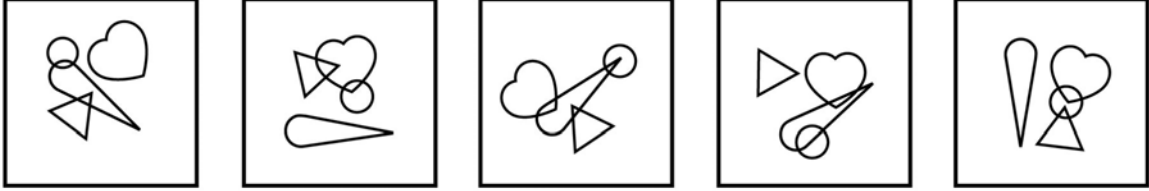
In the example, the correct answer is figure <u>C</u>, because the arrows are all pointing downward, whereas the arrows in each of the other figures are all pointing upward.

There are other principles involved in the items aside from that illustrated in the example.

10.

(A) (B) (C) (D) (E)

11.

(A) (B) (C) (D) (E)

12.

(A) (B) (C) (D) (E)

GO ON TO THE NEXT PAGE ⇨

13. (A) (B) (C) (D) (E)

14. (A) (B) (C) (D) (E)

15. (A) (B) (C) (D) (E)

16. (A) (B) (C) (D) (E)

17. (A) (B) (C) (D) (E)

18. (A) (B) (C) (D) (E)

PRACTICE SET
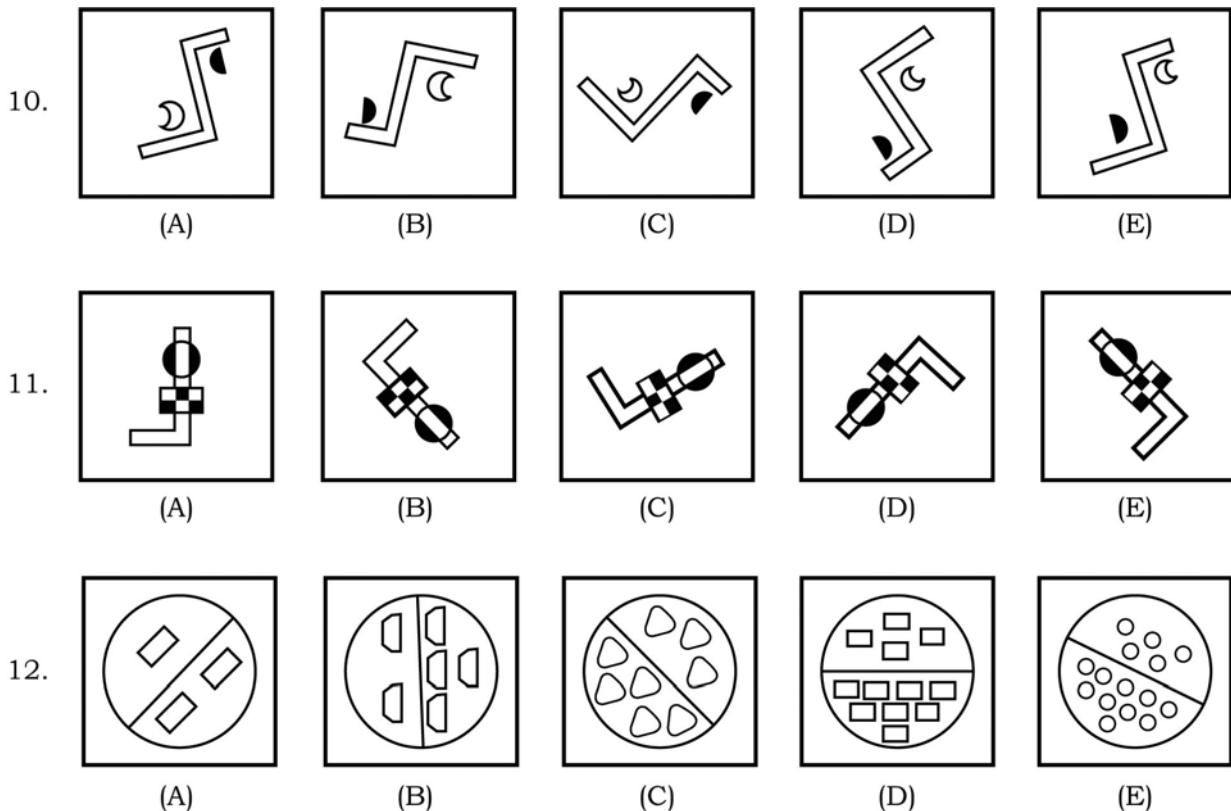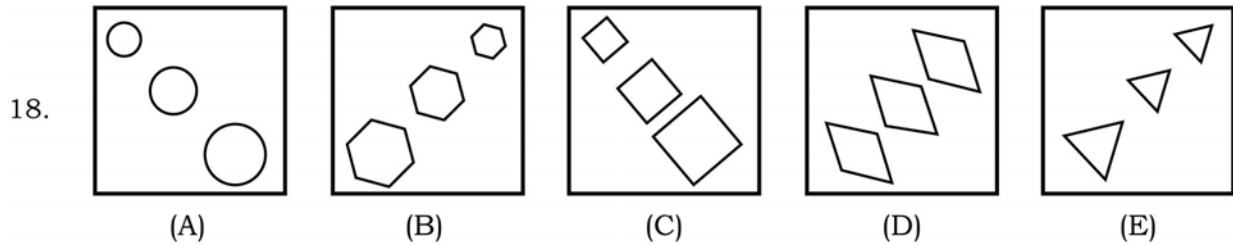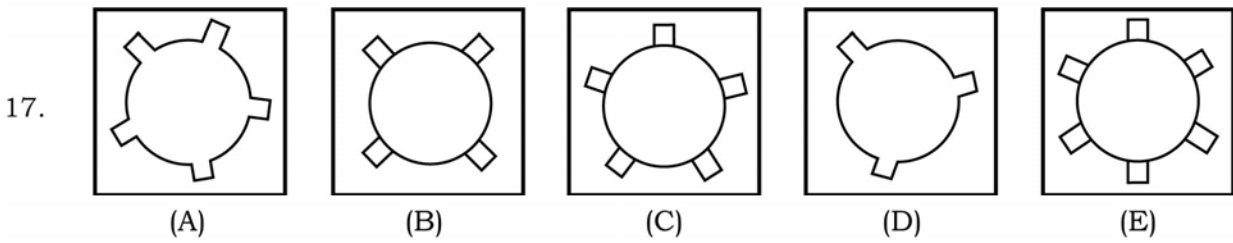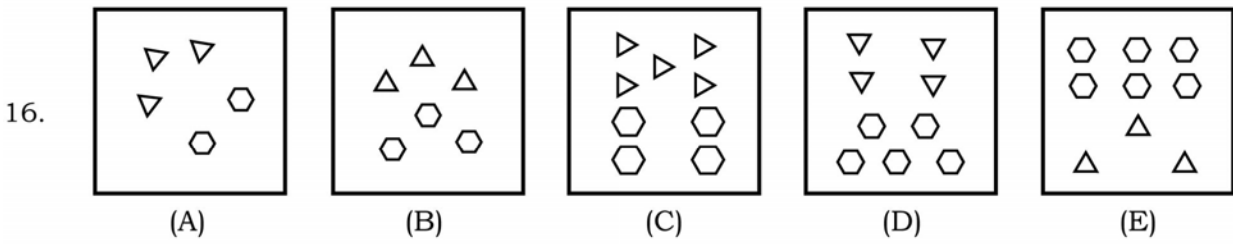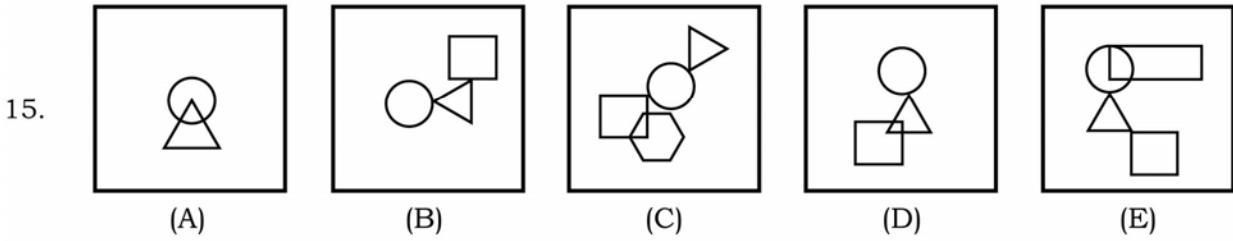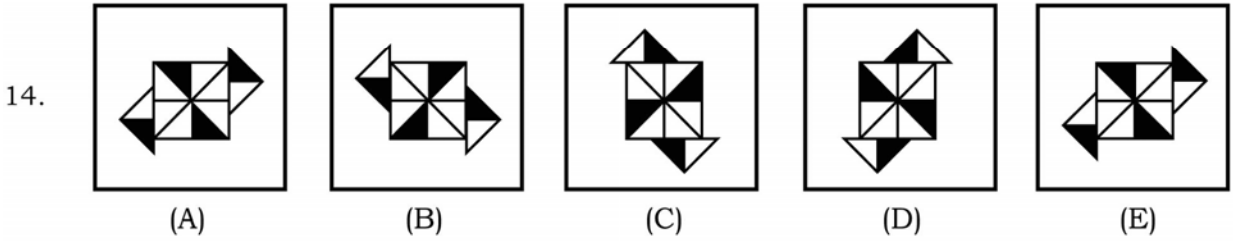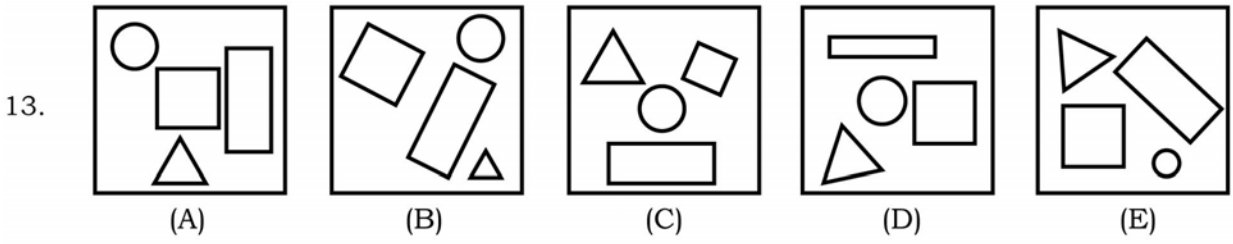
19.

    (A)   (B)   (C)   (D)   (E)

20.

    (A)   (B)   (C)   (D)   (E)

GO ON TO THE NEXT PAGE ⇨

PRACTICE SET

Section 3. Number and Letter Series

DIRECTIONS: In the following items, discover the principle involved in the series. Select from the five choices the number or letter that should come next in the series.

Examples:

1.   2   4   6   8   10

   (A)   1   (D)   14
   (B)   12   (E)   13
   (C)   16

2.   A   C   E   G   I

   (A)   J   (D)   H
   (B)   L   (E)   M
   (C)   K

In example 1, the correct answer is B, because 2 is added to a number to obtain the next number. In example 2, the correct answer is C, because the given succession of letters has intervals of two.

There are other principles involved in the items aside from those illustrated in the examples.

21. 13   9   15   7   17   5

   (A)   17   (D)   18
   (B)   19   (E)   21
   (C)   15

22. 3   2   4   3   9   8

   (A)   22   (D)   64
   (B)   17   (E)   24
   (C)   7

23. X   T   W   R   U   P   R

   (A)   L   (D)   M
   (B)   N   (E)   O
   (C)   P

24. WU   PR   MK   FH

   (A)   DB   (D)   AC
   (B)   BD   (E)   DA
   (C)   CA

25. 31   17   34   22   44   34   68

   (A)   58   (D)   272
   (B)   136   (E)   60
   (C)   544

26. A   E   H   J   N

   (A)   P   (D)   Q
   (B)   R   (E)   S
   (C)   O

27. BYE   GYJ   LYO   QYT

   (A)   VYZ   (D)   VVW
   (B)   VYY   (E)   VYX
   (C)   WYY

28. 10   11   16   18   23   26

   (A)   27   (D)   29
   (B)   32   (E)   31
   (C)   30

29. C   M   E   Q   G   U   I

   (A)   K   (D)   W
   (B)   M   (E)   X
   (C)   Y

30. 22   11   26   16   31   22   37

   (A)   29   (D)   52
   (B)   30   (E)   28
   (C)   33

31. CD   MN   FG   RS   IJ

   (A)   XW   (D)   MN
   (B)   LM   (E)   WX
   (C)   VW

PRACTICE SET

GO ON TO THE NEXT PAGE ⟹

32. 26   16   21   12   18   10   17

(A) 11   (D) 10
(B) 24   (E) 25
(C)   8

33. ABC   FAG   KLA   AOP   TAU

(A) WXA   (D) AXY
(B) AXW   (E) XYA
(C) WAX

34. 9   18   16   32   30

(A) 28   (D) 36
(B) 60   (E) 90
(C) 32

35. FIG   CFD   KNL   HKI   PSQ

(A) UXV   (D) MPN
(B) LOM   (E) MQO
(C) TWU

36. 8   12   15   21   24   32

(A) 35   (D) 40
(B) 42   (E) 36
(C) 39

37. CD   VU   HI   QP   MN

(A) KL   (D) SR
(B) RS   (E) LK
(C) KJ

38. 11   8   18   13   22   15

(A)   3   (D)   4
(B)   7   (E) 22
(C) 23

39. ETC   HRJ   OPM   RNT

(A) XLV   (D) WLY
(B) YLW   (E) YMW
(C) VMX

40. 18   9   27   24   12   36

(A) 72   (D)   18
(B) 33   (E) 108
(C) 39

GO ON TO THE NEXT PAGE ⇨

PRACTICE SET

TEST C. QUANTITATIVE

Section 1. Fundamental Operations

DIRECTIONS: In the following items, select the correct answer from the given choices.

