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SUBJECT:	<b>English</b>
PAPER NUMBER:	Oral
DATE:	20 <sup>th</sup> March 2024

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**EXAMINER'S PAPER**

The Oral Session carries 6% of the global mark and should last approximately 15 minutes. Examiners are to assess the candidate's oral skills (see the Rating Scale to assist you in assessing the candidate's performance).

**PART 1 – GUIDED EXAMINER-TO-CANDIDATE CONVERSATION** (about 3 minutes)

The examiner tells the candidate:

**Good morning/afternoon. Please have a seat.**

**Can you tell me your index number?**

**Thank you.**

**In this part of the exam, I am going to ask you a few questions about yourself. May I remind you to please speak up so that I may hear you, and remember to answer questions as fully as possible.**

**Let's talk about you.**

1. Do you already drive? Why or why not?
2. What other kinds of transportation have you used, and is there one you prefer?
3. Is driving something most young adults look forward to?
4. Do you think one should be able to get a driving license earlier or later than at 18?
5. Many people say Malta has too many cars. What do you think?
6. How may Malta's traffic situation be improved?

[If the candidate answers a question too briefly or is unable to move beyond one- or two-word responses, the examiner should move on to the next question or to the next part of the examination.]

After the candidate has answered all the questions in the set, the examiner says:

**Thank you. Now we shall proceed to Part 2.**

**(Total: 4 marks)**

**Part 2 – GUIDED EXAMINER-TO-CANDIDATE CONVERSATION**

(about 4 minutes)

The examiner tells the candidate:

**In this part of the exam, you are going to be given TWO pictures to talk about. Then I shall be asking you a few questions. Here are the pictures. Please take some time to look at them.**

The examiner hands the visual prompt to the candidate. After 30 seconds, the examiner prompts the candidate:

**Please describe what you see in the pictures. You have about one minute, so don't worry if I stop you.**



(Source: <https://bebodywise.com/blog/>)



(Source: <https://nepalnews.com/s/entertainment-and-lifestyle/>)

[If the candidate is unable to sustain his/her turn for one minute, the examiner should proceed to the second stage of this part of the examination.]

After the candidate has finished describing the pictures, the examiner asks a set of questions and prompts the candidate as instructed by the guidelines below.

The examiner tells the candidate:

**You've described two pictures related to spirituality. Now let's explore the topic further.**

The examiner proceeds to ask the following questions:

1. Would you consider yourself spiritual? Why or why not?
2. Do you find that spirituality is important to young adults nowadays?
3. Are all forms of spirituality equally valid?
4. According to you, what are some of the most important values to possess?

[If the candidate answers a question too briefly, the examiner should move on to the next question or to the next part of the examination.]

After the candidate has answered all the questions in the set, the examiner says:

**Thank you. Now we shall proceed to Part 3.**

**(Total: 6 marks)**

**PART 3 – CANDIDATE-TO-EXAMINER LONG TURN**

(about 3 minutes)

The examiner tells the candidate:

**In this part of the exam, you are to speak for about three minutes on the topic you've chosen. Before you start your presentation, you have two minutes to recollect your thoughts on the topic. Here's a pencil and paper to write some notes. You may refer to these notes during your presentation.**

The examiner hands a pencil and a sheet of paper to the candidate and waits for two minutes. At the end of the two minutes, the examiner tells the candidate:

**Which title have you chosen?**

The examiner waits for the candidate to pronounce the title. The examiner then says:

**You may begin.**

Titles:

1. Tourism is Malta's bane. Discuss.
2. Dating.
3. Drama should be a compulsory subject throughout secondary education.
4. World War III.
5. How you would feel if asked to participate in a local reality television show.

[If the examiner notes that the candidate is unable to maintain discourse for the required three minutes, the examiner should pose just **ONE** prompt to assist the candidate. If the candidate is still unable to proceed, then the examiner should bring the exam to an end.]

