UNIVERSITY OF UYO, UYO
2006/2007 POST-UME SCREENING EXERCISE
MATHEMATICS 2006/2007

Instruction from the options letter A-D, pick the correct answer and shade accordingly.

1. Given that (1x03)4 = 11510, find x. A. 2 B. 0 C. 3 D. 1

2. A motorist starts from a point O and moves on a bearing of 0300 for 48km. He then moves 101km toward the west. How far is he now from O?
A. 11km B. 14km C.24km D. 38km.

3. If 7 and -3 are the roots of the quadratic equation $x2 + kx – 21 = 0$ what is the value of k?
A. 10 B. 4 C. 4 D. 3.

4. A man receives an annual increase of N30 and after a period of 10 year service the man has salary of N1014. What was his initial salary? A N270 B. N774 C. N714 D. N135.

5. If the function $f (x) = x3 +2x2 +kx-6$ is divisible by x find k.
A. 3 B. -5 C. 2 D. -3.

6. A woman is 3 times as old as her daughter. 8 years ago, the product of their ages was 112. Find the mother's age.
A. 12 B. 36 C 24 D. 30.

7. If loga 2 = 0.693 and loga3= 1.097, find loga 13.5
A. 1.404 B. 1790 C. 2.79 D. 2.598.

8. Convert 15816 to a denary number.
A. 3285 B. 505 C. 344 D. 4900.

9. Make d the subject of the formula A = gd (1 + 3h/d).
A. A- gh B. A2 – 3gh C. A – 3gh D. g
g g g A2 - 3gh

10. A salesman receives a basic monthly salary of N23200. He also gets ½% commission on sales. Out of his total income he pays 1% union dues and 3% as income tax. what was his net income for a month in which the sales were N2,595,000?
A. N35,247 B. N34,728 C. N36,175 D. N29,167.

11. Evaluate without tables, the following expression, leaving your answer in standard form 0.81 x 10-5
2.25 x 10-7
A. 3.6 x 10-12 B. 6 x 10-6 C. 6 x 10-7 D. 36 x 10-12

12. The fixed costs of a small manufacturing factory are N300,000. The variable cost, which are directly proportional to the sales, are N400,000 when the sales are N1million. Calculate the total cost when the sales are N900,000.
A. N700,000 B. N600,000 C. N1.2million D. N660,000.

13. Simple 18 + 32 - 50
A. 2 B. 2 2 C. 2 5 D. 3 2

14. If tanθ = ¾ and 1800 <θ<2700, then secθ is
A. 5/4 b. -4/5 C. 4 D. -5/4

15. Find the quadratic equation whose roots are -2 and 3.
A. x2-2x+1 B. x2+x-6 C. x2-x-6 D. x2+x+6

16. Which of the following word is a member of the set of words in the sentence: "THIS IS AN EASY QUESTION"
A. True B. False C. Questioning D. An iquity.

17. If logm81= 4/3, find the value words of m.
A.9 B. 27 C. 18 D.36.

18. The third term of a GP is 9 and the 5th is 81. Then two possible values of the common ration are: A. ±4 B. ±2 C. ±3 D ±9.

19. Find the median of the following scores of students; 35, 42, 56, 83, 72, 58
A. 56 B. 58 C. 57 D. 83.

20. What is the mean of the score in question 19?
A. 56 B. 57.7 C. 57.6 D. 57.

21. Find the range of the following set of scores 1.02,1.12, 1.10, 1.05, 1.13, 1.04,1.15
A. 13 B. 0.14 C. 0.13 D. 1.10

22. The sum of the internal angles of a pentagon is ……….
A. 1800 B. 36000 C. 5400 D. 72000

23. Evaluate (0.006)3 + (0.004)3 in standard form.
A. 2.8 x 10-8 B. 2.8 x 10-9 C. 2.8 x 10-7 D. 2.8 x 10-6

24. The base angle of an isosceles triangle whose vertices lie on a circle are 500 each. Determine the angle which the base of the triangle subtends at the center of the circle.
A. 1600 B. 1000 C. 800 D. 1300.

