

EDUCATIONAL ASSESSMENT AND EXAMINATION SERVICE
ETHIOPIAN SECONDARY SCHOOL LEAVING
CERTIFICATE EXAMINATION (ESSLCE)
SCHOLASTIC APTITUDE TEST
TIKIMTE 2014/ 15 (OCTOBER 2022)

BOOKLET CODE: 063

SUBJECT CODE: 03
TIME ALLOWED: 2 HOURS

GENERAL INSTRUCTIONS

THIS BOOKLET CONTAINS **SCHOLASTIC APTITUDE TEST EXAMINATION**. THE CODE FOR THIS SUBJECT IS **03** AND THE CODE FOR THIS PARTICULAR BOOKLET IS **063**. PLEASE COPY THESE CODES ON YOUR ANSWER SHEET WHERE IT READS **SUBJECT CODE** AND **BOOKLET CODE**.

THE TEST HAS **TWO MAIN SECTIONS** WITH A TOTAL OF 60 ITEMS. SECTION ONE CONTAINS **VERBAL REASONING** AND SECTION TWO CONTAINS **QUANTITATIVE REASONING**. **VISUALLY IMPAIRED CANDIDATES ARE REQUIRED TO ATTEMPT VERBAL REASONING SECTION ONLY**. ALL OTHER CANDIDATES ARE REQUIRED TO ATTEMPT **BOTH SECTIONS**.

EACH SECTION CONTAINS **MULTIPLE CHOICE ITEMS** CONSISTING OF FOUR POSSIBLE ANSWERS. IN EACH CASE, SELECT THE BEST ANSWER AND **BLACKEN** THE LETTER OF YOUR CHOICE ON THE SEPARATE ANSWER SHEET PROVIDED. FOLLOW THE INSTRUCTIONS ON THE ANSWER SHEET AND THE EXAMINATION PAPER CAREFULLY. USE ONLY **PENCIL** TO MARK YOUR ANSWERS. YOUR ANSWER MARK SHOULD BE **HEAVY AND DARK**, COVERING THE ANSWER SPACE COMPLETELY. PLEASE ERASE ALL UNNECESSARY MARKS COMPLETELY INCLUDING ANSWERS YOU HAVE CHANGED FROM YOUR ANSWER SHEET.

VISUALLY IMPAIRED CANDIDATES ARE ALLOWED TO WORK FOR ONE HOUR ONLY. THE OTHER CANDIDATES ARE ALLOWED TO WORK THE EXAM FOR **TWO HOURS**. WHEN TIME IS CALLED, YOU MUST IMMEDIATELY STOP WORKING, PUT YOUR PENCIL DOWN AND WAIT FOR FURTHER INSTRUCTIONS.

ANY FORM OF CHEATING OR AN ATTEMPT TO CHEAT IN THE EXAMINATION WILL RESULT IN AN AUTOMATIC DISMISSAL FROM THE EXAMINATION HALL AND CANCELLATION OF YOUR SCORE.

PLEASE MAKE SURE THAT YOU HAVE WRITTEN ALL THE REQUIRED INFORMATION ON THE ANSWER SHEET BEFORE YOU START TO WORK ON THE EXAMINATION.

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



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SECTION ONE: Verbal Reasoning (Questions 1-35)

This section which is subdivided into analogy, synonyms, antonyms, sentence completion, reading comprehension, analytical and logical reasoning contains **35** verbal reasoning items altogether. Each subsection is followed by its specific direction.

Sentence completion (1-5)

Directions: Each sentence below has one blank space followed by four options. Choose the option that best fits the meaning of the sentence as a whole and **blacken** the letter of choice on the separate answer sheet provided.

