

READING

READING PASSAGE 1

You should spend about 60 minutes on Questions 1–71, which are based on Reading Passage 1 below.

Questions 1–10

Reading Passage 1 has ten sections, **A–J**.

Choose the correct heading for each section from the list of headings below.

Write the correct number, **i–xx**, in boxes 1–10 on your answer sheet.

List of Headings

i	Size of the ship and facilities on each deck
ii	Origin of the name “Titanic”
iii	Historic record that the Titanic aimed to achieve
iv	Sighting of the iceberg in front of the Titanic
v	Sea route navigated until the disaster
vi	Interior ornaments and decoration
vii	Equipment necessary for navigation
viii	Unique mechanical capabilities for effective and comfortable navigation
ix	Chronological description of the disaster
x	Arrangement of the Titanic’s uppermost deck
xi	Global regulations needed for improvement
xii	Background to the construction of the Titanic
xiii	Crew who supported the captain
xiv	Concerns regarding the lifeboat regulations
xv	Crew who managed the operation of the ship
xvi	The Titanic’s distinctive interior design
xvii	Aftermath of the disaster
xviii	Not enough lifeboat capacity despite fulfilling the legal requirements
xix	National coal strike’s impact on the number of passengers on board
xx	Passengers onboard and occupancy

1	Paragraph A	6	Paragraph F
2	Paragraph B	7	Paragraph G
3	Paragraph C	8	Paragraph H
4	Paragraph D	9	Paragraph I
5	Paragraph E	10	Paragraph J

- A** The Titanic was a British passenger liner that sank in the North Atlantic Ocean on 15 April 1912 after hitting an iceberg on her maiden voyage from Southampton, England, to New York City, USA. The name 'Titanic' derives from the Titans of Greek mythology. Built in Belfast, Ireland, the Titanic was the second of the three Olympic-class ocean liners, the first and third being the Olympic and Britannic, respectively. During the 1910s, the White Star Line faced an increasing challenge from its main rivals, Cunard, which had just launched the Lusitania and the Mauretania, the fastest passenger ships in service at the time, and the German company Hamburg America. The chairman of the White Star Line, J. Bruce Ismay, preferred to compete on size rather than speed and commissioned a new class of liners that would be larger than anything that had been built and would be the last word in comfort and luxury. The Titanic was designed and built by the company not only to respond to the introduction of the Cunard giants but also to considerably strengthen its position on the Southampton–Cherbourg–New York service that had been inaugurated in 1907. The new ships were designed to have sufficient speed to maintain a weekly service with only three ships instead of the original four.
- B** The Titanic was 269.06 metres long and 28.19 metres wide. Her total height, measuring from the base of the keel to the top of the bridge, was 32 metres, with nine decks from the boat deck at the top to the orlop deck at the bottom. On the boat deck, where the lifeboats were housed, the bridge stood at the forward end in front of the wheelhouse. Just behind the wheelhouse was the quarters of the captain and chief engineer, located on the right and left sides of the ship, respectively. The wood-covered deck had four segregated promenades, meant for officers, engineers, first-class passengers and second-class passengers. The entrance to the first-class Grand Staircase was on this deck, at the end of the crew's rooms, with stairs leading down to the promenade deck. Lifeboats lined the side of the deck, except in the first-class area so that the view would not be spoiled. Deck chairs were laid midship for first-class passengers to enjoy the view.
- C** Like the Olympic, the Titanic carried a total of 20 lifeboats: 14 standard wooden Harland and Wolff lifeboats with a capacity of 65 people each, arranged collinearly on both sides of the ship, and four Engelhardt collapsible lifeboats with a capacity of 47 people each, housed on both sides of the bridge. In addition, the Titanic had two emergency cutters with a capacity of 40 people each, placed outside the foldable lifeboats. All lifeboats were stowed securely on the boat deck, and they were connected to the davits by ropes, except for the collapsible lifeboats. The Titanic had 16 sets of davits, each able to handle four lifeboats. This allowed the Titanic to carry up to 64 wooden lifeboats, which would have been enough for 4,000 people, considerably more than the ship's actual capacity. However, the White Star Line decided that the liner would carry only 14 wooden and two collapsible lifeboats on the maiden voyage, which could accommodate only one-third of the Titanic's total capacity. At the time, the Board of Trade's regulations required British vessels over 10,000 tons to carry a minimum of only 16 lifeboats with a total capacity of 990 occupants.
- D** The passenger facilities aboard the Titanic aimed to meet the highest standards of luxury. Compared with other passenger liners, which had been typically decorated in the rather heavy manor house style, the Titanic was designed in a much lighter style similar to that of

