THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
PRIMARY SCHOOL LEAVING EXAMINATION

04E **MATHEMATICS**

Time: 2 Hours ***Wednesday, 7th September 2011 a.m.***

Instructions

1. This paper consists of **fifty (50)** questions in sections A, B and C.
2. Answer **all** questions in each section.
3. Show clearly all the working in each question and write a letter of the correct answer in the answer sheet provided.
4. Cellular phones and calculators are **not** allowed in the examination room.
5. Write your **Examination Number** on your answer sheet.
6. Use **blue or black** pen in writing your answers. Answers **written in pencil will not be marked**.

BOMT160/2011

SECTION A: MATHEMATICAL OPERATIONS

For each of questions 1 – 25, work out the answer, then choose the correct option and write its corresponding letter in the answer sheet provided.

1. $3\frac{3}{5} \div 2\frac{7}{10} =$

   A $6\frac{21}{50}$ B $5\frac{18}{25}$
   C $1\frac{1}{3}$ D $1\frac{4}{3}$
   E $1\frac{7}{27}$

2. $11192 \times 7 =$

   A 78444 B 78334
   C 77744 D 77734
   E 78344

3. $74.3 - 9.56 =$

   A 64.84 B 65.84
   C 64.74 D 65.74
   E 64.86

4. $10200 \div 25 =$

   A 418 B 484
   C 480 D 408
   E 440

5. $2\frac{2}{3} + 3\frac{5}{6} =$

   A $6\frac{2}{3}$ B $7\frac{7}{10}$
   C $6\frac{1}{2}$ D $5\frac{4}{9}$
   E $5\frac{7}{9}$

6. $\frac{7}{9} - \frac{5}{8} =$

   A $\frac{11}{72}$ B $\frac{1}{72}$
   C $\frac{-1}{36}$ D $\frac{-1}{35}$
   E 2

7. $6\frac{1}{4} \times 2\frac{1}{2} =$

   A $12\frac{1}{2}$ B $12\frac{1}{8}$
   C $15\frac{1}{4}$ D $12\frac{1}{6}$
   E $15\frac{5}{8}$

8. $2157 + 6843 =$

   A 8000 B 8990
   C 8900 D 9000
   E 8800

9. $2.056 + 0.975 =$

   A 3.021 B 3.031
   C 2.921 D 2.021
   E 2.931

10. $29313 - 4119 =$

    A 25204 B 25494
    C 25294 D 25194
    E 26194

11. $1.22 \times 0.6 =$

    A 0.632 B 0.622
    C 0.722 D 0.732
    E 0.0732

12. $13.78 \div 53 =$

    A 0.216 B 0.206
    C 0.026 D 0.0026
    E 0.26

13. $(^{-}25) + (^{+}40) =$

    A $^{-}65$ B $^{+}65$
    C $^{+}15$ D $^{-}15$
    E 25

14. $^{+}2 - (^{-}8 + ^{+}3) =$

    A 7 B 13
    C 3 D $^{-}3$
    E $^{-}9$

15. Change 62.5% into a simple fraction.

    A $\frac{5}{6}$ B $\frac{3}{4}$
    C $\frac{5}{8}$ D $\frac{2}{3}$
    E $\frac{5}{2}$

16. Change 0.035 into percentage.
A 35% B 0.35%
C 0.035% D 0.0035%
E 3.5%

17. Change 0.0125 into a simple fraction.
A $\frac{5}{400}$ B $\frac{1}{8}$
C $\frac{1}{8000}$ D $\frac{1}{80}$
E $\frac{1}{400}$

18. Write the roman number MMDXC into normal numerals.
A 2610 B 2590
C 2580 D 2519
E 2510

19. The prime numbers between 30 and 40 are:
A 35, 37 B 31, 39
C 31, 37 D 33, 37
E 33, 39

20. When the Lowest Common Multiple (L.C.M) of 12, 18 and 36 is divided by the Highest Common Factor (H.C.F) of the same numbers, the answer is
A 36 B 18
C 9 D 6
E 12

