Do not turn over or open this booklet until told to do so

## CEA

Common Entrance Assessment

## Paper 1

Saturday 13 November 2010
Time: 1 Hour

Please fill in the following from your admission card:

Your Candidate Number $\qquad$

Your Assessment Centre $\qquad$

Your Date of Birth

Answer all 58 questions in this booklet

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| MATHEMATICS |  |  |  |  |
| Page | Marks | Score | Check |  |
| 1 | $(2)$ |  |  |  |
| 2 | $(3)$ |  |  |  |
| 3 | $(3)$ |  |  |  |
| 7 | $(2)$ |  |  |  |
| 8 | $(4)$ |  |  |  |
| 9 | $(2)$ |  |  |  |
| 13 | $(2)$ |  |  |  |
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| 15 | $(3)$ |  |  |  |
| 16 | $(1)$ |  |  |  |
| 20 | $(4)$ |  |  |  |
| 21 | $(4)$ |  |  |  |
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| 4 | $(2)$ |  |  |  |
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| 10 | $(1)$ |  |  |  |
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| 18 | $(6)$ |  |  |  |
| 19 | $(2)$ |  |  |  |
| 22 | $(2)$ |  |  |  |
| 23 | $(6)$ |  |  |  |
| TOTAL 32 |  |  |  |  |

## Page 1

1. The temperature in London is $\mathbf{1 1}^{\mathbf{0}} \mathbf{C}$ and the temperature in Moscow is $\mathbf{- 1 8}{ }^{\mathbf{0}} \mathbf{C}$. What is the difference between the 2 temperatures? Write your answer in the space below.
$\qquad$
2. Look at the $\mathbf{6}$ numbers in the box below.

| 20 | 25 | 45 |
| :---: | :---: | :---: |
| 50 | 64 | 81 |

Now look at the decision tree below.


Write each of the numbers in the correct box of the decision tree.
Two of the numbers have already been put in the correct boxes.
Write each of the remaining numbers in the correct box. You may have more than one number in a box.

## Page 2

3. Look at the function machine below.
4. Two of the 4 figures below could be the net of a triangular prism. Circle the 2 figures that could be nets of a triangular prism.

5. The pairs of fractions in (a) and (b) below are equivalent fractions.

Write the missing numbers in the boxes.
(a) $\underline{3}=\frac{9}{15}$
(b)
$\frac{\square}{9}=\frac{35}{63}$

## Page 3

6. Write $\mathbf{1 1 0}$ hours in days and hours.

Write your answer in the spaces below.
$\qquad$ days $\qquad$ hours
7. Complete these calculations by writing an answer in each of the two spaces below.
(a) $1749+5862=$ $\qquad$
(b) $3687+$ $\qquad$ $=5604$
8. Look at the square pyramid below.


Complete the table below to show the number of faces, edges and vertices in the pyramid. Write your answers in the boxes below.

| Faces | Edges | Vertices |
| :--- | :--- | :--- |
|  |  |  |

## Page 4

## Grandma Was Eaten by a Shark

Grandma was eaten by a shark,
Dad, by a killer whale, And my baby brother got slurped up, By a rather hungry sea snail.

A cuttlefish cut my mum to bits, An octopus strangled my sister, A jellyfish stung my auntie's toes, Giving her terrible blisters.

A puffer fish poisoned my grandpa,
A dogfish ate my cat, And then a catfish ate my dog, I was very upset about that.

So you go for a swim if you like, Just don't ask me to come too, I'm staying here with my camera, I can't wait to see what gets you!

## Andrea Shavick

9. Look at the three words below. Which word best describes the poem? Select the word by ticking $\checkmark$ a box below.

10. Where do all the creatures in the poem live? Tick $\checkmark$ the correct answer below.

| in the sky | $\square$ |
| :--- | :--- |
| in the forest | $\square$ |
| in outer space | $\square$ |
| in the sea | $\square$ |

## Page 5

11. The words to and too sound the same but are used differently. In the two sentences below James and Sean are discussing the poem.
Complete each sentence by writing the word to or too in each of the blank spaces.
"I am going $\qquad$ read this poem $\qquad$ my mum!" said James.
"Me $\qquad$ because I really liked it," replied Sean.
12. This poem rhymes. Which word from the poem rhymes with snail? Write the word in the space below.
$\qquad$
13. Look at verse two of the poem. Which adjective is used to describe Auntie's blisters? Write the adjective in the space below.
14. Look at the four statements below. According to the poem only one of these four statements is true. Tick $\nabla$ the true statement.

