

2023年度 総合型選抜 I 英語等有資格型

適 性 検 査

英 語

次の英文を読んで、第1問～第4問に日本語で答えなさい。

Reality is everything that exists. That sounds straightforward, doesn't it? ⁽¹⁾Actually, it isn't. There are various problems. What about dinosaurs, which once existed but exist no longer? What about stars, which are so far away that, by the time their light reaches us and we can see them, they may have already burnt out?

We'll come to dinosaurs and stars in a moment. But in any case, how do we know things exist, even in the present? Well, our five senses — sight, smell, touch, hearing and taste — do a pretty good job of convincing us that many things are real: rocks and camels, newly cut grass and freshly ground coffee, sandpaper and velvet, waterfalls and doorbells, sugar and salt. ⁽²⁾But are we only going to call something 'real' if we can detect it directly with one of our five senses?

What about a distant galaxy, too far away to be seen with the naked eye? What about a bacterium, too small to be seen without a powerful microscope? Must we say that these do not exist because we can't see them? No. Obviously we can enhance our senses through the use of special instruments: telescopes for the galaxy, microscopes for bacteria. Because we understand telescopes and microscopes, and how they work, we can use them to extend the reach of our senses — in this case, the sense of sight — and what they enable us to see convinces us that galaxies and bacteria exist.

How about radio waves? Do they exist? Our eyes can't detect them, nor can our ears, but again special instruments — television sets, for example — convert them into signals that we can see and hear. So, although we can't see or hear radio waves, we know they are a part of reality. As with telescopes and microscopes, we understand how radios and televisions work. So they help our senses to build a picture of what exists: the real world — reality.

Back to those dinosaurs. How do we know that they once roamed the Earth? We have never seen them or heard them or had to run away from them. Alas, we don't have a time machine to show them to us directly. But here we have a different kind of aid for our senses: we have fossils, and we can see them with the naked eye. Fossils don't run and jump but, because we understand how fossils are formed, they can tell us something of what happened millions of years ago.

⁽³⁾In a different sense, a telescope can work like a kind of time machine. What we see when we look at anything is actually light, and light takes time to travel. Light travels so fast that we normally assume anything we see happens at the instant we see it. But stars are another matter. Even the sun is eight light-minutes away. As for the next nearest star, Proxima Centauri,

if you look at it in 2012, what you are seeing is happening in 2008. So, if there are aliens in one of those distant galaxies with a telescope powerful enough to see us, what they are seeing on Earth, at this very moment, here and now, is the early ancestors of the dinosaurs.

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第1問

下線部 (1) *Actually, it isn't.* とありますが、バクテリアや恐竜はなぜ事実であると認識できるのでしょうか。本文に即してまとめなさい。

第2問

下線部 (3) *In a different sense, a telescope can work like a kind of time machine.* とありますが、望遠鏡がタイムマシンのように機能するのはなぜですか。本文に即してまとめなさい。

第3問

下線部 (2) *But are we only going to call something 'real' if we can detect it directly with one of our five senses?* とありますが、五感のいずれか一つで感知できるのに事実ではないものとしてどういうものがあると思いますか。自分の考えを200字以内(横書き)で述べなさい。(これは考えの良し悪しを見る問題ではなく、自分の考えを日本語で展開する能力を見る問題です。書く内容は、本意でも架空でもかまいません。)

第4問

五感で感知できないのに、事実でありうるものとしてどのようなものがあると思いますか。自分の考えを200字以内(横書き)で述べなさい。(これは考えの良し悪しを見る問題ではなく、自分の考えを日本語で展開する能力を見る問題です。書く内容は、本意でも架空でもかまいません。)