25. Express 8m 5m a decimal of 1km.
A. 0.0805km B. 0.00805km C. 00850km D.0.0850km.

UNIVERSITY OF UYO, UYO
2007/2008 POST-UME SCREENING EXERCISE
MATHEMATICS 2007/2008

Instruction from the options letter A-D, pick the correct answer and shade accordingly.

1. Add 11012 ,101112 and 1112. A. 1110112 B. 1101102 C. 1010112 D. 1010102.

2. If 125x = 2010, find x. A. 2 B. 3 C. 4 D. 5.

3. Express 123456 to 3 significant figures.

A. 123000 B. 124000 C. 125000 D. 126000.

4. Calculate the simple interest on N7500 for 8 years at 5% per annum

A. N3000 B. N600 C. N300 D. N150

5. The cost of kerosene per litre increases from N60 to N85. What is the percentage rate of increase?

A. 45% B. 41% C. 40% D. 25%.

6. Make Q the subject of the formula when L= 4M/3 PQ

A. 2L2 B. 3L C. √3L D. 3L2

16M2P 4M√P 4MP 16M1P

7. If x – 3 is directly proportional to the square of y and x = 5 when y = 2, find x when y = 6.

A. 30 B. 21 C. 16 D. 12.

8. Find the exterior angle of a 12 sided regular polygon.

A. 120 B. 210 C. 250 D. 300.

9. Find the capacity in litres of a cylindrical well of radius 1 metre and depth 14 metres.

A. 44000 litres B. 4400 litres C. 440 litres D. 44 litres.

10. On a pie chart, there are six sectors of which four angles are 300, 450, 600, 900, and the remaining two angles are in the ratio 2 :1. Find the smaller angles of the remaining two angles.

11. The length of a notebook 15cm, was measured as 16.8cm, calculate the percentage error to 2 significant figures

A. 12.00% B. 11.00% C. 10.71% D. 0.12%.

12. A worker's present salary is N24,000 per annum. His annual increment is 10% of his basic salary. What would be his annual salary at the beginning of the third year?

A. N23,800 B. N29,0.10 C. N31,200 D. 31,944.

13. Express the product of 0.0014 and 0.011 in standard form

A. 1.54 x 10-2 B. 1.54x10-3 C. 1.54 x 10-4 D. 1.54x10-3.

14. A market woman sells oil in cylindrical tins 10cm deep and 6cm in diameter at N15.00 each. She bought a full cylindrical Juy 18cm in diameter for N50.00. How much did she make by selling all the oil?

A. N62,50 B. N35,00 C. N31,00 D. N25,00.

15. A man is paid r naira per hour for normal work and double rate for overtime. If she does a 35-hour week which include q hours of overtime, what is his weekly earning in naira?

A. r(35+q) B. q(35r-q) C. q(35+r) D. r(35r-q).

16. If the population of a town was 240,000 in January 1998 and it increased by 2% each year, what would be the population of the town in January 2007

A. 480,000 D. 249,696 C. 249,600 D. 244,800.

17. A man wishes to keep some money in a savings deposit at 25% compound interest so that after 3 years he can buy a car for N150,000. How much does he need to deposit now? A. N112,000.50 B. N96,000.00 C. N85,714.28 D. 76,800.00.

18. Audu bought an article for N50,000 and sold it to Femi at a loss of x%. Femi later sold the article to Oche at a profit of 40%. If Femi made a profit of N10,000, find the value of x. A. 60 B. 50 C. 40 D. 20.

19. A trader realizes $10x-x^2$ naira profit from the sale of x bags of corn. How many bags will give him the maximum profit?

A. 4 B. 5 C. 6 D. 7.

20. In a regular polygon, each interior angle doubles its corresponding exterior angle, find the number of the sides of the polygon.

