

**KOLFE KERANIO SUB CITY EDUCATION BUREAU GRADE 8 MATHEMATICS
MODEL EXAMINATIONS 2016E.C/ 2024G.C**

NUMBER OF QUESTIONS: 40

TIME ALLOWED: - 1 HOUR

GENERAL DIRECTIONS

THIS BOOKLET CONTAIN **MATHEMATICS EXAMINATION**.IN THIS EXAMINATION; THERE ARE A TOTAL NO, OF **40 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 **1 HOUR**. 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.

INSTRUCTION-I READ THE FOLLOWING QUESTIONS CAREFULLY AND CHOOSE THE CORRECT ALTERNATIVE ANSWER FOR THE FOLLOWING QUESTIONS .

1. Which one of the following number is both perfect square and perfect Cube number?

- A. 625 B. 0.09 C. $\frac{1}{64}$ D. 1600

2. $\frac{a}{b}$ is a rational number, $a < b$ and $b \neq 0$ then it is _____

- A. Improper fraction B. Proper fraction
C. mixed fraction D. Opposite number

3. Which one of the following number is perfect cube number?

- A .0.08 B. 0.027 C. 0.64 D. 0.81

4. Which one of the following rational number is the greatest?

- A. -100 B. -89 C. -10 D. 0

5. When $x \in \mathbb{Q}$, which one of the following is the solution for $\frac{x+4}{7} + \frac{x+9}{14} = 10$

- A. $\{\frac{123}{3}\}$ B. {123} C. {125} D. $\{\frac{13}{89}\}$

6. Which one of the following is true?

- A. $\frac{1}{2} < \frac{3}{5} < \frac{7}{10}$ B. $\frac{7}{10} < \frac{3}{5} < \frac{1}{2}$ C. $\frac{1}{2} < \frac{7}{10} < \frac{3}{5}$ D. $\frac{3}{5} < \frac{7}{10} < \frac{1}{2}$

7. Which one of the following number is odd perfect cube?

- A. 216 B. 512 C. 729 D. 1000

8. If $(8.92)^2 = B$ then find $(0.892)^2$.

- A. $\frac{B}{1000}$ B. $\frac{B}{100}$ C. $\frac{B}{10}$ D. $\frac{B}{25}$

9. The area of square 1225m^2 then find the length of the side of square

- A.35m B.25m C.5m D.95m

10. If $(8.57)^2 = 73.44$ then what is $\sqrt{7344}$

- A.857 B.764.4 C.85.7 D.734.4

11. Five times a certain number is decreased by two times the number is less than 12. What are the possible values of this number in the domain of W?

- A. { 0,1,2,3 } B. { 4,5,6, } C. {1,2,3} D. {-1,-2,-3}

12. If the volume of cube is $\frac{1}{8}\text{m}^3$.then find the length of cube.

- A. $\frac{1}{2}\text{m}$ B. $\frac{2}{3}\text{m}$ C. 64m D. 4m

13. $\sqrt{5x+6} = 6$ then what is the value of x?

- A. 6 B. 4 C. 3 D. 36

14. Let $x = 6$ and $y = -8$ then the simplified form of $(3\sqrt{x^2 + y^2})$ is

- A.100 B. 300 C. 30 D. 3915

15. The graph of $y = -10x$ is pass through,

- A. below the x- axis B. 1st and 3rd quadrants
C. above the x-axis D. 2nd and 4th quadrants

16. The descending order of $2\frac{1}{3}$, $\frac{1}{5}$, $\frac{3}{4}$ and 0.5

- A. $2\frac{1}{3}$, $\frac{3}{4}$, 0.5, $\frac{1}{5}$ B. $\frac{3}{4}$, $2\frac{1}{3}$, $\frac{1}{5}$, 0.5
C. $\frac{1}{5}$, 0.5, $\frac{3}{4}$, $2\frac{1}{3}$ D. 0.5, $\frac{1}{5}$, $2\frac{1}{3}$, $\frac{3}{4}$

17. $\left(\frac{3}{4}\right)^3 =$ _____

A. $\frac{9}{16}$

B. $\frac{27}{64}$

C. $\frac{27}{16}$

D. $\frac{9}{64}$

18. $-2|3x-1| = -8$, then what is the value of x ?