1. The weather outside was extremely pleasant and hence we decided to _____.
A. employ this rare opportunity for writing letters
B. enjoy a morning ride in the open
C. refrain from going out for a morning walk
D. utilize our time watching the television
2. She never visits any zoo because she is a strong opponent of the idea of _____.
A. going out of the house on a holiday
B. feeding the animals while others are watching
C. holding the animal in captivity for our joy
D. setting the animal free into the forest
3. I felt somewhat more relaxed _____.
A. and tension free as compared to earlier
B. as there was already no tension at all
C. and tense as compared to earlier
D. but tense as compared to earlier



Reading Comprehension I (11 -15)

Directions: Read the passage carefully and answer questions 11-15. Each question is based on the information stated or implied in the passage. Then **blacken** the letter of your choice on the answer sheet provided.

To read a lot is essential. It is stupid not to venture outside the examination "set books" or the textbooks you have chosen for the intensive study. Read as many books in English as you can, not as study material but for pleasure. Do not choose the most difficult books you find with the idea of listing and learning as many new words as possible. Choose what is likely to interest you and be sure in advance that for that deadens the interest and checks real learning. Look up a word here and there but, as a general policy try to push ahead, guessing what words mean from the context. It is extensive not intensive reading that normally helps you to get interested in extra reading and thereby improve your English. You should enjoy the feeling, what extensive reading gives, some command of the language. As you read, you will become more familiar with words and sentence patterns you already know, understanding them better as you meet them in more contexts, some of which may differ only slightly from others.

Adapted from *Reading Comprehension - Practice Questions*

11. The main purpose of the passage
 - A. telling readers how to improve their English
 - B. giving advice on how to learn new English words
 - C. giving advice on how to teach English
 - D. describing the importance of English
12. On what factors learning and improving English depends on?
 - A. constantly looking up new words in a dictionary
 - B. the material you use
 - C. the place where you live
 - D. reading a lot of English books
13. What is essential when you learn English?
 - A. you should enjoy the feeling of reading.
 - B. translate new words into your mother tongue.
 - C. read a lot of English books
 - D. learn different words from people



14. What precautions should you take while choosing a book to read?
- A. intensive reading
 - B. extensive reading
 - C. choose the more difficult books from your subject books.
 - D. choose the books from outside your examination course.
15. Which type of reading can help you?
- A. Reading dictionary words
 - B. Extensive reading
 - C. Reading difficult words
 - D. Intensive reading

Reading Comprehension II (16 -20)

Directions: Read the passage carefully and answer questions 16-20. Each question is based on the information stated or implied in the passage. Then **blacken** the letter of your choice on the answer sheet provided.

(1)Mental and physical health professionals may consider referring clients and patients to a music therapist for a number of reasons. It seems a particularly good choice for the social worker who is coordinating a client's case. Music therapists use music to establish a relationship with the patient and to improve the patient's health, using highly structured musical interactions. Patients and therapists may sing, play instruments, dance, compose, or simply listen to music.

(2)The course of training for music therapists is comprehensive. In addition to formal musical and therapy training, music therapists are taught to discern what kinds of interventions will be most beneficial for each individual patient. Because each patient is different and has different goals, the music therapist must be able to understand the patient's situation and choose the music and activities that will do the most toward helping the patient achieve his or her goals. The referring social worker can help this process by clearly communicating each client's history.

(3)Although patients may develop their musical skills, that is not the main goal of music therapy. Any client who needs particular work on communication or on academic, emotional, and social skills, and who is not responding to traditional therapy, is an excellent candidate for music therapy.

Adapted from Oxford Practice Book

16. Which of the following best summarises the main idea of paragraph 1?
- A. locating a music therapist
 - B. a typical music therapy intervention
 - C. using music therapy
 - D. music therapy and social work
17. Which of the following best organizes the main ideas of paragraph 3?
- A. Who benefits from the music therapy.
 - B. Skills addressed by music therapy
 - C. Training for music therapists
 - D. Referring patients to music therapists.
18. Which of the following would be the most appropriate title for this passage?
- A. The Social Worker as Music Therapist and the training they need
 - B. Training for a Career in Music Therapy and its use
 - C. What Social Workers Need to Know about Music Therapy
 - D. How to Use Music to Combat Depression through Music Therapy
19. According to the information presented in the passage, music therapy can be prescribed for social work clients who
- A. need to improve social skills.
 - B. need to resolve family issues.
 - C. were orphaned as children.
 - D. need to develop coping skills.
20. Which of the following inferences can be drawn from the passage?
- A. Music therapy is only appropriate in a limited number of circumstances.
 - B. Music therapy is particularly beneficial for young children.
 - C. Music therapy is a relatively new field.
 - D. Music therapy can succeed where traditional therapies have failed.