Example:

$$6 \times 2 \div 4 =$$

(A) 3   (C) 6
(B) 4   (D) 8

The correct answer is <u>A</u>.

1. $96 \div 8 \div 4 =$

(A) 2   (C) 4
(B) 3   (D) 12

2. $5{,}845 + 24{,}768 - 9{,}651 - 7{,}325 =$

(A) 13,637   (C) 20,962
(B) 13,647   (D) 23,288

3. $515 + 309 - 423 - 716 + 400 =$

(A) 75   (C) 185
(B) 85   (D) 715

4. $2(x - y) + 3 + (x + 3y) - 2(x + 1) =$

(A) $x - y + 1$ (C) $y + 1$
(B) $x + y + 1$ (D) $x + 1$

5. $1 + \dfrac{6}{x} + \dfrac{9}{x^2} =$

(A) $(x + 3)^2$ (C) $(x^2 + 9)x^2$

(B) $\dfrac{x^2 + 9}{x^2}$ (D) $\dfrac{(x + 3)^2}{x^2}$

6. $\left(4\sqrt{3}\right)\left(5\sqrt{3}\right) =$

(A) $20\sqrt{3}$ (C) 60
(B) 27   (D) 180

7. $(x + y)^3 + (x - y)^3 =$

(A) $2x(x^2 + 3y^2)$ (C) $2y(y^2 + 3x)$
(B) $2x^2(x + 3y)$ (D) $2y^2(y + 3x)$

8. $\dfrac{x + \dfrac{2x}{x - 2}}{1 + \dfrac{4}{x^2 - 4}} =$

(A) $x^2 + 4$ (C) $x + 4$
(B) $x^2 + 2$ (D) $x + 2$

9. $\dfrac{\left(25^{-1}\right) + \left(25^{-2}\right)}{\left(625^{0}\right)\left(25^{-2}\right)} =$

(A) 26   (C) $\dfrac{1}{5}$

(B) $\dfrac{25}{26}$ (D) 0

10. $3^{n+2} + \left(3^{n+3} - 3^{n+1}\right) =$

(A) $\dfrac{1}{3^{n+1}}$ (C) $\dfrac{3}{8}$

(B) $\dfrac{1}{3^{n+2}}$ (D) $\dfrac{1}{3}$

11. $2 - 2(3 - x) + x =$

(A) $-4 + 2x$ (C) $3x - 4$
(B) $3 + 2x$ (D) $-4 - x$

18

Section 2. Problem Solving

DIRECTIONS: Solve each problem and select the correct answer from the given choices.

Example:

If a man drives p kilometers in x hours, then his average rate per hour is

(A) $\dfrac{p}{x}$ (C) px

(B) $\dfrac{x}{p}$ (D) $\dfrac{px}{60}$

The correct answer is <u>A</u>.

12. What is the perimeter of a regular hexagon if the length of one side is equal to x?

(A) 5x   (C) 7x
(B) 6x   (D) 8x

13. One box measures 7 meters by 15 meters by 8 meters. Another box measures 8 meters by 9 meters by 10 meters. By how many cubic meters is the volume of one box greater than the other?

(A) 37 m^3 (C) 120 m^3
(B) 57 m^3 (D) 840 m^3

14. A patient needs to take a certain tablet for 7 days. If he has to take one tablet every 3 hours, how many tablets does he need?

(A) 21   (C) 49
(B) 28   (D) 56

15. The jeepney fare for the first 4 kilometers is ₱9.50 and for each additional kilometer, 25¢ is added. How much is the fare for a 17-kilometer distance?

(A) ₱13.00   (C) ₱13.25
(B) ₱12.75   (D) ₱11.75

16. Mrs. Santos can finish 4 place mats for every 3 that her daughter finishes. If Mrs. Santos finishes 16 place mats in one week, how many place mats in all can mother and daughter finish together in 4 weeks?

(A) 112   (C) 92
(B) 102   (D) 64

In items 17 and 18, refer to the following information:

In a list of numbers, the first is 2, the second is 7, and each subsequent number is the sum of all the preceding numbers.

17. What is the fifth number in the list?

(A) 18   (C) 36
(B) 22   (D) 72

18. If the 100th number in the list is x, what is the 103rd number in the list?

(A) x + 3   (C) 3x
(B) x + 8   (D) 8x

19. The sum of two numbers is 19. If 5 times the smaller number is 3 less than twice the larger number, what are the numbers?

(A) 12 and 7   (C) 14 and 5
(B) 13 and 6   (D) 15 and 4

20. If out of the top 1,000 corporations in the Philippines, 45% were established before January 1, 1980 and 25% were established before January 1, 1970, how many of these corporations were established between January 1, 1970 and January 1, 1980?

(A) 180   (C) 300
(B) 200   (D) 380

21. From a 6 x 5 in^2 cardboard are cut a 2 x 4 in^2 rectangle, a 9 in^2 square, and a circle with a radius of 1 in. What is the area of the remaining cardboard?

    (A) $(18 - \pi)$ in^2
    (C) $(18 - 2\pi)$ in^2
    (B) $(13 - \pi)$ in^2
    (D) $(13 - 2\pi)$ in^2

{1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233}

22. In the number series above, what is the probability of getting an even number?

    (A) $\dfrac{1}{3}$
    (C) $\dfrac{1}{2}$

    (B) $\dfrac{5}{12}$
    (D) $\dfrac{2}{3}$

23. Each month, John spends $\dfrac{2}{5}$ of his income for food, $\dfrac{1}{10}$ for clothing, $\dfrac{1}{4}$ for housing, $\dfrac{1}{20}$ for utilities, and deposits the remainder in his savings account.
    If he saves ₱4,500 a month, how much is his monthly income?

    (A) ₱45,000
    (C) ₱20,000
    (B) ₱22,500
    (D) ₱18,000

Net Income	Tax Due
Over ₱50,000 but not over ₱100,000	₱250 + 3% of excess over ₱50,000
Over ₱100,000 but not over ₱200,000	₱1,750 + 7% of excess over ₱100,000
Over ₱200,000 but not over ₱400,000	₱8,750 + 11% of excess over ₱200,000

24. Miss Lea Mijares paid a tax of ₱14,250. Based on the table shown above, how much was her net income?

    (A) ₱329,545.40
    (C) ₱210,317.50
    (B) ₱250,000.00
    (D) ₱205,500.00

GO ON TO THE NEXT PAGE ⇨

PRACTICE SET

Section 3. Data Interpretation

DIRECTIONS: In this section, some sets of data are given. Each set is followed by questions regarding the data. Select the correct answer from the options given.

The table below gives the distribution of Science majors in a university.

Area	Number of Students
Mathematics	200
Physics	130
Biology/Zoology/Botany	560
Chemistry	180
Geology/Meteorology/Oceanography	80

25. Approximately what percent of the Science majors are Chemistry majors?

(A)   10%   (C)   18%
(B)   16%   (D)   20%

26. Which area(s) has(have) 10% less students than Mathematics?

(A)   Physics
(B)   Chemistry
(C)   Geology/Meteorology/Oceanography
(D)   Physics and Geology/Meteorology/ Oceanography combined

27. If the ratio of the students in Biology, Zoology, and Botany is 4 : 3 : 1, how many are Zoology majors?

(A)   80   (C)   210
(B)   187   (D)   280

28. The number of Mathematics and Geology/Meteorology/Oceanography majors combined is equal to what part of the Biology/Zoology/Botany majors?

(A) $\dfrac{1}{4}$ (C) $\dfrac{1}{2}$

(B) $\dfrac{1}{3}$ (D) $\dfrac{2}{3}$

GO ON TO THE NEXT PAGE $\Rightarrow$

PRACTICE SET

Registered Aliens by Nationality
1981 – 1985

Nationality	Number of Registered Aliens				
	1981	1982	1983	1984	1985
Chinese	39,233	24,826	24,509	23,796	2,466
American	7,823	5,203	5,144	4,916	2,831
Spanish	369	232	250	219	44
Hindu	832	649	738	657	781
British	1,421	685	522	432	384
German	264	100	75	60	228
Belgian	98	63	49	52	14
Mixed Nationality	1,960	1,095	1,096	1,495	3,543
Total	52,000	32,853	32,383	31,627	10,291

29. From 1981 to 1984, approximately how many percent of the total registered aliens were Chinese?

(A)   24%   (C)   75%
(B)   69%   (D)   80%

30. In 1982, the number of registered aliens decreased. Which nationality registered the lowest decrease?

(A)   Belgian   (C)   Hindu
(B)   German   (D)   Chinese

31. In which period was the percentage of decrease of British registrants the lowest?

(A)   1981 – 1982
(B)   1982 – 1983
(C)   1983 – 1984
(D)   1984 – 1985

32. How many percent of the registered Germans in 1981 is 50% of the same group in 1983?

(A)   7.1%   (C)   28.0%
(B)   14.2%   (D)   56.8%

33. The difference in the total number of registered aliens in 1982 and that in 1985 was approximately

(A)   less than one third
(B)   one third
(C)   one half
(D)   two thirds

34. Which nationalities showed consistently decreasing number of registrants from 1981 to 1985?

    I.   Chinese
   II.   American
  III.   Spanish
   IV.   British
    V.   Belgian

(A)   I and II only
(B)   I, III, and V only
(C)   I, II, and IV only
(D)   I, II, III, IV, and V

PRACTICE SET

The table below shows the participation of youth in the formal school system based on a survey.

Age Range	Level	In School (Participating)	Out of School (Nonparticipating)	Total
I. 0 – 6	Nursery/ Kindergarten	263,188	10,087,443	10,350,631
II. 7 – 12	Elementary	7,383,351	288,609	7,671,960
III. 13 – 16	Secondary	4,297,132	589,269	4,886,401
IV. 17 – 24	Postsecondary	1,588,719	7,252,343	8,841,062
	Total	13,532,390	18,217,664	31,750,054

35. If the four age groups were arranged according to decreasing rate of participation in their respective school levels, the order would be

   (A) I, II, III, IV
   (B) II, III, IV, I
   (C) I, IV, III, II
   (D) II, IV, III, I

36. What proportion of the total youth population comprises those who are NOT attending school?

   (A) 82.03%
   (B) 74.28%
   (C) 57.38%
   (D) 42.62%

37. Based on the given data, which of the following conclusions can be made?

   (A) The rate of participation in the formal school system is generally lower than the rate of nonparticipation.
   (B) The major cause for nonparticipation in formal schooling at the postsecondary level is poverty.
   (C) The rate of participation in each age group is lower than the rate of nonparticipation.
   (D) There is a low rate of attendance in the 0 – 6 age group because most of these children are not yet of school age.

GO ON TO THE NEXT PAGE ⇨

PRACTICE SET

Pie Chart of the Workforce in a Manufacturing Firm
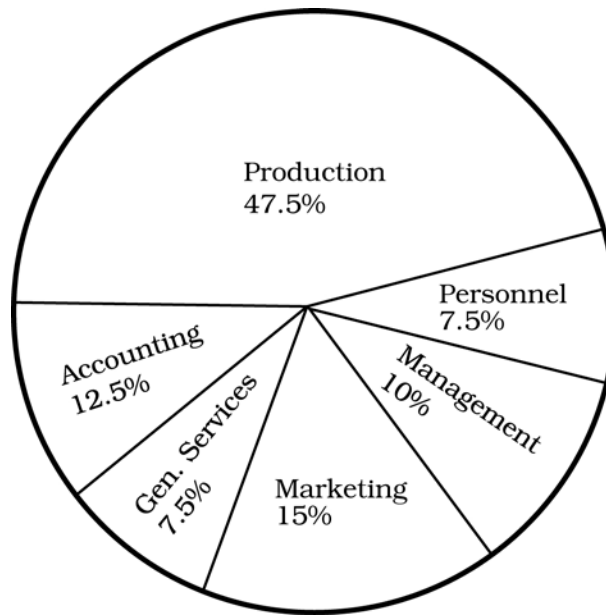
38. If there are 200 employees in the firm, how many are in the Production Department?

