CITY GOVERNMENT OF ADDIS ABABA EDUCATION BUREAU, ARADA SUB-CITY EDUCATION OFFICE SECOND SEMESTER MODEL ONE SCHOLASTIC APTITDES TEST (SAT) EXAMINATION FOR GRADE 12 STUDENTS MAZIYA, 2016 E.C.

TIME ALLOWED: 2 HOURS

GENERAL DIRECTIONS

THE TEST HAS **TWO MAIN** SECTIONS WITH A TOTAL OF **60 ITEMS**. SECTION ONE CONTAINS **VERBAL REASONING** AND SECTION TWO CONTAINS **QUANTATIVE REASONING.** VISUALLY SECTION IMPAIRED CANDIDATES ARE REQUIRED TO ATTEMPET **VERBAL REASONING ONLY**. ALL OTHER CANDIDATES ARE REQUIRED TO ATTEMPET 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 EXAMIATION PAPER CAREFULLY. USE ONLY PENCIL TO MAKE YOUR ANSWERS. YOUR ANSWER MARK SHOULD BE **HEAVY** AND **DARK**, COVERING THE ANSWER SPACE COMPLETELLY. PLEASE ERASE ALL UNNECESSARY MARKS COMPLETELY FROM YOUR ANSWER SHEET.

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

ANY FORM OF CHEATIIING OR AN ATTEMPT TO CHEAT IN THE EXAMINATION WILL RESULT IN AN AUTOMATIC DISMISS FROM THE EXAMINATION HALL AND CANCELATION OF YOUR SCORE

PEASE MAKE SURE THAT YOUHAVE WRITTEN ALL THE REUIRED INFORMATION ON THE ANWER SHEET BEFORE YOU START TO WORK ON THE EXAMINATION.

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

PART ONE: ENGLISH SECTION (verbal Reasoning)

This section contains a total of 35 verbal questions with sub sections of analogy, synonyms, antonyms, classification, completion, language usage and verbal reasoning. Each subsection has its own directions

Analogy Questions (1-6)

Directions: to answer questions 1-6, read the related pair of words written in capital letters followed by four pairs of words select the pair that best expresses a relationship similar to that expressed in the original capitalized pair.

1. NATIVE: FOREIGHN::A. LOCAL: IMPORT   B. DOMESTIC: HOMEGROWN

C. NAÏVE: SOPHOSITICATED   D. MEAN: UNKIND

2. POUND: WEIGHT:

A. YARD: POUND   B. MILE: KILOMETRE C. GALLON: LITRE D. KILOMETRE: METRE

3. BRACELET: WRIST:

A. SHOE: LEG   B. WATCH: ARM C. STOCKINGS: GLOVE D. BELT: WAIST

4. LEARN: STUDY:

A. KEEP: AGREE B. RAISE: ACCUMULATE C. ENCOMPASS: PERVADE D. FIND: SEARCH

5. SAND: GLASS:

A. SEED:FLOWER B. COTTON: WOOL C. TREE: PAPER D. STOVE: OVEN

6. _____8. AESTHETICS: BEAUTY:

A. EPISTEMOLOGY: KNOWLEDGE B. LOGISTICS: TRUTH C. ETHICS: SOCIETY D. RHETORIC: MUSIC

Synonyms Questions(7-11)

Directions: for questions 7-11, below choose the choice that most nearly has the same meaning as the underlined word from the given alternatives.

7. The exam committee has already chosen Martha because she was **proficient** in the use of   computer.
A. adequate   B. skilled C. smart D. sincere

8.W/ro Alemitu came back to find her house in **shambles.**

A. ruins B. neat   C. mess   D. disorder

9. The new trained worker was fast becoming an **indispensable** member of the technique department , so they had no choice but to offer him a higher salary to stay on.

     A. creative B. useless C. active D. crucial

10. The manager of the company refuses to resign, intending to **weather the storm**

     A. criticize someone B. survive a crisis C. mislead the staff D. guess correctly

11. Many people struggle to **make ends meet**

     A. earn just enough to live B. be healthy C. be wealthy D. avoid trouble

Antonyms Questions(12-16)

Directions: questions 12-16 consist of words printed in capital letters followed by four words. Choose the word that is most nearly opposite in meaning to the word in capital letters.

