

## Exercise 25

Since 1953, many experimental attempts to synthesize the chemical constituents of life under "primitive Earth conditions" have demonstrated that a variety of the complex molecules currently making up living organisms could have been present in the early ocean and atmosphere, with only one limitation: such molecules are synthesized far less readily when oxygen-containing compounds dominate the atmosphere. Therefore some scientists postulate that the Earth's earliest atmosphere, unlike that of today, was dominated by hydrogen, methane, and ammonia. From these studies, scientists have concluded that the surface of the primitive Earth was covered with oceans containing the molecules fundamental to life. Although, at present, scientists cannot explain how these relatively small molecules combined to produce larger, more complex molecules, some scientists have precipitously ventured hypotheses that attempt to explain the development, from larger molecules, of the earliest self-duplicating organisms. (138 words)

1. According to the passage, which of the following can be inferred about the process by which the chemical constituents of life were synthesized under primitive Earth conditions?

- (A) The synthesis is unlikely to occur under current atmospheric conditions
- (B) The synthesis is common in modern laboratories.
- (C) The synthesis occurs more readily in the atmosphere than in the ocean.
- (D) The synthesis easily produces the most complex organic molecules.
- (E) The synthesis is accelerated by the presence of oxygen-containing compounds.

2. It can be inferred from the passage that "some scientists" assume which of the following concerning "larger, more complex molecules"?

- (A) The earliest atmosphere was formed primarily of these molecules.
- (B) Chemical processes involving these molecules proceeded much more slowly under primitive Earth conditions.
- (C) The presence of these molecules would necessarily

precede the existence of simple organisms.

(D) Experimental techniques will never be sufficiently sophisticated to produce in the laboratory simple organisms from these chemical constituents.

(E) Explanations could easily be developed to explain how simple molecules combined to form these more complex ones.

阅读 1: 参考翻译:

1953 年以来, 科学家们做了大量实验尝试在“原始地球条件下”合成生命的化学成分, 但是, 没有任何一项实验能制造出哪怕最简单生物体的复杂成分。虽然如此, 他们还是证明了当前构成生物体的复杂分子能够存在于早期的海洋和大气中, 只是有一个局限: 当含氧化合物在大气中居主导的情况下, 一些元素的合成极不容易。因此, 一些科学家们假定远古大气层不像今天这样, 而是由氢气, 甲烷和氨气组成。

从这些研究中, 科学家们得出结论: 远古地球表面被含有生命所需基本物质的海洋所覆盖。虽然, 目前科学家们还不能解释相对较小的分子如何结合起来产生出一些相对较大较复杂的分子, 一些科学家们仍然迫不及待的提出了一种假说, 试图解释最早的那些自我繁殖的生物体是如何从这些较大分子发展而来的。

Q1: 下面哪句能从原始地球条件下, 构成生命的化学成分的合成过程中推断出来?

解析: A 正确。此种合成不大可能存在于当前大气条件下。定位至文中 line 7-8, 以氧为主的大气中不可能实现。

B 此种合成在现代实验室中很常见。 无

C 此种合成更易存在于大气中胜过海洋。 无比较。

D 此种合成易于产生最复杂分子。 most 推不出。

E 氧化物的存在能加速此种合成。 无。

Q2: 对于“较大较复杂的分子”, 有些科学家设想了哪一点:

解析: A 最早的大气主要有这些分子组成。 推不出。

B 产生这些分子的化学过程在原始条件下演化很慢。 无。

C 正确。 这些分子的存在会推动简单生物的产生。末尾句: 一些科学家们仍然迫不及待的提出了一种假说, 试图解释最早的那些自我繁殖的生物体是如何从这些较大分子发展而来的。这些人显然持该选项观点。

D 实验室研究永远不可能从这些化合物中造出简单生物来。 never 太过分, 知识现在没有解决。

E 很容易解释简单分子如何合在一起构成这样的复杂分子。 现在还不能解释。

It is frequently assumed that the mechanization of work has a revolutionary effect on the lives of the people who operate the new machines and on the society into which the machines have been introduced. For example, it has been suggested that the employment of women in industry took them out of the household, their traditional sphere, and fundamentally altered their position in society. In the nineteenth century, when women began to enter factories, Jules Simon, a French politician, warned that by doing so, women would give up their femininity. Friedrich Engels,

however, predicted that women would be liberated from the "social, legal, and economic subordination" of the family by technological developments that made possible the recruitment of "the whole female sex into public industry." Observers thus differed concerning the social desirability of mechanization's effects, but they agreed that it would transform women's lives.

