

EST I – Literacy Test I

Student's Name _____

National ID _____

Test Center: _____

Duration: 35 minutes

44 Multiple Choice Questions

Instructions:

- Place your answer on the answer sheet. Mark only one answer for each of the multiple choice questions.
- Avoid guessing. Your answers should reflect your overall understanding of the subject matter.

Questions 1-11 are based on the following passage by Alexander Schwalbach and Julius Wilcox.

The Modern Bicycle and its Accessories

Bicycles without number have been consigned to the scrap heap or discarded for new mounts, as a result of abuse and lack of proper care, due solely to the ignorance of riders as to a wheel's construction and requirements. Furthermore, disappointments have resulted, in many instances, because the same lack of knowledge has prevented the wise selection of a well-constructed and properly adjusted mount at the outset.

A bicycle can no more be (1) accepted to run smoothly without a proper adjustment of (2) its parts and their maintenance in perfect running condition than can any other piece of machinery. And while the chain and chainless productions of 1898 are (3) disliked for their simple mechanism, such points as the bearings and running gear require periodical inspection and attention to insure satisfactory service. This cannot be adequately given by a rider who has no conception as to the details of construction of (4) its machine, and (5) so it frequently happens that a bicycle sinks into an early grave because its rider persists in calling upon it for continued service, while utterly indifferent to its construction and requirements.

“Know thy wheel” is an excellent (6) thought for every rider to follow; for those who heed it the matter of emergency repair will be a simple thing, a smooth running wheel will be assured, the chance of accident reduced to the minimum, and the life of the machine extended throughout its fullest period. It is partly with a view to (7) “bringing about a better acquaintance” between the average rider and his wheel that the following pages are presented.

- 1.A. NO CHANGE
B. excepted
C. expected
D. axcepted
- 2.A. NO CHANGE
B. it's parts and their maintenance
C. its parts and there maintenance
D. its parts and they're maintenance
3. The authors want to express worthiness. Which choice best accomplishes this goal?
A. NO CHANGE
B. admired
C. judged
D. famous
- 4.A. NO CHANGE
B. they
C. him
D. his
- 5.A. NO CHANGE
B. yet
C. but
D. for
6. Which word BEST describes the phrase “Know thy wheel”?
A. NO CHANGE
B. quote
C. description
D. maxim
7. The authors are considering removing the quotation marks in the underlined portion. Should they do so?
A. Yes. The quotation represents the authors' inner thoughts.
B. Yes, the quotation marks extend unnecessary emphasis.
C. No. The quotation marks serve to break from the flow of the passage to introduce new ideas.
D. No. The quotation marks symbolize a word-for-word account to support the authors' argument.

To the bicycle manufacturer and to the repair man and dealer (8)—who are frequently called upon for advice and service concerning any and all makes of wheels—to the student of cycle construction, and to the mechanical expert, the volume will scarcely fail to be regarded as a valuable reference book for many years to come.

1. The idea of presenting to (9) riders through the columns of “The Commercial Advertiser” an illustrated description of the lines, parts, improvements of the bicycle for 1898 was conceived chiefly because of the absence during the winter of 1897-98 of a National Cycle Show. (11) 2. Just prior to the opening of preceding seasons tens of thousands of riders throughout the country were able to see at the annual shows, and at those held under the auspices of the various local cycle trade organizations, all that the maker had to offer in changes and improvements for the new year. 3. This opportunity was also furthered by the columns of descriptive matter published by the daily press and cycle trade journals in their reports of these shows and their exhibits.

8. What should be done with the dashes?
- A. Keep them. The information within the dashes is nonrestrictive.
 - B. Keep them. The dashes offer a change in tone.
 - C. Delete them. The information within the dashes is necessary.
 - D. Delete them. Dashes can only be placed at the end of a sentence, not the middle.
- 9.A. NO CHANGE
- B. riders; through the columns of “The Commercial Advertiser;” an
 - C. riders; through the columns of “The Commercial Advertiser,” an
 - D. riders, through the columns of “The Commercial Advertiser,” an
10. The authors would like to insert this sentence to provide further support to their argument in this paragraph.
“Riders were to have none of these advantages for the season of 1898, however, and “The Commercial Advertiser” accordingly began the work of collecting and presenting the information which appeared in its columns in serial form during February, March and April of 1898, and which is now presented in this volume.”
- The best placement for this sentence is**
- A. before sentence 1
 - B. after sentence 1
 - C. after sentence 2
 - D. after sentence 3
11. The authors are considering deleting the underlined phrase. Should the sentence be kept or deleted?
- A. Kept, the sentence provides details about the previous sentence.
 - B. Kept, the sentence provides an important contradiction to the previous sentence.
 - C. Deleted, the sentence is unrelated to the rest of the paragraph.
 - D. Deleted, the sentence provides details that should not be presented in the beginning of the paragraph.

Questions 12-22 are based on the following passage by Jean-Henri Fabre.

The Glow Worm and Other Beetles

Few insects in our climes compete in popular fame with the Glow-worm, that curious little animal which, to celebrate the little joys of life, kindles a beacon at its (12) tail-end, who does not know it, at least by name? Who has not seen it roam amid the grass, like a spark fallen from the moon at its full? The Greeks of old called it [Greek: lampouris], meaning, the bright-tailed. Science employs the same term: it calls the lantern-bearer, *Lampyrus noctiluca*, LIN. In this case, the common name is inferior to the scientific phrase, which, when translated, becomes both expressive and accurate.

(13) The Lampyrus is not a worm at all, not even in general appearance. He has six short legs, which he well knows how to use; he is a (14) gad-about, a trot-about. In the adult state, the male is correctly garbed in wing-cases, like the true Beetle that he is. The female is an ill-favoured, (15) ground-bound thing who knows naught of the delights of flying: all her life long, she retains the larval shape, which, for the rest, is similar to that of the male, who himself is imperfect so long as he has not achieved the maturity that comes with pairing-time. Even in this initial stage, the word "worm" is out of place. We French have the expression "Naked as a worm," to point to the lack of any defensive covering. Now the Lampyrus is clothed, that is to say, he wears an epidermis of some consistency; moreover, he is rather richly coloured: his (16) body is dark brown all over and set off with pale pink on the thorax, especially on the lower surface. Finally, each segment is decked at the hinder edge with two spots of a fairly bright red. A costume like this (17) having never been worn by a worm.

1. Before he begins to feast, the Glow-worm administers an anæsthetic: he chloroforms his victim, rivalling in the process the wonders of our modern surgery, which renders the patient insensible before operating on him.

12.A. NO CHANGE

B. tail-end. Who

C. tail-end who

D. tail-end, and who

13. Which sentence is best suitable for the introductory sentence?

A. In fact, we might easily cavil at the word "worm."

B. The Greeks have coined the word *Lampyrus noctiluca*.

C. The Lampyrus can easily be mistaken for a worm.

D. Although the Lampyrus has gained its fame among other beetles, its beetle nature is still questioned.

14. Which choice best matches the quality the author mentions?

A. attention-seeker

B. wanderer

C. lazy creature

D. docile insect

15.A. NO CHANGE

B. ground-bound thing who knows naught of the delights of flying,

C. ground-bound thing who knows naught of the delights of flying

D. ground-bound thing who knows naught of the delights of flying;

16.A. NO CHANGE

B. body is dark brown all over and setting off

C. body is dark brown all over and was set off

D. body is dark brown all over and had been set off

17.A. NO CHANGE

B. is never worn

C. never had been worn

D. was never worn

(18) 2. It is essential the Glow-worm administers this in order to ensure its prey is unable to move. (19) 3.

