## CARIBBEAN EXAMINATIONS COUNCIL CARIBBEAN CERTIFICATE OF SECONDARY LEVEL COMPETENCE MATHEMATICS SPECIMEN PAPER MULTIPLE CHOICE QUESTIONS <br> 75 Minutes

## READ THE FOLLOWING INSTRUCTIONS CAREFULLY

Each item in this test has four suggested answers lettered (A), (B), (C), (D). Read each item you are about to answer and decide which choice is best.

Sample Item
$10 \%$ of $250=$
(A) 2.5
(B) 25
(C) 260
(D) 2500

The best answer to this item is " 25 ", so you choose suggested answer (B).

Copyright © 2010 Caribbean Examinations Council ${ }^{\circledR}$. All rights reserved.

05134010/SPEC/2010

1. The digit which has a value of tenth in 35.427 is:
(A) 2
(B) 3
(C) 4
(D) 5
2. What is the missing number in the sequence: $2,5,8$, $\qquad$ , 14?
(A) 10
(B) 11
(C) 12
(D) 13
3. If $\Delta+2 \times 7=18$, the value of $\Delta$ is
(A) 4
(B) 9
(C) 13
(D) 32
4. What is the sum of $1^{2}$ and $3^{2}$ ?
(A) 8
(B) 10
(C) 11
(D) 16
5. If ' $a$ ' is an odd number, which of the following is also odd:
(A) $a+1$
(B) $a+2$
(C) $2 a$
(D) $\frac{a}{2}$
6. The table below shows the number of boys and the number of girls in Class 2.

| Boys | Girls |
| :---: | :---: |
| 12 | 16 |

The ratio of boys to girls is
(A) $3: 4$
(B) $3: 7$
(C) $4: 3$
(D) $4: 7$
7. When expressed to the nearest hundred, 458 becomes:
(A) 400
(B) 450
(C) 460
(D) 500
8. A sum of money was divided between Ken and Rose in the ratio 2:3. Rose received $\$ 90.00$. What sum of money was shared?
(A) $\$ 54.00$
(B) $\$ 60.00$
(C) $\$ 135.00$
(D) $\$ 150.00$

Item 9 refers to the table below which shows the cost of fuel at a service station.

| FUEL COST (per litre) |
| :--- |
| Diesel------------ $\$ 5.50$ |
| Gasoline --------- \$6.35 |
|  |

9. The tank of a truck holds 15 litres of diesel when full. The tank is $\frac{1}{3}$ full of diesel. What is the cost of the diesel which is required to fill the tank?
(A) $\$ 11.34$
(B) $\$ 27.50$
(C) $\$ 55.00$
(D) $\$ 82.50$

Item 10 refers to the following sequence of patterns.

10. The total number of asterisks $\left({ }^{*}\right)$ in the $4^{\text {th }}$ pattern is
(A) 13
(B) 15
(C) 17
(D) 18

Item 11 refers to the information below.

11. What is the value of US $\$ 5.00$ in Jamaican dollars?
(A) $\$ 18.00$
(B) $\$ 85.00$
(C) $\$ 95.00$
(D) $\$ 450.00$
12. $5 \%$ of $\$ 40.00$ is
(A) $\$ 2.00$
(B) $\$ 8.00$
(C) $\$ 20.00$
(D) $\$ 35.00$
13. The simple interest on $\$ 600.00$ at $5 \%$ per year for 2 years is
(A) $\frac{\$ 600.00 \times 100 \times 2}{5}$
(B) $\frac{\$ 600.00 \times 5 \times 2}{100}$
(C) $\frac{\$ 600.00 \times 5}{2 \times 100}$
(D) $\frac{\$ 600.00 \times 100 \times 5}{2}$
14. Which of the following is the largest amount?
(A) $5 \%$ of 500
(B) $10 \%$ of 200
(C) $15 \%$ of 150
(D) $20 \%$ of 50
15. There are 150 shops in a mall. Of these $30 \%$ sell clothes. How many shops do NOT sell clothes?
(A) 20
(B) 45
(C) 105
(D) 130

Item 16 refers to the information below which shows the sign that a restaurant displays.

16. The bill for one person is
(A) $\$ 108.00$
(B) $\$ 110.00$
(C) $\$ 130.00$
(D) $\$ 132.00$

Item 17 refers to the information below.