Historians, particularly those investigating the history of women, now seriously question this assumption of transforming power. They conclude that such dramatic technological innovations as the spinning jenny, the sewing machine, the typewriter, and the vacuum cleaner have not resulted in equally dramatic social changes in women's economic position or in the prevailing evaluation of women's work. The employment of young women in textile mills during the Industrial Revolution was largely an extension of an older pattern of employment of young, single women as domestics. It was not the change in office technology, but rather the separation of secretarial work, previously seen as an apprenticeship for beginning managers, from administrative work that in the 1880's created a new class of "dead-end" jobs, thenceforth considered "women's work." The increase in the numbers of married women employed outside the home in the twentieth century had less to do with the mechanization of housework and an increase in leisure time for these women than it did with their own economic necessity and with high marriage rates that shrank the available pool of single women workers, previously, in many cases, the only women employers would hire.

Women's work has changed considerably in the past 200 years, moving from the household to the office or the factory, and later becoming mostly white-collar instead of blue-collar work. Fundamentally, however, the conditions under which women work have changed little since before the Industrial Revolution: the segregation of occupations by gender, lower pay for women as a group, jobs that require relatively low levels of skill and offer women little opportunity for advancement all persist, while women's household labor remains demanding. Recent historical investigation has led to a major revision of the notion that technology is always inherently revolutionary in its effects on society. Mechanization may even have slowed any change in the traditional position of women both in the labor market and in the home.

3. Which of the following statements best summarizes the main idea of the passage?

- (A) The effects of the mechanization of women's work have not borne out the frequently held assumption that new technology is inherently revolutionary.
- (B) Recent studies have shown that mechanization revolutionizes a society's traditional values and the customary roles of its members.
- (C) Mechanization has caused the nature of women's work to change since the Industrial Revolution.
- (D) The mechanization of work creates whole new classes of jobs that did not previously exist.
- (E) The mechanization of women's work, while extremely revolutionary in its effects, has not, on the whole, had the deleterious effects that some critics had feared.

4. It can be inferred from the passage that the author would consider which of the following to be an indication of a fundamental alteration in the conditions of women's work?

- (A) Statistics showing that the majority of women now occupy white-collar positions
- (B) Interviews with married men indicating that they are now doing some household tasks
- (C) Surveys of the labor market documenting the recent creation of a new class of jobs in electronics in which women workers outnumber men four to one
- (D) Census results showing that working women's wages and salaries are, on the average, as high as those of working men
- (E) Enrollment figures from universities demonstrating that increasing numbers of young women are choosing to continue their education beyond the undergraduate level

For the following question, consider each of the choices separately and select all that apply

5. Which of the following statement about many employers before the twentieth century are NOT implied in the passage?

- A They did not employ women in factories.

B They tended to employ single rather than married women.

C They hired women only when qualified men were not available to fill the open positions.

6. Which of the following best describes the function of the concluding sentence of the passage?

(A) It sums up the general points concerning the mechanization of work made in the passage as a whole.

(B) It draws a conclusion concerning the effects of the mechanization of work which goes beyond the evidence presented in the passage as a whole.

(C) It restates the point concerning technology made in the sentence immediately preceding it.

(D) It qualifies the author's agreement with scholars who argue for a major revision in the assessment of the impact of mechanization on society

(E) It suggests a compromise between two seemingly contradictory views concerning the effects of mechanization on society.

普遍认为:劳动的机械化对操作机器的人,以及引进机器化的社会都有革命性的影响。如,习惯上认为:工业中雇用妇女使她们从家务这样的传统领域中解脱,并且从根本上改善了她们在社会中的地位。在 19 世纪,当妇女们进入工厂之初,西蒙,一个法国政治家,就警告说:“妇女们将失去女性特质”。然而,恩格斯却预言到:科学技术的发展将使整个妇女界进入工业

成为可能,从而妇女将从社会、法律以及经济上的附属地位中解放出来。观察者对社会机械化的影响持有不同观点,但他们一致认为这必将改变妇女们的生活。

现在,历史学家,特别是研究妇女历史的,对这种改造设想提出非常严肃的质疑。他们认为,一些令人兴奋的技术上的革新,如:纺纱机、缝纫机、打字机、吸尘器之类的产生并没有产生相应的妇女经济地位或妇女工作中普遍流行的评判标准的变化。工业革命时期在纺织作坊中雇用妇女很大程度上只不过是原来在家务中雇用年轻单身妇女的延伸。不是因为办公室技术的发展,而是因为这以前作为管理工作见习期的秘书工作从其中分离出来,在 19 世纪 80 年代产生了一种新的“没有升迁机会的工作”,于是被看作是妇女的工作。20 世纪对已婚妇女雇用的增加不是因为家务劳动机械化,使这些妇女有闲暇,而是由于她们经济上的必需性,以及结婚率升高使得单身妇女来源减少,而在这以前,在多数情况下,单身妇女是雇主惟一想雇用的。