(A) 47   (C) 105
(B) 95   (D) 421

39. How many employees are there in the General Services Department if there are 200 employees in the Marketing and Management Departments?

(A) 800   (C) 50
(B) 60   (D) 15

40. Ten percent of the Production people are females. If there are 400 employees in the firm, how many females are in the Production Department?

(A) 19   (C) 150
(B) 40   (D) 171

GO ON TO THE NEXT PAGE ⇨

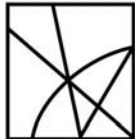PRACTICE SET

TEST D. PERCEPTUAL ACUITY
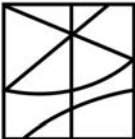
Section 1. Hidden Figure
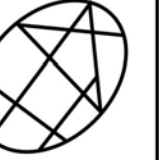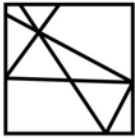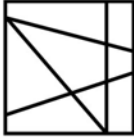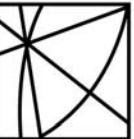
DIRECTIONS: Each item in this section is made up of a simple figure at the left and five complicated drawings at the right. Select the complicated drawing that contains the simple figure. The hidden figure may appear in a different position, but it must have the same shape and size as the simple figure.

Example:
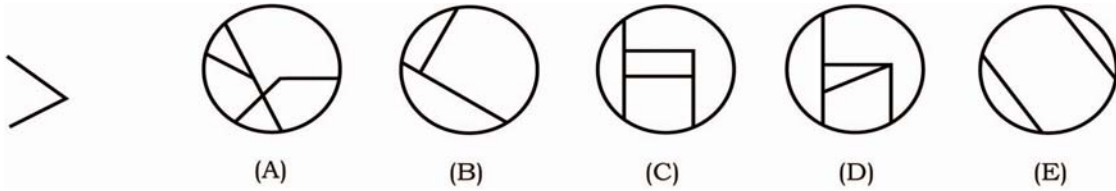
(A)   (B)   (C)   (D)   (E)

In the example, the correct answer is <u>D</u>, because it contains the simple figure at the left.

PRACTICE SET

		(A)	(B)	(C)	(D)	(E)
4.						
5.						
6.						
7.						
8.						
9.						

PRACTICE SET

GO ON TO THE NEXT PAGE ⇨

26

10.		(A)	(B)	(C)	(D)	(E)
11.		(A)	(B)	(C)	(D)	(E)
12.		(A)	(B)	(C)	(D)	(E)

GO ON TO THE NEXT PAGE ⇨

Section 2. Mirror Image

DIRECTIONS: Each item in this section consists of a figure followed by five options. Select from the options the mirror image of the given figure.
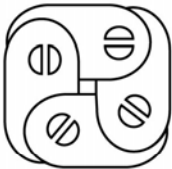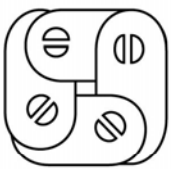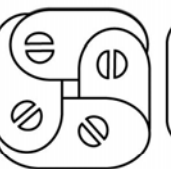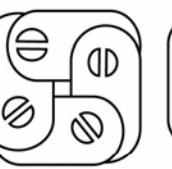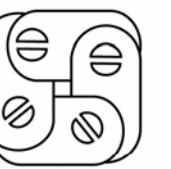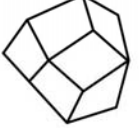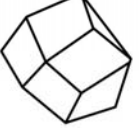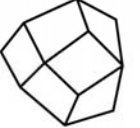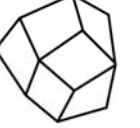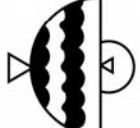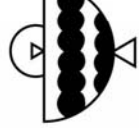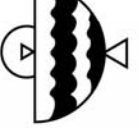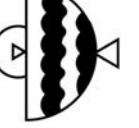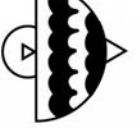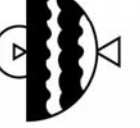
Example:

In the example, the correct answer is C̲.

13.

14.

15.

PRACTICE SET

16.

17.

18.

19.

20.

21.

GO ON TO THE NEXT PAGE ⇨

22.

23.

24.

25.

GO ON TO THE NEXT PAGE ⇨

PRACTICE SET

PS_NMAT_P1_0814

Section 3. Identical Information

DIRECTIONS: Each item in this section consists of a name and an address, a bibliographical entry, or a sentence. From the options that follow, select the one which exactly matches the given information in word sequence, spelling, and punctuation.

Example:

Rx Laboratories,
275-D West Ave.,
Lansing, Turkey

(A) Rx Laboratories, 275-D West Ave., Lansin, Turkey

(B) Rx Laboratories, 275-D West Ave., Lansing, Turkey

(C) Rx Laboratory, 275-D West Ave., Lansing, Turkey

(D) Rx Laboratories, 2750 West Ave., Lansing, Turkey

(E) Rx Laboratories, 275 D West Ave., Lansing, Turkey

In the example, the correct answer is B, because the name and address in option B are exactly the same as the one given although the way it is written is different.

26. Dosage: 3 – 4 caps daily in divided doses after meals

(A) Dosage: 3 – 4 cups daily in divided doses after meals

(B) Dosage: 3 – 4 caps daily in divided dozes after meals

(C) Dosage: 3 – 4 caps daily in divided doses after meals

(D) Dosage: 3 – 4 caps daily in divided doses after meal

(E) Dosage: 2 – 4 caps daily in divided doses after meals

27. Indications: In the prophylaxis and treatment of Vitamin B-complex deficiencies.

(A) Indications: In the prophylaxis and threatment of Vitamin B-complex deficiencies.

(B) Indications: In the prophylaxis and treatment of Vitamin B-complex dificiencies.

(C) Indications: In the prophylaxis and treatment of Vitamin B-complex deficiencies.

(D) Indications: In the prophylaxis and treatment of Vitamin D-complex deficiencies.
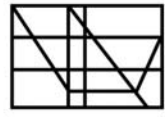
(E) Indications: In the prophylaxis and treatment of Vitamin B-complex deficiensies.

28. Clarke, R.P., Heredity,
3rd Edition, Prentice-Hall
Englewood Cliffs, N.J., 1963.

(A) Clarke, R.P., Heredity,
3rd Edition, Prentice-Hall
Englewood Cliffs, N.Y., 1963.

(B) Clarke, R.P., Heredity,
3rd Edition, Prentice-Hall
Englewood Cliffs, N.J., 1963.

(C) Clark, R.P., Heredity,
3rd Edition, Prentice-Hall
Englewood Cliffs, N.J., 1963.

(D) Clarke, R.P., Heredity,
3rd Edition, Prentice-Hale
Englewood Cliffs, N.J., 1963.

(E) Clarke, P.R., Heredity,
3rd Edition, Prentice-Hall
Englewood Cliffs, N.J., 1963.

PRACTICE SET

29. Vitamin K, the antihemorrhagic vitamin, is necessary for production of prothrombin in the liver.

    (A) Vitamin K, the antihemorhagic vitamin, is necessary for production of prothrombin in the liver.

    (B) Vitamin K, the antihemorrhagic vitamin, is necessary for production of prothrombon in the liver.

    (C) Vitamin K, the antihemorrhagic vitamin, is necessary for production of prothrombin on the liver.

    (D) Vitamin K, the antihemorrhagic vitamin, is necessary for production of prothrombin in the liver.

    (E) Vitamin K, the antihemorrhagic vitamin is necessary for production of prothrombin in the liver.

30. Yucuanseh Drug, Inc.
    284 Dasmariñas Street
    P.O. Box 1761
    Manila, Philippines

    (A) Yucuanseh Drug, Inc.
        284 Dasmariñas St.
        P.O. Box 1761
        Manila, Philippines

    (B) Yucuanseh Drug, Inc.
        284 Dasmariñas Street
        P.O. Box 1671
        Manila, Philippines

    (C) Yucuanseh Drug, Inc.
        284 Dasmariñas Street
        P.O. Box 1761
        Manila, Phillipines

    (D) Yucuanseh Drug, Inc.
        284 Dasmariñas Street
        P.O. Box 1761
        Maynila, Philippines

    (E) Yucuanseh Drug, Inc.
        284 Dasmariñas Street
        P.O. Box 1761
        Manila, Philippines

31. Franks, J., et al. 1959. The role of anxiety in psychophysiological reactions. A.M.A. Arch. Neurol. Psychiat., 81:227-232.

    (A) Franks, J., et al. 1959. The role of anxiety in psychophysiological reaction. A.M.A. Arch. Neurol. Psychiat., 81:227-232.

    (B) Franks, J., et al. 1959. The role of anxiety in physiopsychological reactions. A.M.A. Arch. Neurol. Psychiat., 81:227-232.

    (C) Franks, J., et al. 1959. The role of anxiety in psychophysiological reactions. A.W.A. Arch. Neurol. Psychiat., 81:227-232.

    (D) Franks, J., et al. 1959. The role of anxiety in psychophysiological reactions. A.M.A. Arch. Neurol. Psychiat., 81:227-232.

    (E) Franks, J., et al. 1959. The role of anxiety in psychophysiological reactions. A.M.A. Arch. Neuro. Psychiat., 81:227-232.

32. Phenolphthalein is obtained by heating phthalic anhydride in the presence of sulfuric acid.

    (A) Phenolphthalein is obtained by heating pthalic anhydride in the presence of sulfuric acid.

    (B) Phenolphthalein is obtained by heating phthalic anhydride in the absence of sulfuric acid.

    (C) Phenophthalein is obtained by heating phthalic anhydride in the presence of sulfuric acid.

    (D) Phenolphthalein is obtained by heating phthalic anhydride in the presence of sulfurus acid.

    (E) Phenolphthalein is obtained by heating phthalic anhydride in the presence of sulfuric acid.

33. Books on China Rare & O/P. Also Japan & SE Asia. Latest catalogue from Oxus Books, 121 Astonville St., London SW 18.

    (A) Books on China Rare & O/P. Also Japan & SE Asia. Latest catalogoe from Oxus Books, 121 Astonville St., London SW 18.

    (B) Books on China Rare & O/P. Also Japan & SE Asia. Latest catalogue from Oxus Books, 121 Astonvilla St., London SW 18.

    (C) Books on China Rare & O/P. Also Japan & SE Asia. Latest catalogue from Onus Books, 121 Astonville St., London SW 18.

    (D) Books on China Rare & O/P. Also Japan & SE Asia. Latest catalogue from Oxus Book, 121 Astonville St., London SW 18.

    (E) Books on China Rare & O/P. Also Japan & SE Asia. Latest catalogue from Oxus Books, 121 Astonville St., London SW 18.

34. Isolation and antimicrobial therapy are essential to abort epidemic infantile diarrhea.

    (A) Isolation and antimicrobial therapy are essential to abort epidemic infantile diarhea.

    (B) Isolation and antimicrobial therapy are essential to abort epidemic infantile diarrhea.

    (C) Isolation and antimicorbial therapy are essential to abort epidemic infantile diarrhea.

    (D) Isolation and antimicrobial therapy are esential to abort epidemic infantile diarrhea.

    (E) Isolation and antimicrobial therapy were essential to abort epidemic infantile diarrhea.

35. Skye, 13 miles off the northwest coast of Scotland, is the largest and most famous of the Hebrides.

    (A) Skye, 13 miles off the northeast coast of Scotland, is the largest and most famous of the Hebrides.

    (B) Skye, 13 miles off the northwest coast of Scotland is the largest and most famous of the Hebrides.

    (C) Skye, 13 miles of the northwest coast of Scotland, is the largest and most famous of the Hebrides.

    (D) Skye, 13 miles off the northwest coast of Scotland, is the largest and most famous of the Hebriles.

    (E) Skye, 13 miles off the northwest coast of Scotland, is the largest and most famous of the Hebrides.

36. Phosphorous acid, H_3PO_3, can be prepared by the action of water upon P_4O_6, PCl_3, PBr_3, or PI_3.

    (A) Phosphorous acid, H_3PO_3, can be prepared by the action of water upon P_4O_6, P_3Cl, PBr_3, or PI_3.

    (B) Phosphorous acid, H_3PO_3, can be prepared by the action of water upon P_6O_4, PCl_3, PBr_3, or PI_3.

    (C) Phosphorous acid, HPO_3, can be prepared by the action of water upon P_4O_6, PCl_3, PBr_3, or PI_3.

    (D) Phosphorous acid, H_3PO_3, can be prepared by the action of water upon P_4O_6, PCl_3, PBr_3, or PI_3.

    (E) Phosphouros acid, H_3PO_3, can be prepared by the action of water upon P_4O_6, PCl_3, PBr_3, or PI_3.

PRACTICE SET

37. The end product of glycolysis is pyruvic acid, an important source of energy in all aerobic cells.

    (A) The end product of glycolyses is pyruvic acid, an important source of energy in all aerobic cells.

    (B) The end product of glycolysis is pyruvic acid, an important source of energy in all airobic cells.

    (C) The end product of glycolysis is pryuvic acid, an important source of energy in all aerobic cells.

    (D) The end product of glycolysis is pyruvic acid, an important source of energy in all aerobic cells.