12. SINCERE   A. dishonest B. dissent C. genuine D. disapprove

13. EXHAUSTIVE A. conserving B. incomplete C. indecisive D. strong

14. IMMEDIATE A. future B. limited C. multiple D. complex

15. RENAISSANCE A. regressing B. revival C. rebirth D. reawakening

16. TERMINATE A. depart B. end C. begin D. hasten

Classification Questions (17-21)

Directions: from the following words, which words cannot go together with the others (17-21)

17. A. wolf   B. buffalo   C. cheetah D. tiger

18. A. owl   B. vulture   C. parrot   D. octopus

19. A. bench   B. couch   C. table   D. rug

20. A. leaf   B. branch   C . mess   D. root

21. A. glass   B. screen   C. cover   D. earphone

Completion Questions (22-26)

Directions: choose the best answer that completes each analogy below(22-26)

22. _____ deny:: accept: reject

     A. understand   B. acknowledge C. assume D. refuse

23. Surplus: abundance:: deficit: _____ A. enough   B. efficiency C. amount   D. shortage

24. Potent: powerful: Lethal:_____ A. deadly B. flagrant C. mean-spirited D. crass

25. Mount is to horse as _____ is to train A. drive B. ride   C. lift D. board

26. Mend: sewing: edit: _____ A. repair B. makeshift C. corret D. darn

Analytical and Logical Reasoning Questions (27-31)

 Directions: Answer the following questions using the information given(27-31)

27. Semira finished ahead of Meron . Meron and Ayantu both finished before Jemanesh. Fatuma did not finish last. Who was to finish first?

     A. Meron   B. Ayantu   C. Fatuma   D. Semira

28. From the information given above in question number 36, which girl finished last?

     A. Fatuma   B. Jemanesh   C.   Meron   D. Ayantu

29. Which of the following two statements prove that " Dagimawit and Goitom are married"?

    A. Dagmawit is married to Samson's only brother.

    B. Dagmawit married her high school sweet heart.

    C. Goitom and Dagmawit love each other.

    D. Samson has the same parents as Goitom.

    A.   B and C   B.   A and D   C.   C and D   D.   A and C

30. Which of the following two statements prove that " Aster is a child"?

    A. Aster lives with her parents.

    B. Aster is the little sister of Andargie.

    C. Andargie has just turned 12.

    D. Andargie is still in primary school.

    A. C and D   B. A and C   C. B and D   D. B and C

31. Which of the following two statements prove that Jemila is a pilot?

     A. Jemila loves Ethiopia.

     B. Jemila's father is a professor.

     C. Jemila's brother is a pilot.

     D. Jemila has the same job as her brother.

       A. A and C   B. B and C C. C and D   D. A and D

Reading Passage questions(32-35)

Directions: Read the following passage and answer the questions that follow(32-35)

Lions are rather reticent about expanding their energy in hunting. More than three quarters of kills are made by lionesses holding front position and carefully scanning ahead. The cubs lag playfully behind and the males bring up the rear and walk slowly with their massive heads nodding with each step as if they were bored with the whole matter. With lionesses' busy hunting, the male functions as guard for the cubs, protecting them particularly from hyenas.

32. According to the passage how the lionesses hunt their prey?

     A. cautiously   B. reticently   C. carelessly   D. reluctantly

33 . Based on the above passage, the male lions are unwillingness for hunting. What is the reason?

     A. they want to train their cubs and lionesses.

     B. they want to save their energy for other purposes.

     C. they are so lazy.   D. They afraid their prey.

34. Lionesses move for searching food :

     A. with their male partner   B. with their cubs only

     C. with their cubs and male partners   D. all alone the lionesses themselves

35. The male adult lions guard their cubs from_____   A. their own species   B. other wild life

    C. hyenas rather than other animals D. hyenas as equal as other animals

SECTION TWO: QUANTITATIVE REASINING(Questions $(36 - 60)$

DIRECTION: Solve each of the problems given in questions $36 - 60$ below and select the

best answer from the given alternatives. Then, blacken the letter of your

choice on the separate answer sheet provided.

36. Which one of the following is the quadrant that the common solution of the equations
    $2y - 3x = 6$ and $y - x = 0$?   A. One   B. Two   C. Three   D. Four

37. Which one of the following intervals is the set of all possible values of x for which $(x, -6)$ is

    a solution to the system of inequalities $\begin{cases} 2x - y \geq 4 \\ x + y \geq 2 \end{cases}$?

    A. $[9, \infty)$ B. $[8, \infty)$ C. $[9,12]$ D. $[6, \infty)$

38. It is given that a, b, c, d and e are consecutive terms in the arithmetic sequence. If $a + b +$
    $c = 15$ and $d + e = 45$, then which of the following is the first term and the
    common ratio of the sequence respectively?

    A. -7 and 2 B. 7 $and - 2$ C. 2 $and - 7$ D. -2 and 7

39. A fair $12 - faced$ die with faces numbered 1 to 12 is to be rolled once. Then, what is the
    probability of rolling a number that is **Not** prime?