在过去的 200 年中,妇女的工作有了相当程度的变化,从家庭劳动到办公室或工厂,并且近来很多蓝领工作变成白领工作。但基本上,工业革命以来,妇女们的工作条件改变甚少:按性别区分职业、整体报酬低、工作技能水平要求相对低、升迁机会少仍然存在,同时家务劳动依然繁重。最近史学调查研究的结果改变了以往观点:即技术总是从本质上革命性改变社会的观点。机械化甚至有可能延迟了妇女在劳动力市场或家庭的地位变化的进程。



**重要背景:** GRE 中的妇女运动文章几个固定套路:

1. 妇女参加工作的比例和妇女的地位是无关的。妇女的解放关键是人格独立和观念解放,而不是是否参加工作,此点和我国流行想法不同。
2. 真正的男女平等不是把妇女当作异类来看待,特意去照顾她们,而应把妇女和男子一视同仁。除了生理特征不同,其他方面应该淡化男女区别。(参见 9404-1-长)

文章结构: 新旧观点型

第一段, 首句, *it is frequently assumed that* 旧观点典型句。解释例证旧观点。最后一句, 再次总结旧观点, *mechanization of work* 好, 对 *society* 好, 对 *women* 好;

第二段, 第二句, 提出新观点, *technological innovations* 并没有改变 *women* 的 *position* 和 *work* 性质。例证之;

第三段, 继续肯定新观点, 因为, *however, the conditions have changed little*: 一系列的 *conditions*. 倒数第二句, *re-summary* 新观点, 新技术不总是对 *society* 有革命性 *effects*; 最后一句, *even have slowed*, 在新观点基础上更进一步, 提出, 前者甚至 *slow* 了后者的 *change*.

Q3 主题题, 根据新观点, 找 *mechanization work* 和 *women*, 定位 A, E; E 明显错误, 选 A;

Q4 定位第三段的那一系列 *condition*, 比照一下选项, 选 D;

Q5 根据 *the twentieth century*, 定位到第二段的尾巴部分, *had less to do with than with*, 说明 20c 前, *employer employ* 女性, 且是 *single women*.

A 错, B 对, C 未提, 选 AC;

Q6

文章末句有什么功能?

从结构高度来看, 文章在二段开始, 就将观点讲出, 后面全是说明。但末句: 机械化甚至有可能延迟了妇女在劳动力市场或家庭的地位变化的进程。从原文推理是导不出的, 原证据只能推出: 机械化没有革命性效果。这实际上是为了出题特意硬塞进一句话。

∴ B 正确。关于机械化后果做一结论, 该结论比文章总体所给论据走得更远。符合上述推理。

A. 总结文章关于机械化作用的观点。该句观点和全文不一致。

C. 复述了紧接它之前的那句话。易混。倒数第二句: 最近史学调查研究的结果改变了以往观点, 即技术总是从本质上革命性改变社会的观点。其实是主题句意思的复写, 和末句不一致。

D. 限制了作者对于机械化的后果的观点最近所做修正的同意。不但没限制, 还走得更远。

E. 调和两个关于机械化后果看似矛盾的观点。无。

Over the last 40 years there has been a great increase not only in the number of agricultural pesticides in use but also in the care and sophistication with which they are used by farmers. Nevertheless, the proportion of agricultural crops lost to certain pests worldwide has increased over the same period, even when the pests concerned have not developed resistance to existing pesticides.

7. Which of the following, if true, best explains how improvements in pesticide use have been accompanied by greater losses to certain pests?

- (A) Some dangerous but relatively ineffective pesticides common 40 years ago are no longer in widespread use.
- (B) As pesticides have become increasingly pest-specific, controlling certain pests with pesticides has turned out to cost more in many cases than the value of crop losses caused by those pests.
- (C) Because today's pesticides typically have more specific application conditions than did pesticides in use 40 years ago, today's farmers observe their fields more closely than did farmers 40 years ago.
- (D) Certain pest-control methods that some farmers use today do not involve the use of chemical pesticides but are just as effective in eliminating insect pests as those that do.
- (E) Forty years ago, much less was known about the effects of pesticides on humans and other mammalian species than is now known

**Q7:**

开头应该是说杀虫剂的数量变多了，但随之而来的农民在想到底用哪个的这种考虑也增加了！害虫多，吃庄稼要花钱；但是使用杀虫剂也要花钱；如果不划算，农民就不愿意用了！就是这样的一个关系。正确答案 C；

Researchers are finding that in many ways an individual bacterium is more analogous to a component cell of a multicellular organism than it is to a free-living, autonomous organism. Anabaena, a freshwater bacteria is a case in point. Among photosynthetic bacteria, Anabaena is unusual: it is capable of both photosynthesis and nitrogen fixation. Within a single cell, these two biochemical processes are incompatible: oxygen produced during photosynthesis, inactivates the nitrogenase required for

nitrogen fixation. In Anabaena communities, however, these processes can coexist. When fixed nitrogen compounds are abundant, Anabaena is strictly photosynthetic and its cells are all alike. When nitrogen levels are low, however, specialized cells called heterocysts are produced which lack chlorophyll (necessary for photosynthesis) but which can fix nitrogen by converting nitrogen gas into a usable form. Submicroscopic channels develop which connect the heterocyst cells with the photosynthetic ones and which are used for transferring cellular products between the two kinds of Anabaena cells.  
(156 words)