**(Total: 8 marks)**

After the candidate has concluded the presentation, the examiner says:

**Thank you. May I have the papers back, please? This is the end of the oral exam.**

**THE EXAMINER COLLECTS THE PENCIL AND PAPER, AND THE CANDIDATE'S PAPER.**



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SUBJECT: **English**  
PAPER NUMBER: Oral  
DATE: 20<sup>th</sup> March 2024

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**CANDIDATE'S CLASSROOM PAPER**

**PART 2 – GUIDED EXAMINER-TO-CANDIDATE CONVERSATION** (about 4 minutes)



(Source: <https://bebodywise.com/blog/>)



(Source: <https://nepalnews.com/s/entertainment-and-lifestyle/>)

**(Total: 6 marks)**

**PART 3 – CANDIDATE-TO-EXAMINER LONG TURN**

(about 3 minutes)

**Choose ONE of the titles given below, and prepare a three-minute presentation on the topic. Before your presentation, the examiner will give you two minutes to recollect your thoughts on the topic. The examiner will give you pencil and paper to write some notes. You will be allowed to refer to these notes during your presentation.**

**Choose ONE of the following:**

1. Tourism is Malta's bane. Discuss.
2. Dating.
3. Drama should be a compulsory subject throughout secondary education.
4. World War III.
5. How you would feel if asked to participate in a local reality television show.

**(Total: 8 marks)**

**AT THE END OF THE EXAM, PLEASE GIVE THIS PAPER BACK TO THE EXAMINER, TOGETHER WITH THE PENCIL AND PAPER.**



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SUBJECT:	<b>English</b>
PAPER NUMBER:	Oral
DATE:	20 <sup>th</sup> March 2024

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**CANDIDATE'S CORRIDOR PAPER**

**PART 3 – CANDIDATE-TO-EXAMINER LONG TURN**

(about 3 minutes)

**Choose ONE of the titles given below, and prepare a three-minute presentation on the topic. Before your presentation, the examiner will give you two minutes to recollect your thoughts on the topic. The examiner will give you pencil and paper to write some notes. You will be allowed to refer to these notes during your presentation.**

**Choose ONE of the following:**

1. Tourism is Malta's bane. Discuss.
2. Dating.
3. Drama should be a compulsory subject throughout secondary education.
4. World War III.
5. How you would feel if asked to participate in a local reality television show.

**(Total: 8 marks)**

**AT THE END OF THE EXAM, PLEASE GIVE THIS PAPER BACK TO THE EXAMINER,  
TOGETHER WITH THE PENCIL AND PAPER.**



SUBJECT:	<b>English</b>
PAPER NUMBER:	I
DATE:	27 <sup>th</sup> April 2024
TIME:	9:00 a.m. to 12:05 p.m.

**Answer ONE question from Section A, ONE from Section B, and Section C.**

**SECTION A: SHAKESPEARE SET TEXTS**

**(33 marks)**

In Section A, essays must **NOT** be shorter than 500 words.

Essays responding to a gobbet (1a or 2a) should:

- identify the immediate context of the extract and its relation to the play as a whole;
- focus primarily on the given extract while also referring to the play as a whole;
- relate the extract to at least **TWO** of: characterisation, theme, imagery, and setting.

1. **Romeo and Juliet**

**EITHER**

(a) Gobbet.

**MERCUTIO** Help me into some house, Benvolio,  
Or I shall faint. A plague o' both your houses!  
They have made worms' meat of me: I have it,  
And soundly too: your houses!

*Exit MERCUTIO and BENVOLIO*

**ROMEO** This gentleman, the prince's near ally,  
My very friend, hath got his mortal hurt  
In my behalf; my reputation stain'd  
With Tybalt's slander,—Tybalt, that an hour  
Hath been my kinsman! O sweet Juliet,  
Thy beauty hath made me effeminate  
And in my temper soften'd valour's steel!

*Re-enter BENVOLIO*

**BENVOLIO** O Romeo, Romeo, brave Mercutio's dead!  
That gallant spirit hath aspired the clouds,  
Which too untimely here did scorn the earth.