A. 8 B. 6 C. 4 D. 3

21. A right pyramid is on a square base of side 4cm. The slanting side of the pyramid is 2√3cm. calculate the volume of the pyramid.

A. 51/3cm3 B. 102/3cm3 C. 20cm3 D. 32cm3

22. In a class of 80 students every student studies mathematics or statistics. If 63 students study maths and 50 study statistics, how many study both subjects?

A. 30 B. 15 C. 45 D. 35.

23. Evaluate x^2+x-2 when x-1 $2x^2+x-3$ A. -2 B. -1 C. –½ D. 1

24. If two triangles are similar, which of the following is true? Their

A. corresponding sides are equal B. corresponding angles are equal C. areas are equal D. perimeters are equal

25. Two angles of a triangle are 410 and 490. Which is true?

A. It is an equilateral triangle B. a right angled triangle C. an isosceles triangle. D. obtuse-angled triangle.

ANSWERS MATHEMATICS 2007/2008
1.C 2.B 3.A 4.A 5.B 6.A 7.B 8.D 9.D 10. 1/5 11.A 12.C 13.D 14.D 15.A 16B 17.D
18.B 19.B 20.B 21.D 22.B 23.A 24.B 25.

UNIVERSITY OF UYO, UYO
2008/2009 POST-UME SCREENING EXERCISE
MATHEMATICS 2008/2009

Instructions: From the options lettered A to D choose the correct answer and shade accordingly in the spaces provided.

1. The probability of a student passing any examination is 2/3; If the student takes three examinations, what is the probability that he will not pass any of them?
A. 2/3 B. 4/9 C. 3/27 D. 1/27

2. The acres for rice pineapples, cassava, cocoa and palm oil in a certain district are given respectively as 2, 5, 3, 11 and 9. what is the angle of the sector for cassava in a pie chart? A. 120 B. 10 C. 20 D. 60.

3. How many three-digit numbers can be formed from 32564 without any digit being repeated? A. 120 B. 10 C. 20 D. 60

4. The mean of a set of six numbers is 60. If the mean of the first five is 50, find the sixth number in a set A. 105 B. 100 C. 95 D. 110.

5. Calculate the mean deviation of the set of numbers 7, 3, 14, 9, 7 and 8
A. 2 1/6 B. 21/9 C. 1 ½ D. 2 1/3

No of days	1	2	3	4	5	6
	20	X	50	40	2X	60

The distribution above shows the number of days a group of 260 students were absent from school in a particular term. How many students were absent for at least four days in the term?
A. 210 B. 40 C. 120 D 160.

7. If M represents the median and D mode of the measurements, 5, 9, 3, 5, 8 then (M, D) is
A. (6,5) B. (5,8) C. (5,7) D. (5,5).