The poet didn't care that a catfish ate her dog.
Her auntie had her toes stung by a jellyfish.
Her grandmother was poisoned by a puffer fish.
She is very keen to go for a swim.


## Page 6

15. In the poem the word toes is used. The word toes is the plural of toe. Write the plural of each of the words below in the space provided. Be careful with your spelling.
baby $\qquad$
shark $\qquad$
piano
potato
16. A youth club has facilities for football, basketball and tennis.

The Venn diagram below shows the number of youth club members who play these sports.


How many members play basketball and tennis but not football?
Write your answer in the space below.
17. Look at the numbers below. Tick $\sqrt{ }$ the number in which $\mathbf{5}$ stands for five tenths.
409.15
315.3
267.5
153.8 $\square$

Do not write in this column
$\qquad$

## Page 8

18. The normal price of a games console is $\mathbf{£ 1 9 0}$. In a sale it is reduced by $\mathbf{2 5 \%}$. How much does Pamela pay for it in the sale?
Write your answer in the space below.
£ $\qquad$
19. In 2011 the 8th October will fall on a Saturday. What day will the 8th November 2011 fall on? Write your answer in the space below.
$\qquad$
20. What is half of 9.2? Write your answer in the space below.
$\qquad$
21. Look at the right-angled triangle below.


Angle $\mathbf{r}$ is $\mathbf{5 0 ^ { \circ }}$ bigger than angle $\mathbf{s}$. What is the size of angle $\mathbf{s}$ ?
Write your answer in the space below.

> o

Do not write in this column

$\qquad$

## Page 9

22. Mr Danker makes chocolates. He has 391 chocolates. He wants to put the chocolates in 23 boxes. Each box must contain the same number of chocolates. Look at the 4 calculations below. Tick $\checkmark$ the calculation Mr Danker must do to work out how many chocolates go in each box.

391-23

$23 \div 391$

$391 \div 23$

23-391 $\square$
23. Look at the $\mathbf{2}$ times below. Write each as a $\mathbf{2 4}$ hour clock time. Write your answers in the spaces below.
3.15 a.m. $\qquad$
7.45 p.m. $\qquad$

The letter that you are about to read contains five errors. Read the letter and then answer the questions that follow it.

## School Swimming Lessons

## Dear Headmaster,

I am one of your pupils, and this is the first letter to you that Ive ever (line 2) written. I would like to talk to you about our swimming lessons. I think that they are too short. We only get thirty-five minutes and buy the time we get changed in and out of our clothes, there is no time for swimming.

Also, I think that the pool is in bad condision. The sides are very (line 7) slippery and the pool does not get cleaned very often.

Thank you for your time.
Yours faithfully,
Peter Smith
24. Each line of Peter's letter is numbered. In one line of the letter a question mark is needed instead of a full stop. Tick $\nabla$ the number of the line where a question mark is needed.
line 6

line 8

line 11

line 12


## Page 11

25. In one line of Peter's letter a comma has been used incorrectly. A full stop rather than a comma should have been used. Tick $\square$ the number of the line in which this error was made.
line 2 $\square$
line 5

line 7

line 9 $\square$
26. A word has been used incorrectly in Peter's letter. Tick $\square$ the number of the line where the error was made.
line 3 $\square$
line 5 $\square$
line 8

line 9 $\square$
27. There is a spelling error in one of the lines. Tick $\checkmark$ the number of the line containing the spelling error.
line 3 $\square$
line 7 $\square$
line 9

line 10 $\square$
28. An apostrophe is missing from one of the words in Peter's letter.

Do not write
Tick $\checkmark$ the number of the line containing the word with the missing apostrophe.
line 2
line 7
line 10
line 14

Page 13
29. If $x=6 \quad y=2$ and $z=5$

Write the correct number in each of the boxes below.
$\mathrm{x}+\mathrm{y}=\square$
$z^{2}=\quad \square$
30. Look at the pentagon below. There are $\mathbf{5}$ equal angles drawn at the centre of the pentagon. Each angle is $\mathbf{m}^{\mathbf{0}}$.