    (E) The end products of glycolysis is pyruvic acid, an important source of energy in all aerobic cells.

38. Ku Choi Tong Chinese Drug Store
    Cubao Branch No. 3
    2369 Aurora Blvd., Q.C.

    (A) Ku Chai Tong Chinese Drug Store
         Cubao Branch No. 3
         2369 Aurora Blvd., Q.C.

    (B) Ku Choi Tong Chinese Drug Store
         Cubao Branch No. 3
         2396 Aurora Blvd., Q.C.

    (C) Ku Choi Tong Chinese Drug Store
         Cubao Branch No. 3
         2369 Aurora Blvd, Q.C.

    (D) Ku Choi Tong Chinese Drug Store
         Cubao Branch No. 8
         2369 Aurora Blvd., Q.C.

    (E) Ku Choi Tong Chinese Drug Store
         Cubao Branch No. 3
         2369 Aurora Blvd., Q.C

39. Beijing Medical College: Xue Huan Lu, Northern Suburb, Beijing, China

    (A) Beijing Medical College: Sue Huan Lu, Northern Suburb, Beijing, China

    (B) Beijing Medical College: Xue Huan Lee, Northern Suburb, Beijing, China

    (C) Biejing Medical College: Xue Huan Lu, Northern Suburb, Beijing, China

    (D) Beijing Medical College: Xue Huan Lu, Northern Suburd, Beijing, China

    (E) Beijing Medical College: Xue Huan Lu, Northern Suburb, Beijing, China

40. Depigmentation is a feature of old burn, scars, leprosy, and vitiligo.

    (A) Depigmentation is a feature of old burn, scars, leprosy and vitiligo.

    (B) Depigmentation is a feature of old burns, scars, leprosy, and vitiligo.

    (C) Dipegmentation is a feature of old burn, scars, leprosy, and vitiligo.

    (D) Depigmentation is a feature of old burn, scars, leprosy, and vitiligo.

    (E) Depigmentation is a feature of old burn, scars, leprosy, and witiligo.

STOP!
WAIT FOR FURTHER
INSTRUCTIONS.

PRACTICE SET

N M A T

NATIONAL MEDICAL ADMISSION TEST

PRACTICE SET

PART II

μ

CENTER FOR EDUCATIONAL MEASUREMENT, INC.

GENERAL DIRECTIONS

Part II of the National Medical Admission Test consists of four subtests. Each subtest contains multiple-choice items.

For each item, select your answer from the options given. On your answer sheet, shade the circle marked with the letter of your chosen answer. For example, if your answer to an item is option C, then completely shade the circle marked C as shown below. Make sure your mark on the circle is dark. Your mark is not dark enough if the letter inside the circle can still be read. Avoid incorrect shading of circles as they may not be recognized as an answer.

Make sure you are marking the answer columns corresponding to the item number you are on. Mark only one answer for each item. If you want to change your answer, erase the first answer completely. Incomplete erasures will be interpreted as another answer thereby producing "multiple answers." Items with multiple answers are automatically considered wrong.

Do not write anything on this test booklet. Use the paper provided for your scratch work.

When you finish a subtest, proceed to the next until you have completed the entire test.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

PRACTICE SET

TEST A. BIOLOGY

1. Chromosomes become most distinct during cell

    (A) reproduction
    (B) respiration
    (C) metabolism
    (D) transpiration

2. In which pair of organelles are light and chemical energies transformed?

    (A) Centriole and ribosome
    (B) Chloroplast and lysosome
    (C) Chloroplast and mitochondrion
    (D) Golgi apparatus and microtubule

3. Which of the following is the function of the nuclear membrane?

    (A) It controls the activities of the cell.
    (B) It encloses the cytoplasm.
    (C) It surrounds the nucleus.
    (D) It supplies energy for the cell.

4. The chemical responsible for most synaptic transmission in neurons is the

    (A) adrenaline
    (B) choline
    (C) noradrenaline
    (D) acetylcholine

5. Which stages of cellular division have exactly opposite characteristics?

    (A) Prophase and telophase
    (B) Prophase and anaphase
    (C) Metaphase and telophase
    (D) Metaphase and anaphase

6. The continued synthesis of protein requires the continued synthesis of its corresponding

    (A) tRNA
    (B) nRNA
    (C) mRNA
    (D) nucleic acid

7. Which of the following results in the complete oxidation of a substrate to $ATP + CO_2 + H_2O$?

    (A) Glycolysis
    (B) Fermentation
    (C) Aerobic respiration
    (D) Anaerobic respiration

8. Enzymes are important to the life of cells because they

    (A) speed up chemical reactions in the cells
    (B) increase the amount of products of chemical reaction
    (C) provide the energy necessary for reactions to occur
    (D) provide the substance for the reactions in the cells

9. Plant cells will not break when placed in a container with plenty of water due to the presence of

    (A) a membrane that regulates the flow of water
    (B) the cell wall that supports the membrane when it is turgid
    (C) the cytoplasm that can absorb much water
    (D) organelles that expel excess water

10. Which of the following is true about catalyzed reactions in cells?

    (A) The catalyst itself becomes involved in the reaction.
    (B) The catalytic efficiency of enzymatic reactions is extremely high.
    (C) The catalytic efficiency of enzymatic reactions is moderately low.
    (D) Enzymes cause uniform reaction.

PRACTICE SET

11. Which activity does NOT require cellular energy?

    (A) Synthesis of hormones
    (B) Contraction of muscles
    (C) Coordination of electrochemical impulses
    (D) Diffusion of sodium chloride through blood plasma

12. Which feature is present in eukaryotic cells but NOT in prokaryotic cells?

    (A) Chromosome
    (B) Cytoplasmic membrane
    (C) Nuclear membrane
    (D) Nucleolus

13. Growth of lateral buds apparently involves a balance of which three hormones?

    (A) Auxin, cytokinin, and gibberellin
    (B) Cytokinin, gibberellin, and ethylene
    (C) Gibberellin, ethylene, and auxin
    (D) Auxin, cytokinin, and ethylene

14. Which of the following are present in both prokaryotic and eukaryotic cells?

    (A) Lipid-protein cell walls
    (B) Cytoplasmic and nuclear regions
    (C) Distinct nuclear envelopes
    (D) Circular chromosomes of DNA

15. Which of the following correctly describes the Na^+ and K^+ ions across the cell membrane?

    (A) The concentration of Na^+ ions outside the cell is high and the concentration of K^+ ions outside the cell is low.
    (B) The concentration of Na^+ ions outside the cell is low and the concentration of K^+ ions inside the cell is low.
    (C) Inside the cell, the concentrations of Na^+ and K^+ ions are both high.
    (D) Outside the cell, the concentrations of Na^+ and K^+ ions are both high.

16. What is the correct sequence of the different stages in blood clotting?

    I. Fibrinogen $\xrightarrow{\text{thrombin}}$ fibrin
    II. Prothrombin $\xrightarrow[Ca^{++}]{\text{thromboplastin}}$ thrombin
    III. Fibrin + erythrocytes form a hardened clot
    IV. Platelets rupture

    (A) I, II, IV, III
    (B) II, I, IV, III
    (C) IV, II, I, III
    (D) IV, I, II, III

17. Which of the following is most likely to occur when a cell is placed in a hypertonic solution?

    (A) Hemolysis
    (B) Plasmolysis
    (C) An increase in turgor pressure inside the cell
    (D) A decrease in solute concentration inside the cell

18. The function of manufacturing is common in which of the following groups of organelles?

    (A) Microtubules, mitochondria, and Golgi apparatus
    (B) Chloroplasts, lysosomes, and endoplasmic reticula
    (C) Golgi apparatus, cell membrane, and chloroplasts
    (D) Ribosomes and chloroplasts

19. Fatty acids are broken down initially by a process known as

    (A) glycolysis
    (B) transamination
    (C) beta-oxidation
    (D) pentose phosphate pathway

PRACTICE SET

GO ON TO THE NEXT PAGE ⟹

20. Which of the following cellular structures is related to protein synthesis?

    (A) Lysosome
    (B) Nucleolus
    (C) Mitochondrion
    (D) Golgi apparatus

21. The carbon dioxide produced by living organisms comes from the

    (A) inhaled oxygen which reacted with carbon in their bodies
    (B) foodstuffs ingested by the organisms
    (C) water which reacted with carbon in their bodies
    (D) glucose in their bodies

22. In pulmonary circulation in mammals, the veins carry

    (A) oxygenated blood away from the heart
    (B) oxygenated blood toward the heart
    (C) deoxygenated blood away from the heart
    (D) deoxygenated blood toward the heart

23. Which portion of the brain establishes regularity of respiration?

    (A) Medulla
    (B) Cerebrum
    (C) Inferior pons
    (D) Superior pons

24. In the initial digestive process in man, all of the following occur in the mouth EXCEPT

    (A) secretion of enzymes
    (B) primary carbohydrates digestion
    (C) fats and protein digestion
    (D) conversion of food into smaller pieces

25. The growth reaction of plants to gravity is called

    (A) thigmotropism
    (B) thermotropism
    (C) heliotropism
    (D) geotropism

26. The function of mucus secreted by the lining of the alimentary canal is to

    (A) help digest fats into fatty acids and glycerol
    (B) help increase the amount of juices secreted by the digestive glands
    (C) protect the lining from being acted upon by the digestive juices
    (D) prevent bacteria from reaching the blood vessels

27. Which of the following is the organism *Archips rosana* most closely related to?

    (A) *Rosana pinuta*
    (B) *Archips fervidiana*
    (C) *Pinuta archips*
    (D) *Fervidiana rosana*

28. When inhaled, which substance can form a more stable compound with hemoglobin, thereby causing adverse reactions in an individual?

    (A) Ether
    (B) Nicotine
    (C) Carbon dioxide
    (D) Carbon monoxide

PRACTICE SET

In items 29 and 30, refer to the following setups:
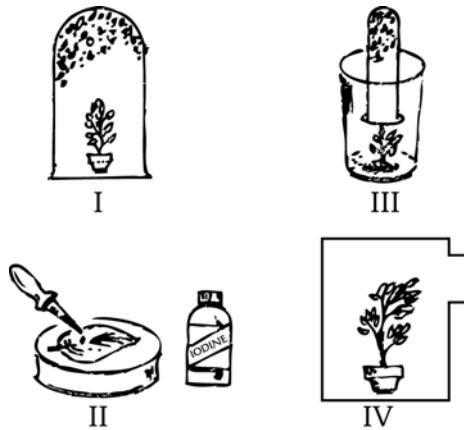
29. Which setup shows phototropism?

    (A) I   (C) III
    (B) II   (D) IV

30. To find out if photosynthesis takes place, which setup is appropriate to use?

    (A) I   (C) III
    (B) II   (D) IV

---

31. Which of the following blood vessels carries blood with the highest concentration of oxygen?

    (A) Renal vein
    (B) Pulmonary vein
    (C) Pulmonary artery
    (D) Hepatic portal vein

32. If lanolin paste with IAA is applied to one side of the stem of a coleus plant, which of the following would be observed in the plant?

    (A) It will bend toward the side with the paste.
    (B) It will bend toward the side without the paste.
    (C) It will branch on the side with the paste.
    (D) It will branch on the side without the paste.

33. Transcapillary flow in tissue spaces occurs when the

    (A) plasma osmotic pressure exceeds the blood pressure
    (B) blood pressure exceeds the plasma osmotic pressure
    (C) osmotic pressure of the tissue fluids exceeds that of the plasma
    (D) hydrostatic pressure of the tissue fluids exceeds that of the plasma

34. Short-day plants, like chrysanthemum and poinsettia, bloom naturally in the seasons when the days are short but can also be made to bloom in summer. Which two conditions make it possible for these plants to bloom in summer?

    I.   They are kept in light-controlled greenhouses.
    II. They are allowed to exceed their critical day length.
    III. Their night length is much above the critical value.
    IV. They are exposed to flashes of light at night.