**ROMEO** This day's black fate on more days doth depend;  
This but begins the woe, others must end.

**BENVOLIO** Here comes the furious Tybalt back again.

**ROMEO** Alive, in triumph! and Mercutio slain!  
Away to heaven, respective lenity,  
And fire-eyed fury be my conduct now!

**OR**

***Please turn the page.***



- (b) Discuss the struggle between individual will and fate in Shakespeare's *Romeo and Juliet*.

**OR**

- (c) Compare and contrast Romeo with **ONE** other male character in Shakespeare's *Romeo and Juliet*.

2. **Othello**

**EITHER**

- (a) Gobbet.

**OTHELLO**

It is the cause, it is the cause, my soul:  
Let me not name it to you, you chaste stars.  
It is the cause. Yet I'll not shed her blood,  
Nor scar that whiter skin of hers than snow,  
And smooth as monumental alabaster.  
Yet she must die, else she'll betray more men.  
Put out the light, and then put out the light.  
If I quench thee, thou flaming minister,  
I can again thy former light restore  
Should I repent me. But once put out thy light,  
Thou cunning'st pattern of excelling nature,  
I know not where is that Promethean heat  
That can thy light relume. When I have plucked thy rose,  
I cannot give it vital growth again;  
It needs must wither. I'll smell it on the tree.

*He kisses her.*

O balmy breath, that dost almost persuade  
Justice to break her sword!

**OR**

- (b) Discuss the themes of loyalty and betrayal in Shakespeare's *Othello*.

**OR**

- (c) Discuss the portrayal of toxic masculinity in Shakespeare's *Othello* with reference to at least **TWO** male characters in the play.

**SECTION B: POETRY SET TEXTS**

**(33 marks)**

In Section B, essays must **NOT** be shorter than 500 words.

1. **Elizabeth Bishop**

- (a) 'Elizabeth Bishop's personas often observe that the weather is cold.' Discuss the relevance of cold weather in Bishop's poetry with reference to **THREE** poems of your choice.

**OR**

- (b) 'Elizabeth Bishop's poetry journeys from the exterior towards the interior.' Discuss this statement with reference to **THREE** poems of your choice.

2. **Carol Ann Duffy**

- (a) Discuss Carol Ann Duffy's concern with representing poignant contemporary realities in her poetry with reference to **THREE** poems of your choice.

**OR**

- (b) 'Carol Ann Duffy's conversational style makes her poetry appear deceptively simple.' Discuss with reference to **THREE** poems of your choice.

3. **Seamus Heaney**

- (a) 'Seamus Heaney's poetic language expresses a deep love for nature.' Discuss this statement with reference to **THREE** poems of your choice.

**OR**

- (b) Seamus Heaney is often considered as the most significant poetic voice of Ireland. Discuss his role as a spokesperson for his nation with reference to **THREE** poems of your choice.

***Please turn the page.***

**SECTION C: POETRY CRITICISM**

**(33 marks)**

Write a critical appreciation of the poem below.

- Your essay must **NOT** be shorter than 400 words;
- Focus on theme, imagery, form and poetic language;
- You may also comment on any other literary aspects of the poem that you consider to be worthy of discussion.

**'love forgive me most of the time I can't see'**

love forgive me most of the time I can't see  
the borders of the garden for the trees  
can't tell plant from weed I didn't know how best  
to save you from yourself how to lead your mind back  
up the path to the house of itself I was gone  
too much and didn't know whether it was best  
to let you sleep or take you for a walk or let  
you sit in silence or encourage you to talk  
those years love were like trying to sift armfuls of soil  
for the tiniest of seeds and yes sometimes  
I wanted to split and scatter sometimes  
I couldn't stand the screaming anymore more things  
survive in the garden now the more weeds come down  
the more the roses open up their clenched faces

*by Andrew McMillan*




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SUBJECT:	<b>English</b>
PAPER NUMBER:	II
DATE:	27 <sup>th</sup> April 2024
TIME:	4:00 p.m. to 7:05 p.m.