17. How much does a customer pay for the I-Phone?
(A) $\$ 200.00$
(B) $\$ 800.00$
(C) $\$ 1200.00$
(D) \$1980.00
18. A dress costs $\$ 75.00$. There is a $60 \%$ discount being applied to all items. What is the discounted price of the dress?
(A) $\$ 30.00$
(B) $\$ 45.00$
(C) $\$ 105.00$
(D) $\$ 120.00$

Item 19 refers to the information below.

19. Noah bought a Blackberry for US $\$ 300.00$. He sold it for EC $\$ 540.00$. What was his loss in US dollars?
(A) $\$ 100.00$
(B) \$240.00
(C) $\$ 270.00$
(D) \$271.00

Item 20 refers to the following information.

| PRICES AT A LOCAL GROCERY STORE |
| :--- |
| 1 kg of rice ................ \$1.30 |
| 1 tin of milk .............. \$2.00 |
| 1 pack of Kool-Aid .... \$0.50 |
|  |

20. What is the total cost of 2 kg of rice, 1 tin of milk and 5 packs of Kool-Aid?
(A) $\$ 3.80$
(B) $\$ 6.60$
(C) $\$ 7.10$
(D) $\$ 8.80$
21. Express $\frac{3}{4}$ as a percentage
(A) $0.75 \%$
(B) $7.5 \%$
(C) $75 \%$
(D) $750 \%$

Items $\mathbf{2 2}$ and $\mathbf{2 3}$ refer to the information below.
A group of 30 students is planning a party. The table below shows the items needed and the cost of each item.

| Item Needed | Cost |
| :--- | :--- |
| Hat | $\$ 2.50$ each |
| Noisemakers | $\$ 4.00$ per pack of 5 |
| Balloons | $\$ 5.00$ per pack of 10 |

22. What is the maximum number of noisemakers that can be bought with $\$ 35.00$ ?
(A) 7
(B) 8
(C) 20
(D) 40
23. The group has a budget of $\$ 165.00$. If each student is to be given 1 hat and 1 noisemaker, how many balloons can be bought?
(A) 33
(B) 130
(C) 190
(D) 300

Items $\mathbf{2 4}$ and $\mathbf{2 5}$ refer to the table below which gives details of a special for a weekend holiday.

| Airfare | Adults | $\$ 75.00$ |
| :--- | :--- | :--- |
|  | Children under 15 years | $\$ 40.00$ |
| Accommodation | $\$ 100.00$ | per person |
|  | $\$ 350.00$ | for a family of 4 |
|  |  |  |

24. A man, his wife, and two children, ages 17 years and 13 years, wish to have a weekend holiday. What is the LEAST cost in travel and accommodation to the family for the holiday?
(A) $\$ 585.00$
(B) $\$ 615.00$
(C) $\$ 635.00$
(D) $\$ 665.00$
25. The children invited their 16 -year-old cousin to join them on the vacation. What is the new cost of the trip?
(A) $\$ 615.00$
(B) $\$ 665.00$
(C) $\$ 690.00$
(D) $\$ 790.00$
26. Which of the following quadrilaterals has diagonals which bisect at right angles?
(A) Rectangle
(B) Square
(C) Trapezium
(D) Parallelogram

Item 27 refers to the diagram below, where $A B$ is paralled to $C D$.

27. The value of $x$ is
(A) $30^{\circ}$
(B) $60^{\circ}$
(C) $120^{0}$
(D) $210^{\circ}$

Items 28-29 refer to the diagram below.

28. John is facing East. He turns $270^{\circ}$ anticlockwise. John is now facing
(A) North
(B) South
(C) East
(D) West
29. James turns clockwise from East to a Southwest direction. Through what angle did he turn?
(A) $90^{\circ}$
(B) $135^{\circ}$
(C) $180^{\circ}$
(D) $225^{\circ}$

30. Which of the following BEST describes the relationship among the angles identified?
(A) $a=b$
(B) $b=a+50$
(C) $\mathrm{c}=a+b=50^{\circ}$
(D) $a+b=130^{\circ}$

Items 31 refers to the diagram below.


1 kg of flour
31. What is the mass, in grams, of the package of flour?
(A) 10
(B) 100
(C) 1000
(D) 10000
32. In a circle, which of the formulas below may be used to calculate the value of $\pi$ ?
(A) $\frac{\text { circumference }}{\text { diameter }}$
(B) $\frac{\text { circumference }}{\text { radius }}$
(C) $\frac{\text { diameter }}{\text { circumference }}$
(D) $\frac{\text { radius }}{\text { circumference }}$

Item 33 refers to the diagram below which shows a cuboid.

