OROMIA EDUCATION BUREAU

FIRST ROUND MODEL EXAM FOR GRADE 12 STUDENTS, 2017/2025.

TIME ALLOWED: 2 Hours

GENERAL DIRECTIONS

THIS BOOKLET CONTAINS **60 FIRST ROUND SCHOLASTIC APTITUDE MODEL EXAM QUESTIONS** FOR **GRADE 12**. IN THIS BOOKLET, THERE ARE TOTAL OF 60 MULTIPLE CHOICE QUESTIONS WITH TOW PARTS: **VERBAL REASONING** AND **QUANTITAVE REASONING.**

THERE IS ONLY ONE **BEST ANSWER** FOR EACH QUESTION. CHOOSE THE BEST ANSWER FROM THE GIVEN ALTERNATIVES AND WRITE THE LETTER OF YOUR CHOICE ON THE ANSWER SHEET PROVIDED.

YOU ARE ALLOWED TO WORK ON THE EXAM FOR **2 HOURS.** WHEN TIME IS CALLED, YOU MUST IMMEDIATELY STOP WORKING ON THE QUESTIONS AND PUT DOWN YOUR PEN/PENCIL AND WAIT FOR WHAT YOU MIGHT BE TOLD TO DO.

ANY FORM OF CHEATING OR AN ATTEMPT TO CHEAT IN THE EXAM WILL RESULT IN AN AUTOMATIC DISMISSAL FROM THE EXAM 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 EXAM.

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

Instruction: This section contains 35 **verbal reasoning** items. It is subdivided in to analogy, synonyms, antonyms, odd word out (Classifications), word substitutions, analytical and logical reasoning and reading comprehension,

Analogy

Instruction: Choose the letter which best expresses a relationship similar to that of the stem.

1. CALF : COW :: LAMB : ?
   A. Sheep
   B. Horse
   C. Deer
   D. Horse

2. BOOK : PUBLISHER : : FILM : ?
   A. Writer
   B. Editor
   C. Director
   D. Producer

3. TREMENDOUS: ENORMOUS::?
   A. Sleep: Wake
   B. Draw: Paint
   C. Explore: Discover
   D. Think: Relate

Synonyms

Instruction: Choose the letter of the word or phrase that is nearly the **SAME IN MEANING** to the words in capital

4. EXTROVERTED
   A. Shy
   B. Outgoing
   C. Deceiver
   D. Energetic

5. ASSERTIVE
   A. Passive
   B. Aggressive
   C. Confident
   D. Hesitant

6. DISINTERESTED
   A. Impartial
   B. Biased
   C. Bored
   D. Unconcerned

Antonyms

Instruction: Choose the letter of the word or phrase that is nearly **OPPOSITE IN MEANING** to the words in capital.

7. SUBJUGATE
   A. Liberate
   B. Oppress
   C. Protest
   D. Conquer

8. PENNYWISE
   A. Selfish
   B. Pleasant
   C. Ungrateful
   D. Extravagant

9. FRIENDLY
   A. Hostile
   B. Warm
   C. Supportive
   D. Affectionate

Odd word out/ Classification

Instruction: Find the **ODD ONE OUT** from the given options.

10. A. Apple
    B. Carrot
    C. Grape
    D. Banana

11. A. London
    B. Paris
    C. New York
    D. California

12. A. Lion
    B. Tiger
    C. Elephant
    D. Leopard

Word Substitution

Instruction: The following questions have underlined words. Choose a word or phrase that best keeps the meaning of the given sentence if substituted for the underlined word.

13. The engineer's **meticulous** attention to detail in the design of the building ensured that everything was perfectly executed, from the architecture to the finishing touches.
    A. reckless
    B. thorough
    C. curious
    D. imprecise

14. As soon as all the **indispensable** forms have been filled out, we will process our applications.
    A. requisite
    B. nonessential
    C. tentative
    D. imprecise

15. Ali is all the time **gluttonous** to explore a wide range of topics, seeking to learn more and never satisfied with just the basics.
    A. voracious
    B. excessive
    C. limited
    D. disinterested

16. I've always been somewhat **introverted**, preferring to reflect quietly rather than engage in constant chatter with friends.
    A. outgoing
    B. reserved
    C. indifferent
    D. verbose

17. She wanted to impress all her dinner guests with the food she served, so she carefully studied the necessary **culinary** arts.
    A. architectural
    B. literary
    C. cooking
    D. gardening

Sentence Correction

Instruction: Questions **19-21** consist of grammatically incorrect sentences. Choose the letter that contains the **CORRECT** option.