8. It can be inferred from the passage that cell differentiation within Anabaena is regulated by the

- (A) amount of oxygen Anabaena cells produce
- (B) season of the year
- (C) amount of fixed nitrogen compounds available
- (D) number of microscopic channels uniting Anabaena cells
- (E) amount of chlorophyll in Anabaena cells

9. The author uses the example of Anabaena to illustrate the

- (A) uniqueness of bacteria among unicellular organisms
- (B) inadequacy of an existing view of bacteria
- (C) ability of unicellular organisms to engage in photosynthesis
- (D) variability of a freshwater bacteria
- (E) difficulty of investigating even the simplest unicellular organisms

Scholars often fail to see that music played an important role in the preservation of African culture in the United States. They correctly note that slavery stripped some cultural elements from Black people—their political and economic systems—but they underestimate the significance of music in sustaining other African cultural values. African music, unlike the music of some other cultures, was based on a total vision of life in which music was not an isolated social domain. In African culture music was pervasive, serving not only religion, but all phases of life, including birth, death, work, and play. Music, like art in general, was so inextricably a part of African culture that it became a crucial means of preserving the culture during and after the dislocations of slavery.



(126 words)

10. In the argument given , the two highlighted portions play which of the following roles?

- oA The first sentence introduces the topic of the passage and the last one summarizes the passage.
- oB The first sentence presents a thesis and the last one further develops the thesis.
- oC The first sentence summarizes the main idea of the passage and the last one paraphrases it literally.
- oD The first sentence presents a context for the discussion of the passage and the last one summarizes the discussion.
- oE The first sentence presents the negative thesis of the passage and the last one presents the positive thesis.

阅读 1: 参考翻译:

研究者正在许多方面发现, 细菌更类似于一种多细胞有机体的组成细胞而不是一种独立的有机体细胞。Anabaena, 这种淡水藻菌类就恰是这样的例子。在促进光合作用的细菌中, Anabaena 很不寻常: 它既能促进光合作用又能固氮。在单细胞中, 这两个生化过程是不可能同时存在的, 因为光合作用所产生的氧阻止了固氮作用中固氮酶的作用。然而, 在 Anabaena 菌落中, 这种过程却可以共存。当固氮化合物丰富的时候, Anabaena 确实是促进光合作用的, 它们的细胞也都相似。但当氮素含量低时, 就会产生一种被称为异形细胞的特殊细胞, 这种细胞缺乏叶绿素 II, 但却可以通过将氮气转移为可吸收形式来进行固氮。形成的亚显微通道连接了异形细胞与促进光合作用的细胞, 并在两类 Anabaena 细胞中传递细胞产物。

## I. 文章结构

首句, TS, individual bacterium 更像多细胞生物的一个 component cell.

其余部分, 以 Anabaena 例证之。

Q8 定位 In Anabaena communities, however, these processes can coexist. When fixed nitrogen compounds are abundant... When nitrogen levels are low... 显然, 细胞的不同是由于 nitrogen level 的不同, 选 C;

Q9 举例的作用是为了? Anabaena, a freshwater bacteria is a case in point. 全文都是在说 Anabaena 的不寻常, 所以看到 uniqueness 就没错了! 选 A

阅读 2: 参考翻译:

学者们经常无从认识到, 在美国, 音乐在非洲文化的保存中曾发挥了至为重要的作用。虽然这些学者不无道理地指出, 奴隶制从黑人身上剥夺了某些文化因素——他们的政治与经济体制, 但学者们没能充分估计到音乐在维系其它非洲文化价值方面的重要性。与某些其它文化的音乐所不同, 非洲音乐以对人生的全部理解为其基础, 这其中, 音乐并非是一种孤立的社会范畴。在非洲文化中, 音乐无所不在, 充斥着一切, 不仅仅有服务于宗教, 而且服务于生活的所有方面, 包括生老病死, 工

作与娱乐。一个社会所：创造出来藉以使其自身生生不息、恒久不衰的方法得以形成产生，以保存在这个社会看来具有本质意义的文化遗产的各个方面。音乐，犹如一般意义上的艺术一样，构成了非洲文化中如此不可分割的一个部分，以至于它在奴隶制的解体过程中以及在奴隶制解体之后，变成了保存文化的至关重要的手段。

**Q10: negative thesis 和 positive thesis，就是从负面和正面两方面说。都是 main idea，选 E**

文中涉及到结构的分析来自 JudyHan817