It is in some such resting-place as this that I have often been privileged to light upon the Lampyris banqueting on the prey which he had just paralyzed on its shaky support by his surgical (20) movements.

4. The usual game is a small snail hardly the size of a cherry, such as, for instance, *Helix variabilis*, DRAP., who, in the hot weather, collects in clusters on the stiff stubble and on other long, dry stalks, by the roadside, and there remains motionless, in profound meditation, throughout the scorching summer days.

18. The author is considering deleting the underlined sentence. Should the sentence be kept or deleted?
- A. Kept, the sentence elaborates the concept of rendering the Glow-worm's victim insensible.
 - B. Kept, the sentence states the importance of rendering the Glow-worm's victim insensible.
 - C. Deleted, it is redundant.
 - D. Deleted, it is unrelated.
19. To make this paragraph most logical, sentence 3 should be placed
- A. where it is
 - B. before sentence 1
 - C. after sentence 1
 - D. after sentence 4
20. The author wants to express the Glow-worm's trickery. Which choice best accomplishes this goal?
- A. NO CHANGE
 - B. games
 - C. artifices
 - D. routines

But he is familiar with other preserves. (21) He frequents the edges of the irrigating-ditches, with their cool soil, their varied vegetation, a favourite haunt of the mollusc. (22)

21.A. NO CHANGE

- B.** He frequents the edges of the irrigating-ditches with their cool soil; their varied vegetation; a favourite haunt of the mollusc.
- C.** He frequents the edges of the irrigating-ditches with their cool soil— their varied vegetation, a favourite haunt of the mollusc.
- D.** He frequents the edges of the irrigating-ditches. With their cool soil, their varied vegetation, a favourite haunt of the mollusc.

22. Which choice best concludes the paragraph and matches the author’s writing style?

- A.** Here, he treats the game on the ground.
- B.** Under these conditions, it is easy for me to rear him at home and to follow the operator's performance down to the smallest detail.
- C.** Although he is referred to as a worm, he is everything but that.
- D.** His capture suggests his relatives are great hunters as well.

Questions 23-33 are based on the following passage.

**Aviation Engines: Design—Construction—
Operation and Repair by Victor W. Page**

Installing Rotary and Radial Cylinder Engines

1. When rotary engines are installed, simple steel stamping or “spiders” are attached to the fuselage—to hold the fixed (23) crank-shaft. 2. Inasmuch as the motor projects clear of the fuselage proper, there is plenty of room back of the front spider plate to install the auxiliary parts such as the oil pump, air pump and ignition magneto and also the fuel and oil containers. 3. (25) The diagrams given at Figs. 2 and 3 show other mountings of Gnome engines and are self-explanatory. The simple mounting possible when the Anzani ten-cylinder radial fixed type engine is used given at (26) Fig.1. The front end of the fuselage is provided with a substantial pressed steel plate having members projecting from it which may be bolted to the longerons. The bolts that hold the two halves of the crank-case together project through the steel plate and hold the engine (27) loosely to the front end of the fuselage.

23.A. NO CHANGE

B. crank-shaft—Inasmuch

C. crank-shaft inasmuch

D. crank-shaft, inasmuch

24. The writer would like to insert this sentence to provide visual support and explanation of Fig. 1.

‘The diagram given at Fig. 1 shows how a Gnome “monosoupape” engine is installed on the anchorage plates and it also outlines clearly the piping necessary to convey the oil and fuel and also the air-piping needed to put pressure on both fuel and oil tanks to insure positive supply of these liquids which may be carried in tanks placed lower than the motor in some installations.’

The best placement for this sentence is

A. before sentence 1

B. before sentence 2

C. before sentence 3

D. after sentence 3

25.A. NO CHANGE

B. The diagram given at Figs. 2 and 3 show other mountings of Gnome engines and are self-explanatory.

C. The diagrams given at Figs. 2 and 3 shows other mountings of Gnome engines and is self-explanatory.

D. The diagram given at Figs. 2 and 3 show other mountings of Gnome engines and is self-explanatory.

26. Which choice refers to the explanation provided in the sentence?

A. NO CHANGE

B. Fig. 2

C. Fig. 3

D. Fig. 4

27.A. NO CHANGE

B. securely

C. haphazardly

D. lightly

Some Causes of Noisy Operation

There are a number of power-plant derangements which give a positive indication (28) on the other hand noisy operation.

(29) Any knocking or rattling sounds are usually (30) under the influence of wear in connecting rods or main bearings of the engine, though sometimes a sharp metallic knock, which (31) are very much the same as that produced by a loose bearing, is due to carbon deposits in the cylinder heads, or premature ignition due to advanced spark-time lever.

- 28.A. NO CHANGE
- B. because of their
- C. in the same way
- D. and therefore

29. Which of the following best adds onto the writer's list of cases and causes of noisy operation?

- A. Squeaking sounds invariably indicate dry bearings, and whenever such a sound is heard it should be immediately located and oil applied to the parts.
- B. The rubber hose often used in making the flexible connections demanded between the radiator and water manifolds of the engine may deteriorate inside and particles of rubber may hang down and reduce the area of the passage.
- C. The grease from the grease cups mounted on the pump-shaft bearing to lubricate that member often finds its way into the water system and rots the inner walls of the rubber hose, resulting in strips of the partly decomposed rubber lining hanging down and restricting the passage.
- D. The cooling system is prone to overheat after antifreezing solutions of which calcium chloride forms a part have been used.

- 30.A. NO CHANGE
- B. produced by
- C. changed because of
- D. unrelated to

- 31.A. NO CHANGE
- B. has been
- C. is
- D. have been

Whistling or (32) blowing sounds are produced by leaks whose are either in the engine (33) themselves or in the gas manifolds. A sharp whistle denotes the escape of gas under pressure and is usually caused by a defective packing or gasket that seals a portion of the combustion chamber or that is used for a joint as the exhaust manifold. A blowing sound indicates a leaky packing in crank-case. Grinding noises in the motor are usually caused by the timing gears and will obtain if these gears are dry or if they have become worn. Whenever a loud knocking sound is heard careful inspection should be made to locate the cause of the trouble. Much harm may be done in a few minutes if the engine is run with loose connecting rod or bearings that would be prevented by taking up the wear or looseness between the parts by some means of adjustment.