Synonyms (21-24)

Directions: Questions 21-24 consist of sentences in which one word is written in bold followed by four other words. Choose the word that is **most nearly similar** in meaning to the word in **bold**. Then, blacken the letter of your choice on the separate answer sheet provided.

21. The spies conducted a **covert** operation, without being noticed by anyone.
- | | |
|------------|--------------|
| A. illegal | C. foreign |
| B. hidden | D. dangerous |

22. The designer window treatment in her house, installed 17 years ago, were **outmoded** and thus needs to be changed.
- | | |
|-------------|----------------|
| A. outdated | C. unimportant |
| B. outlawed | D. unnecessary |
23. She showed a **blatant** disregard for the rules.
- | | |
|---------------|------------|
| A. rebellious | C. hidden |
| B. respectful | D. obvious |
24. The interior of the hotel is so **repulsive** that everybody returns as soon as they enter it.
- | | |
|---------------|--------------|
| A. attractive | C. Repugnant |
| B. bright | D. Ugly |

Analytical and Logical Reasoning Questions (25- 32)

Directions: Questions 25-32 deal with logical and analytical reasoning. Read the given set of conditions and assumptions for each question. Choose the answer that you think is most appropriate among the given alternatives. Then **blacken** the letter of your choice on the separate answer sheet provided.

25. Yonas has a paper route. Each morning, he delivers 37 newspapers to customers in his neighbourhood. It takes Yonas 50 minutes to deliver all the papers. If Yonas is sick or has other problems, his friend Kedir, who lives in the same street, will sometimes deliver the papers for him.
- | |
|--|
| A. Kedir would like to have his own paper route. |
| B. It is dark outside when Yonas begins his deliveries. |
| C. It takes kedir more than 50 minutes to deliver the papers |
| D. Yonas and Kedir live in the same neighbourhood. |
26. Derartu is twelve years old. For three years, she has been asking her parents for a dog. Her parents have told her that they believe a dog would not be happy in an apartment, but they have given her permission to have a bird. Derartu has not yet decided what kind of bird she would like to have.
- | |
|---|
| A. Derartu and her parents would like to move. |
| B. Derartu and her parents live in an apartment. |
| C. Derartu does not like birds. |
| D. Derartu's parents like birds better than they like dogs. |

27. One of the warmest winters on record has put consumers in the mood to spend money. Spending is likely to be the strongest in thirteen years. During the month of February, sales of existing single-family homes hit an annual record rate of 4.75 million.

This paragraph best supports the statement that

- A. Warm winter weather is likely to affect the rate of home sales.
B. During the winter months, the prices of single-family homes are the lowest.
C. More people buy houses in the month of February than in any other month.
D. Consumer spending will be higher thirteen years from now than it is today.
28. Frehiwot likes to let her students choose who their partners will be; however, no pair of students may work together more than seven class periods in a row. Adem and Belay have studied together seven class periods in a row. Kiya and Africho have worked together three class periods in a row. Kiya does not want to work with Adem. Who should be assigned to work with Belay?
- A. Frehiwot
B. Africho
C. Adem
D. Kiya
29. The High School English Department needs to appoint a new chairperson, which will be based on seniority. Hawi has less seniority than Temam, but more than Bekelech. Redwan has more seniority than Hawi, but less than Temam. Temam doesn't want the job. Who will be the new English department chairperson?
- A. Bekelech
B. Redwan
C. Temam
D. Hawi
30. Nurse Nefisa has worked more night shifts in a row than Nurse Libamo, who has worked five. Nurse Lomi has worked fifteen night shifts in a row, more than Nurses 33. Nefisa and Libamo combined. Nurse Gelgalo has worked eight-night shifts in a row, less than Nurse Nefisa. How many night shifts in a row has Nurse Nefisa worked?
- A. eleven
B. ten
C. nine
D. eight

31. Critical reading is a demanding process. To read critically, you must slow down your reading and, with a pencil in hand, perform specific operations on the text. Mark up the text with your reactions, conclusions, and questions. When you read, become an active participant.