21. Change 1815 into 12 hours system.
A 6.15 p.m B 2.15 a.m
C 12.15 p.m D 6.15 a.m
E 12.15 a.m

22. When 41 kilograms (kg) 360 grams (gm) is divided by 8, the result is
A 5 kg 100 gm B 5 kg 170 gm
C 5 kg 17 gm D 51 kg 70 gm
E 5 kg 171gm

23. The value of y in the equation $\frac{3y+3}{3} = 2y - 2$ is
A -3 B $\frac{5}{3}$
C 3 D -5
E $\frac{4}{3}$

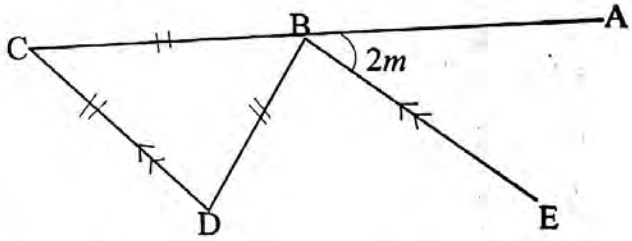
24. Simplify: $m + n - m + m - n$
A $2m$ B n
C 0 D $m+n$
E m

25. Find the square root of 2601.
A 41 B 51
C 59 D $(2601)^2$
E 49

SECTION B: FIGURES

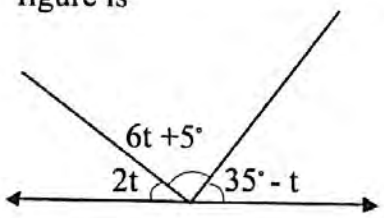
For each of questions 26 – 38, work out the answer, then choose the correct option and write its corresponding letter in the answer sheet provided.

26. Find the value of m in the following figure.



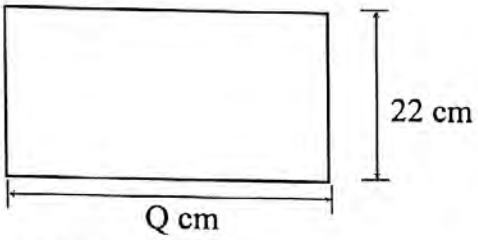
A 15° B 30°
C 45° D 60°
E 70°

27. The value of t in the following figure is



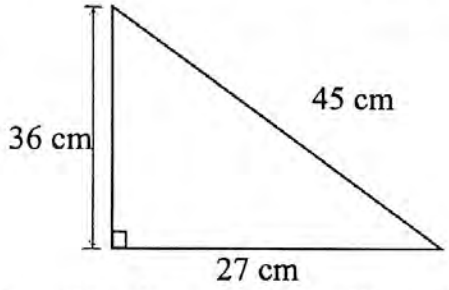
A 80° B 30°
C 35° D 70°
E 20°

28. Find the value of Q from the following rectangle if its perimeter is 120 cm.



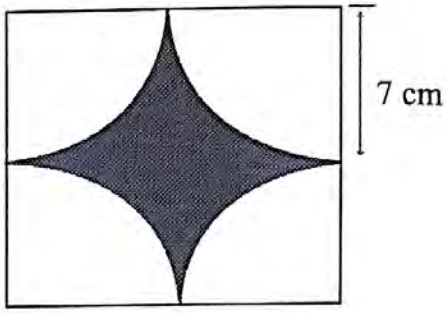
A 38 cm B 44 cm
C 76 cm D 98 cm
E 27 cm

29. Find the area of the following figure:



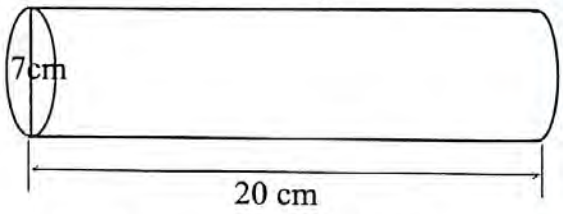
A $120\ cm^2$ B $486\ cm^2$
C $1620\ cm^2$ D $810\ cm^2$
E $972\ cm^2$