Write the value of $\mathbf{m}$ in the space below.
31. The pie chart below shows how $\mathbf{1 0 0}$ children travel to school each day.
32. Look at the sequence of $\mathbf{3}$ patterns below. In each pattern small triangles are used to make bigger triangles.

Pattern 1 has 1 small triangle.
Pattern 2 has 4 small triangles.
Pattern 3 has 9 small triangles.


Pattern 1


Pattern 2


Pattern 3

Look at the table below for the number of small triangles in each pattern.

| Pattern | 1 | 2 | 3 |
| :--- | :---: | :---: | :---: |
| Number of small triangles | 1 | 4 | 9 |

How many small triangles are there in Pattern 5? Write your answer in the space below.

## Page 15

33. Robert uses his calculator to carry out the calculation:

Do not write
$26 \times 32=832$

Write the correct number in each of the boxes below. You may use Robert's calculation to help you.

$832 \div 64=$ $\square$
$832 \div 16=$ $\square$
34. Look at the list of 7 numbers in the box.

$$
\begin{array}{lllllll}
15 & 8 & 23 & 18 & 33 & 35 & 27
\end{array}
$$

You must select 3 numbers from the list to complete the statements below. For each statement select a number which makes the statement true. Write your answers in the spaces below.
(a) $\qquad$ is a factor of 36
(b) $\qquad$ is a multiple of 7
(c) $\qquad$ is a prime number
35. Complete the following calculations. Write your answers in the spaces below.
$3.84 \div 10=$
$47.5 \times 10=$ $\qquad$
$3269 \div 100=$
36. Look at the stopwatch below.

Do not write in this column

The hand on this stopwatch is pointing to $\mathbf{2 5}$. The hand now moves clockwise through $\mathbf{2 4 0}$. What number will the hand be pointing to after turning clockwise through $240^{\circ}$ ? Write your answer in the space below.

## The Boy Who Dropped Litter

'ANTHONY WRIGGLY
SHAME ON YOU!'
screeched the teacher
as she spotted him
scrunching up his crisp packet
and dropping it carefully
on to the pavement outside school.
'If everyone went around
dropping crisp packets like you do where would we be?'
(Anthony didn't know, so she told him)
'We'd be wading waist-high in crisp packets, that's where!'

Anthony was silent.
He hung his head.

It looked to the teacher
as if he was very sorry.

When in fact he was trying to calculate just how many packets it would take to bring Basildon to a complete standstill.

## Lindsay MacRae

37. Look at the four words below. All four words appear in verse one of the poem. Tick $\sqrt{ }$ the two words which tell us what Anthony Wriggly does. dropping
screeched
scrunching spotted
$\square$
38. Look at the three statements below. Based on your reading of the poem, tick $\boxed{\checkmark}$ the correct box to show whether each statement is true or false.

Anthony Wriggly's teacher quietly calls him by his name.
True False


Anthony is in trouble because he dropped litter in a classroom.

Anthony is very sorry for dropping his litter and apologises.
$\square$
$\square$ $\square$
39. Look at the four words below. Write the past tense of each of the words in the space provided. Be careful with your spelling. The first one has been done for you.
tell
told
try $\qquad$
take $\qquad$
know $\qquad$
40. Based on your reading of the poem, tick $\checkmark$ the word below which best describes Anthony's teacher.
timid $\square$
dramatic

deceitful $\square$
41. Look at the final verse. Find the word which is closest in meaning to the phrase work out. Write the word in the space below.

## Page 19

42. There is an apostrophe in the word we'd. The word we'd is used at the beginning of verse four of the poem. Write below the two words that mean the same as we'd, as used in the poem. Be careful with your spelling.
$\qquad$
$\qquad$
43. Which two word phrase from the final verse tells us that Anthony's teacher is wrong to think he's sorry? Write the two words in the space below.
44. Sugar costs $£ 4.90$ per kilogram. How much would $\mathbf{4 0 0} \mathbf{g}$ cost?

