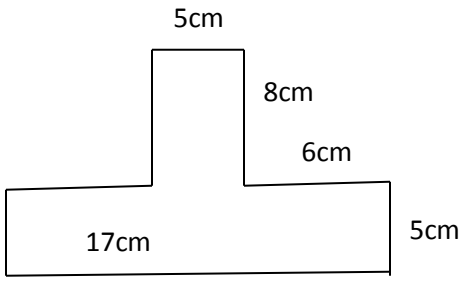
UMMUL QURA HIGH SCHOOL
AROWONA BUS-STOP, AMULOKO-AKANRAN ROAD, IBADAN.
2020/2021 THIRD TERM EXAMINATION

SUBJECT: Mathematics DURATION : 2hrs : 30mins
CLASS: JSS2 INSTRUCTION: Attempt section A and B

SECTION A: OBJECTIVES

1. How many line of ***symmetry*** does a square have
   A. 0
   B. 1
   C. 4
   D. 2
2. Simplify $y^7 \times y^3$
   A. Y^4
   B. Y^{21}
   C. Y^7
   D. Y^{10}
3. The L.C.M of 30 and 40 is
   A. 60
   B. 180
   C. 120
   D. 100
4. What is the ***value*** of digit 6 in 17.163
   A. Tens
   B. Hundredth
   C. Thousandth
   D. Unit
5. Arrange the following fractions in ***descending*** order 5/6 , 1/2 , 2/3 , 3/4
   A. 5/6 , 3/4 , 2/3 ,1/2
   B. 5/6 , 1/2 , 2/3 , 3/4
   C. 1/2 , 2/3 , 3/4 ,5/6
   D. 2/3 , 5/6 , 3/4 , 1/2
6. Simplify $\frac{4}{21} \div \frac{6}{36}$
   A. 9/10
   B. 24/735
   C. 735/24
   D. 10/9
7. Remove the bracket and ***simplify*** 4(2x+3)+ 5(3x+2)
   A. 23+22x
   B. 8x+15x
   C. 23x+22
   D. 15x-22
8. Calculate the ***perimeter*** of the figure below



   A. 41cm
   B. 60cm
   C. 52cm
   D. 77cm

9. Express 100,000,000 in terms of ***power*** of ten
   A. 10^{-9}

B. 10^{8}

C. 10^{7}

D. 10^{-7}

10. Write $\frac{3}{100}$ in decimal form

A. 0.3

B. 0.03

C. 0.003

D. 0.0003

11. Express 0.0123 in *standard form*

A.. 123×10^{-2}

B. 1.23×10^{-2}

C. 12.3×10^{-3}

D. 12.3×10^{-2}

12. Evaluate $(5 + 1)^2 \div (7 - 5)^2$

A. $^{6}/_{2}$

B. 3

C. 9

D. 6

13. Increase 60km by 30%

A.. 18km

B. 61km

C. 78km

D. 42km

14. Convert 40% to ratio

A. 50:7

B. 7:50

C. 14:100

D. 100:14

15. Find the ***rate*** at which the simple interest of #600 is charge on #10,000 for 2years.

A. 6%

B. 3%

C. 5%

D. 15%

16. Round 22,763 to it ***nearest*** thousand

A. 23,000

B. 22,800

C. 20,000

D. 22,760

17. Solve the equation $\frac{2n}{3} = 4\frac{1}{2}$

A. $\frac{9}{2}$

B. $6\frac{1}{4}$

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

D. $9\frac{3}{4}$

18. I thought of a number, i subtracted 45 from it. The result was 35. Find the number

A. 45

B. 80

C. 54

D. 90

19. Factorize $x^2 + x + 2x + z$, completely.

A. X(x + 1) + 2(x + 1)

B. (x + 1)(x + 1)

C. (x + 1)(x + 2)

D. $(x^2 + x)(2x + 2)$

20. Solve 2x – 3 > 11

A. X < 7

B. 2x > 14

C. X > 7

D. X – 7 < 3

21. 3x – 2 < 19, x is a ***positive*** whole number.

