UMMUL-QURA HIGH SCHOOL

Arowona Bus-Stop, Off Akanran Road, Ibadan.
THIRD TERM EXAMINATION, 2018/2019 ACADEMIC SESSION.

SUBJECT: *Mathematics.* ***CLASS:*** *JSS 2* ***TIME:*** *2 $^{1}/_{2}$* ***hours.***

OBJECTIVE PART: Read and choose the correct option.

1. Simplify (-3)*(-6)*(-12) ÷ (-9)

A. +18

B. -18

C. +20

D. -20

2. When 5 is added to certain number, the result is 17. Find the number.

A. -12

B. 12

C. 13

D. 17

3. Round off 2376 to one significant figure;

A. 2000

B. 2400

C. 2380

D. 2370

4. Simplify -3-(-21)-18.

A. 36

B. 6

C. 3

D. 0

5. Evaluate $\sqrt{2^{7}/_{9}}$.

A. $^{2}/_{3}$

B. $1^{1}/_{3}$

C. $1^{2}/_{3}$

D. $2^{1}/_{3}$

6. Express 0.00001208 in standard form.

A. $12.08*10^{-4}$

B. $1.208*10^{-6}$

C. $1.208*10^{-5}$

D. $1.208*10^{-4}$

7. Find the smallest number by which 60 must be multiplied to a given perfect square.

A. 15

B. 10

C. 6

D. 5

8. An article is sold for N315 and the profit of N65. Find the percentage profit.

A. 36%

B. 30%

C. 26%

D. 24%

9. Each faces of a cube are in the shape of;

A. hexagon

B. rectangle

C. square

D. triangle

10. The perimeter of a square is 16 *cm*. Find the area of the square.

A. 12 *cm*

B. 16 *cm*

C. 24 *cm*

D. 25 *cm*

11. If 35% discount is given a trouser which cost N3,000, how much will a buyer pay for the trouser?

A. N1,000

B. N1,050

C. N1,950

D. N2,250

12. If Tolu collects a loan of N250,000 from a bank at the rate of $11^{1}/_{2}$% interest, how much will she pay as interest at the end of the year?

A. N27,500

B. N28,750

C. N50,000

D. N55,000

13. Calculate the area of semicircle of radius 14 *cm* [Take $\pi = {}^{22}/_{7}$]

A. 22 cm^2

B. 196 cm^2

C. 308 cm^2

D. 560 cm^2

14. Convert 1101010_2 to denary;

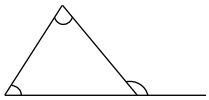
A. 106

B. 53

C. 43

D. 33

15. What is the value of a in the diagram below;



A. 40^0

B. 50^0

C. 60^0

D. 80^0

16. Find the value of x, if 5(x + 1) = 7(x - 3).

A. -26

B. -13

C. 3

D. 13

17. Approximate 0.007349 to three significant figures.

A. 0.007

B. 0.00734

C. 0.00735

D. 0.734

18. Calculate the circumstance of a circle of radius 7 *cm* [Take $\pi = {}^{22}/_{7}$]

A. 49 *cm*

B. 44 *cm*

C. 29 *cm*

D. 22 *cm*

19. Calculate the volume of a cuboid 8 *cm* long, 4 *cm* wide and 3 *cm* high;

A. 12 cm^3

B. 24 cm^3

C. 69 cm^3

D. 96 cm^3

If a trader gained 10% by selling an article for N1560. What is the cost price of the article?

