XRA 203　第一級海上無線通信士
YRA 203　第二級海上無線通信士　「英語」試験問題
ZRA 203　第三級海上無線通信士

5問　1時間30分

1. 次の英文を読み、それに続く設問**A-1**から**A-5**までに答えなさい。解答は、それぞれの設問に続く選択肢1.から3.までの中から答えとして最も適切なものを一つずつ選び、その番号のマーク欄を黒く塗りつぶしなさい。

Indonesia's President Joko "Jokowi" Widodo wants to see the speedy construction of a giant sea wall around Jakarta to prevent the low-lying capital from sinking under the sea, offering support and a sense of urgency to a slow-moving and politically contested mega-project. Widodo and his government are up against a tight timetable, including a forecast by experts that at the current rate, one-third of Jakarta could be submerged by 2050. The crisis facing the city is the result of decades of uncontrolled development, almost nonexistent urban planning and misrule by city politicians, who have served private interests over those of the public. Lacking a comprehensive water network, industry and homeowners have tapped into aquifers. In northern Jakarta, the swampy ground has been sinking at an average of about 10 centimeters a year. Rising sea levels from a heated-up planet will compound the problem in decades to come. Jakarta has been described as one of the world's fastest-sinking cities — a result of geographic misfortune and mismanagement. The city sits on swampy ground, with 13 heavily polluted rivers running through it. The main cause for the sinking is the over-extraction of groundwater. The weight of taller buildings being constructed in recent years further compresses the ground.

Heri Andreas, an earth scientist at Indonesia's Bandung Institute of Technology, said that in some parts of northern Jakarta, the ground is already 2 to 4 meters below sea level and is sinking by as much as 20 centimeters a year. "Jakarta keeps sinking," said Andreas. "If subsidence continues at the same rate, 95 percent of northern Jakarta will be underwater by 2050." He said water would cover about one-third of the city. Andreas said it took time for his alarming forecasts to be taken seriously by Indonesian government officials, but that planning for a giant sea wall encircling Jakarta Bay began about a decade ago. The $42 billion project envisions three stages, starting with strengthening 30 kilometers of existing coastal dams and creating 17 artificial islands. This would be followed by building giant sea walls on the western and eastern sides of the bay. However, implementation has been slow amid political arguments over the cost of the project and possible harm to the local fishing industry.

Andreas, who is occasionally consulted by the authorities and met with government officials a week ago, said he eventually expects a scaled-back version of the giant sea wall to be built for less than the initial budget. In this scenario, a 20-kilometer-long wall would enclose part of the bay to protect the most vulnerable area, rather than the loop that was intended to be three times as long. This would buy time for the government to deal with the other areas later.

＜注＞ submerge　水に沈める　　misrule　悪政　　aquifer　帯水層　　swampy　沼地の　　subsidence　沈下
encircle　取り囲む　　envision　構想する

（設問）

A-1　What does the article suggest about the process of building the wall?
1. There has been significant political disagreement over the project in Indonesia.
2. The construction project has progressed at great speed due to the urgency of the situation.
3. There is almost universal agreement about the need to stop building the wall as quickly as possible.

A-2　What is the foremost cause of this land subsidence in Jakarta?
1. Excessive extraction of ground water
2. Global warming causing sea levels to rise
3. People waste water because of oversupply.

A-3　What does Heri Andreas say about the current pace of sinking?
1. Around 95% of the city is now below sea level.
2. The northern part of the city sank by almost four meters last year.
3. Some areas of the city are sinking at a rate of as much as 20 centimeters every year.

A-4　Which of the following would represent the final stage of the government project?
1. A 30-kilometer-long set of newer and stronger dams will be added.
2. Artificial islands will be created to improve the local fishing industry.
3. Huge walls will be constructed on both the eastern and western sides of the bay.

A-5　How does Heri Andreas think the actual sea wall will compare to the original plan?
1. He expects that the wall will be built on a smaller scale than the initial design.
2. He anticipates that the finished wall will be three times longer than originally intended.
3. He believes that when the wall is complete it will be much more ambitious than the original plan.

2. 次の英文**A−6**から**A−9**までは、海上移動業務に関する国際文書の規定文の趣旨に沿って述べたものである。この英文を読み、それに続く設問に答えなさい。解答は、それぞれの設問に続く選択肢1.から3.までの中から、答えとして最も適切なものを一つずつ選び、その番号のマーク欄を黒く塗りつぶしなさい。

A−6 In using frequency bands for radio services, Member States shall bear in mind that radio frequencies and any associated orbits, including the geostationary-satellite orbit, are limited natural resources and that they must be used rationally, efficiently and economically, in conformity with the provisions of the Radio Regulations.
＜注＞ geostationary　静止衛星の

（設問） What do Member States need to remain aware of when using frequency bands for radio services?