contemporary high-class hotels like today's Ritz-Carlton hotels, with first-class cabins finished in the Empire style. A variety of other decorative styles, ranging from the Renaissance to Louis XV, were used to decorate cabins and public rooms in the first- and second-class areas of the ship. The aim was to convey an impression that the passengers were in a grand floating hotel rather than a ship; on entering the ship's interior, a passenger would at once lose the feeling that we are on board ship and seem instead to be entering the hall of some great house on shore.

- E** The Titanic was equipped with three main engines, two reciprocating four-cylinder steam engines and one centrally placed low-pressure Parsons marine steam turbine, each turning a propeller. The White Star Line had used the same combination of engines with great success on a previous liner, the *Laurentic*. This set-up provided a good combination of performance and speed; reciprocating engines by themselves were not powerful enough to propel an Olympic-class liner at desired speeds, whereas turbines were sufficiently powerful, but they caused uncomfortable vibrations, which affected the all-turbine Cunard liners, *Lusitania* and *Mauretania*. Moreover, by combining reciprocating engines with a turbine, fuel usage could be reduced and motive power increased while using the same amount of steam. In addition, due to its size and weight, the Titanic needed a large rudder, which required engines for steering. Two steam-powered steering engines were installed, although only one was used at a time, with the other kept in reserve.
- F** The Titanic had around 885 crew members on board for her maiden voyage. Captain Edward John Smith, the most senior among the White Star Line's captains, was transferred from the *Olympic* to take command of the Titanic. Henry Tingle Wilde also came from the *Olympic* to take the post of chief mate. William McMaster Murdoch and Charles Lightoller, who were the Titanic's designated chief mate and first officer during her sea trial, were bumped down to the ranks of first and second officer, respectively. David Blair, the second officer during the trial, was dropped. The third officer was Herbert Pitman MBE, the only deck officer who was not a member of the Royal Naval Reserve. Like other vessels of her time, the Titanic did not have a permanent crew, and the vast majority of the crew were casual workers who were hired only a few hours before departure. A few specialist crew members were self-employed or were subcontractors. These included five postal clerks, who worked for the Royal Mail, and the staff of the first-class *À la Carte Restaurant* and *Café Parisien*, which offered luxury dining facilities to first-class passengers.
- G** The Titanic's passengers numbered approximately 1,317 people: 324 and 284 in first and second class, respectively, and 709 were in third class. The ratio of male to female passengers was 869 (66%) : 447 (34%). There were 107 children aboard, most of whom were in third class. The ship was well under capacity on her maiden voyage, as she could accommodate 2,453 passengers in total: 833, 614 and 1,006 passengers in the first, second and third class, respectively. Usually, a high-prestige vessel like the Titanic could expect to be fully booked on the maiden voyage. However, a national coal strike in the UK had caused considerable disruption to shipping schedules in the spring of 1912, causing the cancelling of many crossings. Many chose to postpone their travel plans until the strike was over.