8. Given a regular hexagon, calculate each interior angle of the hexagon
A. 600 B. 300 C. 1200 D. 450.

9. Solve the following equations. 4x-3= 3x+y =2y + 5x = 12
A. x-5, y = 2 B. x = 2, y = 5 C. x = 2, y = - 5 D. x =5, y = 2
10. If X = 1 is a root of the equation x3-2x2-5x-6, find the other roots
A. -3 and 2 B. 2 and 2 C. 3 and -2 D. 1 and 3.
.
11. If x is jointly proportional to the cube of y and the fourth power of z. what
ratio is x increased or decreased when y is halved and z is double? A. 4:1
increase C. 2:1 increase C. 4:1 decrease D. 1:1 no change.
12. Evaluate (212)3 – (121)3 + (222)3
A. (313)3 B. (1000)3 C. (1020)3 D. (1222)3.
13. If Musa scored 75 in Biology instead of 57 his average mark in four subjects
would have been 60. What was his total mark?
A. 282 B. 240 C. 222 D. 201.
14. Find the smallest number by which 252 can be multiplied to obtain a
perfect square
A. 2 B. 3 C. 5 D. 7.
15. Udoh deposited N150,000 in the bank. At the end of 5 years the simple
interest on the principal was N 55.00, at what rate per annum was the interest
paid?
A. 11% B.7 1/3% C. 5% D.3 ½%.
16. A number of pencils were shared out among Bisi, Soi and Tunde in the ratio
of 2:3:5 respectively. If Bisi got 5, how many were shared out?
A. 15 B. 25 C. 30 D. 50
17. The ages of Tosan and Isa differ by 6 and the product of their ages is 187,
write their ages in the town of (x,y), where x>y.
A. (12,6) B. (23,17) C. (17,11) D. (18,12).
18. Find n if log24 + log27 – log2n = 1
A. 10 B. 14 C. 27 D. 28
19. Simplify 91/3 x 27 – 1/2
3- 1/6 x 32/3.
20. If x varies directly as y3 and x = 2 when y = 1, find x when y = 5.
A. 2 B. 10 C. 125 D. 250.
21. Factories (4a-3)2–(3a-2)2
A. (a+5) B. (a-5) C. (7a-1) D. a(7a+1)
22. Find the values of x which satisfy the equation 16x-5x4x+14=0
A. 1 and 4 B. -2 and 2 C. 0 and 1 D. -1 and 0
23. A regular polygon of n sides had 1600 as the size each of interior angle. find
n.
A. 10 B. 16 C. 14 D. 12.

24. Find the median of the numbers 89, 141, 130, 161, 120, 131, 131, 100, 108 and 199
A. 131 B. 125 C. 123 D. 120

25. Find the probability that a number selected at random from 40 to 50 is a prime
A. 3/11 B. 5/11 C. 3/10 D. 4/11.

<center>ANSWERS TO 2008/2009-MATHEMATICS</center>

1.D 2.C 3.D 4.D 5.D 6.D 7.D 8.C 9.A 10.C 11.B 12.C 13.C 14.D 15.D 16.B 17.C 18.B 19.B 20.D 21.C 22.C 23.A 24.B 25.A

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UNIVERSITY OF UYO, UYO
2009/2010 POST-UME SCREENING EXERCISE
MATHEMATICS 2009/2010

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Instructions: From the options lettered A-D, pick the correct answers and shade according:

1. .Express 398753 correct to three significant figures:
A. 398000 B. 399000 C. 398800 D. 3987000

2. Fine the sum of the numbers form 1 to 30: A. 39800 B. 465 C. 365 D. 375.

3. If p:q is 4:25. Find the value of q/p. A. 6.25 B. 0.16 C 2.5 D. 25

4. Find the median of the numbers 89, 141, 130, 161, 120, 131, 100, 108 and 109. A. 131 B. 125 C. 123 D. 120

Evaluate 0.21 x 0.072 x 0.00054 correct to 4 significant figure 0.006 x 1.68x0.003
A. 0.01286 B. 0.01285 C. 0.1286 D. 0.1285.

6. The time taken to do a piece of work is inversely proportional to the number of men employed. If it takes 45 men to do a piece of work 5 days, how long will it take 25 men? A. 15 days B. 12days C. 5 days D. 8 days.

7. The length a person can jump is inversely proportional to his weight. If a 29kg person can jump 1.5m, find the constant of proportionality.
A. 60 B. 30 C. 20 D. 15

8. Find the values of x and y respectively if 8x – 5y =0 and 4x-7y+8=0

A. -5,-4 B. -4,-5 C. 5,4 D. 5,4

9. The sum of the first n terms of an arithmetic progression is 252. If the first term is -16 and the last is 72, the number of terms is the series is.

A. 6 B. 7 C. 8 D. 9

10. An arc of a circle subtends an angle of 300 on the circumference of a circle of radius 21cm. Find the length of the arc.

A. 11cm B. 22cm C. 44cm D. 66cm.

11. A trapezium has two parallel sides of length 5cm and 9cm. If the area is 21cm2, find the distance between the parallel sides.

