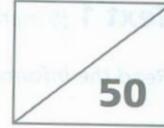


**Practice Paper 8****What It's All About****Skimming for Prediction (Strategy 1)**

Skim Texts 1 to 3 by reading and viewing any heading, subtitle, illustration and the first sentence of each paragraph. Then, write the common topic of the three texts below.

**Common topic:**

---

**Scanning (Strategy 5)**

Scan through Texts 1 to 3 to find the answers to as many of the following questions as you can within two minutes.

1. What kind of radiation do microwave ovens use?

---

2. Who invented the microwave?

---

3. What was the Radarange?

---

4. How could microwaved milk harm a baby?

---

5. Does the writer of the comment in Text 3 agree with the view stated on the web page on the next page?

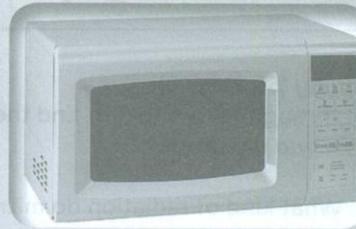
---

**Text 1** [5 marks]

Read the information sheet below and answer Questions 1–4.

## MICROWAVE OVENS

A microwave oven is a kitchen appliance that heats food by penetrating it with electromagnetic radiation in the microwave spectrum. The microwave, as it is often colloquially called, works by causing molecules in the food to vibrate and build up thermal (heat) energy. In the oven, a device called a magnetron emits the microwave radiation.



### Why does this work?

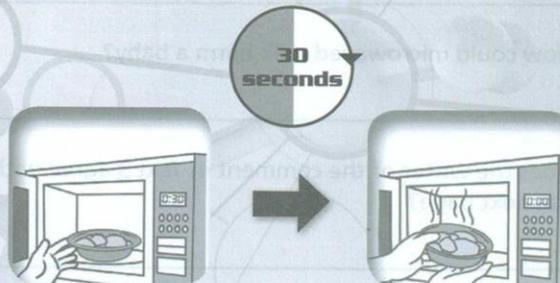
Microwave ovens heat foods quickly and efficiently because electromagnetic waves emitted by the magnetron penetrate and excite molecules fairly consistently in the outer 25–38 mm layer of a food item, especially one with high water content. Food is therefore more evenly heated throughout than when being cooked by other cooking techniques.

The same radiation that cooks your food also passes through plastics and glass harmlessly.

### Uses in the kitchen

Microwave ovens are popular for:

- reheating cooked foods,
- cooking vegetables,
- rapid heating of food items such as butter and chocolate.



### Limitations of microwave ovens

Unlike conventional ovens, microwave ovens cannot be used to brown or caramelize food. This is because microwave radiation usually cannot achieve the high temperature required for food to turn brown. Consequently, in professional cooking and the culinary arts, microwave ovens are rarely used compared to other methods such as frying, browning and baking.

1. What does the writer assume about the reader's pre-existing knowledge in the first paragraph?  
\_\_\_\_\_ [1]
2. What advantage of microwave ovens is illustrated?  
\_\_\_\_\_ [1]
3. What are the **two** disadvantages of microwave ovens mentioned?  
\_\_\_\_\_  
\_\_\_\_\_ [2]
4. What is the main purpose of this text?  
\_\_\_\_\_ [1]

**Text 2** [20 marks]

The text below is about the invention of the microwave oven. Read it carefully and answer Questions 5–11.

1	A man called Percy L. Spencer was touring one of his laboratories at the Raytheon Company one day in 1946 when he accidentally invented microwave food. He had stopped to talk to a fellow employee in front of a magnetron, the power tube that drives a radar set, when he suddenly realised that a chocolate bar in his pocket had begun to melt.	5
2	Most of us would have written off the gooey mess as a result of body heat, but not Spencer. Spencer never took anything for granted. Instead, he sent out for popcorn. Holding the bag of unpopped kernels next to the magnetron, Spencer watched in fascination as the popcorns exploded.	
3	The next morning, Spencer brought in an old kettle. He wanted to see what microwaves would do to raw eggs. After cutting a hole in the side of the kettle, Spencer placed an uncooked egg into the kettle. Next, he placed a magnetron beside the kettle and turned it on. The unfortunate engineer poked his nose into the kettle and was greeted by an explosion of yolk and egg white. The steam pressure from within had blown up the egg. Spencer had not only shown that microwaves could cook eggs quickly, but he had also created the first microwave mess — an experiment to be inadvertently repeated countless times by microwave cooks.	10  15
4	Legend has it that this demonstration was reproduced before unsuspecting members of Raytheon's Board of Directors who had trouble visualising what microwaves could do to food. The ensuing egg shower convinced them to invest in the high-frequency dielectric heating apparatus, patented as such in 1953. The timing could not have been better. With the Second World War over, the military no longer needed ten thousand magnetron tubes. What better way to recover sales than to put in every American home a radar set disguised as a microwave oven!	20

