SOS CHILDREN'S VILLAGES ETHIOPIA

SOS HERMANN GMEINER SCHOOL, GODE

SCHOLASTIC APTITUDE FIRST ROUND MODEL EXAM FOR GRADE12
MARCH, 2020 /MEGABIT, 2012

Number of items: 60 **TIME ALLOWED: 2 HOURS**

GENERAL DIRECTIONS:

THE BOOKLET CONTAINS **SAT** EXAMINATION. THE SUBJECT CODE FOR THIS EXAMINATION IS **07** PLEASE COPY THIS CODE ON YOUR ANSWER SHEET.

THE EXAMINATION CONTAINS A TOTAL OF **60** MULTIPLE CHOICE QUESTIONS. ATTEMPT ALL THE ITEMS. FOLLOW THE INSTRUCTION ON THE ANSWER SHEET AND THE EXAMINATION PAPER EXACTLY. USE ONLY PENCIL TO MARK YOUR ANSWRS.

THERE IS ONLY **ONE CORRECT** ANSWER FOR EACH ITEM. CHOOSE THE CORRECT ANSWER FROM THE SUGGESTED OPTIONS AND BLACKEN THE LETTER OF YOUR CHOICE ON THE ANSWER SHEET. YOUR ANSWER MARK SHOULD BE HEAVY AND DARK, COVERING THE ANSWER SPACE COMPLETELY. PLEASE ERASE ALL UNNECESSARY **PENCIL** MARKS COMPLETELY FROM YOUR ANSWER SHEET.

YOU WILL BE ALLOWED TO WORK FOR **2 HOURS**. IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY GO BACK AND REVIEW. WHEN TIME IS CALLED, YOU MUST IMMEDIATELY STOP WORKING, LAY YOUR PENCIL DOWN, AND WAIT FOR FURTHER INSTRUCTIONS.

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

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

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SECTION ONE: Verbal Reasoning (1-30)

*This section contains a total of **30** verbal reasoning questions with subsections on items of synonyms, antonyms, analogy sentence completion, analytical reasoning and reading comprehension. Each subsection has its own directions.*

I. Synonyms (1-5)

DIRECTION: ***Questions 1-5 consist of words written in bold letters followed by four words.***

Choose the word that is most nearly similar in meaning to the word written in bold letters

and blacken the letter of your choice on the separate answerer sheet provided.

1. **Ecstatic**

A. Animated
B. excited
C. Bewildered
D. Willful

2. **Partisan**

A. Impartial
B. Mean
C. biased
D. neutral

3. **Beautify**

A. Improve
B. Increase
C. paint
D. decorate

4. Adore

A. Idolize C. admire

B. Hate D. appreciate

5. **Diligent**

A. hard working C. Inventive

B. lazy D. Progressive

II. Antonyms (6-10)

DIRECTION: ***Questions 6-10 consist of words written in bold letters followed by four words.***

Choose the word that is most nearly opposite in meaning to the word written in bold letters and blacken the letter of your choice on the separate answerer sheet provided.

6. Alien

A. Inimical C. parochial

B. Affluent D. spontaneous

7. Solitary

A. married C. lonely

B. Populous D. bachelor

8. Remote

A. Strange C. control

B. Common D. near

9. Unlettered

A. literate c. well known

B. illiterate D. active

10. **Incidental**

A. permissible C. usual

B. conventional D. intentional

III. Analogy (11-15)

***DIRECTIONS*: Questions in this section deal with analogy questions related to pair of words. The first pair of words is given. Then, choose the word which best relates for the second word among the given four options. Finally, write your choice in the answer sheet provided.**

11. **Breast Plate: Chest**

A. helmet: head
C. pedal: foot
B. gun: hand
D. pendant: neck

12**. Speech: Orator**

A) Sermon: minister
C) journal: librarian
B) Alibi: criminal
D) evidence: case

13. **Ape: Gibber**

A. dogs: bark
C. chatter: parrots
B. elephant: trumpet
D. car: garage

14. **Scribble: Write**
Stammer: _____

A. Shout
C. Weep
B. Dance
D. Speak

15**. Anthology: Poems**

A. prologue: epilogue
C. bunting: flags
B. judges: jury
D. derma: skin

IV. Sentence Completion (16-18)

***Directions*: Questions 16-18 are in complete sentences. From the given four alternatives, choose the one that best completes each sentence and write your choice in the space provided in the answer sheet**

16. Rather than be melancholy all winter, Temesgen should try to be more____.

A. cheerful
C. wicked
B. depressed
D. energetic

17. Although the sun set was splendid that evening, Adem knew that its beauty was _____, and that all good things must come to an end.

A. fragile
C. brittle
B. tenuous
D. light

18. Geza-e is always _____ about showing up for work because he feels that belatedness is a sign of irresponsibility.

A. legible
C. tolerable
B. acceptable
D. punctual

V. *Logical and Analytical Reasoning (19-25)*

DIRECTIONS: ***Questions 19- 25 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, write your choice on the separate answer sheet provided.***

Questions from 19-21 are based on the following short analytical reasoning

Six friends Dawit,Alemu, Daniel, Adonias, Tewodros and Bereket are sitting in a circle facing the center having a large meal. Bereket is sitting between Daniel and Dawit. Alemu is third to the left of Bereket and second to the right of Tewodros.