18. A. Neither the players nor the manager be ready for the next press conference.
    B. Neither the players nor the manager were ready for the next press conference.
    C. Neither the players nor the manager is ready for the next press conference.
    D. Neither the players nor the manager have been ready for the next press conference.

19. A. I personally believe the team has played wonderful in the match.
    B. I personally believe the team have played wonderful in the match.
    C. I personally believe the team has played wonderfully in the match.
    D. I personally believe the team played wonderful in the match.

20. A. Ali is one of the authorities who is responsible for the decision.
    B. Ali is one of the authorities who are responsible for the decision.
    C. Ali is one of the authority who is responsible for the decision.
    D. Ali is one of the authority who are responsible for the decision.

Analytical and Logical Reasoning

Instruction: Questions 22-27 deal with logical and analytical reasoning. Read the given set of conditions and assumptions for each question. Choose the answer that you thing is mos appropriate among the given alternatives.

Answer questions 22- 24 based on the following information.

Keneni has to study four books (English, Physics, Chemistry and Biology) on four different days from Thursday to Sunday. The order of the books is as follows:

Chemistry is studied on day before the day of English.

Biology is studied on day after the day of Physics.

21. Which of the following is a correct order of books?
    A. Chemistry, Biology, English, Physics
    B. Biology, Chemistry, English, Physics
    C. Physics, Chemistry, Biology, English
    D. English, Chemistry, Biology, Physics

22. If Keneni studies Chemistry on Saturday, which subject has she studied on Thursday?
    A. Physics
    B. English
    C. Biology
    D. Either Physics or English

23. Which one of the following is **NOT** possible?
    A. Chemistry on Thursday
    B. Physics on Sunday
    C. Physics on Thursday
    D. Biology on Saturday

24. Dida introduces Kaku as the daughter of the only son of his father's wife. How is kaku related to Dida?
    A. Cousin
    B. Niece
    C. Aunt
    D. Daughter

25. After hearing about the new job opening in his field, Mark decided to apply immediately. Though it would mean moving to a new city, he was excited about the opportunity and felt it was a great career move. The job was also offering a higher salary than his current position, which made the decision easier for him.

    What is the most likely reason Mark decided to apply for the new job?
    A. Mark enjoys living in his current city.
    B. Mark believes the new job is a better career opportunity.
    C. The new job requires him to relocate to a different country.
    D. Mark prefers jobs that offer lower salaries.

26. Meditation is a great way to enhance mental health and reduce stress, and you don't need a gym or special equipment to practice it. All you need is a quiet space, some time, and a comfortable place.

    Which of the following sentences best supports this idea?
    A. Meditation is a simple, cost-effective practice that only needs a peaceful space to improve mental clarity.
    B. Gym workouts are worse for stress relief than meditation because it needs a professional instructor.
    C. Meditation requires special equipment like pillows or sound machines for effectiveness.
    D. You don't need a quiet space, some time and comfortable position for mediation.

27. **Statement:** "No student who misses more than 10 days of school is allowed to sit for the final exams."
    Conclusion I: "If a student misses more than 10 days of school, they cannot sit for the final exams."
    Conclusion II: "If a student sits for the final exams, they have missed less than 10 days of school."
    A. Only conclusion I follows
    B. Only conclusion II follows
    C. Both conclusions follow
    D. Neither conclusion follows

Reading Comprehension

Instruction: Read the following short passages carefully and answer the questions 28-35 according the information therein.

Passage I

Mary Jonson was an obstinate and isolated child, who spent her early years in the lush landscapes of India. Following the death of her neglectful parents, she was sent to live with her reclusive uncle, Mr. Craven, in an enormous, deserted mansion in England. Initially, Mary was disinterested in her surroundings, sulking in her loneliness. However, a fateful discovery of a hidden door in the garden wall sparked her curiosity.

As Mary offered into the long-forgotten garden, she encountered a wild, untamed world filled with neglected flora. Driven by a newfound purpose, she diligently nurtured the garden back to life, transforming it into a sanctuary of vibrant colors and charming scents. Through this process, she not only fostered the garden's revival but also cultivated friendships that helped her discover the joys of companionship, resilience, and personal growth.