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Answer **BOTH** Section A **AND** Section B.

**SECTION A: NOVEL SET TEXTS**

**(Total: 66 marks)**

- Answer **TWO** questions (**NOT** on the same novel) from this section.
- Essays in this section must **NOT** be shorter than 500 words.

1. ***The Handmaid's Tale*, Margaret Atwood**

- (a) "I would like to believe this is a story I'm telling. I need to believe it. I must believe it."  
Discuss the significance of Offred's narrative in *The Handmaid's Tale*.

**OR**

- (b) Discuss the interplay between isolation and connection in *The Handmaid's Tale*.

2. ***Great Expectations*, Charles Dickens**

- (a) 'In *Great Expectations*, Dickens illustrates that happiness depends on the way people treat others and themselves.' Discuss this observation on the novel.

**OR**

- (b) Discuss the importance of the three-part structure of *Great Expectations*.

3. ***Atonement*, Ian McEwan**

- (a) 'Guilt is a central theme in *Atonement*.' Discuss.

**OR**

- (b) Discuss the importance of secrets and secrecy to the principal themes in *Atonement*.

4. ***Wuthering Heights*, Emily Brontë**

- (a) 'The theme of entrapment pervades the novel *Wuthering Heights*.' Discuss.

**OR**

- (b) Discuss the role of Heathcliff and Edgar Linton in Brontë's narrative.

5. ***To Kill a Mockingbird*, Harper Lee**

- (a) Discuss the theme of prejudice in *To Kill a Mockingbird*.

**OR**

- (b) Discuss the treatment of Scout's character in *To Kill a Mockingbird*, showing how her development contributes to the novel's central concerns.

**SECTION B: PROSE CRITICISM****(Total: 33 marks)****Write a critical appreciation of the passage below.**

- Your essay must **NOT** be shorter than 400 words;
- Focus on theme, characterisation and point of view;
- You may also comment on any other literary aspect or aspects of the passage that you consider to be worthy of discussion, such as, imagery, style, tone and setting.

**I Used To Live Here Once**

She was standing by the river looking at the stepping stones and remembering each one. There was the round, unsteady stone, the pointed one, the flat one in the middle – the safe stone where you could stand and look round. The next wasn't so safe for when the river was full the water flowed over it and even when it showed dry it was slippery. But after that it was easy and soon she was standing on the other side.

The road was much wider than it used to be but the work had been done carelessly. The felled trees had not been cleared away and the bushes looked trampled. Yet it was the same road and she walked along feeling extraordinarily happy.

It was a fine day, a blue day. The only thing was that the sky had a glassy look that she didn't remember. That was the only word she could think of. Glassy. She turned the corner, saw that what had been the old paving had been taken up, and there too the road was much wider, but it had the same unfinished look.

She came to the worn stone steps that led up to the house and her heart began to beat. The screw pine was gone, so was the mock summer house called the ajoupa, but the clove tree was still there and at the top of the steps the rough lawn stretched away, just as she remembered it. She stopped and looked towards the house that had been added to and painted white. It was strange to see a car standing in front of it.

There were two children under the big mango tree, a boy and a little girl, and she waved to them, and called 'Hello' but they didn't answer or turn their heads. Very fair children, as Europeans born in the West Indies so often are: as if the white blood is asserting itself against all odds.

The grass was yellow in the hot sunlight as she walked towards them. When she was quite close she called again, shyly: 'Hello.' Then, 'I used to live here once,' she said.

Still they didn't answer. When she said for the third time 'Hello' she was quite near them. Her arms went out instinctively with the longing to touch them.

It was the boy who turned. His grey eyes looked straight into hers. His expression didn't change. He said: "Hasn't it gone cold all of a sudden? D'you notice? Let's go in." "Yes let's," said the girl.

Her arms fell to her sides as she watched them running across the grass to the house. That was the first time she knew.

*This is a complete short story by Jean Rhys.*



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SUBJECT:	<b>English</b>
PAPER NUMBER:	III
DATE:	29 <sup>th</sup> April 2024
TIME:	4:00 p.m. to 6:50 p.m.