    (A) I and II   (C) I and III
    (B) II and IV   (D) III and IV

35. Which of the following can be observed if there is a lack of parathyroid hormone (PTH)?

    (A) A decrease in calcium concentration and an increase in phosphate concentration in the blood
    (B) An increase in calcium concentration and a decrease in phosphate concentration in the blood
    (C) An increase in both calcium and phosphate concentrations in the blood
    (D) A decrease in both calcium and phosphate concentrations in the blood

PRACTICE SET

36. All of the following are features of plants adapted to dry, desert conditions EXCEPT

   (A) reduced leaf surface area
   (B) extensive root system
   (C) large number of stomata on the leaf surface
   (D) pores sunken into the leaf surface

37. In which two periods of the human life cycle do the greatest physical changes take place?

   (A) Early childhood and adolescence
   (B) Late childhood and old age
   (C) Before birth and adolescence
   (D) Early childhood and adulthood
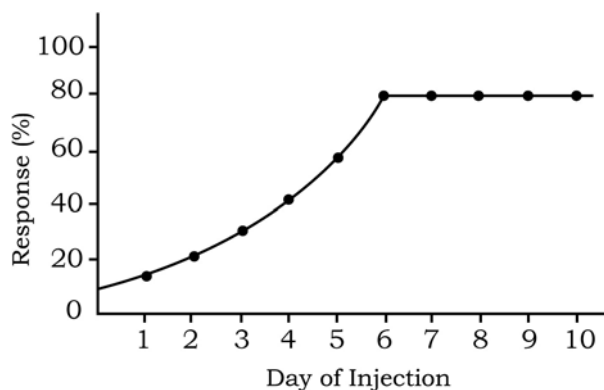
38. The curve shown above represents data obtained from a group of animals receiving a single daily dose of a drug P. A portion of this group was given the dose at day 1 and the response was noted. The same number of animals was given the dose at day 2, and so on, up to day 10. Based on the curve, it can be deduced that the single dose of P used was

   (A) completely eliminated from the body in less than 24 hours
   (B) just enough to elicit the highest possible response
   (C) more than enough to elicit the highest possible response
   (D) less than enough to elicit the highest possible response

39. Our atmosphere is 78% nitrogen. In spite of this abundance, nitrogen is a limiting factor in plant growth. This is primarily due to the fact that

   (A) plants cannot absorb nitrogen directly
   (B) nitrogen is present only in the atmosphere above the soil
   (C) nitrogen does not dissolve in water
   (D) soil organisms compete with plants for nitrogen

40. The various communities existing at different points in time from the pioneer community to the climax community is known as

   (A) succession   (C) microsere
   (B) seral stages   (D) biomes

41. Which of the following explains why green plants do not grow in oceans at depths greater than 80 meters?

   (A) The ocean is too cold at this depth.
   (B) Insufficient sunlight penetrates beyond this depth.
   (C) The ocean currents are too strong below 80 meters.
   (D) There is insufficient mineral content in waters below this depth.

42. If all green plants on earth suddenly died, which gas would most likely decline in quantity?

   (A) Oxygen   (C) Water vapor
   (B) Nitrogen   (D) Carbon dioxide

43. Which biome has the highest annual rainfall?

   (A) Tundra   (C) Desert
   (B) Taiga   (D) Rainforest

44. Which of the following is the ocean zone that is exposed during low tide and covered during high tide?

   (A) Abyssal   (C) Neritic
   (B) Littoral   (D) Pelagic

8

45. In any season, competition for light is most intense among the plants of a

(A) tropical rainforest
(B) tropical deciduous forest
(C) coniferous forest
(D) woodland

46. Which of the following graphs accurately illustrates the change in the biomass of anaerobic organisms in an aquatic system that changes from oligotrophic to eutrophic?

(A)

(B)

(C)

(D)
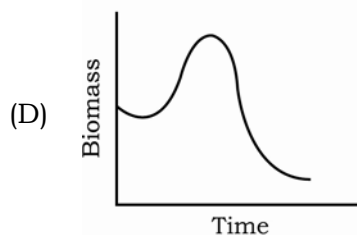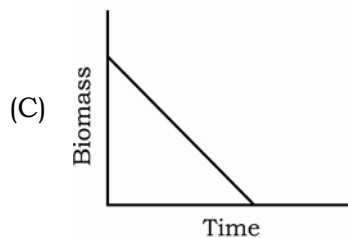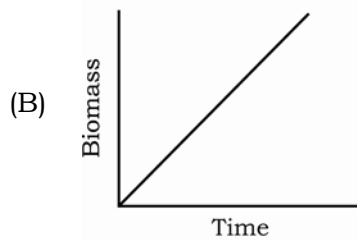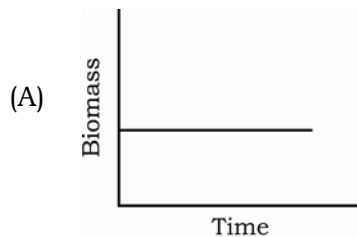
47. The members of a given species are rarely, if ever, uniformly distributed throughout their range. Instead, they are collected into smaller groups called populations. Which of the following best explains this phenomenon?

(A) Members of a species cannot tolerate overcrowding.
(B) The physical factors in the environment upon which they depend are themselves not uniformly distributed.
(C) The environment can support more organisms if they are grouped into populations.
(D) Organisms interfere with their habitats.

48. Fast rate of population growth and widespread malnutrition are common in India and the Philippines. This proves that

(A) malnutrition is an effect of fast population growth
(B) extreme poverty among people results in malnutrition
(C) malnutrition is a characteristic of developing countries
(D) when population increases, food supply decreases

49. An organized collection of interacting species is known as

(A) a community
(B) an ecology
(C) a kingdom
(D) a phylum

50. In an area of 50 hectares, the tamaraw population was 40. Two months later in the same area, the population was halved. Which of the following is LEAST likely to account for the rapid change in population size?

(A) The tamaraws stopped breeding.
(B) Predators became more numerous.
(C) Emigration had occurred.
(D) A new disease-causing organism was brought into the community.

PRACTICE SET

TEST B. PHYSICS

1. A man finds that he can walk 1 km in 20 min, 3 km in 1 hr, 6 km in 2 hr, and 9 km in 3 hr. These indicate that the distance he travels is

   (A) inversely proportional to the time
   (B) inversely proportional to the square of the time
   (C) directly proportional to the time
   (D) directly proportional to the square of the time

2. What are the factors that determine the speed of a satellite which moves in a stable orbit around a planet? (G represents the universal gravitational constant.)

   (A) Mass of the planet and G
   (B) Mass of the satellite and G
   (C) Mass of the satellite, mass of the planet, and G
   (D) Orbital radius of the satellite, mass of the planet, and G
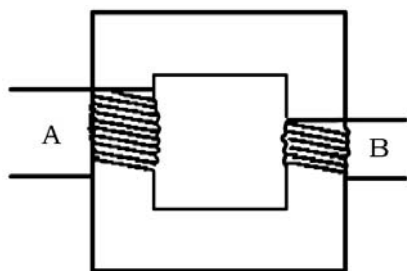
3. The device shown above is a

   (A) galvanometer
   (B) generator
   (C) transformer
   (D) rectifier

4. A pingpong ball and a golf ball are dropped in a vacuum chamber from the same height and at the same time. When they have fallen halfway, they have the same

   (A) potential energy
   (B) kinetic energy
   (C) acceleration
   (D) velocity

5. A 10-pound object is suspended by a string from an overhead support. A horizontal force of 5.8 pounds is applied on the object. The measure of the angle which the string makes with the horizontal is

   (A) 30°   (C) 60°
   (B) 45°   (D) 90°

6. A force of 60 newtons is used to raise a 240-newton load using a system of pulleys. The load covered a distance of 1 m for every 5 m of rope pulled through the system. The system has an efficiency of

   (A) 12%   (C) 60%
   (B) 48%   (D) 80%
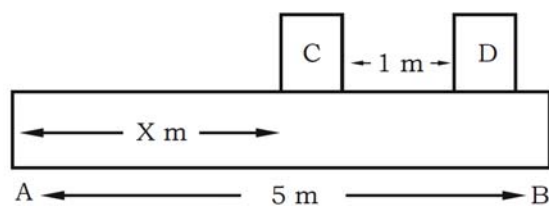
7. Blocks C and D, weighing 4,000 newtons and 2,000 newtons, respectively, rest on a horizontal beam AB, as shown above. If the reaction produced at B is twice as great as the reaction produced at A, how far from A will the weight of Block C act?

   (A) 2 m   (C) 3.5 m
   (B) 3 m   (D) 4.0 m

8. A body thrown vertically up into the air possesses kinetic energy at the beginning of its flight, but as it rises, it loses kinetic energy and acquires potential energy with respect to the level from which it started. Which of the following is NOT likely to happen?

   (A) When it reaches the highest point, the kinetic energy has been wholly changed to potential energy.
   (B) As it falls, its potential energy is again transformed to kinetic energy.
   (C) The potential energy is maximum at the highest point of its flight.
   (D) The kinetic energy is minimum at the lowest point of its flight.
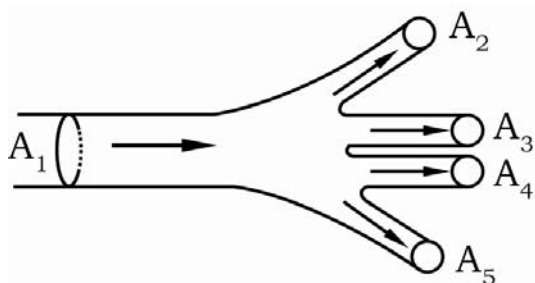
9. Bernoulli's principle states that $A_1V_1 = A_2V_2$. Blood flows from Artery A_1, whose cross-sectional area is 50 μ^2, at a velocity of 5 mm/s to its more peripheral branches, A_2, A_3, A_4, and A_5. If the total cross-sectional area of the branches is 250 μ^2 and each branch has exactly the same diameter as the other, what is the velocity of blood in the branches?

   (A) 0.5 mm/s   (C) 10.0 mm/s
   (B) 1.0 mm/s   (D) 25.0 mm/s
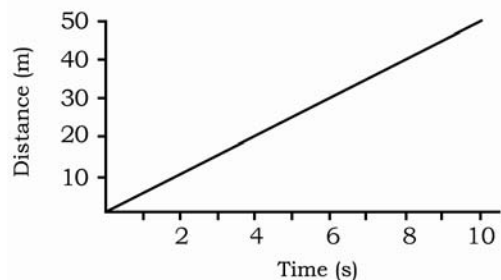
10. Based on the graph shown above, the acceleration of the moving body is

   (A) 10 m/s^2 (C) 4 m/s^2
   (B) 5 m/s^2 (D) 0 m/s^2

11. How much heat is required to warm 10 grams of ice from −10°C to 0°C? (Specific heat of ice = 0.5 cal/g·C°)

   (A) 75 cal   (C) 25 cal
   (B) 50 cal   (D) 10 cal

12. Body X is in contact with Body Y which is hotter than Body X. Which of the following statements are true?

   I. Body X gains heat and Body Y loses heat.
   II. The temperature of Body X decreases and the temperature of Body Y increases.
   III. The temperatures of Body X and Body Y will eventually be equal.

   (A) I and II only
   (B) I and III only
   (C) II and III only
   (D) I, II, and III

13. How many calories of heat is given off when 200 grams of water is cooled from 100°C to 20°C?

   (A) 2,000 cal   (C) 16,000 cal
   (B) 4,000 cal   (D) 20,000 cal

14. A 1,200-watt heater is used for raising the temperature of 1 liter of water to boiling point. How long will it take for the water to boil if the initial temperature of water is 20°C?
(1 cal = 4.19 joules)

  (A) 28 s   (C) 279 s
  (B) 70 s   (D) 349 s

15. If the absolute temperature of a gas is quadrupled and its pressure is halved, then the volume will

  (A) increase four times
  (B) increase eight times
  (C) decrease four times
  (D) decrease eight times

16. A glass flask which is partly filled with water is heated over a Bunsen flame. As soon as the water begins to boil, the flask is removed from the flame and tightly stoppered immediately. Boiling stops. When cold water is poured on the surface of the flask, which of the following will happen to the water inside the flask?

  (A) It will begin to boil again since the contraction of the flask reduces the pressure inside.
  (B) It will begin to boil again since the condensation of the steam reduces the pressure inside.
  (C) It will not boil since the temperature is less than 100°C.
  (D) It will not boil since the contraction of the flask increases the pressure inside.

17. A Carnot refrigerator takes heat from water at 0°C and rejects heat to a room at 27°C. If 50 kg of water at 0°C is converted to ice at 0°C, how much energy must be supplied to the refrigerator?

  (A) 4.60×10^{-4} kWh
  (B) 3.90×10^{-4} kWh
  (C) 4.00×10^{-5} kWh
  (D) 2.62×10^{-5} kWh

18. The amount of heat required to raise the temperature of 10 grams of water at 10°C to 50°C is

  (A) 100 cal   (C) 500 cal
  (B) 400 cal   (D) 600 cal

19. The immediate source of water which forms dew on grass on a summer morning is the

  (A) air
  (B) soil
  (C) grass
  (D) cloud

Substance	Specific Heat $(cal/g \cdot C°)$	Thermal Conductivity $(W/m \cdot C°)$
Water	1.000	.6
Aluminum	0.215	238
Copper	0.0924	397
Iron	0.107	79.5

20. The table shown above gives the specific heat and the thermal conductivity of some substances. Which substance requires a greater amount of heat to raise the temperature of its unit mass by one degree?

  (A) Water
  (B) Iron
  (C) Aluminum
  (D) Copper

PRACTICE SET

21. A metal cube is heated over a Bunsen flame and then dropped into an insulated beaker containing water. The masses of the water, the beaker, and the cube, the initial and final temperatures of the water, and the specific heat capacities of the water and the beaker are known. Without further measurements, which of the following can be calculated?

   (A) The density of the cube
   (B) The specific heat capacity of the cube
   (C) The thermal conductivity of the cube
   (D) The specific latent heat of the cube

22. In hydroelectric plants, electric energy is generated by

   (A) making the water evaporate
   (B) distilling the water
   (C) changing the water chemically
   (D) making use of the power of a waterfall

23. A label of an electric stove reads "1,200 watts, 110 volts." How much current will the appliance draw when it is used?