A. 6

B. 7

C. 8

D. 9

22. A staple machine costs #1200. What is the cost of three staple machine?

A. #1200

B. #9,600

C. #2,400

D. #3,600

23. When two sides of a right angled triangle are equal, it is called

A. Equilateral triangle

B. Isosceles triangle

C. Isosceles right-angled triangle

D. Scalene right-angled triangle

24. The line ***called*** radius starts from _____ and end on _____

A. Centre and centre

B. Centre and sector

C. Centre and circumference

D. Centre and chord

25. The following are examples of quadrilateral ***except***

A. Parallelogram

B. Kite

C. Rhombus

D. Pentagon

26. Simply 3 - $\frac{a}{a+3b}$

A. $\frac{9-3b}{(a+3b)}$

B. $\frac{2a+3b}{(3a-3b)}$

C. $\frac{2a-9b}{(3a-b}$

D. $\frac{2a+3b}{(a+3b)}$

27. Evaluate $xy + a^2$ when x = -20, y= 3 and a = 10

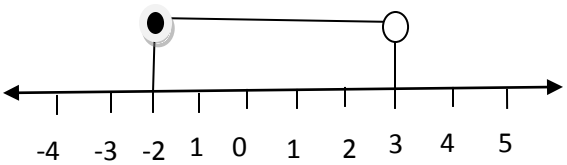
A. -24

B. -40

C. -50

D. 24

28. Which of the following inequality is represented on the number line below.



A. $-2 \geq x > 3$
B. $-2 \leq x \leq 3$
C. $-2 \leq x < 3$
D. $-2 < x \leq 3$

29. Simplify $2\frac{1}{3} + [\ 3\frac{3}{5} \div 1\frac{1}{8}]$

A. $6\frac{1}{15}$

B. $5\ \frac{8}{15}$

C. $2\ \frac{8}{15}$

D. $6\ \frac{7}{8}$

30. Express 0.00037 in standard form

A. 3.7×10^{-3}
B. 3.7×10^{-4}
C. 3.7×10^{-5}
D. 3.7×10^{-6}

31. The product of three numbers is 3,876. Two of the numbers are 17 and 19. What is the third number?

A. 57
B. 63
C. 12
D. 6

32. Open the bracket and balance the equation: 5(2y + 7) = 3(4y - 5). What is the value of y

A. 2y =20
B. Y = -10
C. Y = -4
D. Y = -35

33. Simplify $\frac{11}{x} + \frac{4}{12}$

A. $\frac{132 + 4x}{12x}$
B. $\frac{4(33 + x)}{12x}$
C. $\frac{33 + 3x}{12x}$
D. $\frac{33 + x}{3x}$

34. What is the value of p in $\frac{1}{p} + \frac{1}{4} = \frac{1}{3}$

A. P = 4
B. P = 8
C. P = 12
D. P = 16

35. What is the l. C. M of $\frac{10}{w - 1} + \frac{5}{9}$

A. 9w
B. 9w -8
C. 9xw -1
D. 9(w - 1)

36. Three times a number plus 6 is equal to twice the certain number plus 15. What is the number

A. 15
B. 21
C. 9

D. 30

37. Solve $1 < 2x \leq 5$

A. $1 < 2x < 5$
B. $0.5 < x \leq 5$
C. $5 \leq x < 2.5$
D. $0.5 < x \leq 2.5$

38. Solve $3x - 4 < 29$; x is whole number which is also a multiple of 4

A. 2
B. 6
C. 8
D. 10

39. A certain number is added to 3 and then multiplied by 2. The result is greater than 8.4. Find the range of values of x.

A. $X > 7.2$
B. $X < 7.2$
C. $X < 1.2$
D. $X < 3.4$

SECTION B: THEORY PART

INSTRUCTION: ANSWER ANY THREE QUESTIONS

EACH QUESTION CARRIES 10MARKS

Time allowed:

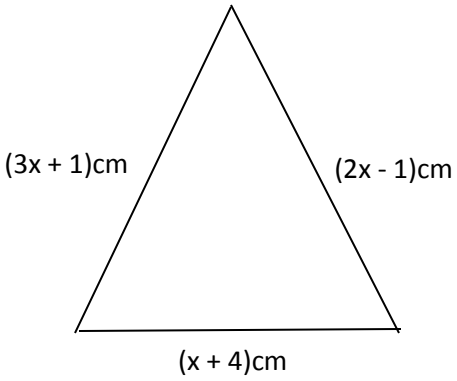
1a. Solve the following equations by collecting of like terms

i. $4(2m - 5) = 3(2m + 8)$

ii. $\frac{3}{a} - \frac{2a}{1-a} = 2$

b. Three times a certain number added to 14 is the same as when two times the number is subtracted from 6. What is the number?

2a. Calculate the value of x given that the perimeter of the triangle is 28cm



b. Solve the inequality and represent on a line graph.

$4(2x - 2) - 3(3x - 6) \geq 12$

3a. The sum of twice a number and 15 is less than thrice the same number minus 9. Find the number.

b. Solve $2x - 9 \leq 3x - 6 < 3x + 13$ and draw its line graph.

4. 1 tin of popular milk costs #100.

a. Make a table of values showing the cost of fuel from 1 tin to 10 tins.

b. Using a scale of 2cm to 1 tin on the horizontal axis and 2cm to #100 on the vertical axis, plot a graph showing this information.