32.A. NO CHANGE

- B.** blowing sounds are produced by leaks, which are either in the engine
- C.** blowing sounds, which are produced by leaks either in the engine
- D.** blowing sounds which are produced by leaks either in the engine

33.A. NO CHANGE

- B.** itself
- C.** himself
- D.** herself

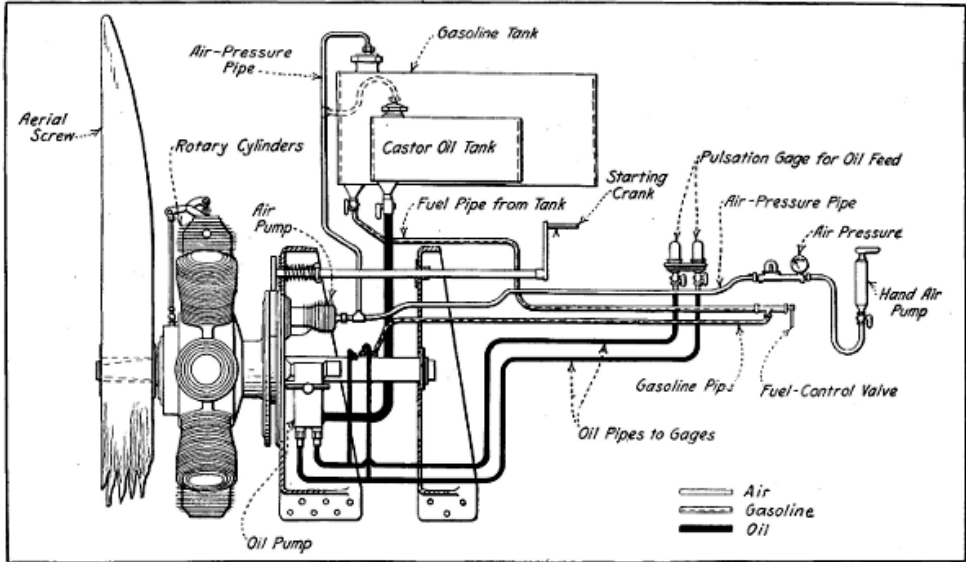


Fig. 1.—Diagram Defining Installation of Gnome "Monosoupape" Motor in Tractor Biplane. Note Necessary Piping for Fuel, Oil, and Air Lines.

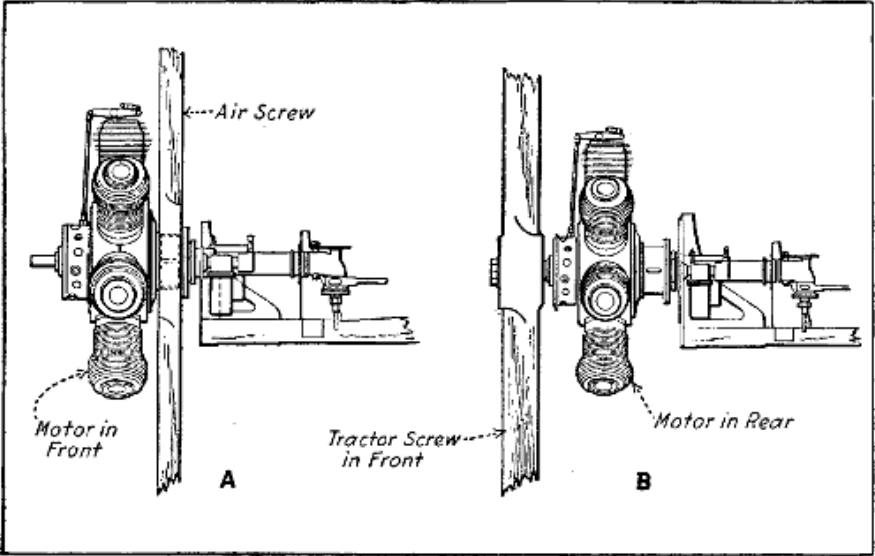


Fig. 2.—Showing Two Methods of Placing Propeller on Gnome Rotary Motor.

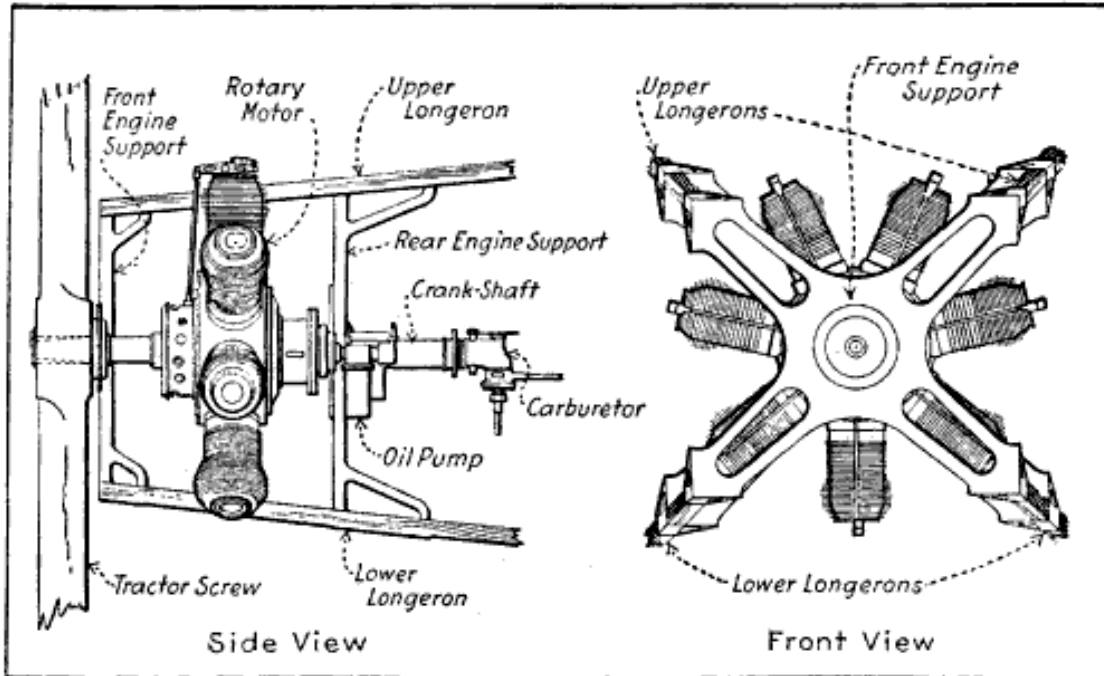


Fig. 3.—How Gnome Rotary Motor May Be Attached to Airplane Fuselage Members

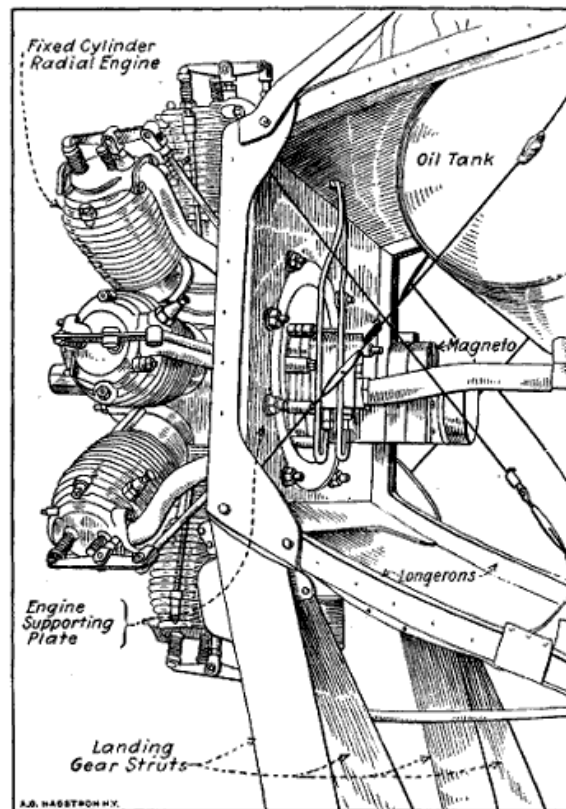


Fig. 4.—How Anzani Ten-Cylinder Radial Engine is Installed to Plate Securely Attached to Front End of Tractor Airplane Fuselage.