A. N1404

B. N1325

C. N1722

D. N1650

21. Reduce N340 by 80%.

A. N612

B. N240

C. N128

D. N68

22. Solve the equation; -x – 3 = -8.

A. -5

B. +5

C. -11

D. 11

23. If 1 is subtracted from 8 times a certain number. The result is 15. Find the number;

A. 2

B. 4

C. 6

D. 8

24. Find the different between H.C.F and L.C.M of 24, 36 and 40.

A. 210

B. 260

C. 300

D. 356

25. Which of the following is ***an*** obtuse angle?

A. 89^0

B. 90^0

C. 120^0

D. 180^0

26. Multiplicative increase of ${}^{3}/_{q}$ is;

A. $-{}^{3}/_{q}$

B. $^{q}/_{3}$

C. $^{1}/_{q}$

D. $^{1}/_{3}$

27. Multiplicative increase of 8 is;

A. $^{1}/_{8}$

B. $^{1}/_{16}$

C. -8

D. $-^{1}/_{8}$

28. Simplify $(^{3a}/_{8b})*(\ 18b^{2}/_{9a^{2}})$;

A. $^{3b}/_{4a}$

B. $^{4b}/_{3a}$

C. $^{4}/_{3a}$

D. $^{3}/_{4}$

29. If x = 3, y = -2 and z = 5. Find the value of: $x^2 + xy + z^2$.

A. 45

B. 36

C. 28

D. 24

30. Remove the bracket and simplify 5x - 2(8 - x).

A. 3x - 12

B. 7x + 18

C. 7x - 16

D. 3x - 14

31. Additive inverse of (-10*3) is;

A. -3*10

B. (+13*-10)

C. -3*-10

D. +10*-3

32. Expand (2x - 5)(2x + 5).

A. 4x2 + 25

B. 4x2 - 25

C. 4x2 - 10

D. 4x2 - 10

33. Find the H.C.F of $8p^2 + 12pq + 24pq^2$.

A.

B.

C.

D.

34.

A. $^{11}/_{2}$

B. $^{11}/_{18}$

C. $^{24}/_{9}$

D. $^{11}/_{6}$

35. I think of a number and multiply it by 3, 6 is added to it and all divided by 5. Then the result is 2. Find the number.

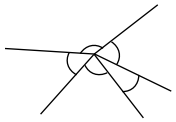
A. $1^{1}/_{2}$

B. $1^{1}/_{3}$

C. $1^{1}/_{4}$

D. $1^{1}/_{5}$

36. Find the value of x.



A. 30

B. 35

C. 45

D. 60

37. The area of triangle is 54 cm^2. If the height of the triangle is 6 *cm*, find its base.

A. 9 *cm*

B. 12 *cm*

C. 18 *cm*

D. 27 *cm*

38. Simplify -110ab ÷ (-11a).

A. 10a

B. -10a

C. -11a

D. 11a

39. Expand (2x - 4)(x - 3).

A. $2x^2 - 10x - 12$

B. $2x^2 + 10x + 12$

C. $2x^2 + 10x - 12$

D. $2x^2 - 10x + 12$

40. Simplify 3(2x + 3) -2(3x - 4).

A. -12

B. 0

C. +1

D. 12

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THEORY PART: Answer any ***three*** question only

1a. The height of an equilateral triangle is 15 *cm* and its perimeter is 24 *cm*. Find the area of the triangle. [8 marks]

1b. Round off the following;

i. 81784 to 2 s.f

ii. 78.6789 to the nearest hundredth

iii. 610.475 to the nearest whole number

iv. 0.09099 to 2 s.f

[6 marks]

1c. Simplify $^{(7*10-3*5.94*105)}/_{(2.35*102)}$ [6 marks]

2a. Ade, Musa and Femi are to share N27,000 in the ratio 2:3:5 respectively, how much will each of them get? [8 marks]

2b. A refrigerator marked N45,000 was sold at a discount of 30%. Find the cash price of the refrigerator. [6 marks]

2c. Simplify $(8[3 + (-7)] + 8) \div (4 + (-6))$ [6 marks]

3a. Think of a number, add 7, multiply it by 3, subtract 3, divide by 4 then multiply by 12. The result is 72. What is the number. [6 marks]

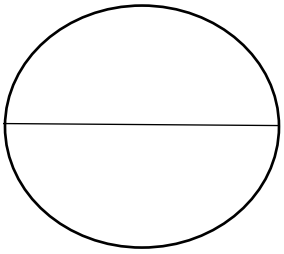
If x = 3, y = -2 and z = 5, find the value of:

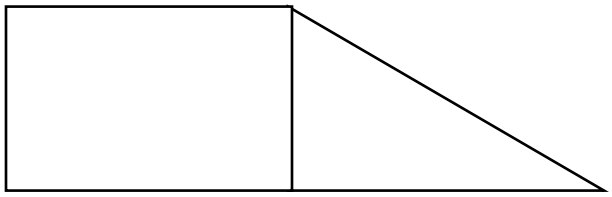
i. $\surd\ (15x - 5y + z)$

ii. Expand (3x -,1)(2x - 1) [8 marks]

3c. Evaluate $110111_2 * 11011_2$, leave your answer in base two. [6 marks]

4a. Calculate the area of the following shapes; [8 marks]





4b. Solve the following equations using inverse method.

i. $9y = -5^2/_5$ [3 marks]

ii. -8 + n = 12 [3 marks]

4c. Simplify each of the following fractions:

i. $^{(x+2)}/_2 - {}^{(x-1)}/_3$ [3 marks]

ii. $^{4bc}/_{9ab} \div {}^{12ab}/_{15de}$ [3 marks]

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