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Answer **ALL** sections.

**SECTION A: LANGUAGE ESSAY****(Total: 33 marks)**

**Write an essay of not less than 500 words on ONE of the following topics:**

1. Janet, a young journalist, religiously stops at The Daily Grind for a coffee before work. Each day, she notices a rather scruffy boy meeting an elegantly dressed woman. The two talk for a few minutes and then go their separate ways. Janet decides to investigate. Narrate what happens next.
2. Someone you have known for many years has changed a lot. Describe the changes you have noticed in this person's personality in the last year.
3. Should parents or guardians be held responsible for their children's behaviour?
4. The phrase "generation gap" was coined in the 1960s, but the idea is not new. The young and the old have always been engaged in generational conflict. Write about three factors that contribute to disagreement in parent-adolescent relations.
5. Some people argue that investing in a university or college degree is a waste of time and money. What is your opinion?
6. Youth curfew keeps young people out of trouble. Discuss.
7. Influenced by consumerism, we have become a society of excessive consumption. What are some of the problems resulting from such a lifestyle, and how may these negative effects be addressed?
8. Leaving your parents' home is a journey of liberation and self-discovery. Discuss.

**SECTION B: SUMMARY****(Total: 15 marks)**

Write a summary of the following passage in between 150 and 200 words.

**AI-Generated Faces**

For a while, limitations in technology meant that animators and researchers were only capable of creating human-like faces which seemed a little 'off'. Films like 2004's *The Polar Express* made some viewers uneasy because the characters' faces looked almost human but not quite, and so they fell into what we call the 'uncanny valley'. This is when artificial faces look increasingly human and get very close to resembling us while still showing signs of being artificial.

Recent advances in artificial intelligence (AI) technology mean that synthetic faces now appear as real ones. Synthetic faces are created by an AI algorithm known as a 'generative adversarial network'. This is made up of two neural networks – essentially, computer models inspired by how neurons are connected in the brain. These networks compete with each other. One generates new faces while the other tries to discriminate real images from fake ones. Through a feedback loop, the generator learns to produce increasingly convincing images that the discriminator fails to spot as fake. It is this repetition of creating and correcting that makes it possible for the system to create new examples of realistic faces.

Researchers have found that people shown synthetic faces mixed in with real ones struggle to tell the difference. Participants classified the faces correctly only 48.2% of the time – slightly worse than random guessing – and also rated synthetic faces as more trustworthy than real ones. Another study found that synthetic faces were rated as more real than photographs of actual faces. This might be because these fake faces often look more average or typical than real ones. In another recent study, researchers in Australia delved deeper into our ability to tell the difference between real and synthetic faces. In their first experiment, online participants failed to distinguish between the two types of faces, and again perceived the synthetic faces as more real than the real ones. However, their second experiment seemed to tell a different story. Participants in this experiment were asked to wear electroencephalography (EEG) caps on their heads. The electrodes fitted to these caps then measured the electrical activity in the participants' brains. The results from the EEG test showed that brain activity differed when people were looking at real versus synthetic faces. This difference was apparent at around 170 milliseconds after the faces first appeared onscreen. This N170 component of the electrical signal, as it is known, is sensitive to the configuration of faces (that is, the layout and distances between facial features). One explanation might be that synthetic faces were perceived as subtly different to real faces in terms of the distances between features like the eyes, nose, and mouth.

These results suggest there is a distinction between how we behave and what our brains 'know'. On the one hand, participants could not consciously tell synthetic faces from real ones, but on the other, their brains could recognise the difference, as revealed by their EEG activity. Although it may be surprising to think that our brains have access to information that is outside of our conscious awareness, there are many examples of this in psychology. For instance, 'blindsight' is a condition typically found in people who are blind in one half of their visual field. Despite this, they may be able to respond to objects placed on their blind side that they deny being consciously aware of.