- H** The Titanic's voyage was intended to be the fastest transatlantic crossing. The journey was between Southampton and New York, sailing via Cherbourg and Queenstown on westbound runs and returning via Plymouth, England, while eastbound. The Titanic was scheduled to arrive at New York Pier 59 on the morning of 17 April 1912. After leaving Queenstown, the Titanic followed the Irish coast for some 102 km as far as Fastnet Rock. From there, she travelled 3,000 km along a great circle route across the North Atlantic to reach a spot in the ocean known as the corner south-east of Newfoundland, where westbound steamers made a change of course. The Titanic sailed only a few hours past the corner on a rhumb line leg of 1,895 km to Nantucket Shoals Light when she made her fatal contact with an iceberg. The final leg of the journey would have been 357 km to Ambrose Light and finally to New York Harbor.
- I** At 11:40 pm (ship's time) on 14 April, lookout Frederick Fleet spotted an iceberg immediately ahead of the Titanic and alerted the bridge. First Officer William Murdoch ordered the ship to be steered around the iceberg and the engines to be reversed, but it was too late. The starboard side of the Titanic hit the iceberg, creating a series of holes below the waterline. Although not punctured, the hull was dented such that its seams buckled and separated, allowing water to rush in. Five of the six watertight compartments were breached. It soon became clear that the Titanic would sink, as she could not remain afloat with more than four compartments flooded. She began sinking, bow first, with water spilling from compartment to compartment as her angle in the water got steeper. Between 2:10 and 2:15 am, a little over two and a half hours after the Titanic had hit the iceberg, the rate of sinking accelerated as the boat deck dipped underwater, and the sea poured in through open hatches and grates. As her unsupported stern rose out of the water, exposing the propellers, the ship broke in two main pieces between the second and third funnels, due to the immense forces on the keel. With the bow underwater and air trapped in the stern, the stern remained afloat a few minutes longer, rising to a nearly vertical angle with hundreds of people still clinging to it, before foundering at 2:20 am. It was believed that the Titanic sank in one piece, but the discovery of the wreck many years later revealed that she had broken in two. All remaining passengers and crew struggled to stay afloat in a water of temperature $-2\text{ }^{\circ}\text{C}$ ($28\text{ }^{\circ}\text{F}$). Only five who were in the water were helped into the lifeboats, although they had room for almost 500 more people.
- J** Following the disaster, both the British and American Boards of Inquiry recommended that ships should carry enough lifeboats for all aboard and mandated lifeboat drills and lifeboat inspections. Many of the recommendations were incorporated into the International Convention for the Safety of Life at Sea, known as SOLAS, which was adopted in 1914. Furthermore, an International Ice Patrol was established to monitor the presence of icebergs in the North Atlantic, and maritime safety regulations were harmonised internationally.

Questions 11–20

Reading Passage 1 has 10 sections, **A–J**.

Which section contains the following information?

Write the correct letter, **A–J**, in boxes 11–20 on your answer sheet.

NB: You may use any letter more than once.

- 11 Citation of a passenger's impression of the Titanic's interior
- 12 Reference to the employment of staff on board
- 13 The number of passengers rescued from the cold water
- 14 Explanation as to why lifeboats were not kept in a certain area
- 15 Proportion of first-class passengers
- 16 Reference to a safety regulation at the time
- 17 Reference to the point where many ships changed direction
- 18 Reference to a business competitor of the White Star Line
- 19 Reference to the development of an international convention
- 20 Mention of an advantage and a disadvantage of turbine engines

Questions 21–23

Choose the correct letter **A, B, C** or **D**.

Write the correct letter in boxes 21–23 on your answer sheet.

- 21 The first paragraph tells us about
 - A the negative relationship between the White Star Line and Cunard.
 - B the expected potential of the Titanic and a reduced fleet.
 - C the revenue the White Star Line gained from their weekly service.
 - D the reason why the Titanic sought speed instead of size.

- 22 According to the second paragraph, the Titanic had
 - A its lifeboat arrangement in consideration of first-class passengers.
 - B enough lifeboats to accommodate all passengers.
 - C private rooms for all crew on the boat deck.
 - D wooden lifeboats on one side of the ship.

- 23 What does the third paragraph say about the lifeboats on the Titanic?
 - A The capacity of lifeboats did not satisfy the regulations at the time.
 - B It was believed that the Titanic would not have accidents during its voyage.
 - C The lifeboats installed had a capacity of 4000 people.
 - D The Titanic could have installed more lifeboats to the davits.

