

平成 28 年8月9日実施

名古屋市立大学大学院医学研究科修士課程入学試験(1回目) 英語(出題言語一英語)

Read the following sentences and answer the following 4 questions. (100 points)

この部分に掲載されている文章については、
著作権法上の問題から掲載することができません
ので、ご了承願います。

Quoted from: Barack Obama: Remarks by President Obama and Prime Minister Abe of Japan at Hiroshima Peace Memorial, May 27, 2016, Hiroshima, Japan.

Question 1 Explain the underlined sentences (1).

Question 2 Explain the underlined sentences (2) briefly.

Question3 Regarding the underline (3) “We must change our mindset about war itself.” What exactly does it mean? Answer this issue to itemize by quoting from this article.

Question 4 Explain the underlined sentence (4) in your own words.

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Read the following sentences and answer the following 5 questions. (100 points)

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Quoted from: Dopamine Handbook, Oxford University Press

Question1 Who discover dopamine and when dopamine was discovered as a neurotransmitter?

Who () When ()

Question 2 What are the fundamental aspects of brain function on dopaminergic mechanism?

Question 3 Answer the names of the diseases that the research has proved important links between dopamine and etiology.

Question 4 Explain the reason why the “Dopamine Handbook” was written.

Question 5 Explain Carlsson's discovery.

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Answer the following 4 questions. (100 points)

Question 1 What is metabolic syndrome?

Question 2 Why is metabolic syndrome a hazard to the health?

Question 3 What is the difference between aerobic and resistance exercise training?

Question 4 How do the aerobic and resistance trainings improve or counteract metabolic syndrome?

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Briefly define any five of the following terms. (100 points)

apoptosis

autophagy

cell cycle

cytoskeleton

flow cytometry

inflammation

brain death

stem cell

synapse

western blotting

1) _____

2) _____

3) _____

4) _____

5) _____

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Read the following sentences and answer the following 4 questions. (100 points)

(A)Hormones are produced in the organ of endocrine system, such as adrenal, thyroid or pancreas, and reach and act on its target cells. (B)Hormones are divided into three major groups, peptide hormones, steroid hormones and amino acid-derived hormones. The endocrine system is regulated by (C)feedback mechanisms to maintain homeostasis in the normal condition.

Question 1 Regarding the sentence underlined (A), explain how hormones selectively act on target cells.

Question 2 Regarding the sentence underlined (B), enumerate name(s) of each hormone.

Question3 Explain the differences of mode of actions between peptide hormones and steroid hormones.

Question 4 Regarding the term underlined (C), explain the feedback mechanism and give its concrete example.