19. Who is third to the right of **Bereket?**

A. Dawit
C. Tewodros
B. Adonias
D. Bereket

20. Who sits between Bereket and Adonias?

A. Dawit
C. Tewodros
B. Daniel
D. Alemu

21. Who sits fourth equally to the right and left of **Tewodros**?

A. Bereket
C. Adonias
B. Daniel
D. Alemu

22. What can you conclude from the following two statements?

All green are blue. All blue are red.

A. All green are red.
C. All red are green

B. Some green are not red D. All red are blue

23. Which one **is not** true from the above statement?

A. All blue are red C. All green are red

B. Some green are red D. All red are blue

Questions 24 and 25 are based on the following assumptions.

Five executives of European Corporation will hold a Conference in Rome

Mr. A converse in Spanish and Italian. Mr. B knows English and Spanish.

Mr. C knows English and belongs to Italy. Mr. D converses in French and Spanish.

Mr. E a native of Italy knows French.

24. Which of the following can act as interpreter if **Mr. C and Mr. D** wish to converse?

A. Only Mr. A C. Only Mr. B

B. Mr. A and Mr. B D. Any of the other three

25. If a 6th executive is brought in, to be understood by maximum number of executives, he should be fluent in_____.

A. English and French C. Italian and Spanish

B. English and French D. French and Italian

Reading Comprehension (26-30)

Directions: ***Read the following passage carefully and answer the questions based on it. Then, write your choice in the space provided in the answer sheet***

One of the major decisions which face the student ready to begin higher education is the choice of attending a large university or a small college. The large university provides a wide range of specialized departments, as well as numerous courses with in such departments.

The small college, however, generally provides a limited number of courses and specializations but offers a better student-faculty ratio, thus permitting individualized attention to students. Because of its large, cosmopolitan student body (often exceeding 20,000 and above students) the university exposes its students to many different cultural, social, believe and extracurricular programs.

On the other hand, the smaller more homogeneous student body of the small college affords greater opportunities for direct involvement and individual participation in such activities. Finally, the university closely approximates the real world; it provides a relaxed, impersonal and sometimes anonymous existence. In contrast, the intimate atmosphere of the small college allows the student four or greater than that structured living in which contemplate and prepare for the real world ahead.

In making his/her choice among educational institutions the student must, therefore, consider many factors.

26. The approximate title of the passage could be

A. The cosmopolitan world
B. College life
C. University life
D. Where to study or pursue higher education

27. The writer seems to be in favor of

A. University life
B. College life
C. Cosmopolitan cities
D. Neutrality

28. The advantage of studying at a university over studying at a small college include

A. specialization opportunities
B. contemplation and intimacy
C. anonymous life and direct involvement
D. homogeneity of the student population

29. What is meant by a better student-faculty ratio?

A. Equilibrium between advisor and advisee
B. The greater the number of the teachers, the lower the students population.
C. Disparity between student-teacher ratio
D. All

30. The writer compares

A. Smaller college with an ocean
B. The university campus with the real world
C. The college with a university
D. A fresh man with a sophomore

31. A two-digit number is such that the product of the digits is 8. When 18 is added to the number, then the digits are reversed. The number is:

A. 18 B. 42 C. 24 D. 81

32. The ratio between the perimeter and length of rectangle is 5:1. If the area of a rectangle is 216 sq. cm, what is the length of the rectangle?

A. 16 cm B. 18 cm C. 24 cm D. 23 cm

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

A. 10 B. 15 C. 12 D. 18

34. If $A:B=2:3, B:C=4:5, C:D=6:7$, then $A:D=?$

A. $2:7$ B. $7:8$ C. $16:35$ D. $4:13$

35. Divide 25 by a quarter and add 6. What is the resulting number?

A. 100 B. 6.25 C. 106 D. 112.25

36. There are exactly 4 prime numbers between n and 2n. Then the possible value of n is

$A.n=4$ B. $n=10$ C. $n=11$ D. $n=50$

37. If two events are independent, then

A. they must be mutually exclusive
B. the sum of their probabilities must be equal to one
C. their intersection must be zero
D. None of these alternatives is correct

38. What is the simplified form of $\frac{3^{\sqrt{5}} \times 3^{\sqrt{20}}}{27^{\sqrt{5}}}$

A.1 B.2 C.4 D.2^{-1}

39. What comes next for the sequence: 4, 18, 48, and 100?

A .180 B. 290 C. 210 D. 150

40. The perimeters of 5 squares are 24 cm, 32 cm, 40 cm, 76 cm and 80 cm respectively. The perimeter of another square equal in area to the sum of the area of these squares is:

A.124 cm B. 120 cm C .64 cm D. 56 cm

41. 10 men, working 6 hours a day can complete a work in 18 days. How many hours a day must 15 men work to complete the work in 12 days?