Now that synthetic faces are so easy to produce, and are at least as convincing as real photographs, we should be concerned about fake online profiles, fake news, and so on. Such advances in AI technology will have serious implications in the near future – there must be safeguards and other measures put in place to mitigate these dangers. Perhaps the cues that our brains seem to use when spotting synthetic faces will prove useful in developing ways to identify these fakes in the coming years.

*(Adapted from R. Kramer, 2023)*

**SECTION C: LINGUISTICS**

**(Total: 33 marks)**

Choose **ONE** question from this section.

1. Answer tasks a, b, c **AND** d.

a. Grammatical and Lexical cohesion refer to the techniques and devices used to hold a text together. Write a sentence or a pair of sentences that exemplify the **FOUR** cohesive devices listed below. You are expected to name the device, provide an example of the device through one or two sentences, and underline the specific element/s of language that identify the cohesive device.

The first cohesive device, **(0) Repetition**, is given to you as an example.

**(0) Repetition**

**Answer: Repetition**

**The fisherman knew he had a big fish on the line. He worked hard to try and land the fish before the sun set.**

**(0)Repetition**

(i) Reference

(ii) Identification

(iii) Conjunction

(iv) Collocation

(8)

b. A morpheme is the smallest meaningful unit in language. Identify the morphemes in each of the **ELEVEN** words below. First, state whether each morpheme is free (F) or bound (B). Then, state whether the bound morpheme is inflectional (I) or derivational (D).

The first word, **(0) displacement**, is given to you as an example.

**(0) Displacement**

**Answer: displacement**

**dis (B) + place (F) + ment (B)**

**dis (D) + place (F) + ment (D)**

**(0) displacement**

(i) undesirability

(ii) terrify

(iii) animals

(iv) animal's

(v) larger

(vi) enlarge

(vii) enlargements

(viii) unsystematically

(viii) diseases

(x) teaspoons

(xi) disparity

(11)

c. Name the part of speech/word class of each underlined word in these **FOUR** sentences.

The first sentence **(0)** is given to you as an example. Present your answer for the underlined words in each sentence as shown in the example.

**(0) She loves oranges.**

**Answer: She = pronoun**

**oranges = noun**

**(0) She loves oranges.**

(i) The Attorney General was rather lenient in that judgement.

(ii) Should he have been there at that late hour.

(iii) This data suggests few women occupy top posts in science careers.

(iv) Currently, rats are the main cause of buried cabling issues.

(10)

**Please turn the page.**



- d. The following sentences are complex sentences. Remove the embedded/subordinate clause or clauses to change each sentence from complex to simple.

The first sentence **(0)** is given to you as an example.

**(0) The boy who was wearing a red shirt was elected school captain.**

**Answer: The boy was elected school captain.**

**(0) The boy who was wearing a red shirt was elected school captain.**

- (i) What did they do with the books that were in the attic when they sold the house?
- (ii) Yesterday evening, the lion was moving through the tall grass as if it were wounded.
- (iii) When the votes were counted, the man in the blue trunks was elected swim captain.
- (iv) Ten minutes into their adventure, the boat they built out of old scrap wood sank to the bottom of the river faster than they had ever imagined.
- (v) What happened to the drunk who was annoying patrons after the restaurant manager called the police?

(4)

**OR**

2. Menegatti and Rubini (2017) claim that 'language is one of the most powerful means through which sexism and gender discrimination are perpetrated and reproduced'. Write an essay of about 400 words explaining how sexist language can be discriminatory in terms of vocabulary and grammar and how this bias may be avoided.

(33)

**OR**

3. In about 400 words, discuss the article on the following page (page 5) by Will Stone from the *Daily Star* highlighting its characteristics as a tabloid article. Focus on these features:

- Graphology
- Headlines
- Vocabulary
- Grammar
- Tone
- Structure

The text of the article is reproduced on page 6 for ease of reading.

(33)

# Tiger mosquitos could bring dengue fever to UK as climate heats up

Pictures: JOAO PAULO BURINI/GETTY

By **Hanna Geissler** Health Editor

TIGER mosquitos could carry tropical diseases such as horrifying dengue fever into Britain due to climate change, scientists warn today.