5	Weighing well over 300 kg and standing nearly two metres high, the Radarange — the name the marketing people came up with — required water and plumbing to keep its innards cool. It was hardly the compact unit that we know today. At US\$3 000, the early 1953 design was strictly for restaurants, railways or ocean liners, Raytheon’s main market for two decades. The microwave oven was no pleasure to cook with either. Culinary experts noticed that meat refused to brown, while French fries stayed white and limp.	25  30
6	The breakthrough came in 1964 when the Japanese created an improved electron tube. Smaller and simpler than the old magnetron, it opened up the market for the cheaper and modern microwave oven that we know today — and we owe it all to an inquisitive man with a melted chocolate bar in his pocket and egg on his face!	35

5. (a) Which word in paragraph 1 suggests that Spencer did not intend to invent the microwave?  
\_\_\_\_\_ [1]
- (b) What does the phrase ‘gooey mess’ (line 6) suggest about what had happened?  
\_\_\_\_\_ [1]
- (c) ‘Spencer never took anything for granted.’ (line 7) What does this tell us about his character?  
\_\_\_\_\_ [1]
- (d) Which word suggests Spencer’s feeling as he watched the popcorn explode?  
\_\_\_\_\_ [1]
6. (a) Why did Spencer choose to bring in a kettle that was ‘old’ (line 10)?  
\_\_\_\_\_ [1]
- (b) What created the steam pressure?  
\_\_\_\_\_ [1]
- (c) What does the writer mean by saying that Spencer’s ‘first microwave mess’ (line 16) would be repeated ‘inadvertently’ by many cooks?  
\_\_\_\_\_  
\_\_\_\_\_ [2]
7. What does the word ‘unsuspecting’ (line 18) tell you about Spencer’s plan?  
\_\_\_\_\_ [1]

8. Apart from being heavy and bulky, the Radarange had **three** other major disadvantages, according to paragraph 5. What were they?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ [3]

9. Apart from being less bulky, what other advantages did the improved electron tube have?

\_\_\_\_\_

\_\_\_\_\_ [2]

10. Explain the humour in the last sentence of the text.

\_\_\_\_\_

\_\_\_\_\_ [2]

11. The structure reflects the different areas of information given about the microwave oven. Complete the flow chart by choosing a phrase from the box to summarise the stages of the narrative described in the relevant paragraphs. You do not need to use all the phrases in the box. [4]

**The microwave oven**

- a chocolate bar
- use of an old kettle
- realisation of the potential of microwaves
- practical experiment
- the first large model
- events leading to initial investment
- Second World War ends
- the later smaller innovation

**Flow Chart**

(a) Paragraph 1:



(b) Paragraphs 2–3:



(c) Paragraphs 4–5:



(d) Paragraph 6:

**Text 3** [25 marks]

The text below is an online article and a comment which shows two different views of the microwave oven. Read it carefully and answer Questions 12–16.

<b>Are you still using that microwave oven to heat up baby food?</b>	
1	Microwave ovens continue to be used in every home, being a convenient and energy-efficient way of preparing food, but you might want to stop and think before placing your life in the hands of this so-called 'harmless' man-made invention.
2	For a start, high milk temperature (often the result of overheating) could not only burn a baby's mouth and throat, but might also cause the bottle to explode. Cooking food in microwaves is an unhealthy and unnatural approach for preparing baby food, possibly causing harm to the baby. Microwaved food decreases haemoglobin in the body and could increase cholesterol levels.
3	Microwave radiations can also cause the essential nutrients in baby food to be lost, making them unfit for consumption.
4	Another shocking discovery about microwaves became known when a nurse used microwaves for warming the blood used for transfusions. The patient died immediately because the microwaves apparently injected some kind of destructive substances into the blood.
28,422 people like this. Sign up to see what your friends like.	
423 Comments <span style="float: right;">Add a comment</span>	
 <b>William Holt</b> (top commenter)	
5	You, dear writer, are filling people's brains with nonsense and paranoia. This article is absolute nonsense. There is no evidence or reference to an objective scientific study to support any of these claims. Where do I even begin? I make yoghurt all the time and I begin with microwaving the milk. If there are no nutrients left, then how does the lactobacteria grow?
6	The ONLY danger of feeding microwaved milk to babies is the risk of the milk not being evenly heated, with some parts of it being too hot. This is not a reason not to use microwaves. Also, I note you mentioned 'overheating', but that can happen in any way a baby's bottle is heated.
7	The nonsense about 'microwaves injecting some kind of destructive substances into the blood' is absolute rubbish. Heating food in a regular oven/stove destroys nutrients too, so unless you are going to eat the food raw, you will be destroying some nutrients. The writer has not supported this claim about detrimental substances. What substances? What is the exact problem caused? I have never seen such a claim anywhere before, so I cannot believe it if you do not provide proof.