   (A) $(1{,}200)(110)$ amp
   (B) $(\sqrt{1{,}200})(110)$ amp
   (C) $\dfrac{1{,}200}{110}$ amp
   (D) $\dfrac{1{,}200}{\sqrt{110}}$ amp
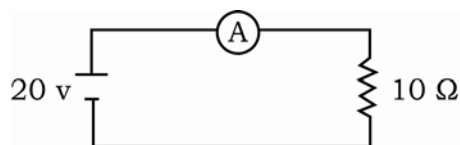
24. The ammeter in the circuit above should read

   (A) 0.5 amp   (C)   10 amp
   (B) 2.0 amp   (D) 200 amp

25. A capacitor acquires 0.002 coulomb when 50 volts is applied. Its capacitance is

   (A)   0.4 microfarad
   (B)   4.0 microfarads
   (C)   40.0 microfarads
   (D) 400.0 microfarads

26. The power rating of an electric motor which draws a current of 5 amperes from a 240-volt line is

   (A) 12.0 kW   (C)   48.0 W
   (B)   1.2 kW   (D)   4.8 W

27. Electroplating results in a better quality product by applying a relatively

   (A) strong current for a shorter time
   (B) strong current for a longer time
   (C) moderate current for a shorter time
   (D) moderate current for a longer time

28. Which of the following is true when the magnetic flux through a coil at 50 turns is reduced from 0.5 weber to 0 weber in 0.2 second?

   (A) The induced emf in the coil is 120 volts.
   (B) The induced emf in the coil is 125 volts.
   (C) The emf is 220 volts.
   (D) The emf is 225 volts.
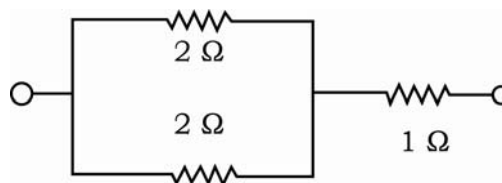
29. The equivalent resistance of the circuit shown above is

   (A) $\dfrac{4}{5}$ Ω   (C) 3 Ω
   (B) 2 Ω   (D) 5 Ω

PRACTICE SET

30. What happens when a dielectric material is placed in an electric field?

(A) The material becomes a conductor.
(B) The material becomes polarized.
(C) The material undergoes electrolysis.
(D) The material remains electrically inert.
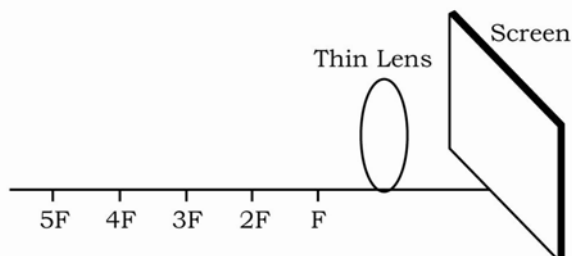
31. In the diagram shown above, the focal length of the lens is F. No image will be projected on the screen if a candle is placed

(A) at 2F
(B) at 3F
(C) beyond 4F
(D) between F and the lens

32. A lemon is colored yellow because

(A) it absorbs only yellow light
(B) it reflects only yellow light
(C) only yellow light can pass through a yellow lemon
(D) only yellow light actually hits the lemon

33. Which of the following explains the appearance of a rainbow in the sky after a rainstorm?

(A) The white clouds are actually prisms composed of different colors.
(B) Sunlight reflected by the ground separates into different colors in the sky.
(C) Raindrops act as prisms that separate sunlight into its components.
(D) None of these

34. Which of the following factors is responsible for transmitting waves?

(A) Amplitude
(B) Wavelength
(C) Energy
(D) Mass

35. How many images will be formed if a boy stands in front of two mirrors standing at a 45° angle to each other?

(A) 2
(B) 7
(C) 8
(D) Infinite

36. Which of the following will result if the number of lines in a diffraction grating of a given width is increased?

(A) The wavelengths that can be diffracted will be shorter.
(B) The wavelengths that can be diffracted will be longer.
(C) The spectrum produced will be narrower.
(D) The spectrum produced will be broader.

37. A 10-meter object is placed at a distance of 175 meters in front of a lens whose focal length is 50 meters. Which of the following describes the image formed?

(A) It is 4 meters long and inverted.
(B) It is 4 meters long and erect.
(C) It is 25 meters long and inverted.
(D) It is 25 meters long and erect.
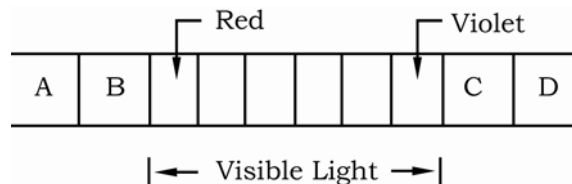
38. Compared to the wavelengths of visible light, the wavelengths of the radiation in A and B shown above are

(A) shorter
(B) longer
(C) just as long
(D) not measurable

39. When waves are refracted, which property changes?

    (A) Frequency
    (B) Period
    (C) Speed
    (D) Amplitude

40. A certain solar cooker is made of a big concave mirror. To get the greatest amount of reflected sunlight, where should the food be placed?

    (A) At the focus of the mirror
    (B) At the center of curvature of the mirror
    (C) Between the focus and the center of curvature of the mirror
    (D) Above the center of curvature of the mirror

41. An alpha particle is the same as

    (A) $_1^2 H$ (C) $_2^3 He$

    (B) $_1^3 H$ (D) $_2^4 He$

42. When a large atom such as U^{235} splits into two smaller atoms, then the combined mass of the products resulting from the splitting will be

    (A) one-half of the original mass
    (B) the same as the original mass
    (C) one-half more than the original mass
    (D) two times more than the original mass

43. The atomic reaction where $_6^{13}B$ becomes $_7^{13}C$ results in the release of

    (A) a neutron
    (B) an alpha particle
    (C) a beta particle
    (D) a gamma particle

44. An electron is traveling at 1% the speed of light. What is its kinetic energy in joules? (Speed of light = 3×10^8 m/s)

    (A) 4.000×10^{-18} J
    (B) 4.098×10^{-18} J
    (C) 4.098×10^{10} J
    (D) 4.000×10^{18} J

45. Which of the following is an implication of the formula $E = mc^2$?

    (A) Energy can be created from nothing.
    (B) Matter can be created from nothing.
    (C) Relatively large amounts of matter can be changed into relatively small amounts of energy.
    (D) Relatively large amounts of energy can be obtained from relatively small amounts of matter.
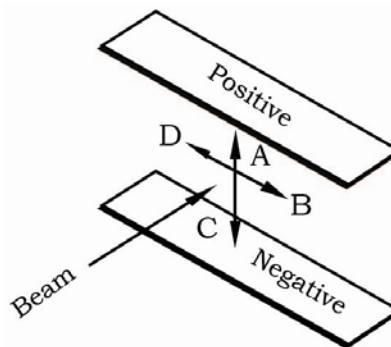
46. A beam of electrons is directed between two charged plates, as indicated in the diagram above. In which direction will the beam curve when it gets between the plates?

    (A) A   (C) C
    (B) B   (D) D

47. Which of the following statements regarding isotopes is NOT true?

    (A) Radioactive isotopes can be produced in the laboratory.
    (B) Radioactive isotopes decay by the emission of particles from the nucleus.
    (C) All isotopes are radioactive.
    (D) There is a wide variety of decay rates for radioactive isotopes.

PRACTICE SET

48. Which of the following statements is NOT true of protons and electrons?

    (A) Protons and electrons have equal masses.
    (B) All protons have the same charge.
    (C) Protons and electrons have charges equal in magnitude although opposite in sign.
    (D) The positive charge in an atomic nucleus is due to the protons it contains.

49. The radiation from a sample of Krypton-85 decreases to one-third of the original intensity I_o in a period of 18 years. What would be the intensity after 18 more years?

    (A) I_o

    (B) $\dfrac{1}{3} I_o$

    (C) $\dfrac{1}{6} I_o$

    (D) $\dfrac{1}{9} I_o$

$$^{235}_{92}U + ^{1}_{0}n \rightarrow ^{140}_{54}Xe + ^{94}_{38}Sr + (?)^{1}_{0}n + energy$$
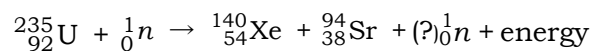
50. In a U^{235} fission, represented by the equation above, Xe^{140} and Sr^{94} nuclei are produced and energy is released. How many n is(are) given off in the process?

    (A) 1   (C) 3
    (B) 2   (D) 4

GO ON TO THE NEXT PAGE ⇨

PRACTICE SET

16

TEST C. SOCIAL SCIENCE

1. Which of the following defines sociology?

    (A) A study that is concerned with discovering and organizing facts, principles, and methods
    (B) A study of human groups, their customs and institutions, and their development at all times and places
    (C) A study that deals with the production, distribution, and consumption of wealth by human groups
    (D) A study of human behavior, mental processes, and personality

2. People can best show enculturation when they learn to

    (A) be refined
    (B) act as people
    (C) love one another
    (D) talk, act, and think in acceptable ways

3. Proverbs often provide useful insights into a people's

    (A) value system
    (B) political processes
    (C) legal processes
    (D) value origins

4. Which of the following situations indicate an open-class society?

      I. A member of the minority group becomes the president of a big business enterprise.
     II. An outcast was put to death for trying to approach a member of the ruling class.
    III. A son inherits the lowly job of his father in spite of his superior talent and interest in another occupational field.
     IV. A boy from the elite group marries the girl he loves from the working class.

    (A) I and III only
    (B) I and IV only
    (C) I, II, and III only
    (D) II, III, and IV only

5. Which of the following examples of social norms are folkways?

      I. Going to the cemetery to visit the dead on All Saints' Day
     II. Performing one's duties as head of the family
    III. Showing compassion for unfortunates in society
     IV. Santacruzan in May

    (A) I and IV only
    (B) I, II, and III only
    (C) II, III, and IV only
    (D) I, II, III, and IV

6. Which of the following refer to patterns of beliefs that serve to guide, control, and regulate conduct?

    (A) Values
    (B) Norms
    (C) Mores
    (D) Folkways

PRACTICE SET

7. Any human action which is considered sufficiently out of the ordinary so as to be regarded as unique or unprecedented is a(an)

   (A) deviant act
   (B) diffusion
   (C) innovation
   (D) invention

8. The authority fostering belief in the competence of the individuals discharging statutory obligation is

   (A) charismatic authority
   (B) traditional authority
   (C) legal authority
   (D) functional authority

9. Changes in culture are said to be endogenous when they

   (A) come from within the culture
   (B) come from outside of one's culture
   (C) do not affect the culture
   (D) drastically destabilize culture

10. Which of the following is considered the most valid criticism of Marxist's model of society?

    (A) Polarization of society into two conflicting groups
    (B) Emphasis on class dictatorship
    (C) Overemphasis on the importance of economic class to explain historical trends
    (D) The forces that reduce the polarization of classes

11. All of the following are examples of a sanction EXCEPT

    (A) slapping the palms of a bad boy
    (B) sentencing a murderer to death
    (C) confessing a crime to authorities
    (D) getting a failing mark for cheating in exams

12. Which instance supports the notion that culture is learned?

    (A) A vegetarian had to eat pork because there was nothing else to eat.
    (B) A Visayan girl became fluent in Tagalog after a few years stay in Manila.
    (C) A modern Chinese woman no longer followed the practice of binding her feet because of its impracticality.
    (D) A child whose parents were very strict grew up to be shy and withdrawn.

13. Which of the following can be said of both comic books and da Vinci's art?

    (A) They both illustrate some facets of man's culture.
    (B) They show the contrast "cultured vs. uncultured."
    (C) They emphasize the absence of culture.
    (D) They are concerned with each one's quality.

14. When faced with a tragic situation, women are allowed to express their grief freely while men are expected to be quiet and stoic. This illustrates a

    (A) norm
    (B) value
    (C) mores
    (D) folkway

15. Ethnic minorities, adolescent gangs, religious groups, and exclusive clubs for the elite are examples of groups usually present in complex societies. They exhibit their own peculiar or unique behavior which is tolerated by the greater society as long as they do not endanger societal values. These groups fall under a category called

    (A) institution
    (B) kinship
    (C) subculture
    (D) community

PRACTICE SET

GO ON TO THE NEXT PAGE ⇨

18

16. According to Pepinsky, which of the following is the most effective form of social control among Chinese communists?

    (A) Group manipulation of guilt and shame
    (B) Surveillance system
    (C) Party directives
    (D) Written laws

17. Which of the following is NOT a characteristic of bureaucracy?

    (A) Specialization
    (B) Chain of command
    (C) Informality and autonomy
    (D) Merit appointment and job tenure

18. The primary function of religion in human societies is to

    (A) establish an orderly relationship between man and his surroundings
    (B) help people understand the existence of both good and evil
    (C) allay man's fears and anxieties over unexplainable phenomena
    (D) provide a way for man to be able to communicate with God

19. Which of the following is NOT true of the relationship among members of large secondary groups?

    (A) Primary relations tend to persist in the form of intimate cliques.
    (B) There is emphasis on the efficiency by which people accomplish their jobs.
    (C) It is unlikely that every member is aware of every other member.
    (D) The goal is to provide for the personal needs of the members.