28. How Mary Jonson is initially characterized in the passage?
    A. Stubborn and solitary
    B. Energetic and curious
    C. Cheerful and sociable
    D. Compassionate and friendly

29. What event led to Mary's relocation to her uncle's mansion?
    A. A family reunion
    B. Her desire for adventure
    C. The death of her parents
    D. A travel to England for vacation

30. What does Mary find within the hidden garden?
    A. A magical fountain
    B. An overgrown, neglected space
    C. A place filled with animated animals
    D. A structured and organized landscape

31. What transformation occurs in Mary as she cares for the garden?
    A. She gains a reputation as a gardener
    B. She learns about gardening techniques
    C. She becomes wealthier and more powerful
    D. She discovers feelings of companionship and resilience

Passage II

Every year, millions of monarch butterflies embark on an incredible migration from North America to central Mexico. This journey can span up to 3,000 miles, making it one of the longest migrations of any insect species. Monarchs travel in groups, known as clusters, and rely on specific environmental cues to guide them, such as temperature and the position of the sun.

As they migrate, monarchs face numerous trials, including predators and changes in weather. They must find food sources, typically nectar from flowers, to sustain their journey. Interestingly, these butterflies are not born knowing the migration route; instead, it is believed they inherit the knowledge through instinct passed down from previous generations.

Upon reaching their wintering grounds, the monarchs gather in vast numbers, covering the trees in a breathtaking display. This phenomenon not only underscores the resilience of the species but also highlights the importance of preserving their habitat. Protecting these migration pathways is crucial for the survival of monarchs, as environmental changes threaten their annual journey.

32. What distinguishes the migration of monarch butterflies from those of other insect species?
    A. It happens only in small clusters.
    B. It relies solely on the position of the sun.
    C. It occurs without the need for food sources.
    D. It spans up to 3,000 miles, making it one of the longest migrations.

33. Which of the following best describes the challenges faced by monarch butterflies during migration?
    A. Lack of instinct on the migration route.
    B. Sufficient food supply and safe climates.
    C. Overpopulation at their wintering grounds.
    D. Predators, adverse weather, and the search for nectar.

34. In what way is the knowledge of the migration route significant for the monarch butterflies?
    A. It allows them to adapt to new climates.
    B. It is vital for their survival during migration.
    C. It enables them to find better feeding grounds.
    D. It guarantees the success of their breeding cycle.

35. Based on the passage, what can be inferred about the role of environmental changes on the migration of monarch butterflies?
    A. Environmental changes have no significant impact on the migration of monarch butterflies.
    B. Monarch butterflies are capable of adapting their migration routes quickly in response to environmental changes.
    C. The survival of monarch butterflies during their migration is at risk due to environmental changes, making habitat preservation essential.
    D. Monarch butterflies rely solely on instinct for their migration and do not require external environmental cues.

Direction: This section contains 25 quantitative reasoning items which consists algebra, sequence, comparison of quantity probability and statistics altogether. Solve each of the problems given in question 36-60 according to their specific instruction and select the correct answer from the given alternatives.

36. The product of two numbers is 120 and the sum of their square is 289. The sum of the number is
    A. 20   B. 23   C. 169   D. 529

37. What is the value of **X** and **Y** respectively in a sequence 1, 5, 14, 30, 55, X, 140, 204, ---?
    A. 85   B. 86   C. 91   D. 75

38. A library has an average of 510 visitors on Sundays and 240 on other days. The average number of visitors per day in a month of 30 days beginning with a Sunday is:
    A. 250   B. 276   C. 280   D. 285

39. Which of the following linear inequalities define the domain of the function
    $$f(x,y) = \sqrt{4x - y + 6} + \ln(2x + y - 5)$$
    A. $\begin{cases} y \le 4x + 6 \\ y > -2x + 5 \end{cases}$ C. $\begin{cases} y \ge 4x + 6 \\ y \le -2x + 5 \end{cases}$

    B. $\begin{cases} y \le 4x + 6 \\ y < -2x + 5 \end{cases}$ D. $\begin{cases} y \ge 4x + 6 \\ y \ge -2x + 5 \end{cases}$

40. Find an odd out from the given
    A. 396   B. 427   C. 671   D. 264

41. The White, Red and Black balls in a packet are in the ratio of 5:3:2. How many Red and Black balls are there, if there are 40 White balls.
    A. 30 reds and 50 black balls   C. 16 reds and 24 black balls
    B. 24 reds and 16 black balls   D. 25 reds and 15 black balls