A. 3cm B. 4cm C. 6cm D. 7cm

12. The length L of a simple pendulum varies directly as the square of its period T. If a pendulum with period 4 sec, is 64cm long, find the length of a pendulum whose period is 9 sec. A. 36cm B. 96cm C. 144cm D. 324cm.

13. Given that the first and fourth terms of a G.P are 6 and 162 respectively, find the sum of the first three terms of the progression. A. 8 B. 27 C. 48 D. 78.

14. The sum of interior angles of a pentagon is 6x+6y. Find y in terms of x A. y = 60 – x B. y=90-x C. y= 120-x D. y=150-x.

15. The mean age of a group of students is 15 years. When the age of a teacher, 45 years old, is added to the ages of the students, the means of their ages becomes 18 years. Find the number of students in the group.

A. 7 B.9 C. 15 D. 42.

16. Factorise x2-5x+6

A. (x-2) (x+6) B. (x+5)(x-1) C. (x-2)(x-3)

17. If a pencil cost N 3.00 and a notebook costs N5 and one bought pencils and notebooks for N25.00 then the number of pencils bought is

A. 4 B. 5 C. 2 D. 10

18. The sum if the internal angles of a triangle is

A. 7290 B. 4800 C. 1800 D. 3800.

19. 368 mod. 7 is:

A. 2 B. 10 C. 4 D. 8.

20. If one puts N1,000.00 for fixed deposit for a year at 10% interest rate and then puts the amount with interest for the next year and repeats it four times. How much will he collect then at the end of the fourth year?

A. N1,6000.00 B. N1,464 D. N1,331.00 D. N1,221.1.

21. If at 12% amount interest rate the business man collects N6000.00 interest at the end of the year then how much was the capital he put a fixed deposit.

A. N4,000.00 B. N5,000.00 C. N2,500.00 D. N3,000.00.

22. A man bought 220 mangoes at N5x He sold for 3x kobo and made a gain of N8. Find the value of x.

A. 2 B. 5 C. 6 D. 10.

23. Convert 101101two 10 a number in base ten:
A. 61 B. 46 C. 45 D. 44.
24. The salary of a man was increased in the ratio 40: 47. Calculate the percentage increase in the salary.
A. 85.1% B. 58.5% C. 17.5% D. 14.9%.
25. Ladi sold a can for N84,000 at a loss of 4%. How much did Ladi buy the car?
A. N80.500 B. N80,640 C. N87,360 D. N87,500.

ANSWERS TO MATHEMATICS 0120
2009/2010 SESSION

1 B 7. B 13. C 19. C 25 B
2 A 8. D 14. B 20. B
3 A 9. D 15. B 21. B
4 D 10. A 16. C 22. B
5 D 11. A 17. B 23. C
6 D 12. D 18. C 24. A

UNIVERSITY OF UYO, UYO
2010/2011 POST-UME SCREENING EXERCISE
MATHEMATICS 0120 2010/2011
Instructions: From the options lettered A to D choose the correct answer and shade accordingly in the spaces provided.
1. The product of two consecutive odd integers is 35: find the integers.
A. -5;7 B. 5;-7 C. 5;-7 D. 9;4
2. Find the largest angle of the triangle whose sides measure 3cm, 7cm and 5cm A. 1700 B. 450 C.600 D. 1350.
3. Evaluate, without tables, sin(A+B),given that sin a = 3/5 and cos B = 12/5 with a and B acute. A. 15/65 B. 63/65 C. 56/65.
4. In an AP, The first term is 4 and the common difference is 9. What term is 184? A. 20 B. 18 C. 21 D. 22.
5. Fine two consecutive odd numbers whose squares differ by 48.
A. 9,11 B. 11,13 C. 13,15 D. 15,17.

6. The ages of a parent and child are in the ratio 10: 3, if the child's age now is 12. what will be the ratio of their ages in 4 years time?