20. Which of the following conditions is true under the fascist system?

    (A) Labor unions are independent and are not under state influence.
    (B) Private ownership of business by individuals is permitted.
    (C) Business is owned by the government but leased to private individuals.
    (D) The government owns and runs all businesses.

21. Since the process of social interaction conditions an individual to accept his social class, then its effect on social classes is

    (A) modifying
    (B) preserving
    (C) replacing
    (D) reordering

22. The caste system generally differs from the class system because the former is

    (A) more complex
    (B) less rigid
    (C) more rigid
    (D) less ranked

23. Archaeologists have found evidence to show the widespread use of local pottery wares throughout the Philippines during the later part of the New Stone Age. This would imply that prehistoric Filipinos must have

    (A) already discarded their use of stone tools
    (B) developed new ways of preparing food
    (C) discovered clay deposits throughout the country
    (D) had enough food and water receptacles for their needs

PRACTICE SET

24. Which of the following is true of stereotypes?

    (A) They usually give an accurate account of the personal behavior of members of a group.
    (B) Knowledge of stereotypes leads to more effective responses.
    (C) They are always based on empirical research.
    (D) Many people interact initially with the stereotype rather than with the true person.

25. Which of the following descriptions refer(s) to discovery?

    (A) Combining known elements to produce something new
    (B) Spread of cultural elements from one individual or group to another
    (C) Initial awareness of existing but unobserved elements of nature
    (D) All of these
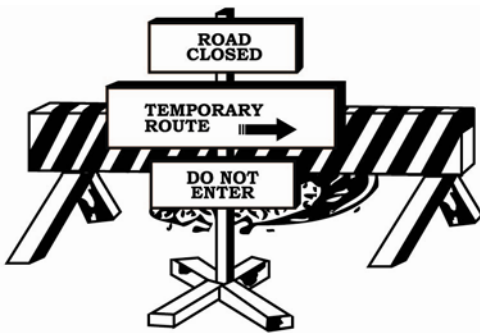
26. Which of the following is the best statement that can be derived from the illustration shown above?

    (A) The language we use for things can also influence the way we think about it.
    (B) Signs are used to represent a situation and to influence action.
    (C) It is important to study the meaning of language.
    (D) It is necessary to identify the problem in order to arrive at a solution.

27. If one could influence the bending of a metal rod by merely thinking about it, this would be an example of

    (A) clairvoyance
    (B) psychokinesis
    (C) precognition
    (D) telepathy

28. When a person under stress slips back to an earlier psychosexual level, the mechanism involved is

    (A) fixation
    (B) identification
    (C) repression
    (D) regression

29. A child was presented a very detailed picture for a short time. When the picture was removed, the child was able to describe the picture to the least detail. This illustrates the phenomenon called

    (A) illusion
    (B) hallucination
    (C) auditory imagery
    (D) eidetic imagery

30. Mark is a young man who tends to withdraw from others. He has flight of ideas and often shows inappropriate affect. He claims to hear voices calling him "Jesus – The Savior." Most probably, Mark is exhibiting symptoms of

    (A) affective disorder
    (B) generalized anxiety
    (C) panic reaction
    (D) schizophrenia

31. What is the synaptic transmitter responsible for inhibiting the sensation of pain?

    (A) Dopamine
    (B) Epinephrine
    (C) Enkephalin
    (D) Thorazine

PRACTICE SET

32. The minimum intensity that a stimulus must achieve before it can be perceived is known as

    (A) minima
    (B) subliminal
    (C) percept
    (D) threshold

33. According to Piaget's stages of cognitive growth, an adult who makes decisions based on what fortune-tellers tell him is functioning at the

    (A) operational level
    (B) sensorimotor level
    (C) preoperational level
    (D) formal operational level

34. Under relaxed circumstances, most people remember uncompleted tasks better than they do completed tasks. This is known as the

    (A) von Restorff effect
    (B) Zeigarnik effect
    (C) Greenspoon effect
    (D) Muller-Lyer illusion

35. Which of the following is NOT a Gestalt principle of perceptual organization?

    (A) Proximity
    (B) Continuation
    (C) Differentiation
    (D) Closure

36. Which parent is most likely to produce a competent and self-reliant child?

    (A) A loving, permissive parent who makes no demands on the child
    (B) A loving parent who is firm and consistent
    (C) A parent who provides a lot of educational toys but does not mind if the house is disorganized
    (D) A parent who lays down the house rules and trusts that the child will follow them

37. In which areas do man's impulses most frequently conflict with the moral standards of society?

    I. Sex
    II. Aggression
    III. Independence
    IV. Self-assertion

    (A) I and II only
    (B) III and IV only
    (C) I and III only
    (D) II and IV only

38. After a musical concert, a man complained that he heard little of the music due to the frequent shuffling and throat-clearing in the audience. His companion, however, expressed his satisfaction over the concert. This difference in experience is related to

    (A) subliminal threshold
    (B) sensory adaptation
    (C) selective attention
    (D) just-noticeable difference

39. According to Roger's Self Theory, all individuals have an innate tendency to

    (A) repress sexual urges
    (B) be aggressive and punish people
    (C) move in the direction of positive change
    (D) examine others' mental experiences and activities

40. A child is conditioned to fear a furry black cat. Soon, she becomes fearful of any black object. This response is an example of

    (A) negative transfer
    (B) spontaneous recovery
    (C) operant conditioning
    (D) stimulus generalization

PRACTICE SET

41. According to the behaviorists, phobias are learned through

    (A) desensitization
    (B) modeling
    (C) classical conditioning
    (D) operant conditioning

42. Which factor may prevent diffusion of responsibility from occurring?

    (A) An ambiguous situation
    (B) The presence of many people
    (C) The presence of someone who initiates helping
    (D) The occurrence of an emergency in a public place

43. Which of the following are problems in experimental research in psychology?

      I. Demand characteristics
     II. The Hawthorne effect
    III. The halo effect
     IV. Random assignment

    (A) I and IV only
    (B) II and III only
    (C) I, II, and III only
    (D) I, II, III, and IV

44. Which of the following best illustrates heuristic availability?

    (A) To determine whether someone is an accountant, I compare his traits to the average accountant.
    (B) To determine whether someone is trustworthy, I try to recall instances of such behavior.
    (C) To determine my impression of someone, I combine the available bits of information to find an average.
    (D) To determine whether someone is trustworthy, I engage in decoding.

45. The view that psychopathology is the result of inadequate resolution of certain development stages rather than learned ways of behaving separates

    (A) gestalt therapy from reality therapy
    (B) psychoanalysis from behavior therapy
    (C) client-centered therapy from psychoanalysis
    (D) rational-emotive therapy from behavior therapy

Group	Phase		
	I	II	III
A	Task 1	Task 2	Test for Task 1
B	Task 1	Task 2	Test for Task 2
C	Task 1	–	Test for Task 1
D	–	Task 2	Test for Task 2

46. In an experiment, subjects were randomly assigned to four groups and were asked to memorize a set or two sets of unrelated verbal materials. Then each group was tested for retention of the task(s). The table above shows the participation of each group. Which of the following will most probably be observed?

    (A) Retention of Task 1 will be higher for Group A than for Group C.
    (B) Retention of Task 2 will be higher for Group B than for Group D.
    (C) Retention of Task 1 will be lower for Group A than for Group C.
    (D) Retention of Task 2 will be equal for both groups B and D.

47. All of the following will increase the ability of a stimulus to capture attention EXCEPT

    (A) contrast
    (B) habituation
    (C) intensity
    (D) repetition

48. Learning may be more difficult for deaf children because

    (A) the hearing area in the brain is connected to the comprehension area
    (B) they cannot imitate information immediately
    (C) they learn a private language which affects real language
    (D) they have to learn with a reduced level of feedback

49. In which of the following instances is projection displayed?

    (A) Letty channels her angry feelings into her bowling.
    (B) Norie is extra sweet to her sister even though deep inside, she resents the latter's popularity.
    (C) Romy justifies his cheating on exams by claiming that everyone else does it.
    (D) Greg convinces himself that the girl who jilted him is not really so desirable.

50. When Rita fights with her older brother, she starts off rationally but ends up in tears, stamping her foot, or throwing objects in all directions. The defense mechanism displayed in this situation is

    (A) suppression
    (B) repression
    (C) regression
    (D) projection

PRACTICE SET

TEST D. CHEMISTRY

1. A substance that increases the rate of a chemical reaction without being used up in the process is called

   (A) electrolyte   (C) oxidant
   (B) catalyst   (D) indicator

2. If X is an element belonging to group IIIA of the Periodic Table, the formula of its oxide would be

   (A) X_2O (C) X_2O_3
   (B) X_2O_4 (D) XO_2

3. Which of the following elements is the most electronegative?

   (A) N   (C) F
   (B) C   (D) O

4. Which of the following is NOT true of Group II elements, Be, Mg, Ca, Sr, Ba, and Ra?

   (A) Be is the most active metal among them.
   (B) Ra has the lowest ionization potential.
   (C) Ca is bigger than Mg.
   (D) They have relatively low electronegativities.

5. The solubility of $KClO_3$ at 60°C is 25 g per 100 g of water. If at 60°C, 15 g of the salt is dissolved in 50 g of water, then the solution must be

   (A) unsaturated
   (B) saturated
   (C) supersaturated
   (D) diluted and unsaturated

6. A volume of 1.1 liters of O_2 was collected inside a balloon at 295 K and 13.6 psi. The next day, the surrounding conditions were observed to be 32°C and 0.98 atm. What is the volume of the gas inside the balloon?
   (1 atm = 14.7 psi)

   (A) 0.107 liter   (C) 10.7 liters
   (B) 1.070 liters   (D) 107.0 liters

7. Which of the following solutions has a molarity different from the rest?

   (A) 6 N H_3PO_4
   (B) 4 N $Ca(OH)_2$
   (C) 8 N $HC_2H_3O_2$
   (D) 2 N NH_4OH

Element	Electronegativity
K	0.8
Cl	3.0
H	2.1
O	3.5
C	2.5
N	3.0

8. Based on the table shown above, in which of the following compounds is the bonding ionic?

   (A) KCl   (C) CH_4
   (B) NH_3 (D) H_2O

9. Which of the following act as sources of energy in times of prolonged hunger and insulate the body against loss of heat?

   (A) Carbohydrates
   (B) Minerals
   (C) Proteins
   (D) Fats

PRACTICE SET

10. A 100-mL solution contains 4 grams of NaOH. If 50 mL of water is added to this solution, which of the following will remain unchanged?

   (A) Molarity of the solution
   (B) Number of moles of NaOH
   (C) Percent by weight of NaOH
   (D) Normality of the solution

11. In NaCl, the bond between Na and Cl is

   (A) hydrogen   (C) covalent
   (B) metallic   (D) ionic

12. What is the normality of an acid solution if 50 mL of the solution requires 48.61 mL of 0.1879 N alkali for neutralization?

   (A) 0.4000 N   (C) 0.1827 N
   (B) 0.2678 N   (D) 0.1274 N

Substance	Mass (g)	Volume (mL)
K	10	20
L	20	10
M	5	1
N	20	5

13. Based on the table shown above, which substance will float in water?

   (A) K   (C) M
   (B) L   (D) N

14. An element has three naturally occurring isotopes of masses 23.9924, 24.9938, and 25.9898. These have abundances of 78.6%, 10.1%, and 11.3%, respectively. What is the average atomic mass of this element?

   (A) 28.6   (C) 24.3
   (B) 25.2   (D) 22.4

15. Oxides of nonmetals with water form acids while oxides of metals with water form bases. Which of the following will be acidic in water?

   (A) Carbon dioxide
   (B) Calcium oxide
   (C) Barium oxide
   (D) Magnesium oxide

Sample	Weight of A (g)	Weight of B (g)
T	7	12.5
V	28	25.0
W	25	14.0
R	14	37.5
S	14	25.0

16. Five samples containing elements A and B are analyzed. Four of the samples are pure compounds, the other is a mixture. Results of the analysis are given in the table shown above. Which two samples are of the same compound?

   (A) T and V   (C) W and R
   (B) T and W   (D) T and S

17. Fifty-four grams of a certain metal at 98°C was placed in 80 mL of water at 297 K. Assuming no heat is lost to the surroundings, what is the temperature of the water and the metal? (Specific heat of the metal = $0.085\,cal/g \cdot C°$)

   (A) 280°C   (C) 28°C
   (B) 35°C   (D) 25°C

18. What is the molecular weight of an unknown gas if 200 mL of this gas diffuses through an apparatus in 180 seconds while 250 mL of NO_2 under the same conditions diffuses through the same apparatus in 170 seconds?

