



ANGLAIS

Fresher cookers

The humble cooking stove¹ is being improved around the world with the help of “user focused” design

IF USER demand were the sole reason for innovation, the biomass cooking stove would be one of the most sophisticated devices in the world. Between two-and-a-half and three billion people—nearly half the world’s population—use a stove every day, in conjunction with solid fuel such as wood, dung² or coal. Yet in many parts of the world the stove has barely progressed beyond the Stone Age.

- 5 The World Health Organisation (WHO) estimates that toxic emissions from cooking stoves are responsible for causing 1.6m premature deaths a year, half of them among children under five years old. In China 83m people will die from lung cancer and respiratory disease over the next 25 years, according to a recent report from Harvard University. Research from the University of California, Berkeley, on stoves in India, Guatemala and Mexico has found links between indoor air-pollution from stoves and increased incidence of pneumonia, cataracts and tuberculosis.
- 10 After an initial wave of stove design that sought to reduce deforestation through improved efficiency, scientists and engineers have turned their attention to stoves that minimise the levels of noxious emissions to which stove users—mainly women and children—are exposed. Crucially, they have also recognised the need to take account of the way in which stoves are actually used.

- 15 One of the principal problems the designer of a stove must solve is to optimise the thermodynamics. Typical stoves—including the basic “three-stone fires” still used in many parts of the world—draw in too much air during the combustion process, which cools the fuel and means more of it is needed. Even with more advanced designs, poorly insulated combustion chambers can add to the cooling effect and thus to the inefficiency. The challenge is to optimise a stove’s air-fuel ratio and minimise heat transfer to improve combustion efficiency.

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FOOTNOTES:

1 cuisinière

2 crotte de cheval, bouse de vache, fumier

I-READING COMPREHENSION

(9 marks)

A – Choose the appropriate answer.

(1 mark)

1. 'sole' (line 1) means:
 - a. necessary
 - b. most important
 - c. only
 - d. given

2. 'noxious' (line 12) means:
 - a. Harmful
 - b. different
 - c. total
 - d. great

B – Read the text and match the following subtitles with paragraphs of the text.

(3 marks = 0.75 x 4)

- | | |
|--|-------------------|
| 3. New orientation in making stoves | paragraph : _____ |
| 4. The cooking stove and its users | paragraph : _____ |
| 5. The main obstacle in the process of making stoves | paragraph : _____ |
| 6. The risks in using a stove | paragraph : _____ |

C – Read the passage below and complete it with words in the box.

(3.5 marks)

members / gas / happening / concern / attempts / infants / victims

The ----- (7) in designing efficient stoves now, is to reduce exposure to fatal ----- (8). The number of ----- (9) is not only high but many of them are ----- (10). They die from diseases which attack the eyes or the breathing system. This is ----- (11) in many places around the world. That's why ----- (12) are being made so that the use of stove will not be the cause of diseases to the most vulnerable ----- (13) of a society.

D – TRUE / FALSE: Justify quoting from the text.

(1.5 marks: 0.5 x 3)

14. One reason for improving biomass cooking stove is related to people's demand.
15. Significant improvements have been brought in today's cooking stove all around the world.
16. The first objective in improving stove was to minimize the use of wood as cooking fuel.

II-LINGUISTIC COMPETENCE (7 Marks)**E – Complete the sentences with the correct answer. (1.5 marks)**

17. There's hardly _____ fuel left.
a) no b) any c) muchd) a little
18. She was a careful cook, _____ she had an accident with the gas cooker.
a) so b) while c) however d) although
19. The factory sold two _____ gas cylinders.
a) Million of b) millions c) million d)hundreds

F – Ask questions corresponding to the underlined words. (1.5 marks)

20. The laboratory uses the 12 kg gas container twice a month.

21. He borrowed his teacher's Bunsen burner to continue the experiment.

G – Put into the passive. (1 mark)

22. They are building a new oil refinery in the industrial area.

H – Put these elements in the correct order so as to make a coherent sentence. (1 mark)

wait / he / back / until / you'd better / comes

23. _____

I – Put the verbs into the correct forms. (2 marks)

24. Where _____ their holidays last year? (they – spend)
25. Will you stop making that noise? The lab assistant _____ a report. (write)
26. You're late, my boy! We _____ lunch. (have – already)
27. The rescuers _____ for two days when they found the gas leak. (work)

III-WRITING: Choose **one topic and write a passage of about not more than 150 words. (4 marks)**

Topic One: Would you encourage Senegalese housewives to use butane gas for cooking? Why or why not?

Topic Two: Should we consider charcoal a thing of the past or is it still as important as cooking gas?
Justify your point.

ANSWER SHEET

I. READING COMPREHENSION

(9 marks)

A. Choose the appropriate answer

(1 mark = 0.5 x 2)

1. c (only)
2. a (harmful)

B. Matching ideas and paragraphs :

(3 marks = 0.75 x 4)

3. paragraph 3
4. paragraph 1
5. paragraph 4
6. paragraph 2

C. Passage completion

(3.5 marks = 0.5 x 7)

7. concern
8. gas
9. victims
10. infants
11. happening
12. attempts
13. members

D. TRUE/FALSE

(1.5 marks = 0.5 x 3)

14. T. "If user demand were the sole reason...."
15. F. "Yet in many parts of the world the stove has barely progressed beyond the stone Age."
16. T. "After an initial wave of design that sought to reduce deforestation..."

II. LINGUISTIC COMPETENCE

(7 marks)

E. Sentence completion

(1.5 marks = 0.5 x 3)

17. b. (any)
18. c. (however)
19. c. (million)

F. Questions

(1.5 marks = 0.75 x 2)

20. How often does the laboratory use the 12 kg gas container ?
21. Whose Bunsen burner did he borrow to continue the experiment ?

G. Passive

(1 mark)

22. A new oil refinery is being built in the industrial area.

H. Sentence building

(1 mark)

23. You'd better wait until he comes back.

I. Verb forms

(2 marks = 0.5 x 4)

24. did they spend.... ?
25. ... is writing....
26. have already had
27. had been working.... or had worked....

III. WRITING

(4 marks)

Contents : 2 marks ;

Cohesion : 1 mark ;

Grammar : 1 mark.