This paragraph best supports the statement that

- A. Readers should get in the habit of questioning the truth of what they read.
B. Critical reading is a slow, dull, but essential process.
C. Critical reading requires thoughtful and careful attention.
D. The best critical reading happens at critical times in a person's life.
32. Exams are to be conducted on four days from Monday till Thursday. The exams to be conducted are English, Mathematics, Physics and Biology. Neither English Physics to be conducted on Thursday. Neither Physics nor Mathematics is to be conducted on Tuesday. There are three exams conducted after Biology. Physics exam is conducted on
- A. Tuesday
B. Thursday
C. Wednesday
D. Monday

Antonyms (33 -35)

Directions: Questions 33-35 consist of sentences in which one word is written in bold followed by four other words. Choose the word that is **most nearly opposite** in meaning to the word in **bold**. Then, blacken the letter of your choice on the separate answer sheet provided.

33. The guest made **derogatory** remarks about the food he was served and by doing so he proved to be ungrateful and disrespectful.
- A. cheerful
B. complimentary
C. unnecessary
D. interesting
34. All of his brothers like milk but he has a strong **aversion** for it.
- A. hate
B. care
C. love
D. dear
35. The inhabitants of the island were **barbarians** who have never lived in the modern world.
- A. hate
B. bad
C. cruel
D. civilized

40. By selling a book for 258 birr a publisher gains 20% profit. For how much should he sell it to gain 30% profit?
- A. 379.5 birr C. 369.8 birr
B. 269.5 birr D. 279.5 birr
41. The Pythagorean theorem for a right angled triangle is $a^2 + b^2 = c^2$, where a and b are legs of the triangle and c is the hypotenuse. If the shorter leg is 10 cm less than the other leg and the hypotenuse is 10 cm longer than the other leg, what is the length of the hypotenuse?
- A. 60 cm C. 40 cm
B. 50 cm D. 30 cm
42. Abebe is scheduled to get a raise of birr 250 every 6 months during his first years on the job. If his starting salary is birr 25,250 per year, what is his annual salary at the end of 3 years?
- A. Birr 26,750 C. Birr 26,500
B. Birr 27,000 D. Birr 27,250
43. A certain car loses one-tenth of its value each year. If the car is worth Birr 28,000 today, how much will it worth 4 years from now?
- A. Birr 25, 200 C. Birr 18, 370.80
B. Birr 22, 689 D. Birr 9,629.20
44. A theater has 38 rows of seats. The first row has 17 seats, the second row has 20 seats, the third row has 23 seats, and so on. What is the seat capacity of the theater?
- A. 2765 C. 2627
B. 2755 D. 2565
45. Suppose a ball is dropped from a height of 15m and that it always rebounds to a height equal to two-third of the distance from which it falls. If we let the ball bounce "forever", what is the total distance it would travel until it comes to rest?
- A. 65m C. 45m
B. 60m D. 75m

46. A manufacturer produces two types of telephones. The more expensive model requires 1 hour to manufacture and 30 minutes to assemble. The less expensive model requires 45 minutes to manufacture and 15 minutes to assemble. If the company allocates 150 hours for manufacturing and 60 hours for assembly, how many of each type can be produced?
- A. 60 of the more expensive model; 90 of the less expensive model
 B. 60 of the more expensive model; 120 of the less expensive model
 C. 15 of the more expensive model; 120 of the less expensive model
 D. 15 of the more expensive model; 90 of the less expensive model
47. What are the values of A and B so that the line with equation $Ax + By = 4$ passes through the points $(1,3)$ and $(-2,4)$?
- A. $A = 2$ and $B = 6$ C. $A = 6$ and $B = 2$
 B. $A = \frac{2}{5}$ and $B = \frac{6}{5}$ D. $A = \frac{6}{5}$ and $B = \frac{2}{5}$

Questions 48-52 are based on the table below, which gives the percentage distribution of the population of six towns A, B, C, D, E and F on the basis of poverty line and also on the basis of sex.