12. 'Cooking food in microwaves is an unhealthy ... approach for preparing baby food.'  
(lines 5–7)

(a) How did the writer justify the above statement?

\_\_\_\_\_ [2]

(b) Give **two** examples from paragraphs 5 and 6 to show the commenter's opposing viewpoint.

\_\_\_\_\_ [2]

13. What assumption is the writer making in paragraph 4 about why the patient died?

\_\_\_\_\_ [2]

14. What is the commenter suggesting by 'Where do I even begin ... ?' (line 17)

\_\_\_\_\_ [2]

15. Which criticism made by the commenter could be applied to his own comments?

\_\_\_\_\_ [2]

16. Using your own words as far as possible, summarise the criticisms made by the commenter on the article.

USE ONLY INFORMATION FROM PARAGRAPHS 5–7.

Your summary, which must be in continuous writing (not note form), must not be longer than **80** words, not counting the words given to help you to begin.

Begin your summary as follows:

*The commenter states that the article is badly written because ...*

#### Method

1. Underline the key words in the summary question that tell you what to focus on.
2. Read the passage and underline the points that answer the summary question.
3. List the points and make brief notes in your own words about what you have underlined in the passage.

Points to select from text	No.	Suggested own words
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	

Your notes should be marked out of 7 for language by your teacher / tutor.

---



---



---



---



---



---



---



---



---



---

Vocabulary Extension

---

What is the meaning of the words in bold in the context of the text below? Use the  
 for further practice.

From Text 1

1 ... **beats** food by **homogenizing** it ...

2 ... usually **cannot** achieve the high temperatures  
 required.

3 ... in the case of **orthogonal** cooking and the  
 culinary arts.

From Text 2

4 The **infinitesimal** engine is **poked** into **your** **into** ...  
 (line 13)

5 ... an **excess** that is **industrially** **created** ...  
 (line 17)

6 The **emerging** **egg** **showed** **control** **from** ...  
 (line 20)

7 ... we **owe** it **all** to an **industrial** **man** ... (line 26)

From Text 3

8 ... **wanted** the **blood** **used** **for** **transfusions** ...  
 (line 12)

9 ... are **filling** **people's** **brains** **with** **news** **and** **paradoxes** ... (line 15)

10 ... **this** **class** **of** **people** **is** **not** **well** **served** ...  
 (line 23)

---

[15]

**Vocabulary Extension**

What is the meaning of the words in bold in the context of the texts below? These are for further practice.

**From Text 1**

- 1. ... heats food by **penetrating** it ... \_\_\_\_\_
- 2. ... usually cannot **achieve** the high temperature required ... \_\_\_\_\_
- 3. ... in the area of professional cooking and the **culinary** arts ... \_\_\_\_\_

**From Text 2**

- 4. The unfortunate engineer **poked** his nose into ... (line 13) \_\_\_\_\_
- 5. ... an experiment to be **inadvertently** repeated ... (line 17) \_\_\_\_\_
- 6. The **ensuing** egg shower convinced them ... (line 20) \_\_\_\_\_
- 7. ... we owe it all to an **inquisitive** man ... (line 35) \_\_\_\_\_

**From Text 3**

- 8. ... warming the blood used for **transfusions** ... (line 12) \_\_\_\_\_
- 9. ... are filling people's brains with nonsense and **paranoia**. (line 15) \_\_\_\_\_
- 10. ... this claim about **detrimental** substances. (line 27) \_\_\_\_\_