A.4 hours a day B.5 hours a day C.6 hours a day D.7 hours a day

42. Average of 10 numbers is zero. At most how many numbers may be greater than zero A. 0 B. 1 C. 5 D. 9

43. Find the distance from the point to the given line p (4, 0) and

L; 2x-3y-2 = 0 A. $\frac{20\sqrt{13}}{13}$ units B. $\frac{10\sqrt{41}}{41}$ units C. $\frac{7\sqrt{10}}{10}$ units D. $\frac{6}{\sqrt{13}}$.

44. Find the vertical asymptote f(x) = $\frac{5x}{x^2-4}$ A.2 B. -2 C.0 D. A&B

45. Which one of the following is true about the polynomial function?

F(x) = $6x^3 - x^5 + 2x + 1$

A. the degree is 3
B. leading coefficient is 6
C. coefficient x^3 is 2
D. the constant term is 1

46. What is the simplify form of the expression $e^{3x-1}.e^{4-x}$

A. e^{2x+3} B. e^{2x-3} C. e D. e^3 E. e^{x+3}

47. If the discriminate b^2-4ac ¿0 , then the quadratic equation has: _____.

A. Two solution B. one solution C. three solution D. no solution

48. Find the mode of the following data set based on the given table.

X	2	5	7	8	10

F	3	4	9	2	6

A. 9 B. 10 C. 7 D. 8

49. If $f(x)=\begin{cases}2^{|x-c|}, \wedge if\ x>4\\ 2x, if \wedge x\le 4\end{cases}$ is continuous, the find the values of c

A. -1 & 7 B. 1&7 C. -1&7 D.1&-7

50. Let f(x) = x^3-3x, find the value of x at which the slope of the tangent line is 0.

A. x=± 2 B. $x=\pm 1$ C. $x=\pm\frac{1}{2}$ D. x= $\pm\frac{1}{3}$

51. If y = $\ln x$, then find $\frac{d^2y}{dx^2}$ A.$\frac{1}{X}$ B. $\frac{-1}{x^2}$ C.$\frac{-1}{X}$ D. x

52. If$\frac{-3}{x^2+x-2}=\frac{A}{x+2}+\frac{B}{x-1}$, then the values of A and B respectively are:

A. 1 and 2 B. -1 and -2

C. 1 and -1 D. -1 and 0

53. A bag contains 3 red, 5 green and 2 yellow marbles. If two marbles are taken at random, then the probability that both are green is:

A. $\frac{2}{9}$ B. $\frac{2}{3}$ C. $\frac{5}{9}$ D. $\frac{31}{45}$

54. Which of the following is **not_true** about the sequence $\left\{\frac{2n-3}{n+1}\right\}_{n=1}^{\infty}$?

A. Its greatest lower bound (**glb**) is - $\frac{1}{2}$

B. It is divergent

C. It is bounded

D.its least upper bound (**lub**) is 2

55. If $\{G_n\}$ is a geometric progression with $G_2 = \frac{20}{9}$ and $G_5 = \frac{60}{729}$, then $\sum_{n=1}^{\infty} G_n$ is A.10 B. $\frac{20}{3}$ C. $\frac{10}{3}$ D.20

56.  The length of each sides of the square above is $\frac{2x}{3}+1$.the perimeter of the square is A.$\frac{8x+4}{3}$ B. $\frac{8x+12}{3}$ C. $\frac{2x}{4}+4$ D. $\frac{4x}{3}+2$.

57. a relationships that holds for all waves is expressed by the formula v = f L , where v is the velocity, f is the frequency and l is the wave length express the wave length l in terms of v & f .

A. L = $\frac{V}{F}$ B. L = V-F C. L = V+F D. L = $\frac{F}{V}$

58. in a certain group of people, $\frac{3}{8}$ of the people are men, and $\frac{2}{3}$ of the men have brown eyes. If $\frac{3}{4}$ of the people have brown eyes, then what fraction of the group is women who do not have brown eyes?

A.$\frac{1}{8}$ B. $\frac{3}{16}$ C. $\frac{3}{8}$ D. $\frac{1}{4}$

59. If all P are S and no S are Q, what is it necessary follows that true?

A. all Q are S B. all Q are P C. no S are P D.no P are Q

60. A micro millimetre is defends one millionth of a millimetre's length of 16 micro millimetre is may be represented as

A. 0.00017mm B. 0.0000017 mm C.0.000000017mm D.0.000017mm

The End

Aptitude Answer Sheet for First Model Exam for grade 12, March, 2020

Name: _____ Roll no _____

1- C	16- A	31.C	46.A
2- C	17. B	32.B	47.A
3_ D	18. D	33.A	48.C
4- A	19. B	34.C	49.B
5- A	20. B	35.C	50.B
6- A	21- C	36.B	51.B
7- B	22- B	37.B	52.C
8- D	23- A	38.A	53.A

9- A	24. C	39.A	54.B
10- C	25. D	40.A	55.A
11- A	26. D	41.C	56.B
12- A	27. D	42.D	57.A
13- B	28. A	43.D	58.A
14- A	29. A	44.D	59.D
15- C	30. B	45.D	60.D