Write your answer in the space below.
£ $\qquad$
45. Look at the sequence of numbers below. Complete the sequence by writing the correct numbers in the $\mathbf{2}$ spaces below.
$\ldots, 111,115,120,126,133$, $\qquad$
46. The triangle below is isosceles.


Calculate the value of the angle a. Write your answer in the space below. 0
47. The table below shows the times taken by 4 girls in the sprint event at a school sports day.

| Girl | Time (seconds) |
| :--- | :---: |
| Ellen | 19 |
| Niamh | 21 |
| Laura | 19 |
| Andrea | 17 |

What is the mean (average) time taken by the 4 girls? Write your answer in the space below.

## Page 21

48. Look again at the times taken by the 4 girls in the previous question. What is the range for these times? Write your answer in the space below.
$\qquad$ seconds
49. Paul's car has run out of petrol. The petrol tank on Paul's car holds $\mathbf{5 0}$ litres of petrol. Petrol costs $£ 1.25$ a litre. How much does it cost Paul to fill the tank with petrol? Write your answer in the space below.
£ $\qquad$
50. Look at the bus timetable below.

|  | Bus A | Bus B | Bus C | Bus D |
| :--- | :--- | :--- | :--- | :--- |
| Belfast | $07: 11$ | $08: 11$ | $09: 11$ | $10: 11$ |
| Banbridge | $07: 49$ |  |  | $10: 52$ |
| Newry | $08: 12$ | $09: 02$ | $09: 56$ |  |
| Dundalk | $08: 44$ |  | $10: 32$ | $11: 37$ |
| Drogheda | $09: 15$ | $10: 09$ | $11: 08$ | $12: 13$ |

How long does Bus A take to travel from Banbridge to Drogheda? Give your answer in minutes. Write your answer in the space below.
$\qquad$ minutes
51. Which of the $\mathbf{4}$ buses takes the shortest time to travel from Belfast to Drogheda? Give your answer by writing $\mathbf{A}, \mathbf{B}, \mathbf{C}$ or $\mathbf{D}$ in the space below.

Bus $\qquad$

## Ruby Holler

Ruby Holler at night can be an eerie, dark place, full of shadows and silence, but both the shadows and the silence are deceptive. Out of the shadows dash creatures of all shapes and sizes: swift, diving bats and scurrying raccoons, fluttering moths and cunning bobcats. From the deepest silence erupt groans and howls, snorts and squawks, creaks and croaks. Paths, which in daylight seem clearly trodden ways, twist and turn in the night, looping back on themselves and vanishing into dense thickets. Out of nowhere, boulders loom, and fallen trees barricade the way. Roots and holes and swampy earth snare unsuspecting feet.

Into this dark, dense maze stumbled Florida and Dallas. Barely ten minutes from the cabin, they were tangled in the thicket.
"What's this stupid bush doing here?" Florida grumbled. "It wasn't here before. What'd you go this way for?" "Must've gotten turned around," Dallas said. "Sure is dark out here." "I've hardly ever seen anything so dark," Florida said.

## Sharon Creech

52. Circle the best word or best group of words to complete the sentences below.

The passage is about two animals people finding their way through a wood early in the morning at night. They are lost because they have no map it is so dark. They are very far from the cabin close to the cabin.
53. Four creatures are named in the passage. One is the moth. Write the names of the other three in the spaces below.
$\qquad$
54. In the first paragraph, which word is closest in meaning to creepy? Write your answer in the space below.
55. What blocked the path of Dallas and Florida? Look at the answers below and tick $\square$ the best answer.
the creatures $\quad \square$
the cabin

the thicket $\square$
56. Look at the second paragraph of the passage. Which two verbs tell us that Florida and Dallas are having trouble walking? Write your answers in the spaces below.
57. The phrase roots and holes and swampy earth snare unsuspecting feet is used in the passage. It means one of the three phrases below. Based on your reading of the passage, tick $\square$ the best answer.

In Ruby Holler you must be careful to avoid traps.
You must tread carefully or you'll get tangled up.
The visitors to Ruby Holler make the ground swampy.

58. What word used in the third paragraph tells us that Florida is unhappy? Write the word in the space below.

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