

令和4年度（4月入学）

京都工芸繊維大学大学院 工芸科学研究科

先端ファイブプロ科学専攻

博士前期課程(修士課程)一般入試 第I期

学力検査

(英語)

令和3年8月19日（木）9:30～12:00

- 解答用紙には受験番号を明記のこと
- 解答用紙は1問につき1枚使用のこと

英語 1 次の文章を和訳せよ。

問題は著作権の関係で掲載しておりません

英語 2 次の記事の下線部①～④を和訳せよ。

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出典：David Hillier, Nature, Vol.594, pp291-292 (2021)

英語3 下記の英文記事を日本語 300 字程度で要約せよ。

Japan's legal commitment to carbon-neutral 2050 must be catalyst for change

Japan has codified in law its pledge to go carbon-neutral in real terms by 2050. This will prevent the country retreating from its commitment in the future, no matter what changes in government or economic circumstances may come.

The legal commitment came in the form of revisions to the Act on Promotion of Global Warming Countermeasures, after Prime Minister Yoshihide Suga promised Japan would cut carbon emissions to net zero by 2050.

Of special note is the inclusion in the legislation of policy measures to advance local governments' initiatives to expand the use of renewable energy. Specifically, the revised law requires prefectural governments and governments of ordinance-designated major cities to draw up renewable energy targets with concrete implementation plans. Municipalities will establish "promotion zones" with simplified environmental assessment processes for new renewable energy projects. The law also calls on local authorities to reflect their residents' opinions when choosing where to put these zones and what projects to pursue.

In recent years, renewable energy projects have often been dogged by complaints of noise pollution and marred landscapes. In response, more local governments have introduced rules regulating these projects. To expand renewables, it is essential to explain to local people each project's merits and the environmental considerations involved.

When 2019's Typhoon Faxai caused widespread blackouts in Chiba Prefecture, next to Tokyo, facilities run on solar power stepped up as evacuation shelters. A different positive example of renewable energy's benefits is the city of Miyazu, Kyoto Prefecture, where profits from its mega-solar facility built on abandoned farmland are directed back into the community.

There must be a system in which renewable energy will become a local resource, with each locality contributing its knowledge. To encourage municipalities and companies to take up renewables, the national government needs to set high targets.

The Japanese government is scheduled to revise the Basic Energy Plan this year. Under the present plan, Japan aims to have renewable energy sources make up 22-24% of the country's electricity supply

by fiscal 2030. We call for that target to be raised, and decisively so.

However, Japan cannot reach net carbon zero just through renewable energy. We need a policy framework embracing many solutions, such as cutting down on coal-fired power plants and introducing a carbon pricing system including carbon taxes. The private sector, too, needs to shift to low-emissions manufacturing.

The recent legal changes must be a catalyst for the public and private sectors to break from their previous thinking and pour their energies into creating a decarbonized society.

codified : 法制化した

marred landscapes : 景観悪化

renewable : 再生可能

evacuation shelters : 避難所

ordinance-designated major cities : 政令指定都市

abandoned farmland : 耕作放棄地

Municipalities : 市町村

catalyst : きっかけ

(出典:Editorial, Mainichi Japan, June 1, 2021, <https://mainichi.jp/english/articles/20210601/p2a/00m/0op/014000c>)

英語4 次の文章を英訳しなさい

従来、スポーツ競技というものはそのまま体力・運動能力テストにもなっている。競技において、運動能力はセンチメートルとか秒の単位で客観的に測定され、また体操、フィギアスケートもしくはダイビングのようなものは、主観的に判定される。個々人の運動能力は各種機能の協応および統合の組み合わせさったものである。最高の成績をおさめたり選手権を獲得したりするためには、個々人の能力が実際の競技の要求するものに完全に合致しなければならない。各種スポーツ運動それぞれに必要とされるものは大変に異なるものであるから、一人の持っている最大之力および能力のすべての面を一つの公式で表すことは不可能である。

(出典：「オストランド運動生理学」, 著者：P.O.オストランド, K.ラダール, 訳者：朝比奈一男, 浅野勝己, 大修館書店, 204頁, 1977)

参考

体力・運動能力：physical fitness or performance capacity

体操：gymnastics

選手権：championship