   (A)   8.97 g/mole
   (B) 60.88 g/mole
   (C) 80.52 g/mole
   (D) 805.20 g/mole

PRACTICE SET

19. Gas A and Gas B contain the same number of molecules and are at the same temperature. The external pressure on Gas A is twice that of Gas B. When compared to Gas B, the volume of Gas A is

    (A)   twice that of Gas B
    (B)   one-half that of Gas B
    (C)   four times that of Gas B
    (D)   same as that of Gas B

20. In every chemical reaction of Substance A, the sum of the weights of the products formed is greater than the initial weight of A which undergoes a reaction. Substance X, in turn, undergoes a chemical reaction in which the combined weight of the products is exactly equal to the initial weight of X which reacted. What kind of substances are A and X?

    (A)   A is a mixture and X is a pure compound.
    (B)   A is a pure compound while X is a mixture.
    (C)   Both A and X are mixtures.
    (D)   Both A and X are pure compounds.

21. Compounds are made up of

    (A)   atoms of the same element
    (B)   atoms of at least two different elements
    (C)   molecules of the same element
    (D)   molecules of at least two different elements

22. Which of the following is the electron configuration of Cl^{+1}?
    (Atomic number of Cl = 17)

    (A) $1s^2\,2s^2\,2p^6\,3s^2\,3p^5$
    (B) $1s^2\,2s^2\,2p^5\,3s^2\,3p^6$
    (C) $1s^2\,2s^2\,2p^6\,3s^2\,3p^4$
    (D) $1s^2\,2s^2\,2p^6\,3s^2\,3p^6$

23. The combination of equivalent amounts of acids and bases is called

    (A)   precipitation
    (B)   neutralization
    (C)   hydrolysis
    (D)   ionization

24. In a neutralization reaction, the number of milliequivalents of the acid and the base must be equal at the end point. If 20 mL of 0.15 N NaOH is used with 0.2 N HCl, how many mL of the HCl will be needed?

    (A)   10 mL   (C)   20 mL
    (B)   15 mL   (D)   25 mL

25. If every mole of methane produces 192 kilocalories of heat, how many kilocalories of heat will be produced by 160 grams of methane?
    (Atomic weights: H = 1, C = 12)

    (A)   1,920 kcal   (C)   192 kcal
    (B)   840 kcal   (D)   84 kcal

26. Which of the following is the effect of adding a nonvolatile solute to a solvent?

    (A)   Higher boiling and freezing points
    (B)   Lower boiling and freezing points
    (C)   Lower boiling point and higher freezing point
    (D)   Higher boiling point and lower freezing point

27. How many grams of water must be added to 200 mL of NaOH solution in order to have a solution with a specific gravity of 1.157, 13.55%? (Specific gravity of NaOH = 1.32, 28.83%)

    (A)   492.85 g   (C)   285.48 g
    (B)   294.95 g   (D)   258.45 g

28. If 40 mL of 0.100 M $KMnO_4$ (acidified) is diluted with 160 mL of water, then the normality of the resulting solution will be

    (A) 0.0200 N
    (B) 0.0250 N
    (C) 0.1000 N
    (D) 0.1250 N

29. A certain endothermic reaction occurs with a decrease in entropy. Therefore, the reaction is

    (A) spontaneous at high temperatures only
    (B) spontaneous at low temperatures only
    (C) spontaneous at all temperatures
    (D) nonspontaneous at all temperatures

30. Under which condition will the change in internal energy of a system be equal to the change in enthalpy of the system?

    (A) The system evolves heat at constant pressure.
    (B) The system absorbs heat while expanding to a vacuum.
    (C) The system absorbs heat at constant temperature and pressure.
    (D) The system evolves heat while its volume decreases against an opposing pressure of 1 atm.

31. A carcinogenic air pollutant from automotive sources and cigarette smoke is

    (A) aflatoxin
    (B) ammonia
    (C) urethane
    (D) benzopyrene

32. How many grams of NaOH is dissolved in 200 mL of a 1 M solution? (Atomic weights: Na = 23, O = 16, H = 1)

    (A) 1 g
    (B) 8 g
    (C)   40 g
    (D) 200 g

Subs-tance	Soluble in		Combus-tible	Melting Point
	Water	Ethanol		
K	No	Yes	Yes	10°C
L	Yes	No	No	300°C
M	No	Yes	No	50°C
N	No	No	Yes	300°C

33. Based on the data shown above, which substance is most likely an organic compound?

    (A) K
    (B) L
    (C) M
    (D) N

34. An analysis of a compound shows that it contains 78.2% B and 21.8% H and has a molecular weight of 27.6. What is the molecular formula of the compound?
    (Atomic weights: H = 1, B = 10.8)

    (A) BH_3
    (B) B_2H_6
    (C) B_3H_9
    (D) B_2H_5

$$2C_2H_2(g) + 5O_2(g) \rightleftharpoons 4CO_2(g) + 2H_2(g)$$
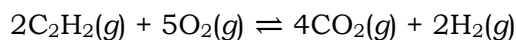
35. In the reaction shown above, 3 moles of C_2H_2 is reacted with 8 moles of O_2. Which of the following is the limiting reagent in the reaction?

    (A) C_2H_2
    (B) CO_2
    (C) O_2
    (D) H_2O

36. A component of curing salts which is used to preserve meat, acts as a color fixative, and has mutagenic effect is

    (A) NaCl
    (B) $NaCO_3$
    (C) KCl
    (D) $NaNO_2$

PRACTICE SET

Activated Complex

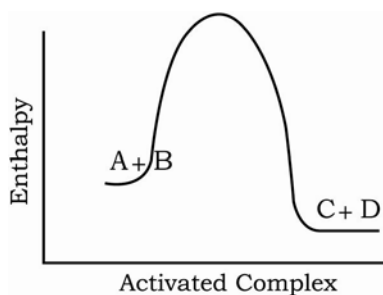37. The diagram above shows the relative values for the enthalpies involved in the reaction $A + B \rightarrow C + D$. Based on the diagram, which of the following is true?

(A) The activation energy required for the reverse reaction is lower than that for the forward reaction.
(B) A catalyst for the reaction is impossible.
(C) The reaction is endothermic.
(D) The reaction is exothermic.

Acid/Base	K_i
I. HCN	4.0×10^{-10}
II. HNO_2	4.5×10^{-4}
III. C_6H_5COOH	6.0×10^{-5}
IV. $C_6H_5NH_3OH$	4.6×10^{-10}

38. The table above shows the values of ionization constant, K_i, for some acids and bases measured at 25°C. If 1 M solutions of the acids and bases given above are prepared and the corresponding conductance values are measured, which of the following gives the correct arrangement of the acids and bases in the order of decreasing conductivity?

(A) III > II > IV > I
(B) IV > I > III > II
(C) II > III > IV > I
(D) I > IV > III > II

39. Nitration of phenol with dilute HNO_3 yields o-nitrophenol and p-nitrophenol. Which of the following explains this result?

(A) Benzene is *ortho* and *para* directing.
(B) Phenolic group is *ortho* and *para* directing.
(C) Nitric acid is *ortho* and *para* directing.
(D) Nitric acid is *meta* directing.

$$R - Mg - Br + CO_2 \xrightarrow{H_2O}$$
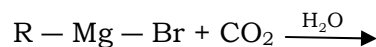
40. The equation above shows the reaction between a Grignard reagent and carbon dioxide. What compound will result from this reaction?

(A) R – CH₂OH (C) R – COOH
(B) R – CHO   (D) R – COOR

41. What compound results from the reduction of a nitro compound?

(A) Imine   (C) Enamine
(B) Imide   (D) Amine
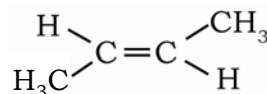
42. What configuration is exhibited by the structural formula of 2-butene shown above?

(A) *cis* configuration
(B) *trans* configuration
(C) Gauche configuration
(D) Eclipsed configuration

43. Which of the following technical grade laboratory solvents are most likely to contain an appreciable amount of water due to hydrogen bonding?

   I. Diethyl ether
   II. Hexane
   III. Acetone
   IV. Methanol

   (A) II and III only
   (B) I, II, and IV only
   (C) I, III, and IV only
   (D) I, II, III, and IV

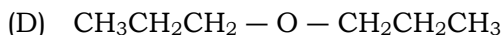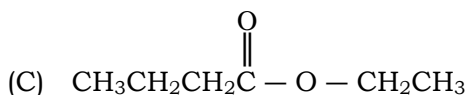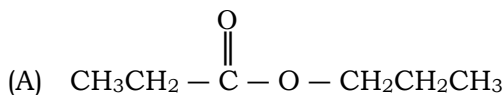44. Which of the following descriptions is true about the structure of a compound with a molecular formula C_6H_{10}?

   (A) It has a ring and a double bond.
   (B) It has two rings and a double bond.
   (C) It has a double bond and a triple bond.
   (D) It has a ring and a triple bond.

45. A liquid, $C_6H_{12}O_2$, was hydrolyzed with water and acid to give an acid A and an alcohol B. Oxidation of B with chromic acid produced A. The formula of the original compound is

   (A)
   $$CH_3CH_2 - \overset{\overset{\displaystyle O}{\|}}{C} - O - CH_2CH_2CH_3$$

   (B)
   $$CH_3\overset{\overset{\displaystyle O}{\|}}{C} - OCH_2(CH_2)_2CH_3$$

   (C)
   $$CH_3CH_2CH_2\overset{\overset{\displaystyle O}{\|}}{C} - O - CH_2CH_3$$

   (D) $CH_3CH_2CH_2 - O - CH_2CH_2CH_3$

46. Which of the following is an acid?

   (A) C_2H_5OH (C) CH_3CH_2COOH
   (B) CH_3OCH_3 (D) CH_3COCH_3

47. An example of a carbohydrate is

   (A) CHOOH   (C) C_5H_5OH
   (B) $(C_6H_{10}O_5)_x$ (D) CH_4

48. Which of the following compounds has a bond formed by overlap of sp-sp^3 hybrid orbitals?

   (A) $CH_3 - C \equiv C - H$
   (B) $H - C \equiv C \equiv H$
   (C) $CH_3CH_2CH_2CH_3$
   (D) $CH_2 = CH = CH = CH_2$

   $$C_{12}H_{26} \longrightarrow C_6H_{12} + C_6H_{14}$$
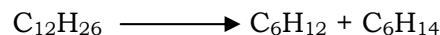
49. Which of the following processes is represented by the reaction shown above?

   (A) Substitution
   (B) Synthesis
   (C) Cracking
   (D) Polymerization

50. Which of the following compounds has the largest dipole moment?

   (A) CCl_4
   (B) $O = C = O$
   (C) *trans* $ClCH = CHCl$
   (D) *cis* $ClCH = CHCl$

STOP!
WAIT FOR FURTHER
INSTRUCTIONS.

PRACTICE SET

ANSWER KEY TO PRACTICE SET

PART I - APTITUDE TESTS

SUBTEST	ITEM NUMBER

SUBTEST	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Verbal	A	A	B	D	B	D	C	D	D	D	B	B	A	B	A	C	D	B	A	C
Inductive Reasoning	B	E	D	A	B	B	A	E	C	E	C	C	A	C	B	B	C	D	C	B
Quantitative	B	A	B	B	D	C	A	D	A	C	C	B	C	D	B	A	C	D	C	B
Perceptual Acuity	C	A	A	B	B	D	C	A	C	B	B	E	A	A	D	E	A	C	A	B

SUBTEST	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Verbal	B	D	C	D	C	B	C	A	B	D	C	B	C	D	C	B	C	D	B	A
Inductive Reasoning	B	D	B	C	E	D	B	E	C	A	E	D	E	B	D	A	E	C	B	B
Quantitative	B	A	B	B	B	B	C	C	C	C	D	B	D	C	B	C	A	B	B	A
Perceptual Acuity	B	D	E	D	C	C	C	B	D	E	D	E	E	B	E	D	D	E	E	D

PART II - SPECIAL AREAS

SUBTEST	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Biology	A	C	C	D	A	C	C	A	B	B	D	C	D	B	A	C	B	D	C	B	B	B	D	C	D
Physics	C	D	C	D	A	D	B	D	B	D	B	B	C	C	B	B	A	B	A	A	B	D	C	B	C
Social Science	B	D	A	B	A	B	C	C	A	C	C	B	A	A	C	A	C	A	D	B	B	C	B	D	C
Chemistry	B	C	C	A	C	B	C	A	D	B	D	C	A	C	A	D	C	C	B	B	D	C	B	B	A

SUBTEST	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Biology	C	B	D	D	B	B	B	B	C	A	C	C	D	A	B	B	A	D	B	A	B	B	A	A	A
Physics	B	D	B	B	B	D	B	C	C	B	D	A	B	C	A	D	B	C	B	D	A	C	A	D	B
Social Science	B	B	D	D	D	C	D	C	B	C	B	A	C	C	D	C	D	C	B	B	C	B	D	C	C
Chemistry	D	C	A	D	B	D	B	A	B	A	D	D	C	B	C	D	B	C	A	A	C	B	A	C	D