

'22

前期日程

小論文 I

(医学部保健学科)

注 意 事 項

1. 試験開始の合図があるまで、この問題冊子を開いてはいけません。
2. 問題冊子は1冊(6頁)、解答用紙は4枚、下書用紙は1枚です。落丁、乱丁、印刷不鮮明の箇所等があった場合には申し出てください。
3. 氏名と受験番号は解答用紙の所定の欄に記入してください。
4. 解答は指定の解答用紙に記入してください。
5. 解答用紙は持ち帰ってはいけません。
6. 問題冊子と下書用紙は持ち帰ってください。

1 次の英文を読み，設問に日本語で答えなさい。

※著作権により不開示

※著作権により不開示

(The Orange County Register, April 13, 2021, “Disneyland adopts ‘gender inclusive’ hair and dress rules for employees” より一部改変して引用)

| | |
|--|--------------------|
| (注) gender-inclusive | 性別にとらわれない |
| Disney Parks, Experiences and Products | ウォルトディズニー社の事業部門の1つ |
| reference | 言及 |
| sideburns | もみあげ |
| nail polish | マニキュア液 |
| solid color | 無地 |
| tattoo | 入れ墨 |
| offensive language | 人を不快にさせる言葉 |
| nudity | 裸体 |
| relevant | 適切な, 妥当な |

問 1 この会社が下線部(1)のキャスト(従業員)の身だしなみ規定の変更を通じて、来場者に期待していることを1つ、従業員に期待していることを1つ答えなさい。

問 2 ディズニーの関係者によると、下線部(2)により全ての従業員はどのような身だしなみをすることができるようになったか、2つ答えなさい。

問 3 下線部(3)に関して、新しい規定ではどのように定めているか答えなさい。

問 4 下線部(4)に関して，新しい規定では場所と大きさをどのように定めているか答えなさい。

2 次の英文を読み、設問に日本語で答えなさい。

While most of us can expect to live to around 80, some people defy expectations and live to be over 100. In places such as Okinawa, Japan and Sardinia, Italy, there are many centenarians.

But just how long could a human actually live? It's a question people have been asking for centuries. While average life expectancy (the number of years a person can expect to live) is relatively easy to calculate, maximum life span estimates⁽¹⁾ (the greatest age a human could possibly reach) are much harder to make. Previous studies have placed this limit close to 140 years of age. But a more recent study proposes that the limit to human life span is closer to 150.

The oldest and still most widely used method for calculating life expectancy, and thus life span, relies on the Gompertz equation⁽²⁾. This is the observation, first made in the 19th century, that human death rates from disease increase exponentially with time. Essentially, this means your chance of death—from cancer, heart disease and many infections, for example—roughly doubles every eight to nine years.

There are many ways the formula can be adjusted to consider how different factors (such as sex or disease) affect the life span within a population. Gompertz calculations are even used to calculate health insurance premiums—which is why these companies are so interested in whether you smoke, whether you are married and anything else that might allow them to more accurately judge the age at which you will die.⁽³⁾

Another approach to figuring out how long we can live is to look at how our organs decline with age,⁽⁴⁾ and run that rate of decline against the age at which they stop working. For example, eye function and how much oxygen we use while exercising show a general pattern of decline with ageing, with most calculations indicating organs will only function until the average person

is around 120 years old.

But these studies also show increasing variation between people as they grow older. For example, some peoples' kidney function declines rapidly with age while in others it hardly changes at all.

Now researchers in Singapore, Russia, and the US have taken a different approach to estimate the maximum human life span. Using a computer model, they estimate that the limit of human life span is about 150 years.

But estimates of this type assume that nothing new will be done to a population, such as, no new medical treatments will be found for common diseases. This is a major weakness, since significant progress occurs over a lifetime and this benefits some people more than others. For example, a baby born today can rely on about 85 years of medical progress to increase their life expectancy, while an 85-year-old alive now is limited by current medical technologies. As such, the calculation used by these researchers will be relatively accurate for old people but will become increasingly less so the younger the person you're looking at.⁽⁵⁾

Even given the current pace of progress, we can confidently expect life expectancy to increase because it has been doing this since Gompertz was alive in the 1860s. In fact, if you spend half an hour reading this article average life expectancy will have increased by six minutes. Unfortunately, at that rate, the average person won't live to 150 for another three centuries.

(The Conversation. June 9, 2021, "Is 150 years really the limit of human life span?"

<https://theconversation.com/is-150-years-really-the-limit-of-human-life-span-162209>
より一部改変して引用)

| | |
|-------------------|----------------|
| (注) defy | ～に反する |
| Sardinia | サルデーニャ(地名) |
| centenarian | 100歳以上の人 |
| Gompertz equation | ゴンベルツ氏が考案した方程式 |
| exponentially | 指数関数的に |
| formula | 式 |
| premiums | 保険料 |
| given | ～と仮定すると |

問 1 下線部(1)について、最近の研究によると具体的に何歳と推定されているか、答えなさい。

問 2 下線部(2)によると、死亡率についてどのようなことが言えるか、数値を用いて答えなさい。

問 3 下線部(3)について、なぜその必要性があるのか、理由を説明しなさい。

問 4 下線部(4)について、本文中の具体例を述べなさい。

問 5 下線部(5)について、なぜそのように言えるのか、具体例を添えて理由を述べなさい。