33. The volume of the cuboid is given by the expression:
(A) $l+w+h$
(B) $2(I+w+h)$
(C) $I \times w \times h$
(D) $2(I \times w \times h)$
34. Given that 1 kg is approximately 2.2. lbs, what is the mass in kg of a bag of potatoes with a mass of 44 lbs ?
(A) 20.0
(B) 41.8
(C) 46.2
(D) 96.8
35. Which of the following tables lists the most appropriate unit for measuring the length of each of the objects?
(A)

| Object | Unit |
| :--- | :--- |
| Pencil | cm |
| Highway | km |

(B)

| Object | Unit |
| :--- | :--- |
| Pencil | cm |
| Highway | m |

(C)

| Object | Unit |
| :--- | :--- |
| Pencil | m |
| Highway | km |

(D)

| Object | Unit |
| :--- | :--- |
| Pencil | km |
| Highway | m |

Items 36 refers to the following rectangle.

36. What is the perimeter of the rectangle in cm ?
(A) $p+4$
(B) $p+8$
(C) $2 p+4$
(D) $2 p+8$
37.
$1 \mathrm{lb} .=16$ ozs

A recipe requires 3 lbs of sugar to make two dozen cupcakes. How many ounces of sugar will be needed to make half a dozen cupcakes?
(A) 2
(B) 4
(C) 9
(D) 12
38. Clock $\boldsymbol{Q}$ is ten minutes faster than clock $\boldsymbol{P}$. Which of the following BEST represents this information?
(A)

| Clock $Q$ | Clock $P$ |
| :---: | :---: |
| $0 . n \cap$ | $7.5 \cap$ |

(B)

| Clock $\boldsymbol{Q}$ | Clock $\boldsymbol{P}$ |
| :---: | :---: |
| $0.0 n$ | $0.1 n$ |

(C)

| Clock $\boldsymbol{Q}$ | Clock $\boldsymbol{P}$ |
| :---: | :---: |
| $7.5 \cap$ | $\mathbf{8 . n ก}$ |

(D)

| Clock $Q$ | Clock $P$ |
| :---: | :---: |
| $7.5 \cap$ | $8.1 \cap$ |

39. The area of the rectangle PQRS is $8 \mathrm{~cm}^{2}$.


Which of the rectangles below (A), (B), (C) or (D), has an area which is twice that of the rectangle PQRS?
(A)

4 cm
(B)

(C)

(D)


Item 40 refers to the diagram below which shows the length of Mark's stride

40. Mark travels a distance of 300 metres. How many strides does he make?
(A) 60
(B) 150
(C) 600
(D) 1500

Item 41 refers to the following information.
The local video store conducted a survey on the type of movies people rented from the store. The data are shown below.

41. Which type of movie was rented MOST frequently?
(A) Comedy
(B) Science Fiction
(C) Mystery
(D) Action

Items 42 and 43 refer to the information below.

42. During which month was the MOST T-shirts sold:
(A) January
(B) February
(C) March
(D) April
43. What is the TOTAL number of T -shirts sold during the months of January and February?
(A) 50
(B) 70
(C) 80
(D) 85

Items 44, $\mathbf{4 5}$ and $\mathbf{4 6}$ refer to the numbers below which represent the heights, in cm , of six seedlings.
$10,20,43,30,10,10$
44. What is the modal height of the seedlings?
(A) 10
(B) 20
(C) 30
(D) 43
45. What is the median height of the seedlings?
(A) 10
(B) 15
(C) 20
(D) 30
46. What is the mean height of the seedlings?
(A) 10.0
(B) 20.5
(C) 36.5
(D) 43.0

Item 47 refers to the spinner below, which is divided into six equal sections, and rotates about its centre.

47. What is the probability that the arrow will land in the space labelled with an odd number?
(A) $\frac{1}{6}$
(B) $\frac{1}{3}$
(C) $\frac{1}{2}$
(D) $\frac{2}{3}$

Item 48 refers to the diagram below which shows the scores for four batsmen on a cricket team.

48. The cricket team made a total of 120 runs. How many runs were scored by the rest of the team?
(A) 15
(B) 30
(C) 50
(D) 75
49. There are four teams in a competition. Each team plays each of the other teams once. How many games are played in the competition?
(A) 4
(B) 6
(C) 10
(D) 16

Item 50 refers to the graph below which compares the rainfall in St. Kitts and Trinidad, during the rainy season.

50. What is the difference in the TOTAL rainfall over the four-month period?
(A) 30
(B) 65
(C) 95
(D) 160

