ADDIS ABABA CITY ADMINISTRATION EDUCATION BUREAU

ADDIS ABEBA

GRADE 12 SAT MODEL EXAMINATIONS

SAT, TAHASAS 2015/JANUARY 2023

NUMBER OF QUESTIONS: 60 **TIME ALLOWED: - 2 HOURS**

GENERAL DIRECTIONS

THIS BOOKLET CONTAINS **EXAMINATION FOR SAT**. IN THIS EXAMINATION, THERE ARE A TOTAL OF **60 MULTIPLE CHOICE QUESTIONS**. CAREFULLY SELECT THE BEST ANSWER AND **BLACKEN** ONLY 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 FROM YOUR ANSWER SHEET.

YOU ARE ALLOWED TO WORK ON THE EXAM FOR **2 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 (S).

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 UNTIL YOU ARE TOLD TO DO SO.

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Analogy (1-7)

Directions: To answer the items **1-7**, read each of the following words carefully and choose the word that correctly completes the analogy. Then **blacken** the letter of your choice on the separate answer sheet provided.

1. MAKE is to SANDWICH as DO is to _____.

   A. mistake C. decision

   B. favor D. arrangement

2. DAWN is to MORNIN Gas _____is to EVENING.

   A. dusk C. night

   B. down D. noon

3. PRO is to FOR as_____ is to AGAINST.

   A. rom C. con

   B. com D. dab

4. ARCHAEOLOGIST is related to REMAINS in the same way as_____ is related to REASONS:

   A. linguist C. scientist

   B. anarchist D. analogist

5. CLAW is related to BIRD in the same way as _____ is related to BEAR:

   A. feet C. paw

   B. fur D. finger

6. WIN is related to RACE in the same way as BEAT is related to:

   A. team C. game

   B. competition D. referee

7. DEN is related to LIONS in the same way as NEST is related to:

   A. cows C. hyenas

   B. birds D. pigs

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Synonyms (8-12)

Directions: Questions 8-12 consist of words printed in capital letters followed by four words. Choose the word that is **most nearly similar** in meaning to the word in capital letter. Then **blacken** the letter of your choice on the separate answer sheet provided.

8. DECREE

A. rank C. verdict

B. power D. hierarchy

9. BEREAVEMENT

A. happiness C. pleasure

B. glee D. sorrow

10. CONJECTURE

A. fact C. certainty

B. speculation D. rumor

11. ENFORCEMENT

A. forcefulness C. prosecution

B. cogency D. involvement

12. TRANSGRESSION

A. change C. defense

B. exchange D. offense

Antonyms (13-16)

Directions: Questions 8-12 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 letter. Then **blacken** the letter of your choice on the separate answer sheet provided.

13. TENANT

A. landlord C. peasant

B. farmer D. provincial

14. LENIENT

A. strict C. easygoing

B. common D. committed

15. MISER

A. thrift C. selfish

B. extravagant D. saving

16. NASTY

A. foul C. nice

B. horrid D. sociable

Classification (17-20)

Directions: In questions **17-20**,a set of three words is given. Three of the words are related in some ways. The remaining word is not related to the rest. Choose the word which does not fit the relation and **blacken** the letter of your choice on the separate answer sheet provided.

17. A. summit C.pinnacle

B. peak D.ravine

18. A. cave C. den

B. barn D. turf

19. A. mattress C. carpet

B. pillow D. pillowcase

20. A. buck C. bull

B. doe D. boar

Reading comprehension (21-28)

Directions: Read the passages carefully and answer questions **21-28.** Each question will be based on the information stated or implied in the passage. Then **blacken** the letter of your choice on the separate answer sheet provided

Reading Comprehension I

Read the following passage and answer questions (21-24)

2022 FIFA World Cup: Political Aspects

Political issues are the integral components of any big international event including sports. It is particularly true about the countries with specific political views or those involved in international conflicts. In case of Qatar hosting World Cup 2022, the political problem is caused

by its relations, or rather no relations with Israel. In fact, Qatar does not recognize Israel as a state. Thus, Israel initiated a campaign against Qatar as the location for World Cup as a part of its interventions to isolate the activity of Hamas.

The major slogans included anti-terrorist ideas were followed by fans and Israel supporters around the world. The idea is to prevent funding terrorism claiming that Qatar plays a significant role in financing terrorist organizations and awarding 2022 FIFA World Cup to ***this*** country would mean the support of terrorism. Still, despite this problem and some other aspects related to not following the FIFA code of ethics by Qatar, the preparation for the World Cup is going on.