30. Find the area of the shaded part which is in a square of 14 cm length. (Use $\pi = \frac{22}{7}$).



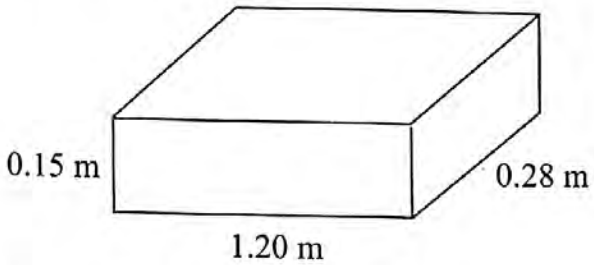
A $196\ cm^2$ B $154\ cm^2$
C $49\ cm^2$ D $42\ cm^2$
E $39\ cm^2$

31. Find the surface area of the following cylinder which is closed on both sides. (Use $\pi = \frac{22}{7}$).



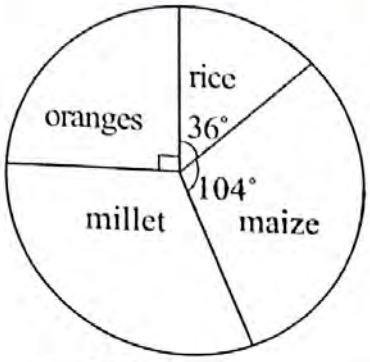
A $77\ cm^2$ B $440\ cm^2$
C $517\ cm^2$ D $880\ cm^2$
E $479\ cm^2$

32. Find the volume of the following rectangular prism.



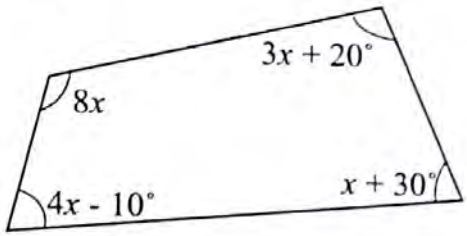
A $50400\ m^3$ B $504\ m^3$
C $5.04\ m^3$ D $0.0504\ m^3$
E $50.4\ m^3$

33. Itera Primary School sold a total of 720 bags of oranges, millet, maize and rice. By using the pie chart below, find the number of millet bags which were sold.



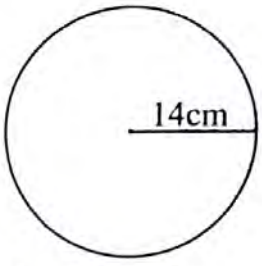
A 230
B 260
C 130
D 460
E 280

34. The value of x in the following figure is



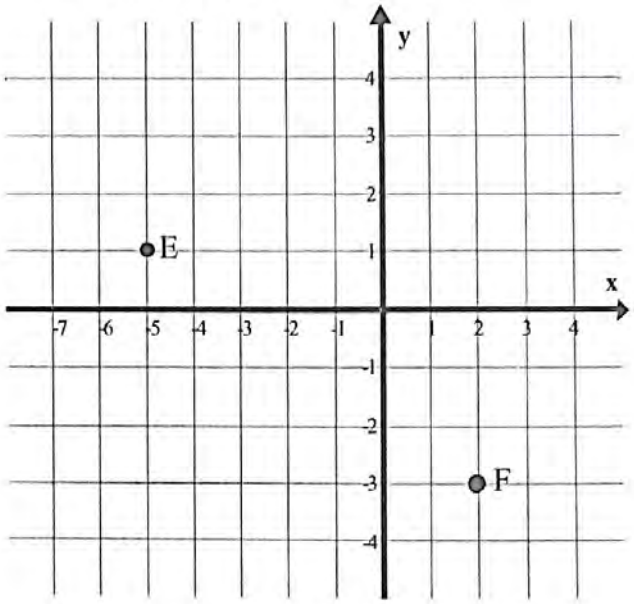
A 40°
B 35^0
C 30°
D 20°
E 10°

35. Find the circumference of the circle given below. (Use $\pi = \frac{22}{7}$).



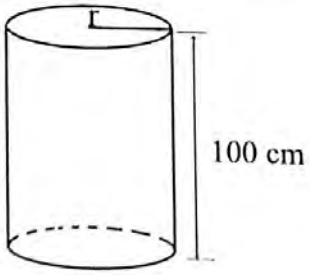
A 616 cm
B 176 cm
C 88 cm
D 44 cm
E 28 cm

