READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27-40**, which are based on Reading Passage 3 below.*

The Fruit Book

It's not every scientist who writes books for people who can't read. And how many scientists want their books to look as dog-eared as possible? But Patricia Shanley, an ethnobotanist, wanted to give something back. After the poorest people of the Amazon allowed her to study their land and its ecology, she turned her research findings into a picture book that tells the local people how to get a good return from their trees without succumbing to the lure of a quick buck from a logging company. It has proved a big success.

A The book is called *Fruit Trees and Useful Plants in the Lives of Amazonians*, but is better known simply as the "fruit book". The second edition was produced at the request of politicians in western Amazonia. Its blend of hard science and local knowledge on the use and trade of 35 native forest species has been so well received (and well used) that no less a dignitary than Brazil's environment minister, Marina Silva, has written the foreword. "There is nothing else like the Shanley book," says Adalberto Veríssimo, director of the Institute of People and the Environment of the Amazon. "It gives science back to the poor, to the people who really need it."

B Shanley's work on the book began a decade ago, with a plea for help from the Rural Workers' Union of Paragominas, a Brazilian town whose prosperity is based on exploitation of timber. The union realised that logging companies would soon be knocking on the doors of the caboclos, peasant farmers living on the Rio Capim, an Amazon tributary in the Brazilian state of Pará. Isolated and illiterate, the caboclos would have little concept of the true value of their trees; communities downstream had already sold off large blocks of forest for a pittance. "What they wanted to know was how valuable the forests were," recalls Shanley, then a researcher in the area for the Massachusetts-based Woods Hole Research Centre.

C The Rural Workers' Union wanted to know whether harvesting wild fruits would make economic sense in the Rio Capim. "There was a lot of interest in trading non-timber forest products (NTFPs)," Shanley says. At the time, environmental groups and green-minded businesses were promoting the idea. This was the view presented in a seminal paper, *Valuation of an Amazonian Rainforest*, published in *Nature* in 1989. The researchers had calculated that revenues from the sale of fruits could far exceed those from a one-off sale of trees to loggers. "The union was keen to discover whether it made more sense conserving the forest for subsistence use and the possible sale of fruit, game and medicinal plants, than selling trees for timber," says Shanley. Whether it would work for the caboclos was far from clear.

D Although Shanley had been invited to work in the Rio Capim, some caboclos were suspicious. “When Patricia asked if she could study my forest,” says Joao Fernando Moreira Brito, “my neighbours said she was a foreigner who’d come to rob me of my trees.” In the end, Moreira Brito, or Mangueira as he is known, welcomed Shanley and worked on her study. His land, an hour’s walk from the Rio Capim, is almost entirely covered with primary forest. A study of this and other tracts of forest selected by the communities enabled Shanley to identify three trees, found throughout the Amazon, whose fruit was much favoured by the caboclos: bacuri (*Platonia insignis*), uxi (*Endopleura uchi*) and piquia (*Caryocar villosum*). The caboclos used their fruits, extracted oils, and knew what sort of wildlife they attracted. But, in the face of aggressive tactics from the logging companies, they had no measure of the trees’ financial worth. The only way to find out, Shanley decided, was to start from scratch with a scientific study. “From a scientific point of view, hardly anything was known about these trees,” she says. But six years of field research yielded a mass of data on their flowering and fruiting behaviour. During 1993 and 1994, 30 families weighed everything they used from the forest – game, fruit, fibre, medicinal plants – and documented its source.

E After three logging sales and a major fire in 1997, the researchers were also able to study the ecosystem’s reaction to logging and disturbance. They carried out a similar, though less exhaustive, study in 1999, this time with 15 families. The changes were striking. Average annual household consumption of forest fruit had fallen from 89 to 28 kilograms between 1993 and 1999. “What we found,” says Shanley, “was that fruit collection could coexist with a certain amount of logging, but after the forest fire, it dropped dramatically.” Over the same period, fibre use also dropped from around 20 to 4 kilograms. The fire and logging also changed the nature of the caboclo diet. In 1993 most households ate game two or three times a month. By 1999 some were fortunate if they ate game more than two or three times a year.

F The loss of certain species of tree was especially significant. Shanley’s team persuaded local hunters to weigh their catch, noting the trees under which the animals were caught. Over the year, they trapped five species of game averaging 232 kilogrammes under piquia trees. Under copaiba, they caught just two species averaging 63 kilogrammes; and under uxi, four species weighing 38 kilogrammes. At last, the team was getting a handle on which trees were worth keeping, and which could reasonably be sold. “This showed that selling piquia trees to loggers for a few dollars made little sense,” explains Shanley. “Their local value lies in providing a prized fruit, as well as flowers which attract more game than any other species.”