Source: 2022 FIFA World Cup: Powered by Cite Chimp - the best easy citation generator

21. What is the big event mentioned in the passage?

A. sports
C. political integrity
B. 2022 world cup
D. international conflicts

22. One of the following is ***False*** according to the passage.

A. Israel is among the countries with specific political views.
B. Qatar is among the countries involved in international conflicts.
C. Israel does not recognize Qatar as a state.
D. Hamas is the root cause for Israel to initiated a campaign against Qatar as the location for World Cup

23. Why did Israel oppose the 2022 FIFA World Cup to be hosted by Qatar?

A. Because Israel wants the event to be hosted by Israel.
B. Because Israel thought that funding the event would mean funding terrorism
C. Because Qatar does not recognize Israel as a state.
D. Because Israel does not recognize Qatar as a state.

24. The pronoun ***this*** in paragraph 2 line 4 refers to_____.

A. the 2022 FIFA World Cup
C. Israel
B. Qatar.
D. the award

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Reading Comprehension II

Read the following passage and answer questions (25-28)

Today's young people will be the **stewards** of our planet in the years to come, and the future of all life depends on them gaining the knowledge, skills and passion for nature necessary to transform humanity's relationship with the natural world and build a more sustainable future.

If you are working with younger age groups or sensitive young people we advise viewing the videos before screening ***them*** in the classroom or assigning playlists for students to watch independently, in case of content or messaging that could cause distress.

The explorable globe allows individual students, small groups or whole classes to embark on a voyage of discovery into the interconnected workings of our planet. As they follow connections around the planet, short videos pinned to the globe bring concepts and locations to life. Students may be assigned research tasks in the form of a topic presentation task or a quiz sheet, and through seeking the information required they will gain a valuable insight into the connections between topics and issues.

Source:Our Planet Education & Youth Resources (Our Planet Educators' Pack)

25. How are today's young people described in paragraph one?
    A. that they are the agents of our planet in the years to come
    B. that they are the agendas of our time
    C. that they depend on the future of all their life time
    D. that they do not have any contribution to the future of all life

26. What does the pronoun ***them*** in paragraph 2 line 2 refers to_____?
    A. the play lists C. the videos
    B. the students D. the classrooms

27. The explorable globe allows all of the following except _____ to embark on a voyage of discovery into the interconnected workings of our planet.
    A. individual student C. whole classes
    B. small groups D. discoverers

28. What is the purpose of this short text?

A. cooling down the sensitive young people to hear from their masters

B. warning the today's young students to protect the planets

C. exploring the globe so that it becomes more comfortable for individual students

D. giving due attention to today's young people who will take the responsibility of our planet

Analytical and logical reasoning (29-35)

Directions: Questions **29-32** deal with analytical and logical 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.

This is an extract taken from a diary of a certain person. Read the diary carefully and answer the questions that follow.

My uncle had five children named, Tolani, Abebe, Lemma,Gile and Tena.Tolani, the middle child, is one of the two females. There is an exact age interval, three years, among each child. The first child,Abebe was born in 1960E.C. Tena is younger than Tolani but older than Lemma. The other female is older than Tolani.

29. Who is the youngest child?

A. Lemma C. Gile

B. Tena D. Tolani

30. Which of the following shows the correct order of the children in age from the youngest to the oldest?

A. Lemma, Tena, Tolani, Gile, and Abebe.

B. Abebe, Gile, Tolani, Tena, and Lemma.

C. Lemma, Tolani, Tena, Gile, and Abebe.

D. Abebe, Gile, Tena, Tolani and Lemma.

31. How old is the middle child now?

A. 52 years C. 51 years

B. 49 years D. 48 years

32. What is the name of the other female?

A. Lemma C. Gile

B. Tena D. Tolani

Directions: Questions **33-35** deal with different aspects of analytical and logical reasoning. Read the given set of conditions or 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.

33. Read the following statement and the conclusions. Then choose the conclusion that can be reached based on the statement.

Statement: A man looking at a photograph and said, "This is the son of the only son of my mother."

Conclusion: _____

A. The man's mother has two sons.

B. The man is talking about his own son.

C. The man is talking about himself.

D. The man is talking to the one on the photograph.

34. All smokers chew chat. All chat chewers drink alcohol. Which of the following statements must be true?

A. All chat chewers are smokers.

B. All that drink alcohol chew chat.

C. All alcohol drinkers are smokers.

D. All smokers dink alcohol.

35.Find the two statements that together prove:

Sara is a passionate science fiction writer.

1: A science fiction is written based on future expectations.

2: Sara writes science fictions.

3: Sara writes science fictions for living.

4: Sara loves science fictions.

5: Many people read science fictions written by Sara.

A: 1 & 3 C: 4& 5

B: 3& 5 D: 2 &4

SECTION TWO: Quantitative Reasoning (36 – 60)

Directions: Solve each of the problems given in questions 36 – 60 and give your answer by blackening the letter of your choice on the separate answer sheet provided.