A. 9:4 B. 11: 4 C. 12:5 D. 11:5.

7. Find without tables the exact value of 95.672- 4.332

A. 9000 B. 9144 C. 913.4 D. 9134.

8. Chord subtends an angle of 140 at the centre of a circle of radius 10cm. Calculate the area of the sector (Take = 22)

A.22 B. 1222/9 C. 110 D. 241/9 .

9. Find the value of 323/5 + (0.04)- 3/2

A. 125 B. 24 C. 115 D. 133.

10. The 4th term of a geometric progression is 108 and the 6th term 972. What is the possible value of the 3rd term?

A. 12 B. 36 C. 72 D. 81.

11 For what value of K has the expression x4+kx3-2x2-10x-6 a reminder of 6 when divided by (x + 3):

A. -3 B. 3 C. 4 D. 31.

12. Find Ө given that sin 2Ө = cos 30.

A. 450 B. 300 C. 180 D. 220

13. How many side has a regular polygon with interior angles of 1650?

A. 15 B. 14 C. 25 D. 24

14. A hall contains 175 people. 12% of them are children and there are 58 women. How many men are in the hall? A. 96 B. 117 C. 154 D. 105

15. Evaluate 0. 21X 0. 072 X 0. 00054 correct of four significant Figures. 0.006 X 1. 68 X 0:063 A. 0.01286 B. 0.01285 C. 0.01286 D. 0.1285

16. If dy/dx = 2x-3 and y=3 when x= 0 find y in terms of x.

A. 2x2 -3x B. x2 – 3x C. x2- 3x-3 D. x2 -3x +3.

17. The time taken to do a piece of work is inversely proportional to the number of men employed. If it takes 45 men to do a piece of work 5 days, How long will it take 25 men? A. 15days B. 12days C. 5days D. 9days.

18. If x varies directly as n√3 and x = 9 find x when n= 17/9 C. 3 D. 17

19. The acres for rice, pineapple, cassava, cocoa and palm 0il in a certain district are given respectively as 2, 5, 3, 11 and 9. What is the angle of the sector for cassava in a pie chart? A. 1800 B. 180 C. 360 D. 600.

20. How many three-digit numbers can be formed from 32564 without any digit being repeated? A. 120 B. 10 C. 20 D. 60.

21. The mean of six numbers is 60. If the mean of the first five is 50, find the sixth number in the set. A. 105 B.100 C. 95 D. 110.

No of days	1	2	3	4	5	6
	20	X	50	40	2X	60

22. The distribution above shows the number of ages a group of 260 students were absent from school in a particular term. How many students were absent for at least four days in term? A. 160 B. 40 C. 120 D. 210.
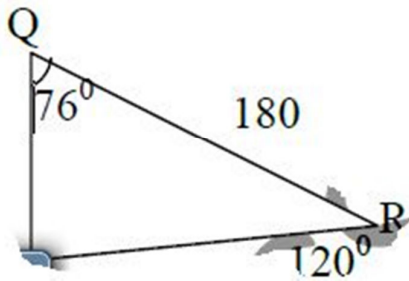
23. The triangle PQR above is A. An obtuse-angled triangle B. a scalene triangle C. an isosceles triangle D. an equilateral triangle

24. Find the mean of the data: 7, 3, 4, -2, 5, -9, 48, -6, 12

A. 3 B. 4 C. ½ D.

25. The range of the data: k + 2, k-3, k, k-5, k-1 and k+6 is

A. 10 B. 11 C. 6 D. 8

ANSWERS TO MATHEMATICS 0520

2010/2011 SESSION

1.C 7 D 13. D 19. C 25. B

2 A 8. B 14. a 20. B

3.D 9. D 15. B 21. D

4.C 10. B 16. C 22. A

5.B 11. B 17. B 23. B

6.B 12 C 18 C 24 C

UNIVERSITY OF UYO, UYO
2011/2012 POST-UTME SCREENING EXERCISE
MATHEMATICS 2011/2012

Instructions: From the options lettered A to D choose the correct answer and shade accordingly in the spaces provided.