Questions 34 through 44 are based on the following passage by Clare Howard.

English Travelers of the Renaissance

(34) Among the many didactic books were certain essays which flooded England in the sixteenth and seventeenth centuries on travel. Some of these have never been brought to light since their publication more than three hundred years ago, or been mentioned by the few writers who have interested themselves in the literature of this subject. In the collections of voyages and explorations, so often (35) emphasized, these have found no place. Most of them are very (36) rare, and have never been reprinted. Yet they do not deserve to be thus overlooked, and in several ways this survey of them will, I think, be useful for students of literature.

They reveal a widespread custom among Elizabethan and Jacobean gentlemen, of completing their education by travel. There are scattered allusions to this practice, in contemporary social documents: Anthony à Wood frequently explains how such an Oxonian "travelled beyond seas and returned a compleat Person,"—but (37) nowhere is this ideal of a cosmopolitan education so explicitly set forth as it is in these essays. Addressed to the intending tourist, they are in no sense to be confused with guide-books or itineraries. They are discussions of the benefits of travel, admonitions and warnings, arranged to put the traveler in the proper attitude of mind towards his great task of self-development like (38) a soldier losing a war. Taken in chronological order they outline for us the life of the travelling student.

- 34.A. NO CHANGE
- B. Among the many didactic books which flooded England in the sixteenth and seventeenth centuries were certain essays on travel.
- C. In the sixteenth and seventeenth centuries certain essays that flooded England on travel were among the many didactic books.
- D. Among the many didactic books were certain essays on travel that flooded England in the sixteenth and seventeenth centuries
- 35.A. NO CHANGE
- B. fantasized
- C. stolen
- D. garnered
36. Which choice best matches the quality the author mentions?
- A. NO CHANGE
- B. scarce
- C. consistent
- D. common
- 37.A. NO CHANGE
- B. everywhere
- C. somewhere
- D. something
- 38.A. NO CHANGE
- B. an apprentice monk taking his first step into a monastery
- C. a swan finding its mate
- D. a wolf leaving its pack

Beginning with the end of the sixteenth century when travel became the fashion, as the only means of acquiring modern languages and modern history, as well as those physical accomplishments and social graces by which a young man won his way at Court, they trace his evolution up to the time when it had no longer any serious motive; that is, when the chairs of modern history and modern languages were founded at the English universities, and when, with the fall of the Stuarts, the Court ceased to be the arbiter of men's (39) fortunes futures and educations. In the course of this evolution they show us many phases of continental influence in England; how Italian immorality infected young imaginations, how France became the model of deportment, what were the origins of the Grand Tour, and so forth.

(40) 1. That these directions for travel were not isolated oddities of literature, but were the expression of a widespread ideal of the English gentry, I have tried to show in the following study.

39.A. NO CHANGE

- B. fortunes, futures, and educations
- C. fortunes; futures, and educations
- D. fortunes; futures; and educations

40. Which of the following best introduces the paragraph and transitions to the next sentence?

A. NO CHANGE

- B. It is open to doubt whether the number of the truly pious would ever have filled so many ships.
- C. In the same boat-load with merchants, spies, exiles, and diplomats from England sailed the young gentleman fresh from his university, to complete his education by a look at the most civilized countries of the world.
- D. These discussions of the art of travel are relics of an age when Englishmen, next to the Germans, were known for being the greatest travellers among all nations.

41. The writer would like to insert this sentence to provide the reason for including illustrations.

“The essays can hardly be appreciated without support from biography and history, and for that reason I have introduced some concrete illustrations of the sort of traveller to whom the books were addressed.”

The best placement for this sentence is

- A. before sentence 1
- B. after sentence 1
- C. after sentence 2
- D. after sentence 3

2. If I have not always quoted the "Instructions" fully, (42) its because they repeat one another on some points. 3. My plan (43), has been, to comment on whatever in each book was new, or showed the evolution of travel (44), for study's sake.

42.A. NO CHANGE

B. it is

C. this

D. its'

43.A. NO CHANGE

B. ; has been

C. has been

D. :has been

44.A. NO CHANGE

B. – for study's sake

C. ; for study's sake

D. for study's sake



EST I - Literacy Test II

Student's Name _____

National ID _____

Test Center: _____

Duration: 65 minutes

52 Multiple Choice Questions

Instructions:

- Place your answer on the answer sheet. Mark only one answer for each of the multiple choice questions.
- Avoid guessing. Your answers should reflect your overall understanding of the subject matter.

The following edited passage is an excerpt from Around the World in Eighty Days by Jules Verne introducing Phileas Fogg.

Mr. Phileas Fogg lived, in 1872, at No. 7, Saville Row, Burlington Gardens, the house in which Sheridan died in 1814. He was one of the most noticeable members of the Reform Club, though he seemed always to avoid attracting attention; an enigmatical personage, about whom little was known, except that he was a polished man of the world. People said that he resembled Byron—at least that his head was Byronic.

Certainly an Englishman, it was more doubtful whether Phileas Fogg was a Londoner. He was never seen on 'Change, nor at the Bank, nor in the counting-rooms of the "City"; no ships ever came into London docks of which he was the owner; he had no public employment; he had never been entered at any of the Inns of Court, either at the Temple, or Lincoln's Inn, or Gray's Inn; nor had his voice ever resounded in the Court of Chancery, or in the Exchequer, or the Queen's Bench, or the Ecclesiastical Courts. He certainly was not a manufacturer; nor was he a merchant or a gentleman farmer. His name was strange to the scientific and learned societies, and he never was known to take part in the sage deliberations of the Royal Institution or the London Institution, the Artisan's Association, or the Institution of Arts and Sciences. He belonged, in fact, to none of the numerous societies which swarm in the English capital, from the Harmonic to that of the Entomologists.

Phileas Fogg was a member of the Reform, and that was all.

The way in which he got admission to this exclusive club was simple enough.

He was recommended by the Barings, with whom he had an open credit. His cheques were regularly paid at sight from his account current, which was always flush.

Was Phileas Fogg rich? Undoubtedly. But those who knew him best could not imagine how he had made his fortune, and Mr. Fogg was the last person to whom to apply for the information. Whenever he knew that money was needed for a noble, useful, or benevolent purpose, he supplied it quietly and sometimes anonymously. He was, in short, the least communicative of men. He talked very little, and seemed all the more mysterious for his taciturn manner. His daily habits were quite open to observation; but whatever he did was so exactly the same thing that he had always done before, that the wits of the curious were fairly puzzled.

Had he travelled? It was likely, for no one seemed to know the world more familiarly; there was no spot so secluded that he did not appear to have an intimate acquaintance with it. He often corrected, with a few clear words, the thousand conjectures advanced by members of the club as to lost and unheard-of travellers, pointing out the true probabilities, and seeming as if gifted with a sort of second sight, so often did events justify his predictions. He must have travelled everywhere, at least in the spirit.