Town	Percentage of population below poverty line	Proportion of Males and Females	
		Below Poverty line M:F	Above poverty line M:F
A	16	4:3	3:2
B	18	3:4	5:7
C	26	2:3	4:5
D	28	5:6	1:2
E	12.5	3:2	6:5
F	36	4:5	2:3

48. What will be the number of females below poverty line in town C if the population of town C is 5000?
- A. 785 C. 875
 B. 780 D. 870

49. What will be the approximate number of females above poverty line in town A if it is known that the population of town A is 4400?
- A. 1487 C. 1578
B. 1484 D. 1478
50. If the male population above poverty line for town B is 4100, then what is the total population of town B?
- A. 12000 C. 13000
B. 14000 D. 12500
51. If the male population below poverty line for town F is 2000, then what is the population of females above poverty line in that town?
- A. 3900 C. 4800
B. 4200 D. 3800
52. If the population of males below poverty line for town C is 624 and that for town E is 675, then the total population of town C and E are in the ratio:
- A. 2:3 C. 3:5
B. 3:4 D. 2:5
53. Two dice are rolled and the numbers on top are added. What is the probability that the sum is less than 4?
- A. $\frac{5}{6}$ C. $\frac{1}{12}$
B. $\frac{5}{36}$ D. $\frac{1}{6}$

54. The table below indicate the school population by gender.

	Males	Females	Total
Freshman	8	17	25
Sophomore	15	10	25
Junior	12	13	25
Senior	15	10	25
Total	50	50	100

Out of the 100 students, what is the probability of randomly selecting a student is either a female or a senior?

- A. $\frac{25}{100}$ C. $\frac{10}{100}$
 B. $\frac{60}{100}$ D. $\frac{65}{100}$
55. Last year a phone model had a battery that lasted 12 hours. This year the battery lasts only for 8.16 hours. What percent of the battery life has decreased?
- A. 32 C. 54
 B. 47 D. 68
56. A library normally collects 47 birr in fees in a month. But in March they collected 59.22 birr. What is the percent increase in fees collected in March?
- A. 79 C. 26
 B. 62 D. 20.6
57. The expression $\frac{a+1}{a^2} + \frac{2a}{a+1} - 2$, for $a \neq 0$ and $a \neq -1$, is equal to:
- A. $\frac{1+2a}{a^3+a^2}$ C. $\frac{1+2a-a^2}{a^3+a^2}$
 B. $\frac{2-a^3}{a^3+a^2}$ D. $\frac{a^2-3}{a^3+a^2}$

58. If $f(x) = x^2 - 5x + 1$, then $f(x+2)$ is equal to:

A. $x^2 - x + 1$

C. $x^2 - x - 1$

B. $x^2 - x - 6$

D. $x^2 - x - 5$

59. Given that "7 less than the product of 5 and a number x is 213."

Quantity A	Quantity B
x	44

Which one of the following is true about the relationship between quantities A and B?

- A. Quantity B is greater than quantity A.
- B. Quantity A is greater than quantity B.
- C. The relationship cannot be determined.
- D. The two quantities are equal.

60. Consider the following table.

Quantity A	Quantity B
$2^{12} + 2^{12} + 2^{12} + 2^{12}$	8^{12}

How are the two quantities related?

- A. Quantity B is greater than quantity A.
- B. Quantity A is greater than quantity B.
- C. The relationship cannot be determined.
- D. The two quantities are equal.

THE END