The UK Health Security Agency predicts a future in which heat and cold-related deaths soar and new mosquito species invade carrying potentially deadly viruses.

Asian tiger mosquitos can carry the dengue, chikungunya and zika viruses. All cause severe fever, aches and joint pain.

In a plausible worst-case scenario where temperatures rise by over 4°C, UKHSA warns the tiger mosquito could become established in most of England by the 2040s and 2050s.

London could see regular transmission of dengue by 2060.

Dr Jolyon Medlock, from UKHSA, said other European countries had already seen these mosquitos arrive via imported goods.

## Impacts

He explained: "Look at what's happening in France. There have been a small number of dengue cases each year in the Mediterranean. But this year, we've seen just over 100 cases in parts of Italy and France.

"A Mediterranean climate is very much where we might be in 30 or 40 years."

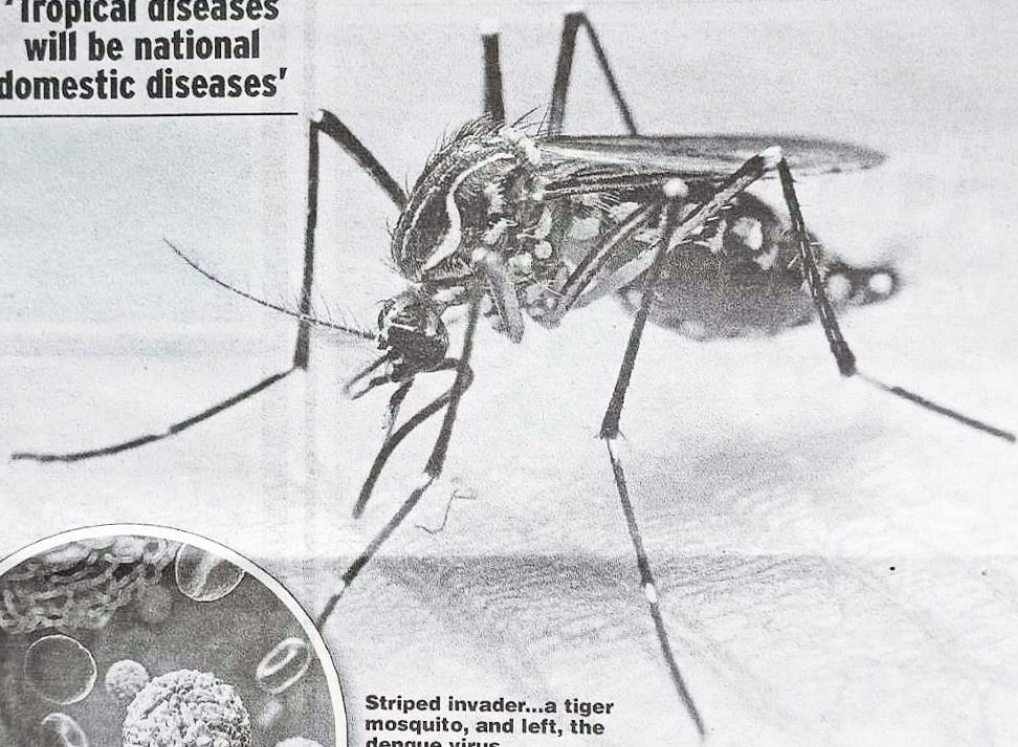
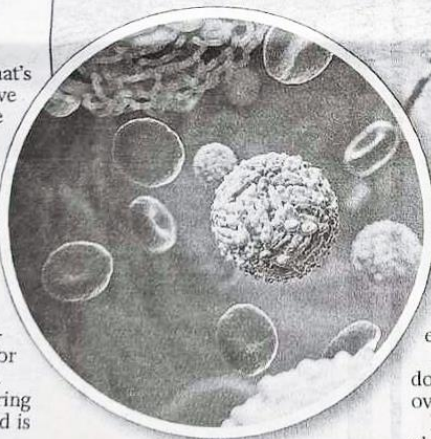
Professor Dame Jenny Harries, UKHSA chief executive, said its report was to help policy-makers and health chiefs prepare for possible impacts of climate change.