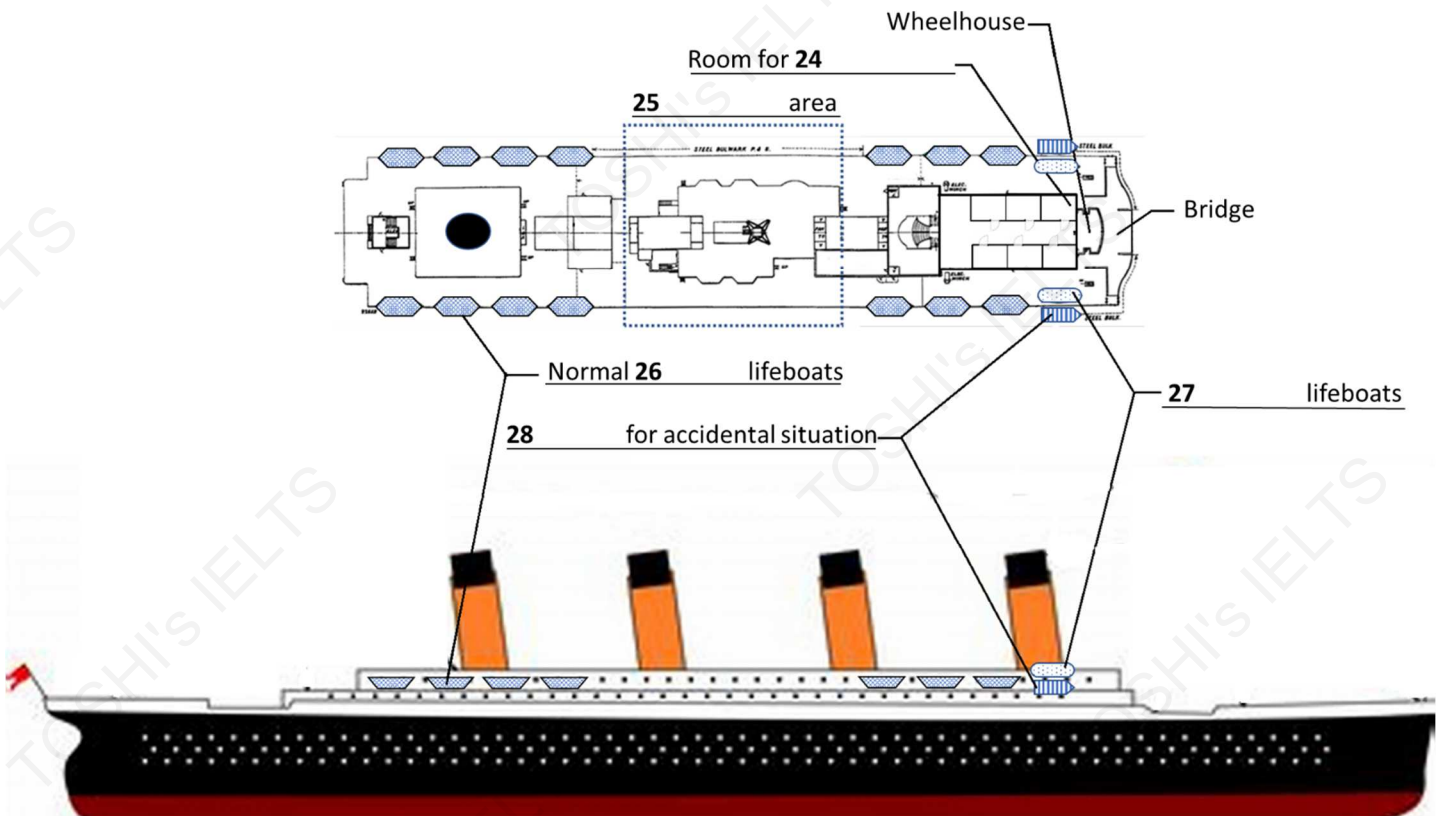
Questions 24–28

Label the diagram below.

Choose **ONE WORD ONLY** from the passage for each answer.

Write your answers in boxes 24–28 on your answer sheet.

Arrangement of boat deck



Questions 29–32

Complete the table below.

Choose **ONE WORD AND/OR A NUMBER** from the passage for each answer.

Write your answers in boxes 29–32 on your answer sheet.

Standard type	The Titanic had 14 standard 29 lifeboats. Each boat accommodated 30 people.
Foldable type	31 foldable lifeboats with a capacity of 47 were located next to the bridge.
Emergency cutters	Located 32 the collapsible lifeboats

Questions 33 and 34

Choose **TWO** letters, **A–E**.

Write the correct letters in boxes 33 and 34 on your answer sheet.

Of the following statements, which **TWO** have been made about the White Star Line in the passage?

- A** It was advised to reduce the number of lifeboats installed on the Titanic.
- B** The unique arrangement of engines on the other ships proved successful.
- C** It experienced defeat in the competition with Cunard.
- D** It allocated four ships for a specific service route before introducing the Titanic.
- E** It suffered financial difficulties due to the cost of fuel used on the ships.

Questions 35–39

Look at the following statements (Questions 35–39) and the list of persons below.

Match each statement with the correct person, **A–E**.

Write the correct letter **A–E** in boxes 35–39 on your answer sheet.

NB: You may use any letter more than once.

- 35** He used to be in another ship's crew before being on the Titanic.
- 36** He was appointed as the second officer of the Titanic, instead of the first officer.
- 37** He attempted to avoid the collision, but he could not.
- 38** He was the most senior captain in the White Star Line.
- 39** He found the iceberg while he was watchkeeping.