It was at least certain that Phileas Fogg had not absented himself from London for many years. Those who were honoured by a better acquaintance with him than the rest, declared that nobody could pretend to have ever seen him anywhere else. His sole pastimes were reading the papers and playing whist. Mr. Fogg played, not to win, but for the sake of playing. The game was in his eyes a contest, a struggle with a

difficulty, yet a motionless, unwearying
90 struggle, congenial to his tastes.

Phileas Fogg was not known to have
either wife or children, which may
happen to the most honest people; either
relatives or near friends, which is
95 certainly more unusual. He lived alone
in his house in Saville Row, whither
none penetrated. A single domestic
sufficed to serve him. He breakfasted
and dined at the club, at hours
100 mathematically fixed, in the same room,
at the same table, never taking his meals
with other members, much less bringing
a guest with him; and went home at
exactly midnight, only to retire at once
105 to bed. He never used the cosy
chambers which the Reform provides
for its favoured members. He passed ten
hours out of the twenty-four in Saville
Row, either in sleeping or making his
110 toilet. When he chose to take a walk it
was with a regular step in the entrance
hall with its mosaic flooring, or in the
circular gallery with its dome supported
by twenty red porphyry Ionic columns,
115 and illumined by blue painted windows.
When he breakfasted or dined all the
resources of the club—its kitchens and
pantries, its buttery and dairy—aided to
crowd his table with their most
120 succulent stores; he was served by the
gravest waiters, in dress coats, and
shoes with swan-skin soles, who
proffered the viands in special
porcelain, and on the finest linen.

1. The main purpose of the passage is to
 - A. disparage Phileas Fogg's actions in the Reform Club.
 - B. outline Phileas Fogg's financial decisions.
 - C. detail Phileas Fogg's character at all angles.
 - D. argue for Phileas Fogg's importance in the Reform Club.

2. Phileas Fogg's experience and knowledge of the world is most similar to
 - A. a student who has read many geography books.
 - B. a simple man who has never left London.
 - C. a young woman thirsty for adventure.
 - D. a traveler who has gone to every country in the world.
3. Which of the following is true of Phileas Fogg's character?
 - A. simple in his knowledge of the world
 - B. generous with his money
 - C. timid and shy especially around new people
 - D. quiet and standoffish when confronted
4. Which choice best provides evidence for the answer to the previous question?
 - A. Lines 4-7 ("He ... attention;")
 - B. Lines 25-27 ("He ... farmer.")
 - C. Lines 38-39 ("Phileas ... all.")
 - D. Lines 52-55 ("Whenever ... anonymously.")
5. As used in line 49, "fortune" most nearly means
 - A. wealth.
 - B. luck.
 - C. coincidence.
 - D. condition.

6. Why did people doubt Phileas Fogg's identity as an English man?
- A. He was not found doing typical Englishmen activities.
 - B. He was unknown in many parts of London.
 - C. He was unmarried and had no relations.
 - D. He was a part of the Reform Club.
7. Which choice best provides evidence for the answer to the previous question?
- A. Lines 4-7 ("He ... attention;")
 - B. Lines 14-25 ("He ... Courts.")
 - C. Lines 78-80 ("It ... years.")
 - D. Lines 91-95 ("Phileas... unusual.")
8. As used in line 97, "penetrated" most nearly means
- A. pierced.
 - B. understood.
 - C. entered.
 - D. pervaded.
9. In lines 47 and 64, the author uses questions to
- A. elicit a response from the reader.
 - B. engage the reader's attention.
 - C. test the reader's knowledge.
 - D. make a sarcastic remark.
10. The tone of the passage is best described as
- A. judgmental and disapproving.
 - B. condescending and obnoxious.
 - C. subjective and emotionally driven.
 - D. matter-of-fact and objective.

The following passage is taken from The Leardo Map of the World, 1452 or 1453 by John Kirtland Wright on the calendar and the inscription behind it.

The calendars encircling Leardo's three maps constitute exceptional additions. Of these calendars, the one on the Society's map is the most interesting. The
5 inscription in the panel below the circles, in part an explanation of the calendar, is somewhat awkwardly phrased in the Venetian dialect of the fifteenth century, but, although it lacks the beginning of
10 each line, the meaning is fairly clear, especially when certain of the missing lines are reconstructed from the corresponding inscription on the map in Vicenza.

15 In the first two lines the cartographer makes an excursion into the realm of theology.

This passage is followed by a statement that the map shows how the land and
20 islands stand in relation to the seas and how the many provinces and mountains and principal rivers are distributed on the land. Then, on the asserted authority of Macrobius, "a very excellent astrologer
25 and geometrician," figures are given for the dimensions of the earth and of various heavenly bodies. These are quite fanciful, bearing little relation to the corresponding figures actually cited by Macrobius.

30 The astronomical details are followed in the third paragraph by the explanation of the calendar. The latter consists of eight concentric circles, of which the innermost gives the dates of a religious holiday for
35 ninety-five years, from April 1, 1453, to April 10, 1547; when this holiday falls in April, *A* is written in the small compartment, when in March, *M*; leap years are designated by *B* ("bissextile
40 years").

The second circle shows the names of the months, beginning with March, which

was officially reckoned the first month of the year in the Republic of Venice until
45 as late as 1797; it also tells the day, hour, and minute when the sun enters each of the twelve signs of the zodiac.

The third, fourth, fifth, and sixth circles enable one to calculate the phases of the
50 moon. In the third circle the first nineteen letters of the alphabet represent in order the years of the Metonic lunisolar cycle. These years were usually designated by the golden numbers, but before the
55 Gregorian reform letters were frequently employed in place of the numbers. Leardo explains that *C* stands for 1453, *D* for 1454, and so on until *T* is reached, after which we begin over again at *A*. A
60 letter is placed opposite the figures (in the fourth, fifth, and sixth 4 circles) showing respectively the day of the month, the hour of the day, and the "point of the hour" at which the "conjunction of the
65 moon" (i.e. new moon) will take place in the years to which the letter refers. For example, there will be a new moon on April 8, 1453, at 16 hours, 200 points. Leardo adds that there are 1080 points in
70 an hour.

The seventh circle gives the dominical, or "Sunday," letters; these are indicated
opposite the days of the month (fourth
circle) on which Sunday falls in the years
75 designated by the seven first letters of the alphabet. If we know the dominical letter for any particular year, we may thus determine the days of the week. Leardo, however, does not specify the
80 years to which the dominical letters in his calendar refer.

The eighth and ninth circles give the lengths of the days in hours and minutes. From this we see that the vernal equinox
85 fell on March 11, inasmuch as the calendar was constructed before the Gregorian reform. Finally, in the tenth circle religious festivals are shown.

Leardo's Times		Actual Times	
1453 Dec. 1	? hrs. 203? pts.	Nov. 30	2.40 P. M.
1455 Apr. 16	21 hrs. ?	Apr. 17	12.22 A. M.
1456 Apr. 6	7 hrs. 229 pts.	Apr. 5	4.25 A. M.
1461 Jan. 11	21 hrs. ?	Jan. 11	8.44 P. M.
1468 Feb. 23	14 hrs. 747 pts.	Feb. 23	10.15 P. M.