1. They should take care to manage their use in an efficient and economical way.
2. They are required to keep in mind the limited fuel efficiency of the geostationary-satellites as described in the Radio Regulations.
3. They need always be aware of the provisions of the Radio Regulations but otherwise they are free to use frequency bands in any way they wish because the resource is unlimited.

A−7 Ship stations, where so equipped, shall, while at sea, maintain an automatic digital selective calling watch on the appropriate distress and safety calling frequencies. Ship stations, where so equipped, shall also maintain watch on the appropriate frequencies for the automatic reception of transmissions of meteorological and navigational warnings and other urgent information to ships.

（設問） When should ship stations with the appropriate equipment keep an automatic digital selective calling watch on distress and safety frequencies?

1. Appropriately equipped ships stations need only to maintain a watch until they leave port.
2. Ships stations with digital selective calling equipment are required to maintain a watch only while they are at sea.
3. Ships stations that possess suitable equipment for digital selective calling should maintain a watch at all times whether they are moored or at sea.

A−8 In the maritime mobile service, no assignments shall be made on the frequency 518 kHz other than for transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of automatic narrow-band direct-printing telegraphy.

（設問） What assignments are permitted to coast stations on the frequency 518 kHz?

1. No assignments whatsoever are permitted on the frequency 518 kHz.
2. Urgent information other than weather or navigational warnings are the only automatic transmissions allowed on this frequency.
3. This frequency is reserved for transmitting meteorological and navigational warnings and urgent information using automatic narrow-band direct-printing telegraphy.

A−9 There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.

（設問） What is the minimum electrical supply required of a ship is at sea?

1. All ships are only required to charge their reserve batteries while at sea.
2. A ship at sea is required to have only a single, fully charged battery as a reserve source of energy.
3. Ships need to have enough electricity to operate the radio installations and maintain a reserve source or sources of energy for those installations.

3. 次の設問**B−1**の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語句を、その設問に続く選択肢1.から10.までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を黒く塗りつぶしなさい。

（設問）

B−1　東京を拠点とするベンチャー企業が、2022年までに大衆向けの空飛ぶバイクの販売開始を目指している。その会社は主に小型のドローンを開発していて、その製品を、道路のインフラが不十分なアフリカや中東やアジアの新興国で販売することを望んでいる。想定される乗り物は、地上から少し上で浮くためにプロペラの力を使うことになるだろう。

A Tokyo-based venture company (　ア　) to release a mass-market flying motorcycle by 2022. The company (　イ　) develops small drones and hopes to sell the product in emerging countries in Africa, the Middle East and Asia (　ウ　) road infrastructure is (　エ　). The envisioned vehicle will use propeller power to (　オ　) slightly above the ground.

1. aims	2. drift	3. hover	4. leads
5. mainly	6. poor	7. seldom	8. where
9. which	10. widely		

4. 次の設問**B−2**の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語句を、その設問に続く選択肢1.から10.までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を黒く塗りつぶしなさい。

（設問）

B−2　アメリカ南部の海岸沖のある海域はデッドゾーンと呼ばれている。例年、春に雨が降ると、肥料や下水に含まれる養分がミシシッピ川に流れ込む。この養分の豊富な淡水が海に流れ込み、表層部にたまる。この淡水層の養分が藻類の大発生を引き起こす。その植物が分解されて多くの酸素が消費され、海の生物は窒息して死んでしまうのだ。

An area of the ocean just (　ア　) the coast of southern America is called the Dead Zone. Annual spring rains wash the nutrients in fertilizers and sewage into the Mississippi. This nutrition-(　イ　) fresh water pours into the sea, where it sits on top of the water. Those fresh water nutrients (　ウ　) bursts of algal growth. Those plants decompose and (　エ　) much oxygen, which leads to the suffocation and death of sea (　オ　).

1. cause	2. consume	3. creatures	4. free
5. inside	6. living	7. off	8. presume
9. result	10. rich		

5. 次の設問**B−3**の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語句を、その設問に続く選択肢1.から10.までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を黒く塗りつぶしなさい。ただし、(　　)内の同じ記号は、同じ解答を示します。

（設問）

B−3　主管庁は、船舶局及び船舶地球局の職員が局の効率的な運用を行うに適する十分な資格を有することを確保し、関係の国際協定に従う遭難通信及び安全通信のための機器を運用するために利用可能にすること及びそれらを保守されることが確保されるように措置を執らなければならない。

Administrations shall (　ア　) that the personnel of ship stations and ship earth stations are (　イ　) qualified to enable (　ウ　) operation of the station, and shall take steps to (　ア　) the operational (　エ　) and maintenance of equipment for distress and safety communications (　オ　) the relevant international agreements.

1. adequately	2. as proposed in	3. availability	4. certain
5. convenience	6. easy	7. efficient	8. ensure
9. in accordance with	10. inadequately		