42. If $2a + b = x$ and $-2a + b = y$, then which one of the following expression is equal to ab?
    A. $\frac{x+y}{2}$ C. $\frac{x^2-y^2}{8}$

    B. $\frac{x-y}{4}$ D. $\frac{x^2+y^2}{8}$

43. The average monthly income of P and Q is Birr 5050. The average monthly income of Q and R is 6250 and the average monthly income of P and R is 5200. The monthly income of P is:
    A. 3500   B. 4000   C. 4050   D. 5000

44. If an equilateral triangle and a square have the same perimeter, what is the ratio of the length of square to the length of the side of equilateral triangle?
    A. 3:4   B. 1:2   C. 4:3   D. 2:1

45. Three numbers are in the ratio of 3:4:5 and the least common multiple are 2400. Their GCF is:
    A. 40   B. 80   C. 120   D. 200

46. A, B and C jointly thought of engaging themselves in business verture. It was agreed that A would invest Birr 6500 for 6 months, B Birr 8400 for 5 months and C Birr 10,000 for 3 months. A wants to be the working member for which, he was to receive 5% of the profit. The profit earned was Birr 7400. What is the share of B in the profit?
    A. Birr 1900   B. 2660   C. 2800   D. 2840

47. In how many different ways can the letters of the word '**CORPORATION**' be arranged, so that vowels always come together
    A. 810   B. 1440   C. 2880   D. 50,400

48. What is the probability of a number selected at random from the first 100 prime number is even?

    A. 99/100   B. 49/100   C. 1/100   D. 1/50

49. A committee consists of 6 men and 4 women. If two members are selected at random to form subcommittee. What is the probability that both members are women?

    A. $\frac{1}{5}$ B. $\frac{2}{15}$ C. $\frac{3}{10}$ D. $\frac{1}{10}$

50. If average age of husband, wife and their child 3 years ago was 27 years and that of wife and child is 5 years ago was 20 years. The present age of the husband is:

    A. 35 years   B. 40 years   C. 50 years   D. 90

51. $(287)^2 + (269)^2 - 2(287 x 269)$ is equal to:

    A. 534   B. 446   C. 354   D. 324

52. A piece of machinery is worth Birr 100,000 today and loses 25% of its value each year. How much will it be worth after 4 years?

    A. 75000   B. 41640.625   C. 31642   D. 31640.625

53. If x and y are integers such that $3x + 9 < 0$ $and - 4y - 16 > 0$, then which one of the following is always true?

    A. xy is positive   B. xy is an odd   C. xy is negative   D. xy is an even

54. For x is a real number, compare the following two quantities

Quantity A	Quantity B
$\sqrt{4x^2 + 4x + 1}$	$2x + 1$

    A. Quantity A is less than quantity B   C. Quantity A is equal to quantity B
    B. Quantity A is greater than quantity B   D. The relationship cannot determine

55. Compare the following two quantities

Quantity A	Quantity B
The percent of income is increase the from 75 to 85 thousand birr	percent of income increase from 200 to 220 thousand birr

    A. Quantity A is equal to quantity B   C. Quantity A is less than quantity B
    B. Quantity A is greater than quantity B   D. The relationship cannot determine

Direction: Question 56-60 are based on the hypothetical data the following table gives the sales of computer manufactured by a company over the years. Number of Different Types of computer Sold by a Company over the Years (Numbers in Thousands)

Year	Types of computer					
	4hp	7hp	32hp	35hp	55hp	Total
2000	75	144	114	102	108	543
2001	90	126	102	84	126	528
2002	96	114	75	105	135	525
2003	105	90	150	90	75	510
2004	90	75	135	75	90	465
2005	105	60	165	45	120	495
2006	115	85	160	100	145	605

56. What was the approximate percentage increase in the sales of 55hp computer in 2006 compared to that in 2000?

    A. 28%   B. 31%   C. 33.26%   D. 34.26%

57. Which type of computers sales is maximum over seven years?

    A. 4hp   B. 7hp   C. 32hp   D. 35hp

58. What is the difference in the number of 35hp computers sold in 2001 and 2005?

    A. 24000   B. 28000   C. 35000   D. 39000

59. Which types of computer was a continuous decrease in sales from 2000 to 2005?

    A. 4hp   B. 7hp   C. 32hp   D. 35hp

60. The percentage of 4hp computer sold to the total number of computer sold was maximum in the year?

    A. 2002   B. 2004   C. 2003   D. 2005

=====================THE END!=========================