Times of the New Moon
Source: James Orton

11. The primary purpose of the passage is to
- introduce the main elements of Leardo's calendar and its effect on calendars today.
 - defend Leardo's calendar as useful and still relevant.
 - make clear the importance of understanding the history behind the calendar.
 - outline the different components of Leardo's calendar and the circles that surround it.
12. The overall text structure of the passage is best described as
- cause and effect.
 - investigation.
 - argumentative.
 - informative.
13. As used in line 20, "stand" most nearly means
- endure.
 - apply.
 - erect.
 - exist.
14. Which of the following is NOT mentioned in the passage?
- Sunday is the first day of the week according to Leardo's calendar.
 - The message in the panel was written centuries ago.
 - The second circle on the map represents the months of the year.
 - The beginning of the inscription alludes to religion.
15. Which choice best provides evidence for the answer to the previous question?
- Lines 4-14 ("The ... Vicenza.")
 - Lines 15-17 ("In ... theology.")
 - Lines 41-45 ("The ... 1797;")
 - Lines 71-76 ("The ... alphabet.")
16. In lines 24-25, the author uses quotation marks most likely to
- support the evidence he is providing with a credible source.
 - provide a counter-claim through the quotation marks.
 - break the tone of the text.
 - switch voices to support his claim.
17. As used in line 56, "employed" most nearly means
- hired.
 - used.
 - involved.
 - appointed.
18. Which of the following can be inferred from the passage?
- Leardo's calendar was the first of its kind.
 - Leardo's calendar was heavily based in religion.
 - All circles are alike.
 - The last two circles are the most important for Leardo's calendar.
19. Which choice best provides evidence for the answer to the previous question?
- Lines 2-4 ("Of ... interesting.")
 - Lines 32-36 ("The ... 1547;")
 - Lines 48-50 ("The ... moon.")
 - Lines 82-83 ("The ... minutes.")

- 20.** According to the graphic, which of Leardo's predictions was the most accurate?
- A.** 1455 April 16
 - B.** 1456 April 6
 - C.** 1461 January 11
 - D.** 1468 February 23
- 21.** The organization of the passage is best described as
- A.** cause and effect.
 - B.** sequential.
 - C.** compare and contrast.
 - D.** chronological.

The first passage is from Special Reports on Diseases of the Horse by A. A. Holcombe faults on conformation. The second edited passage is taken from Diseases of the Horse's Foot by H. Caulton Reeks on a disease in the horse's foot.

Passage 1

A large percentage of horses have feet which are not perfect in conformation, and as a consequence they are especially predisposed to certain injuries and diseases.

Flatfoot is that condition in which the sole has little or no convexity. It is a peculiarity common to some breeds, especially heavy, lymphatic animals raised on low, marshy soils. It is confined to the fore feet, which are generally broad, low-heeled, and with a wall less upright than is seen in the perfect foot.

In flatfoot there can be little or no elasticity in the sole, for the reason that it has no arch, and the weight of the animal is received on the entire plantar surface, as it rests upon the ground instead of on the wall. For these reasons such feet are particularly liable to bruises of the sole, corns, pumiced sole, and excessive suppurating when the process is once established. Horses with flatfoot should be shod with a shoe having a wide web, pressing on the wall only, while the heels and frog are never to be pared. Flatfoot generally has weak walls, and as a consequence the nails of the shoe are readily loosened and the shoe cast.

Clubfoot is a term applied to such feet as have the walls set nearly perpendicular. When this condition is present the heels are high, the fetlock joint is thrown forward, or knuckled, and the weight of the animal is received on the toes. Many mules are clubfooted, especially behind, where it seems to cause little or no inconvenience. Severe cases of clubfoot

may be cured by cutting the tendons, but as a rule special shoeing is the only measure of relief that can be adopted. The toe should not be pared, but the heels are to be lowered as much as possible and a shoe put on with a long, projecting toe piece, slightly turned up, while the heels of the shoe are to be made thin.

Crookedfoot is that condition in which one side of the wall is higher than the other. If the inside wall is the higher, the ankle is thrown outward, so that the fetlock joints are abnormally wide apart and the toes close together. Animals with this deformity are "pigeon-toed," and are prone to interfere, the inside toe striking the opposite fetlock. If but one foot is affected, the liability to interfere is still greater, for the reason that the fetlock of the perfect leg is nearer the center plane.

When the outside heel is higher the ankle is thrown in and the toe turns out. Horses with such feet interfere with the heel. If but one foot is so affected, the liability to interfere is less than when both feet are affected, for the reason that the ankle of the perfect leg is not so near to the center plane. Such animals are especially liable to stumbling and to lameness from injury to the ligaments of the fetlock joints. This deformity is to be overcome by such shoeing as will equalize the disparity in length of walls, and by proper boots to protect the fetlocks from interfering.

Passage 2

Definition. In veterinary surgery the term 'corn' is used to indicate the changes following upon a bruise to that portion of the sensitive sole between the wall and the bar. Usually they occur in the forefeet, and are there found more often in the inner than in the outer heel.

The changes are those depending upon the amount of hemorrhage and the accompanying inflammatory phenomena occasioned by the injury.

Thus, with the hemorrhage we get
85 ecchymosis, and consequent red staining
of the surrounding structures. As is the
case with extravasations of blood
elsewhere, the hemoglobin of the escaped
90 corpuscles later undergoes a series of
changes, giving rise to a succession of
brown, blue, greenish and yellowish
coloration.

With the inflammation thereby set up we
get swelling of the surrounding blood
95 vessels, pain from the compression of the
swollen structures within the non-
yielding hoof, and moistness as a result of
the inflammatory exudate. In a severe
case the inflammation is complicated by
100 the presence of pus.

Classification. Putting on one side the
classification of Lafosse (*natural* and
accidental), as perhaps wanting in
correctness, seeing that all are accidental,
105 and disregarding the suggested divisions
of Zundel (*corn* of the *sole* and *corn* of
the *wall*) as serving no practical use, we
believe, with Girard, that it is better to
classify corns according to the changes
110 just described. Following his system, we
shall recognise three forms: (1) *Dry*, (2)
moist, (3) *suppurating*.

The *dry* corn is one in which the injury
has fortunately been unattended with
115 excessive inflammatory changes, and
where nothing but the coloration imparted
to the horn by the extravasated blood
remains to indicate what has happened.

The *moist* corn is that in which a great
120 amount of inflammatory exudate is the
most prominent symptom. It indicates an
injury of comparatively recent infliction.

The *suppurating* corn, as the name
indicates, is a corn in which the
125 inflammatory changes are complicated by
the presence of pus.

22. According to Passage 1, which of the following does the author claim to be true?
- A. Animals raised on marshy soils are known to eventually get flatfoot.
 - B. Most horses are prone to specific illnesses and physical damage.
 - C. The weight of the animal is irrelevant to the disease it may cause.
 - D. A horse with flatfoot cannot be cured.
23. Which choice best provides evidence for the answer to the previous question?
- A. Lines 1-5 (“A ... diseases.”)
 - B. Lines 6-10 (“Flatfoot ... soils.”)
 - C. Lines 14-19 (“In ... wall.”)
 - D. Lines 26-29 (“Flatfoot ... cast.”)
24. Passage 1 presents a more general summary of problems in conformation while Passage 2 tends towards
- A. a narrative-like structure.
 - B. a simple outline.
 - C. a detailed anecdote.
 - D. a scientific study.
25. Which of the following is NOT mentioned in Passage 2?
- A. Pus causes the case of inflammation to worsen.
 - B. The blood remains are the only indication of dry corn.
 - C. Moist corn is indicative of a recent injury.
 - D. Suppurating corn is the most dangerous stage.
26. As used in line 4 “certain” most nearly means
- A. confident.
 - B. effective.
 - C. particular.
 - D. inevitable.