The agency is already considering which vaccines may be needed and is working to ensure access to them.

Dame Jenny added: "Things that, when I trained many years ago, were called tropical diseases will actually become national domestic diseases so GP training needs to change."

Other major risks include increased flooding and extreme hot and cold weather. A 4C rise in average temperatures could lead to numbers exposed to flooding more than doubling by

**'Tropical diseases will be national domestic diseases'**



**Striped invader...a tiger mosquito, and left, the dengue virus**

2080. Supplies of fruit and vegetables imported from countries most vulnerable to the impact of climate change could also become volatile.

The UK recorded above 40C for the first time last summer, resulting in almost 3,000 excess deaths.

Analysis found temperatures were likely to rise until at least mid-century, regardless of de-carbonisation. By

then, adults now of working age will be over 65, a group at risk from extreme weather.

Heat-linked deaths could more than double by the 2030s and increase by over 1,000% by 2070, said the report.

Meanwhile, cold-related deaths are also projected to rise before declining by the middle of the century.

Heat-related mortality linked to climate change has been estimated to cost the NHS £6.8billion per year, and experts warned this could rise to £14.7billion annually in the 2050s.

Dame Jenny said the report was not "all doom and gloom" and many of the health effects were avoidable if the UK cuts greenhouse gas and

mitigates threats. Examples include improving flood defences and housing design, protecting those most at risk from extreme weather, and measures to detect mosquitos at ports.

## Solutions

Dr Lea Berrang Ford, head of the UKHSA's Centre for Climate and Health Security, said: "There are significant opportunities for solutions that can combat climate change and improve health.

"Decisions we make today will determine the severity and extent of climate impacts inherited by today's youth and their children."

## **Tiger mosquitos could bring dengue fever to UK as climate heats up**

By **Hanna Geissler** Health Editor

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### **Impacts**

He explained: "Look at what's happening in France. There have been a small number of dengue cases each year in the Mediterranean. But this year, we've seen just over 100 cases in parts of Italy and France.

"A Mediterranean climate is very much where we might be in 30 or 40 years."

Professor Dame Jenny Harries, UKHSA chief executive, said its report was to help policy-makers and health chiefs prepare for possible impacts of climate change.

The agency is already considering which vaccines may be needed and is working to ensure access to them.

Dame Jenny added: "Things that, when I trained many years ago, were called tropical diseases will actually become national domestic diseases so GP training needs to change."

Other major risks include increased flooding and extreme hot and cold weather. A 4C rise in average temperatures could lead to numbers exposed to flooding more than doubling by 2080. Supplies of fruit and vegetables imported from countries most vulnerable to the impact of climate change could also become volatile.

The UK recorded above 40C for the first time last summer, resulting in almost 3,000 excess deaths.

Analysis found temperatures were likely to rise until at least mid-century, regardless of decarbonisation. By then, adults now of working age will be over 65, a group at risk from extreme weather.

Heat-linked deaths could more than double by the 2030s and increase by over 1,000% by 2070, said the report.

Meanwhile, cold-related deaths are also projected to rise before declining by the middle of the century.

Heat-related mortality linked to climate change has been estimated to cost the NHS £6.8 billion per year, and experts warned this could rise to £14.7 billion annually in the 2050s.

Dame Jenny said the report was not "all doom and gloom" and many of the health effects were avoidable if the UK cuts greenhouse gas and mitigates threats. Examples include improving flood defences and housing design, protecting those most at risk from extreme weather, and measures to detect mosquitoes at ports.

### **Solutions**

Dr Lea Berrang Ford, head of the UKHSA's Centre for Climate and Health Security, said: "There are significant opportunities for solutions that can combat climate change and improve health.

"Decisions we make today will determine the severity and extent of climate impacts inherited by today's youth and their children."