36. The coordinates for points E and F in the following drawing is



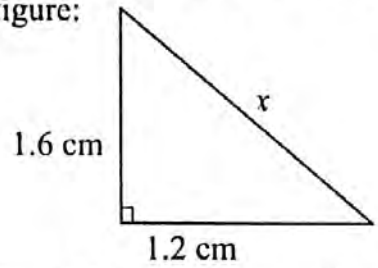
A E(-5, 1); F(2, -3)
B E(-5, -1); F(-2, -3)
C E(1, 5); F(-2, -3)
D E(1, -5); F(-3, 2)
E E(0, -5); F(-3, -2)

37. Find the radius of the cylinder given below if its volume is 15.4 litres. (Use $\pi = \frac{22}{7}$, 1 litre = 1000 cm^3).



A 14 cm
B 7 cm
C 10 cm
D 7.5 cm
E 24.5 cm

38. Find the value of x from the following figure:



A 2.56 cm B 1.44 cm
C 2.0 cm D 4.0 cm
E 1.92 cm

SECTION C: WORD PROBLEMS

For each of questions 39 – 50, work out the answer, then choose the correct option and write its corresponding letter in the answer sheet provided.

39. 72 pupils attended the class and 20 % were absent. How many pupils were there in the class?
A 72 B 80
C 85 D 90
E 100

40. Jonael drove his car from Mazoela village 40 km towards east and then 30 km towards south to Matabo village. What is the shortest distance between Mazoela and Matabo?
A 10 km B 50 km
C 60 km D 70 km
E 25 km

41. The price of a motorcycle increased from shs. 3,000,000 to 4,500,000. What was the percentage increase?
A 33.3% B 30%
C 25% D 66.6%
E 50%

42. A train left Manyoni at 8.00 a.m. and arrived Kigoma at 6.00 p.m. If the speed of the train was 90 kilometres per hour, find the distance between Manyoni and Kigoma.
A 925 km B 920 km
C 900 km D 880 km
E 990 km

43. Nine people can cultivate 6 acres farm in 22 days. If 9 more people are to be added, how many days will it take to complete the work?
A 18 B 22
C 31 D 11
E 44

44. Daudi was given shs. 5,000 and spent it as follows: he bought 4 chapati @ shs. 70; 6 exercise books @ shs. 250; 2 pens @ shs. 150 and one bag for shs. 200. If he paid shs. 600 for bus fare, how much money was left?
A shs. 2120 B shs. 2220
C shs. 2280 D shs. 2880
E shs. 2720

45. The sum of three consecutive numbers is 24. Find the smallest number.
A 4 B 5
C 6 D 10
E 7

46. Six children of the same family harvested groundnuts weighing 240 kg and 600 gm. They shared it equally and one of the children gave her friend one quarter of the amount she received. What amount did she left with?
A 10 kg 75 gm B 10 kg 25 gm
C 30 kg 75 gm D 30 kg 25 gm
E 39 kg 25 gm

47. Health investigation done in 2010 at Kitorale Ward revealed that $\frac{3}{100}$ of the people suffered from malaria. If the Ward had 300,000 people, how many people did not suffer from malaria?

A 9,000 B 219,000
C 291,000 D 301,000
E 294,000

48. John deposited shs.20, 000 in a Postal Bank at an interest rate of 5% per year. Find the interest he earned after a period of 9 months.

A shs. 750 B shs. 1,000
C shs. 550 D shs. 250
E shs. 7.50

49. The size of the first angle in a triangle is half the size of the second angle. If the size of the third angle is three times the second angle, find the size of the smallest angle.

A 40° B 20°
C 30° D 10°
E 15^0

50. The length of a minute arrow of a wall clock is 20 cm. What distance will the tip of the arrow have moved in one hour? (Use $\pi = 3.14$)

A 125.6 cm B 1256 cm
C 251.2 cm D 156.2 cm
E 62.8 cm