27. It can be most reasonably inferred from the first two paragraphs of Passage 2 that corn
- A. alters based on how much blood has escaped from the ruptured blood vessel and the co-occurring infection.
 - B. occurs most often outside the feet.
 - C. refers to a bruised mark on the animal.
 - D. causes discoloration in the flank of the animal.
28. Which choice best provides evidence for the answer to the previous question?
- A. Lines 73-77 (“In ... bar.”)
 - B. Lines 77-79 (“Usually ... heel.”)
 - C. Lines 80-83 (“The ... injury.”)
 - D. Line 99-101 (“In ... pus.”)
29. As used in line 98, “severe” most nearly means
- A. plain.
 - B. bitter.
 - C. demanding.
 - D. critical.
30. It can be inferred that Passage 2 is most likely written from the point of view of
- A. a horse breeder.
 - B. a farmer.
 - C. a research student.
 - D. a veterinarian.
31. Passage 2 can best be described as
- A. a refutation to the ideas on flatfoot mentioned in Passage 1.
 - B. a more in-depth understanding of a specific disease briefly mentioned in Passage 1.
 - C. a documentation of the same diseases explained in Passage 1.
 - D. an outline of a disease separate from those mentioned in Passage 1.
32. Which of the following is an effect of clubfoot according to Passage 1?
- A. The animal receives bruises on the sole.
 - B. Tendons may suffer.
 - C. The inside toe will affect the joint of the horse’s leg.
 - D. The animal’s weight shifts to the front of the foot.

The following edited passage is taken from Sign Language among North American Indians by Garrick Mallery on the origins of sign language.

In observing the maxim that nothing can be thoroughly understood unless its beginning is known, it becomes necessary to examine into the origin of sign language through its connection with that of oral speech. In this examination it is essential to be free from the vague popular impression that some oral language, of the general character of that now used among mankind, is "natural" to mankind. It will be admitted on reflection that all oral languages were at some past time far less serviceable to those using them than they are now, and as each particular language has been thoroughly studied it has become evident that it grew out of some other and less advanced form. In the investigation of these old forms it has been so difficult to ascertain how many of them first became a useful instrument of inter-communication that many conflicting theories on this subject have been advocated.

Oral language consists of variations and mutations of vocal sounds produced as signs of thought and emotion. But it is not enough that those signs should be available as the vehicle of the producer's own thoughts. They must be also efficient for the communication of such thoughts to others. It has been, until of late years, generally held that thought was not possible without oral language, and that, as man was supposed to have possessed from the first the power of thought, he also from the first possessed and used oral language substantially as at present. That the latter, as a special faculty, formed the main distinction between man and the brutes has been and still is the prevailing doctrine. In a lecture delivered before the British Association in 1878 it was declared that "animal intelligence is unable to elaborate that class of abstract ideas, the formation of which depends

upon the faculty of speech." If instead of "speech" the word "utterance" had been used, as including all possible modes of intelligent communication, the statement might pass without criticism. But it may be doubted if there is any more necessary connection between abstract ideas and sounds, the mere signs of thought, that strike the ear, than there is between the same ideas and signs addressed only to the eye.

The point most debated for centuries has been, not whether there was any primitive oral language, but what that language was. Some literalists have indeed argued from the Mosaic narrative that because the Creator, by one supernatural act, with the express purpose to form separate peoples, had divided all tongues into their present varieties, and could, by another similar exercise of power, obliterate all but one which should be universal, the fact that he had not exercised that power showed it not to be his will that any man to whom a particular speech had been given should hold intercourse with another miraculously set apart from him by a different speech. By this reasoning, if the study of a foreign tongue was not impious, it was at least clear that the primitive language had been taken away as a disciplinary punishment, and that, therefore, the search for it was as fruitless as to attempt the passage of the flaming sword. In accordance with the advance of linguistic science they have successively shifted back the postulated primitive tongue to Sanskrit, then to Aryan, and now seek to evoke from the vasty deeps of antiquity the ghosts of other rival claimants for precedence in dissolution. As, however, the languages of man are now recognized as extremely numerous, and as the very sounds of which these several languages are composed are so different that the speakers of some are unable to distinguish with the ear certain sounds in others, still less able to reproduce them, the search for one common parent language is more difficult

than was supposed by medieval ignorance.

The discussion is now, however, varied by the suggested possibility that man at some time may have existed without any oral language. It is conceded by some writers that mental images or representations can be formed without any connection with sound, and may at least serve for thought, though not for expression. It is certain that concepts, however formed, can be expressed by other means than sound. One mode of this expression is by gesture, and there is less reason to believe that gestures commenced as the interpretation of, or substitute for words than that the latter originated in, and served to translate gestures. Many arguments have been advanced to prove that gesture language preceded articulate speech and formed the earliest attempt at communication, resulting from the interacting subjective and objective conditions to which primitive man was exposed. Some of the facts on which deductions have been based, made in accordance with well-established modes of scientific research from study of the lower animals, children, and deaf-mutes, will be briefly mentioned.

33. Which of the following does the author claim to be true of language?

- A.** In the past, there was an important link made between speech and thought.
- B.** It is known how language became an essential element of communication.
- C.** Language is an innate phenomenon.
- D.** Vocal sounds are not sufficient enough to be the carrier of the language.

34. Which choice best provides evidence for the answer to the previous question?

- A.** Lines 6-11 (“In ... mankind.”)
- B.** Lines 18-23 (“In ... advocated.”)
- C.** Lines 26-29 (“But ... thoughts.”)
- D.** Lines 31-33 (“It ... language.”)

35. As used in line 25, “produced” most nearly means

- A.** created.
- B.** delivered.
- C.** provoked.
- D.** offered.

36. In lines 43-46, the author uses a quotation to

- A.** criticize the idea that thought and speech are co-dependent.
- B.** support his claim that intelligent communication is dependent on oral speech.
- C.** interpret future studies on speech.
- D.** bring light to the importance of the lectures presented before the British Association.

37. How do past theories of language differ from recent discussions?

- A.** Recent discussions focus on the possibility that oral language was not always a defining human characteristic.
- B.** Recent discussions outline the primitive tongue and which it may have been.
- C.** Recent discussions state that images do not suffice.
- D.** Recent discussions point away from gestures.

38. Which choice best provides evidence for the answer to the previous question?
- A. Lines 80-86 (“In ... dissolution.”)
 - B. Lines 98-101 (“The ... language.”)
 - C. Lines 101-106 (“It ... expression.”)
 - D. Lines 108-114 (“One ... gestures.”)
39. As used in line 38, “faculty” most nearly means
- A. department.
 - B. aptitude.
 - C. staff.
 - D. power.
40. In accordance with the passage, the last paragraph serves as
- A. a development of ideas.
 - B. a continuation of ideas.
 - C. a transition to new ideas.
 - D. a refutation of mentioned ideas.
41. Which of the following best summarizes the passage?
- A. Many past studies make a direct link between oral speech and thought; new studies attempt to find links between thought and other means of expressions such as gestures.
 - B. In the past, researchers faced difficulties in trying to separate the use of language and thought processes; now, they have combined the two.
 - C. Past researchers make claims that language comes with thought not separately.
 - D. Communication is the process whereby a person expresses his or her thoughts through oral speech.
42. In lines 1-6, the author mentions a maxim to
- A. link oral speech to the origin of sign language.
 - B. emulate those who have discussed sign language before him.
 - C. justify the introduction to sign language he presents.
 - D. sound grand and otherworldly by using extravagant rhetoric.

