

## 準 2 級

I 次の(a)から(e)の英語に、それぞれ相当する英語を選び、その番号を解答欄に記入しなさい。 <各 4 点(20 点)>

(a) caliper

1. an instrument for measuring thicknesses and diameters
2. a device for automatically regulating temperature
3. an instrument for measuring gasoline

(b) ROM

1. repeat of memory
2. read only memory
3. radiation or motion

(c) coherent

1. logically consistent
2. logically closed
3. logically modified

(d) proof

1. indication
2. the act of pronouncing
3. a test or trial of the truth

(e) heavy-oil storage tank

1. a heavy tank that stores oil
2. a storage tank operated by heavy oil
3. a storage tank for heavy oil

問題サンプル

II 次の各英文の( )に入れるのに最も適切な語を下の 1 から 12 より選び、その番号を解答欄に記入しなさい。<各 5 点(30 点)>

(a) Certain kinds of bacteria attack wood and break down the chemical substances of ( a-1 ) it is composed. This breaking down is what we call rot or ( a-2 ).

(b) Apart from differences caused by air ( b-1 ), all bodies fall to the ground at the same speed, ( b-2 ) their weight is.

(c) Mercury and alcohol make good liquids for thermometers. The ( c-1 ) of both increases uniformly ( c-2 ) increasing temperature.

- 1.on 2.decay 3.volume 4.which  
5.wherever 6.resistance 7.decrease 8.whatever  
9. quality 10.with 11.where 12. crush

III 次の(a)から(e)のそれぞれの英文から最も簡潔に書き直した英文を 1 つ選び、その番号を解答欄に記入しなさい。<各 6 点(30 点)>

(a) Snow comes into existence as water vapor in a cloud-like substance in the sky.

1. A cloud starts as snow in water vapor.  
2. Snow starts as water vapor in a cloud.  
3. Water vapor causes a cloud-like substance to turn into snow.

(b) Radio waves are received or radiated by a device called an antenna.

1. An antenna is received or radiated by radio waves.  
2. Radio waves receive or radiate an antenna.  
3. An antenna radiates or receives radio waves.

(c) Through automation, a new era in manufacturing has been opened up by computers.

1. Automation has opened up a new era in the manufacture of computers.  
2. Through automation, a new era has opened computer manufacturing.  
3. Computers have opened up a new era in manufacturing through automation.

問題サンプル

(d) In the case of this building, the foundation on which it rests is reinforced concrete.

1. This building rests on a reinforced concrete foundation.
2. The rest of this building's foundation is reinforced concrete.
3. The case of this building was lost because of a reinforced concrete foundation.

(e) The pressure of a quantity of air is increased by an air compressor by mechanical means.

1. The mechanical pressure increases with the quantity of air.
2. An air compressor mechanically increases the pressure of a quantity of air
3. An air compressor is mechanically operated by an increase in the quantity of air.

IV 次の各組の英文が同じ意味になるように( )に入れるのに最も適切な語を下の1から12より選び、その番号を解答欄に記入しなさい。<各5点(20点)>

(a) This metal is mixed with 2% of other substances.  
This metal has a ( ) of 98%.

(b) The CPU consists of three parts: a control unit, an arithmetic-logic unit, and memory.  
A control unit, an arithmetic-logic unit, and memory are the three parts that ( ) the CPU.

(c) An image seen through a convex lens is turned upside down.  
An image seen through a convex lens is ( ).

(d) Torque varies directly with the current flowing through the coil  
Torque is directly ( ) to the current flowing through the coil.

1. purified
2. form
3. proportion
4. inverted
5. opposition
6. replaced
7. purity
8. reform
9. ratio
10. proportional
11. Rounded
12. act

問題サンプル

V 次の(a)から(d)より2問選び、和訳しなさい。なお、選んだ2問の記号を解答欄の□に記入しなさい。<各15点(30点)>

(a) Superconductivity involves a remarkable transition phenomenon\* that occurs in metals when cooled to temperatures within several degrees of absolute zero, equivalent to  $-273^{\circ}\text{C}$ .

[注] \*remarkable transition phenomenon : 著しい遷移現象

(b) All commercial fuels are composed of hydrocarbons, some with sizable quantities\* of free carbon and all with some impurities.

[注] \*sizable quantities : かなりの量

(c) Results of special processes cannot be verified fully by subsequent inspection\* and testing of the product.