    A. $\dfrac{7}{12}$ B. $\dfrac{1}{2}$ C. $\dfrac{5}{6}$ D. $\dfrac{3}{4}$

40. In a certain school if the ratio of teachers to students is 2 to 23. Which one of the following
    can be the total number of teachers and students in the school?

    A.   430   B.   440   C.   450   D.   460

41. The unit's digit(or $one'splace$) of the number 123^{123} is :-

    A. 1   B. 3   C. 7   D. 9

42. Which of the following linear inequalities define the domain of $\sqrt{x - y - 2} + \log(x + y - 4)$?

    A. $4 - x < y \leq x - 2$ C. $x - 2 \leq y < 4 - x$
    B. $x - 4 < y \leq x - 2$ D. $x - 2 \leq y < x - 4$

43.   Consider the following table.

Quantity A	Quantity B
$4^{11} + 4^{11} + 4^{11} + 4^{11}$	8^8

Then, which one of the following relation is true between A and B?

   A. Quantity A is less than Quantity B.   C. Quantity B is less than quantity A.
   B. The relationship can **Not** be determined.   D. The two quantities are equal.

44. The length of a rectangle is 4 units less than its width. If the width is decreased by 3 units and the
    length is increased by 5 units, then the area will increase by 11 square units. Then, what will be
    the width of the rectangle? A. 7 units   B. 8 units   C. 9 units   D. 10 units

45. The number 1 *up to* 6 are used to form six-digit numbers. What is the total number of these formed numbers whose sums of all adjacent digits is odd?

      A. 36   B. 72   C. 108   D. 144

46. If the one-fifth of one-third of a number is 6, then what is seven-tenth of the number?

      A. 24   B. 36   C. 63   D. 42

47. The sum of the first five composite numbers is: A. 34   B. 35   C. 36   D. 37

48. The sum of the ages of the mother and her daughter is equal to sixty years. Six years a go the age of the mother was five times the age of her daughter. What will be the age of the daughter Seven years from now? A. 21   B. 22   C. 23   D. 24

49. If $8^{x-y} = 64 \ and \ 2^{3x+3y} = 128$, then x is equal to :-

      A. $\frac{1}{6}$ B. $\frac{13}{6}$ C. $\frac{4}{3}$ D. $\frac{11}{3}$

50. A hemisphere whose volume is 3 has a radius 3y. What is the volume of a sphere whose radius is $6y$? A. 18   B. 24   C. 32   D. 48

51. $\frac{7^{16}-7^{15}}{7^{14}}$ is equal to: A. 14   B. 21   C. 42   D. 7

52. If $0 < x < 1$, then which of the following is less than x?

      A. $\frac{1}{x}$ B. $\sqrt[3]{x}$ C. $\sqrt{x}$ D. x^3

53. When n is divided by 12, then the remainder is 6. Then, what is the remainder when n is divided by 6? A. 0   B. 1   C. 2   D. 4

54. The number that is $\frac{2}{3}$ of 60 is what fraction of 80? A. $\frac{1}{6}$ B. $\frac{1}{3}$ C. $\frac{1}{2}$ D. $\frac{3}{4}$

55. Let the sequence is given as 1,3,5,7,9,1,3,5,7,9,1, … . If this sequence follows the pattern shown , then what is the 104th term of the sequence? A. 1   B. 3   C. 9   D. 7

56. If the ratio of $p \ to \ q$ is $9:7$ and the ratio of $q \ to \ r$ is $14:3$, then what is the ratio of $p \ to \ r$?

      A. $1:6$ B. $6:1$ C. $27:98$ D. $5:2$

DIRECTION: Questions $57 - 60$ are based on the data given in the table below, which shows the annual income and expenditure of five men. Answer each of the questions below on the given data.

Men	Income in Birr	Expenditure in Birr
P	140,000	120,000
Q	200,000	184,000
R	175,000	155,000
S	100,000	100,000
T	125,000	111,000
Sum	740,000	670,000

57. How many men had higher rate of saving compared to the rate of saving from the total income of all men? A. 1   B. 2   C. 3   D. 4

58. If each man was expected to save at least 10% of his income, then how many men have met the expectation? A. 1   B. 3   C. 2   D. 4

59. If one man will be awarded based on the proportion of saving to the income generated, which man do you think deserve the award?   A. P and Q   B. Q and R   C. R   D. P

60. The difference between the average annual income and average annual expenditure of the five individual in Birr is:-

    A. 140,000   B. 14,000   C. 70,000   D. 7,000