G As a result of these studies, Shanley had to tell the Rural Workers’ Union of Paragominas that the *Nature* thesis could not be applied wholesale to their community – harvesting NTFPs would not always yield more than timber sales. Fruiting patterns of trees such as uxi were unpredictable, for example. In 1994, one household collected 3,654 uxi fruits; the following year, none at all.

H This is not to say that wild fruit trees were unimportant. On the contrary, argues Shanley, they are critical for subsistence, something that is often ignored in much of the current research on NTFPs, which tends to focus on their commercial potential. Geography was another factor preventing the Rio Capim caboclos from establishing a serious trade in wild fruit: villagers in remote areas could not compete with communities collecting NTFPs close to urban markets, although they could sell them to passing river boats.

I But Shanley and her colleagues decided to do more than just report their results to the union. Together with two of her research colleagues, Shanley wrote the fruit book. This, the *Bible* and a publication on medicinal plants co-authored by Shanley and designed for people with minimal literacy skills are about the only books you will see along this stretch of the Rio Capim. The first print run was only 3,000 copies, but the fruit book has been remarkably influential, and is used by colleges, peasant unions, industries and the caboclos themselves. Its success is largely due to the fact that people with poor literacy skills can understand much of the information it contains about the non-timber forest products, thanks to its illustrations, anecdotes, stories and songs. “The book doesn’t tell people what to do,” says Shanley, “but it does provide them with choices.” The caboclos who have used the book now have a much better understanding of which trees to sell to the loggers, and which to protect.

Questions 27–32

Reading Passage 3 has nine paragraphs, ***A–I****.*

Which paragraph contains the following information?

Write the correct letter, ***A–I,*** *in boxes* ***27–32*** *on your answer sheet.*

27 A description of Shanley's initial data collection

28 Why a government official also contributes to the book

29 Reasons why the community asked Shanley to conduct the research

30 Reference to the starting point of her research

31 Two factors that alter food consumption patterns

32 Why the book is successful

Questions 33–40

Complete the summary below.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

Write your answers in boxes 33–40 on your answer sheet.

Forest fire has caused local villagers to consume less:

- **33** _____
- **34** _____
- game

There is the least amount of game hunted under **35** _____; yield is also **36** _____. Thus, it is more reasonable to keep **37** _____.

All the trees can also be used for **38** _____ besides selling them to loggers. But this is often ignored, because most research usually focuses on the **39** _____ of the trees.

The purpose of the book:

- To give information about **40** _____.

题号	答案	精准定位（段落原句要点）	解析
27	**D**	“The only way to find out… **start from scratch with a scientific study**… **Six years of field research**… **During 1993–1994, 30 families weighed everything** they used from the forest … and **documented** its source.”（段 D）	题干问“**最初**的数据收集”。D 段既说明“从零开始做科学研究”的**起步方式**，又给出**首轮数据收集的时间、对象与方法**（1993–1994 年、30 户、称重＋记录），对“initial data collection”做了最直接、最细节的描写。
28	**A**	“Its **blend of hard science and local knowledge** … **has been so well received** … that **Brazil’s environment minister … has written the foreword**.”；“The second edition was produced **at the request of politicians** in western Amazonia.”（段 A）	问“**为什么**有政府官员也为书作出贡献”。A 段给出完整因果链：书因“科学＋在地知识”的结合而**广受认可并被官方重视** → 环境部长写序、第二版应政界请求而出，直接解释了官员参与的**动因**。
29	**C**	“The Rural Workers’ Union **wanted to know whether harvesting wild fruits would make economic sense** … There was a lot of interest in trading **non-timber forest products (NTFPs)** … researchers had calculated that **revenues from the sale of fruits could far exceed** those from selling trees to loggers … **The union was keen to discover whether it made more sense** …”（段 C）	题干要“**社区请她做研究的原因**”。C 段把**明确动因**讲全：验证**采集野果/NTFPs 是否在经济上更合算**、与既有研究及绿色商业讨论相呼应。与 B 段的背景叙述不同，C 段是对“reasons why”的正面回答。
30	**B**	“**Shanley’s work … began** a decade ago, **with a plea for help** from the Rural Workers’ Union of Paragominas …”（段 B）	“starting point”即研究**从何时何事开始**。B 段以“began … with a plea for help”明确给出**起点事件**＝工会求助；比 D 段“start from scratch”（方法层面的起步）更精确对应“起点”。
31	**E**	“After **three logging sales** and a **major fire** in 1997 … **The fire and logging also changed the nature of the caboclo diet.**”（并伴随：1993–1999 年水果收集量下降、纤维使用由 ~20 kg 降至 4 kg、打猎频率显著降低）（段 E）	题干要求“两因素”。E 段并列点出 **logging（伐木）**与 **fire（火灾）**，且直接说明它们**改变了饮食/消费模式**，并给出多项量化变化作为证据。
32	**I**	“The fruit book has been remarkably influential … **Its success is largely due to** the fact that **people with poor literacy skills can understand** … **thanks to its illustrations, anecdotes, stories and songs.** … It is **used** by colleges, peasant unions, industries and the caboclos themselves … ‘… **provides them with choices**.’ ”（段 I）	问“**本书为何成功**”。I 段直接给出成功机理：**可理解性**（面向低识字率人群的图文/故事/歌曲）、**可用性与广泛采用**（多主体在用）、以及**赋能式信息**（提供选择而非命令），共同构成成功的核心原因。