[注] \*subsequent inspection : 事後の検査

(d) Usability testing can help you understand the weakness\* of a product before it reaches the market place.

[注] \*weakness : 問題点

VI 次の(a)から(b)より1問選び、その下線部を和訳しなさい。なお、選んだ1問の記号を解答欄の□に記入しなさい。<各20点(40点)>

(a)(1) Recorded sound enables us to listen to music wherever and whenever we like. Recordings can be broadcast to millions of people by radio. Small, lightweight personal stereos and compact disk players allow us to enjoy music in private, even while we are on the move. Most recorded sound depends on either magnetism or light. Personal stereos and tape recorders use magnetism. (2) Before sound can be recorded magnetically, it must first be changed into an electrical signal by a microphone.

(b)(1) The so-called "greenhouse effect" that may be so dislocating has made the earth hospitable to life in the first place. Without a heat-trapping blanket of naturally occurring  $\text{CO}_2$ , the planet would have an average surface temperature of only  $0^{\circ}\text{F}$  instead of  $59^{\circ}\text{F}$ . Reason: like the glass panels of a greenhouse,  $\text{CO}_2$  molecules are transparent to visible light, allowing the sun's rays to warm the earth's surface. (2)

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However, when the surface gives off its excess heat, it does so not with visible light but with infrared radiation.

VII 次の(a)、(b)、(c)より2問選び、その下線部を英訳しなさい。なお、選んだ2問の記号を解答欄の□に記入しなさい。<各 15 点(30 点)>

(a) 安全を考えると、機械が偶然に始動するのを防止するのは重要なことである。従って、担当作業員\*が自分の運転している位置を離れることなく動力が切れるようにすべきである。

[注] \*担当作業員 : machine operator

(b) パソコンはどれも少しずつセットアップ方法が違うので、セットアップ開始前に必ずマニュアルのセットアップ手順をよく読んでケーブルをソケットの接続関係を正しく理解しておくこと。システムのセットアップは手順を追って\*進め、マニュアルの指示に注意深く従うこと。

[注] \*手順を追って : step by step

(c) 走行中に水温計の異常に気が付いたら、できるだけ速やかに路肩へ車を寄せる\*。この時エンジンは、しばらくの間アイドリング状態にする。周辺の安全を確認し、ボンネットを開け、風通しを良くしてエンジンルーム内の冷却をする。ただし、高温時には絶対のラジエータキャップを開けてはならない。

[注] \*路肩へ寄せる : pull off the road

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準2級模範解答

- I (a) 1 (b) 2 (c) 1 (d) 3 (e) 3
- II (a)-1 4 (a)-2 2 (b)-1 6 (b)-2 8 (c)-1 3 (c)-2 10
- III (a) 2 (b) 3 (c) 3 (d) 1 (e) 2
- IV (a) 7 (b) 2 (c) 4 (d) 10
- V (a) 超電導とは、ある種の金属を絶対温度  $0^{\circ}\text{C}$  ( $-273^{\circ}\text{C}$ ) 付近の温度まで下げた時、その金属に生じる著しい遷移現象に関する。
- (b) 市販のすべての燃料は炭化水素から成り、あるものは、かなりの量の遊離の炭素を、そしてすべてのものが不純物を含んでいる。
- (c) 特殊工程の結果は、事後の製品検査および試験では十分に検証できない。
- (d) ユーザビリティテストを行うことは、市場に出る前に製品の問題点を理解する助けとなる。
- VI (a) (1) 音の録音によって、われわれはどこでも、いつでも音楽を聴くことができる。録音された音は、数百万もの人々にラジオ放送することができる。
- (2) 磁気記録するにあたっては、音をまずマイクロホンで電気信号に交換しなければならない。
- (b) (1) (われわれの環境に) 大きな影響を与える可能性のある、いわゆる温室効果は、最初、我々の地球を生命にとって住みやすいところにした。
- (2) しかし、地表が過剰の熱を放散する場合、それは可視光線によるのではなく、赤外線放射によるのである。
- VII (a) Thus, the machine operator must be able to cut off power without leaving his/her operation position.
- (b) Set up the system step by step, carefully following the instruction in the manual
- (c) If you notice that the temperature gauge is reading hot while you' re driving, pull off the road as soon as possible.