The following edited passage is taken from Fungi: Their Nature and Uses by M. C. Cooke on the species, Agaricini.

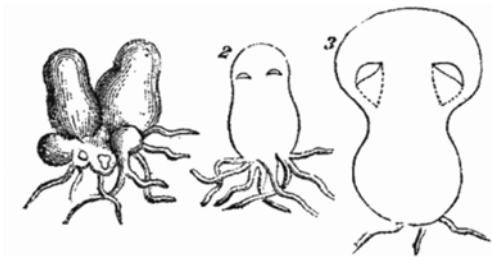
Without some knowledge of the structure of fungi, it is scarcely possible to comprehend the principles of classification, or to appreciate the curious phenomena of polymorphism. Yet there is so great a variety in the structure of the different groups, that this subject cannot be compressed within a few paragraphs, neither do we think that this would be desired if practicable, seeing that the anatomy and physiology of plants is, in itself, sufficiently important and interesting to warrant a rather extended and explicit survey. In order to impart as much practical utility as possible to this chapter, it seems advisable to treat some of the most important and typical orders and suborders separately, giving prominence to the features which are chiefly characteristic of those sections, following the order of systematists as much as possible, whilst endeavouring to render each section independent to a considerable extent, and complete in itself. Some groups naturally present more noteworthy features than others, and will consequently seem to receive more than their proportional share of attention, but this seeming inequality could scarcely have been avoided, inasmuch as hitherto some groups have been more closely investigated than others, are more intimately associated with other questions, or are more readily and satisfactorily examined under different aspects of their life-history.

For the structure that prevails in the order to which the mushroom belongs, an examination of the species Agaricini will be almost sufficient. Here we shall at once recognize three distinct parts requiring elucidation, viz. the rooting slender fibres that traverse the soil, and termed the *mycelium*, or spawn, the stem and cap or pileus, which together

constitute what is called the *hymenophore*, and the plates or gills on the under surface of the cap, which bear the *hymenium*. The earliest condition in which the mushroom can be recognized as a vegetable entity is in that of the "spawn" or mycelium, which is essentially an agglomeration of vegetating spores. Its normal form is that of branched, slender, entangled, anastomosing, hyaline threads. At certain privileged points of the mycelium, the threads seem to be aggregated, and become centres of vertical extension. At first only a small nearly globose budding, like a grain of mustard seed, is visible, but this afterwards increases rapidly, and other similar buddings or swellings appear at the base. These are the young hymenophore.

As it pushes through the soil, it gradually loses its globose form, becomes more or less elongated, and in this condition a longitudinal section shows the position of the future gills in a pair of opposite crescent-shaped darker-coloured spots near the apex. The dermal membrane, or outer skin, seems to be continuous over the stem and the globose head. At present, there is no external evidence of an expanded pileus and gills; a longitudinal section at this stage shows that the gills are being developed, that the pileus is assuming its cap-like form, that the membrane stretching from the stem to the edge of the young pileus is separating from the edge of the gills, and forming a *veil*, which, in course of time, will separate below and leave the gills exposed. When, therefore, the mushroom has arrived almost at maturity, the pileus expands, and in this act the veil is torn away from the margin of the cap, and remains for a time like a collar around the stem. Fragments of the veil often remain attached to the margin of the pileus, and the collar adherent to the

100 stem falls back, and thenceforth is known as the *annulus* or ring. We have in this stage the fully-developed hymenophore,—the stem with its ring, supporting an expanded cap or pileus, with gills on the under surface bearing the hymenium.



Source: M. C. Cooke

43. Which of the following does the author deem necessary to understand fungi?
- minimal knowledge of fungal structure
 - an initial deep understanding of the suborders
 - an innate need to learn about fungi
 - tackling the larger components apart from the suborders
44. Which choice best provides evidence for the answer to the previous question?
- Lines 1-5 (“Without ... polymorphism.”)
 - Lines 6-15 (“Yet ... survey.”)
 - Lines 15-26 (“In ... itself.”)
 - Lines 26-37 (“Some”...“life-history.”)
45. As used in line 17, “treat” most nearly means
- heal.
 - tackle.
 - view.
 - medicate.
46. Which of the following titles best reflects the passage and graphic?
- The Process of the Gills
 - The Shedding of the Skin
 - Agaric in the Process of Growth
 - Agaric in its Dying Phases
47. In lines 1-5, the tone can best be described as
- anguished.
 - objective.
 - satisfied.
 - sarcastic.
48. As used in line 69, “form” most nearly means
- shape.
 - questionnaire.
 - condition.
 - classification.
49. According to the passage, recognizing an Agaric can start as early as
- the seed.
 - the formation of a mass of spores.
 - its hyaline threads.
 - the appearance of the cap.
50. Which choice best provides evidence for the answer to the previous question?
- Lines 41-50 (“Here ... *hymenium*.”)
 - Lines 50-55 (“The ... spores.”)
 - Lines 55-61 (“Its ... extension.”)
 - Lines 61-66 (“At ... base.”)

51. Which of the following lines support the second stage of growth featured in the graphic?
- A. Lines 41-50 (“Here ... *hymenium.*”)
 - B. Lines 68-74 (“As ... apex.”)
 - C. Lines 88-93 (“When ... stem.”)
 - D. Lines 97-102 (“We ... *hymenium.*”)
52. Which of the following is NOT mentioned in the passage about Agaricini?
- A. The mushroom changes form as it grows.
 - B. The species has three distinct parts.
 - C. The ring that remains attached to the mushroom is a remnant of the veil.
 - D. The veil has only been found at the Agaricini.

EST I – Literacy Test I

Answer Key

(Writing Section)

Passage 1

1. C
2. A
3. B
4. D
5. A
6. D
7. B
8. A
9. D
10. D
11. A

Passage 2

12. B
13. A
14. B
15. A
16. A
17. D
18. C
19. D
20. C
21. A
22. B

Passage 3

23. A
24. C
25. A
26. D
27. B
28. B
29. A
30. B
31. C
32. B
33. B

Passage 4

34. B
35. D
36. B
37. A
38. B
39. B
40. A
41. B
42. B
43. C
44. A

EST I – Literacy Test II

Answer Key

(Reading Section)

Passage 1

1. C
2. D
3. B
4. D
5. A
6. A
7. B
8. C
9. B
10. D

Passage 2

11. D
12. D
13. D
14. A
15. D
16. A
17. B
18. B
19. B
20. C
21. B

Passage 3

22. B
23. A
24. D
25. D
26. C
27. A
28. C
29. D
30. D
31. B
32. D

Passage 4

33. A
34. D
35. B
36. A
37. A
38. B
39. B
40. C
41. A
42. C

Passage 5

43. A
44. A
45. B
46. C
47. A
48. A
49. B
50. B
51. B
52. D