1. Which of these correctly describes 48 as a prime factor

A 3x4x4 B. 2x3x8 C. 2x2x3x4 D. 2x2x2x2x3

2. Evaluate (20three)2 – (11three)2 in the base three A. 101 B. 121 C. 202 D. 2020

3. Evaluate log105 + log1020 A. 2 B. 3 C. 4 D. 5

4. In a class of 80 students, every student studies Economic or Geography or both. If 65 students study Economics and 50 study Geography. How many study both subjects? A. 15 B. 30 C. 35 D. 40

5. If N varies directly as M and N= 8 when M =20, find M when N=7
A. 13 B. 15 C. 17 ½ D. 181/2

6. Express 0.0462 in standard form.
A. 0.462 x10-1 B. 0.462x10-2 C. 4.62x10-1 D.4.62x10-2

7. In a bag of oranges, the ratio of the good ones to bad ones is 5:4. If the number of bad oranges in the bag is 36, how many oranges are there altogether?
A. 81 B. 72 C. 54 D. 45

8. A boy estimated his transport fare as N190 instead of N200. find the percentage error in his estimate.
A.95 B. 47% C. 5.26% D. 5%

9. Evaluate 52/5x (2/3)2 ÷ (11/2)-1.
A. 8/25 B. 12/25 C. 33/5 D. 4/8

10. The nth term of a sequence is 22n-1. which of the sequence is 29?
A. 3rd B. 4th C. 5th D. 6th.

11. Evaluate ½ + ¾ of 2/5 ÷ 13/5 A. 15/16 B. 11/16 C. 49/50 D. 3 ½

12. A man is four times as old as his son. The difference between their ages is 36 years. Find the sum of their ages.
A. 45 years B. 48 years C. 60 years D 74 years

13. Given that y = px+q and y = 5 when x 3, while y = 4 when x = 2. find the values of p and q A. p=1,q=3 C. p=1,q=2 C. p=-2,q=3 Dp=3,q=-2

14. Evaluate x2 + x-2 when x = -1
X2 + x-3. A. -2 B. -1 C. – ½ D. 1

15. Factorize 6x2+ 7x-20
A. (6x-5) (x+4) B. 2(3x-5)(x+2) C. (3x+4)(2x-5) D. (3x-4)(2x+5)

16. Simplify 2x-1 – x+3 A. x+7 B. x+8 C. x-11 D. x-4

17. If y-3 < 2y-1 which of the following is true? A. y>7 B. y<-7 C.y>-7 D. y<7

18. If 4m+3n = 5/2 find the ratio m:n 4m+3n A. 7:4 B. 4:3 C. 3:4 D. 4:7

19. If 2x + kx -14 = (x+2) (2x-7), find the value of x. A. -3 B.4 C. 9 D. 11

20. Which of the following is not a quadratic expression?
A. y – 2x2 – 5x B. y-x (x-5) C. –x2-5 D. y5(x-1).

21. The graph of a curve y=2x2 – 5x +1 and a straight line PQ were drawn to solve the equation 2x2 – 5x + 2 = 0 what is the equation of the PQ A. y=-1 B. y=1 C. y=8 D. -3

22. Subtract (-y+3x+5z) from (4y-x2z).
A. 5y – 4x – 7z B. 3y + 2 + 3z C. 5y +4x+7z D. 2x-5y+3z.

23. If y ∞ 1 and x=16 when y = 2. Find x when y = 24√x A. 1/9 B. 1/6 C. 1/3 D. 2/3.
24. The bearing S400E is the same as A. 0400 C.0500 C. 1300 D. 400
25. If 2x (x+1) = 3:2 what is the value of x? A. ½ B. 1 C. 1½ D. 3

ANSWERS TO MATHEMATICS 2011/2012
1.D 2.C 3.A 4.C 5.C 6.D 7.A 8.D 9.C 10.C 11.B 12.C 13.B 14.D 15.D 16.C 17.C 18.A 19.A 20.D 21.B 22.A 23.A 24.D 25.D