List of persons

- | | |
|----------|--------------------------|
| A | Edward John Smith |
| B | Henry Tingle Wilde |
| C | Charles Lightoller |
| D | Frederick Fleet |
| E | William McMaster Murdoch |

Questions 40–42

Complete each sentence with the correct ending, **A–D**, below.

Write the correct letter, **A–D**, in boxes 40–42 on your answer sheet.

- 40 The arrangement of engines on the Titanic
- 41 A reciprocating engine installed on large ships
- 42 The set of engines installed for steering

- A included a spare engine as only one was necessary for usual navigation.
- B caused vibrations on other ships although it was more powerful than turbines.
- C was an effective solution that improved comfort and the ship's performance.
- D was less powerful compared with turbines in achieving enough speed.

Questions 43–48

Complete the summary below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 43–48 on your answer sheet.

Title: Passengers on the Titanic's maiden voyage and reason for cancellation

The number of passengers including children on board the Titanic was 1317, among which **43** passengers made up about a two-thirds share. Passengers belonged to first, second and third classes, and those in the **44** were the majority. Considering the ship's full capacity of 2453, there was room to accommodate more passengers. The reason why it was not fully **45** despite being its **46** was a coal strike, which caused **47** to voyage plans and encouraged passengers to **48**..... their trip.

Questions 49–54

Complete the summary using the list of words, **A–O**, below.

Write the correct letter, **A–O**, in boxes 49–54 on your answer sheet.

Title: Passengers on the Titanic's maiden voyage and reason for cancellation

The number of passengers including children on board the Titanic was 1317, among which **49** made up about a two-thirds share. Passengers belonged to first, second and third classes, and those in the **50** class were the majority. Considering the ship's full capacity of 2453, there was room to accommodate more passengers. The reason why it was not fully **51** despite being its **52** voyage was a coal strike, which caused **53** to voyage plans and encouraged passengers to **54** their trip.

A reserved	B first	C defer	D men	E disturbance
F satisfied	G woman	H trial	I attracted	J cancellation
K middle	L highest	N lowest	M cancel	O second

Questions 55–57

Complete the sentences below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 55–57 on your answer sheet.

- 55** The final destination of the maiden voyage of the Titanic was in New York.
- 56** At the spot in the sea known as the corner of Newfoundland, ships altered their course.
- 57** The Titanic collided with an after passing the corner south-east of Newfoundland.

Questions 58–63

Complete the notes below.

Choose **ONE WORD ONLY** from the passage for each answer.

Write your answers in boxes 58–63 on your answer sheet.

At 11:40 pm

- Frederick Fleet spotted an iceberg and informed the **58**
- William Murdoch tried to avoid collision with the iceberg, and engines were **59**
- After the collision, water entered the ship through **60**

Between 2:10 am and 2:15 am

- Sea water rushed in from **61** and **62** as the boat deck went underwater, which accelerated the sinking.

At 2: 20am

- The Titanic's stern rose almost perpendicularly as **63** took time to escape from the stern of the ship.

Questions 64–67

Do the following statements agree with the information given in Reading Passage 1?

In boxes 64–67 on your answer sheet, write

- TRUE** if the statement agrees with the given information
FALSE if the statement contradicts the given information
NOT GIVEN if there is no information on this

- 64** William Murdoch ordered the change of the engines' rotation soon after he was informed of the iceberg in front of the ship.
- 65** The collision with the iceberg bent and cracked the seams of the Titanic's hull, which caused the inflow of water.
- 66** It was certain that the Titanic would sink once half of the watertight areas were filled with water.
- 67** Those who were rescued from the cold water after the Titanic sank included women.

Questions 68–70

Answer the questions below.

Choose **ONE WORD ONLY** from the passage for each answer.

Write your answers in boxes 68–70 on your answer sheet.

- 68 What is the name of the international convention developed in response to the Titanic disaster?
- 69 When was the International Convention for the Safety of Life at Sea formally approved?
- 70 What does the International Ice Patrol monitor?

Question 71

Choose the correct letter, **A, B, C** or **D**.

Write the correct letter in box 71 on your answer sheet.

71 Which of the following would be the best title for this passage?

- A Lessons learnt from a fatal disaster
- B Captain's responsibility to operate ships safely
- C Catastrophe at sea for a historic ship's maiden voyage
- D The importance of global regulations