A. $\{1, \frac{3}{5}\}$

B. $\{-1, \frac{5}{3}\}$

C. $\{-1, -\frac{5}{3}\}$

D. $\{-1, -5\}$

19. The product of $-\frac{2}{3} \times \frac{5}{4} \times \frac{3}{2}$

A. $-\frac{5}{4}$

B. $-\frac{3}{4}$

C. 1

D. $\frac{5}{4}$

20. $\frac{3}{4} + \frac{1}{3} = \underline{\hspace{2cm}}$

A. $\frac{13}{12}$

B. $\frac{4}{11}$

C. $\frac{8}{39}$

D. $\frac{7}{6}$

21. How long will take birr 4000 to get birr 800 simple interest at rate of 20%?

A. 1 year

B. 2 years

C. 3 years

D. 5 years

22. Positive proper fraction always exist between ____

A. 0 and 1

B. -1 and 0

C. 1 and 2

D. -2 and -1

23. Determine the quotient of $\frac{4}{6}$ by $\frac{2}{6}$

A. 6

B. $\frac{3}{2}$

C. $\frac{6}{7}$

D. 2

24. Which one of the following is true about? $\sqrt[3]{Y} = Z$?

A. Y is the cube root of Y.

B. Z is the cube root of Y.

C. $Z = Y^3$

D. $Y = Z^{1/3}$

25. Which one of the following is true about the prime factorization of 225?

A. $3^2 \times 5$

B. 3×5^2

C. $3^3 \times 5$

D. $3^2 \times 5^2$

26. If birr 2,000 is invested at a rate of 12 % simple interest calculated annually then what is the total amount after 4 years?

A. 960

B. 1960

C. 2960

D. 3000

27. Which one of the following rational number is mixed fraction?

A. $6\frac{4}{3}$

B. $\frac{6}{5}$

C. $7\frac{2}{3}$

D. $\frac{11}{15}$

28. In which quadrant does the coordinate point (-400,600)

A. 4th quadrant

B. 3rd quadrant

C. 2nd quadrant

D. 1st quadrant

29. Which of the following statement is true?

A. $(\frac{a}{b})^2 = \frac{a}{b}$

B. $(ab)^2 = (a)^2 (b)^2$

C. $a^2 = a + a$

D. $\sqrt{\frac{a}{b}} = \frac{a}{b}$

30. If Y is a perfect cube if and only if

A. $Y = m^3$

B. $Y = n^2$

C. $Y = \sqrt{m}$

D. $Y = \sqrt[3]{m}$

31. One of the following line passes through the origin

A. $x=3$

B. $y=4x$

C. $y=2x+2$

D. $y=-6$

32. The slope of $Y = -3x+5$ is

A. 3

B. -3

C. 4

D. -4

33. Which one of the following equation is equivalent to $-2x + 4 = 3$?

A. $X=2$

B. $-2x=4$

C. $2X=4$

D. $-2x=-1$

34. Which one of the following show Associative property of Addition?

A. $A + D = D + C$

B. $C(A+B) = AC + BC$

C. $C+(A+B) = A+(C+B)$

D. $A+0=A$

35. Which one of the following statement is true?

A. The product of an odd number of negative rational numbers is positive

B. The product of opposite sign is positive

- C. The product of an odd number of negative factors is negative.
D. The product of both negative is negative.

36. The value of $\sqrt[3]{16/54}$

- A. $\frac{4}{7}$ B. $\frac{8}{27}$ C. $\frac{2}{3}$ D. $\frac{4}{3}$

37. If $x=1$ and $y=2$, then What is the value of $4y(3x-y)+5(3x-y)$?

- A. 15 B. 9 C. 13 D. 22

38. What is the solution set of the inequality $6(2+4x) \leq 42$ in the set of positive integers?

- A. $\{0, 1, 2\}$ B. $\{1\}$ C. $\{1, 2\}$ D. $\{\}$

39. What is the solution set of the equation $2(3x+5) = 30$?

- A. $\{\frac{10}{3}\}$ B. $\{4\}$ C. $\{\frac{1}{2}\}$ D. $\{\frac{1}{6}\}$

40. A father is 27 years older than his son. Ten years ago he was twice as old as his son. How old is the father now?

- A. 54 years B. 37 years C. 47 years D. 64 years