36. A soccer team played 160 games and won 65 percent of them. How many games did it win?

A. 94 C. 114

B. 104 D. 125

37. If 8% of a number is 150, then what is the number?

A. 1225 C. 1625

B. 1475 D. 1875

38. A man bought a used car for Birr 600,000 and paid 20% deposit. How much did he still have to pay?

A. Birr 380,000 C. Birr 480,000

B. Birr 420,000 D. Birr 500,000

39. If R = $\frac{(S+T)P}{3}$ then T equals

A. $\frac{3R}{P}$ – S C. $\frac{3R}{P}$ + S

B. $\frac{3R-S}{P}$ D. $\frac{3R+S}{P}$

40. If a − b = 3 and $a^2 + b^2$= 29, then what is the value of ab?

A. 18 C. 12

B. 15 D. 10

41. What is the solution set of $\frac{5(9-x)}{3}$ + 1 < 6?

A. {x: x < 6} C. {x: x > 6}

B. {x: x <−6} D. {x: x >−6}

42. If $2x^{-0.25}$ = 8, then what is the value of x?

A. $\frac{1}{256}$ C. $\frac{1}{64}$

B. $\frac{1}{32}$ D. $\frac{1}{16}$

43. What least number must be added to 1056, so that the sum is completely divided by 23?

A. 5 C. 3

B. 4 D. 2

44. The ratio of the perimeter to the width of a rectangle is 5:1. If the area of the rectangle is 216cm^2, what is the length of the rectangle?

A. 18cm C. 14cm

B. 16cm D. 12cm

45. A family has two grandparents, two parents and three grandchildren. The average age of the grandparents is 65 years, that of the parents is 35 years and that of the grandchildren is 6 years. What is the average age of thefamily?

A. $28\frac{4}{7}$ years C. $32\frac{1}{7}$ years

B. $31\frac{1}{7}$ years D. $32\frac{4}{7}$ years

46. The price of 10 chairs is equal to that of 4 tables. The price of 15 chairs and 2 tables together is Birr 400, 000.What is the total price of 12 chairs and 3 tables?

A. 390,000 C. 384,000

B. 388,000 D. 375,000

47. If $3^{x-y} = \frac{1}{3}$ and $3^{x+y} = 243$, then y is equal to:

A. 1 C. 4

B. 3 D. 5

48. The value of $\frac{(0.96)^3-(0.1)^3}{(0.96)^2+(0.96\times0.1)+(0.1)^2}$ is equal to:

A. 1.06 C. 0.95

B. 0.97 D. 0.86

49. What is the coefficient of x^2 in the expansion of$(x+\frac{2}{x})^{10}$?

A. 3360 C.4230

B. 3430 D.4860

50. A is two years older than B and B is twice as old as C. If the total age of A, B and C is 27, then how old is B?

A. A. 7 C. 10

B. B. 9 D. 8

51. If $x>1$, compare the following two quantities A and B whose information are given below.

Quantity A	Quantity B
500%x	600%(x−1)

A. Quantity A is greater than Quantity B

B. Quantity B is greater than Quantity A

C. The two quantities are equal.

D. The relation cannot be determined with the information provided.

52. $3^3 + 4^3 + 5^3 + \ldots + 20^3$ is equal to:

A. 44,100 C. 53,100

B. 44,091 D. 53,091

53. What is the missing number in the sequence 5, 11, 19, 29, 41, ___ , 71?

A. 52 C. 54

B. 53 D. 55

54. What is the sum of all natural numbers between 12 and 300 which are divisible by 8?

A. 5616 C. 4236

B. 5256 D. 4120

55. What is the sum of the infinite series $3 + \frac{1}{2} + \frac{1}{6} + \frac{1}{18} + \frac{1}{54} + \ldots$?

A. $\frac{11}{4}$ C. $\frac{15}{4}$

B. $\frac{13}{3}$ D. $\frac{10}{3}$

For Questions 56 -60 Use The Following Information.

The Following table gives the number of different types of batteries sold by the company over the year(numbers in thousands)

1

Year	Types of Batteries					
	4AH	7AH	32AH	35AH	55AH	Total
1992	75	144	114	102	108	543
1993	90	126	102	84	126	528
1994	96	114	75	105	135	525
1995	105	90	150	90	75	510
1996	90	75	135	75	90	465
1997	105	60	165	45	120	495
1998	115	85	160	100	145	605

56. What was the approximate percentage increase in the sale of type 55AH batteries in 1998 compared to that in 1992?
   A. 32% C. 35%
   B. 34% D. 36%
57. Which battery has the maximum sale from the year 1992 to 1998?
   A. 4AH C. 32AH
   B. 7AH D. 35AH
58. What is the difference in the number of 35AH batteries sold in 1993 and 1997?
   A. 39,000 C. 35,000
   B. 37,000 D. 33,000
59. The percentage of 4AH batteries sold to the total number of batteries sold was maximum in the year:
   A. 1994 C. 1997
   B. 1995 D. 1998
60. In case of which battery there was a continuous decrease in sales from 1992 to 1997?
   A. 4AH C. 32AH
   B. 7AH D. 35AH