

2026年度 北海道科学大学 大学院修士課程一般[前期] 入学試験問題

専攻	機械工学専攻	受験番号		氏名	
科目名	外国語（英語）	参考資料	一切不可・ <u>使用可</u> （辞書のみ）		
採点欄		持込用具	<u>一切不可</u> ・使用可 （ ）		

問1 以下の文章を和訳せよ。(各10点)

(1) President Trump announced on Saturday that the U.S. military had “totally obliterated” three of Iran’s nuclear sites, including its uranium-enrichment facility deep underground at Fordo, injecting the United States directly into a war in the Middle East.

(New York Times 6/22 より抜粋)

(2) Nippon Steel Corp. closed its \$14.1 billion acquisition of United States Steel Corp., bringing an end to a bruising takeover battle that was embroiled in American politics for months until finally gaining support from U.S. President Donald Trump.

(Japan Times 6/19 より抜粋)

(3) The political party backed by Tokyo Gov. Yuriko Koike cruised to victory in Sunday’s Tokyo metropolitan assembly elections, as voters dealt the Liberal Democratic Party a historic blow.

(Japan Times 6/23 より抜粋)

受験番号

氏名

問2 以下の英文を読んで、後の問に答えよ。(各10点)

Automotive instrumentation includes the equipment and devices that measure engine and other vehicle variables and display their status to the driver. From about the late 1920s until the late 1950s, the standard automotive instrumentation included the speedometer, oil pressure gauge, coolant temperature gauge, battery charging rate gauge, and fuel quantity gauge. Strictly speaking, only the latter two are electrical instruments. In fact, this electrical instrumentation was generally regarded as a minor part of the automotive electrical system. By the late 1950s, however, the gauges for oil pressure, coolant temperature, and battery charging rate were replaced by warning lights that were turned on only if specified limits were exceeded. This was done primarily to reduce vehicle cost and because of the presumption that many people did not necessarily regularly monitor these instruments.

Automotive instrumentation was not really electronic until the 1970s. At that time, the availability of relatively low-cost solid-state electronics brought about a major change in automotive instrumentation; the use of low-cost electronics has increased with each new model year. Some of the electronic instrumentation presently available is described in this chapter.

In addition to providing measurements for display, modern automotive instrumentation performs limited diagnosis of problems with various subsystems. Whenever a problem is detected, a warning indicator alerts the driver of a problem and indicates the appropriate subsystem. For example, whenever self-diagnosis of the engine control system detects a problem, such as a loss of signal from a sensor, a lamp illuminates the "Check Engine" message on the instrument panel.

(Understanding Automotive Electronics, Newnes, 1998 より抜粋)

- (1) 1940年代の自動車計器のうち、厳密な意味で電装計器といえたのは、どの計器か。
- (2) オイル圧計、クーラント温度計、バッテリー充電量計が、警告灯に置き換わっていったのは、コスト以外にどのような理由からか。
- (3) 自動車の計器が本当の意味で電装化されていったのは、いつごろからか。
- (4) 現代の自動車計器の役割は、様々な計測値を表示する以外に何があるか。

問3 以下の物は北海道でたまに見る食器である。これは何でどのように使う物か、日本に来たことのない外国人にもわかるよう、英語で説明せよ。(30点)