Questions 33–40（摘要填空，NO MORE THAN THREE WORDS）

题号	答案（≤3词）	精确定位句（段落）	详细解释（含同义提示/易混点）
33	**forest fruit**（写 **fruit** 也可）	“Average annual household consumption of **forest fruit** had fallen from 89 to 28 kilograms between 1993 and 1999.”（第E段）	摘要小黑点列出“火灾导致当地人吃得更少的三类”：第一个就是**forest fruit**。用单词 **fruit** 也合规（≤3词），但“forest fruit”与原文完全一致、指代更精准。
34	**fibre**	“Over the same period, **fibre** use also dropped from around 20 to 4 kilograms.”（第E段）	同属“吃得更少”的并列项。注意这里的 **also dropped** 与上一句并列，暗示33与34为**同一小点**下的两个名词。
35	**uxi (trees)**	“Under **uxi**, four species weighing 38 kilograms.”（第F段）	摘要句型：“There is the least amount of **game** hunted under **35 _____**; …”F段按树种统计猎物重量：**uxi**树下的**game**总重量最低（38kg）——与“least amount of game”吻合。可写 **uxi** 或 **uxi trees**。
36	**unpredictable**	“**Fruiting patterns of trees such as uxi were unpredictable**… In 1994… 3,654 uxi fruits; **the following year, none at all**.”（第G段）	摘要“**yield is also 36 _____**”中的 **yield** 在本文语境指**果实产量**（与上句的“game”并列为两条不同性质的信息）。G段明确指出**uxi**等树**结果模式不可预测**，并给出年份对比实例支撑。因此填 **unpredictable** 才能与“Thus…”后的推论（见37题）形成“少game + 产量不稳定→不适合卖→应保留其他树”的逻辑闭环。
37	**piquia trees**	“This showed that **selling piquia trees** to loggers for a few dollars **made little sense**. **Their local value lies in providing a prized fruit, as well as flowers which attract more game than any other species.**”（第F段）	摘要“Thus, it is more reasonable to keep 37 _____.”——“Thus”承接35（uxi下game少）与36（uxi结果不稳）的劣势，转向**最值得保留的树**。F段结论双重论据：**piquia**的果实在地价值高、花**吸引最多的猎物**，**卖掉并不划算**，所以合理选择是**保留piquia trees**。
38	**subsistence (use)**	“This is not to say that wild fruit trees were unimportant. On the contrary… **they are critical for subsistence**, **something that is often ignored** in much of the current research on NTFPs…”（第H段）	摘要句：“All the trees can also be used for **38 _____** besides selling them to loggers. **But this is often ignored**, because most research… focuses on…”——H段与之**逐语对齐**：除商业出售外，树木对**subsistence（自给/生计）**至关重要，且“**这点常被忽视**”。可填 **subsistence** 或 **subsistence use**（两词，均≤3词）。
39	**commercial potential**	“…current research on NTFPs **tends to focus on their commercial potential**.”（第H段）	承上“often ignored”的原因：多数研究关注**商业潜力**，从而忽视了第38题所填的**subsistence**用途。38与39是**固定成对**信息。
40	**non-timber forest products**（或 **NTFPs**）	“…the information it contains about the **non-timber forest products**.”（第I段）	“The purpose of the book: To give information about 40 _____.”——I段直述本书提供关于**非木材森林产品（NTFPs）**的信息。写缩略语 **NTFPs** 也可（≤3词），但为稳妥建议写全称。