

IELTS Recent Mock Tests Volume 3

Reading Practice Test 5

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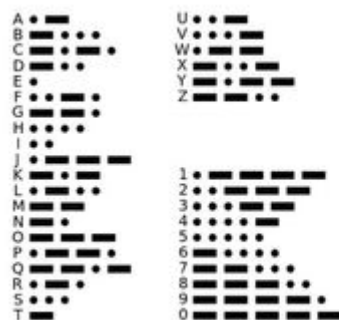
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READING PASSAGE 1

You should spend about 20 minutes on Questions 1-13, which are based on Reading Passage 1 on the following pages.



Reading Passage 1

MORSE CODE

Morse Code

Morse code is being replaced by a new satellite-based system for sending distress calls at sea. Its dots and dashes have had a good run for their money.

A "Calling all. This is our last cry before our eternal silence." Surprisingly this message, which flashed over the airwaves in the dots and dashes of Morse code on January 31st 1997, was not a desperate transmission by a radio operator on a sinking ship. Rather, it was a message signalling the end of the use of Morse code for distress calls in French waters. Since 1992 countries around the world have been decommissioning their Morse equipment with similar (if less poetic) sign-offs, as the world's shipping switches over to a new satellite-based arrangement, the Global Maritime Distress and Safety System. The final deadline for the switch-over to GMDSS is February 1st, a date that is widely seen as the end of an era.

B The code has, however, had a good history. Appropriately for a technology commonly associated with radio operators on sinking ships, the idea of Morse code is said to have occurred to Samuel Morse while he was on board a ship crossing the Atlantic. At the time Morse was a painter and occasional inventor, but when another of the ship's passengers informed him of recent advances in electrical theory, Morse was suddenly taken with the idea of building an electric telegraph to send messages in codes. Other inventors had been trying to do just that for the best part of a century. Morse succeeded and is now remembered as "the father of the tele-graph" partly thanks to his single-mindedness—it was 12 years, for example, before he secured money from Congress to build his first telegraph line—but also for technical reasons.

C Compared with rival electric telegraph designs, such as the needle telegraph developed by William Cooke and Charles Wheatstone in Britain, Morse's design was very simple: it required little more than a "key" (essentially, a spring-loaded switch) to send messages, a clicking "sounder" to receive them, and a wire to link the two. But although Morse's hardware was simple, there was a catch: in order to use his equipment, operators had to learn the special code of dots and dashes that still bears his name. Originally, Morse had not intended to use combinations of dots and dashes to represent individual letters. His

first code, sketched in his notebook during that transatlantic voyage, used dots and dashes to represent the digits 0 to 9. Morse's idea was that messages would consist of strings of numbers corresponding to words and phrases in a special numbered dictionary. But Morse later abandoned this scheme and, with the help of an associate, Alfred Vail, devised the Morse alphabet, which could be used to spell out messages a letter at a time in dots and dashes.

D At first, the need to learn this complicated-looking code made Morse's telegraph seem impossibly tricky compared with other, more user-friendly designs. Cooke's and Wheatstone's telegraph, for example, used five needles to pick out letters on a diamond-shaped grid. But although this meant that anyone could use it, it also required five wires between telegraph stations. Morse's telegraph needed only one. And some people, it soon transpired, had a natural facility for Morse code.

E As electric telegraphy took off in the early 1850s, the Morse telegraph quickly became dominant. It was adopted as the European standard in 1851, allowing direct connections between the telegraph networks of different countries. (Britain chose not to participate, sticking with needle telegraphs for a few more years.) By this time Morse code had been revised to allow for accents and other foreign characters, resulting in a split between American and International Morse that continues to this day.

F On international submarine cables, left and right swings of a light-beam reflected from a tiny rotating mirror were used to represent dots and dashes. Meanwhile a distinct telegraphic sub-culture was emerging, with its own customs and vocabulary, and a hierarchy based on the speed at which operators could send and receive Morse code. First-class operators, who could send and receive at speeds of up to 45 words a minute, handled press traffic, securing the best-paid jobs in big cities. At the bottom of the pile were slow, inexperienced rural operators, many of whom worked the wires as part-timers. As their Morse code improved, however, rural operators found that their new-found skill was a passport to better pay in a city job. Telegraphers soon, swelled the ranks of the emerging middle classes. Telegraphy was also deemed suitable work for women. By 1870, a third of the operators in the Western Union office in New York, the largest telegraph office in America, were female.

G In a dramatic ceremony in 1871, Morse himself said goodbye to the global community of telegraphers he had brought into being. After a lavish banquet and many adulatory speeches, Morse sat down behind an operators table and, placing his finger on a key connected to every telegraph wire in America, tapped out his final farewell to a standing ovation. By the time of his death in 1872, the world was well and truly wired: more than 650,000 miles of telegraph line and 30,000 miles of submarine cable were throbbing with Morse code; and 20,000 towns and villages were connected to the global network. Just as the Internet is today often called an "information superhighway", the telegraph was

described in its day as an “instantaneous highway of thought”,

H But by the 1890s the Morse telegraph's heyday as a cutting-edge technology was coming to an end, with the invention of the telephone and the rise of automatic telegraphs, precursors of the teleprinter, neither of which required specialist skills to operate. Morse code, however, was about to be given a new lease of life thanks to another new technology: wireless. Following the invention of radiotelegraphy by Guglielmo Marconi in 1896, its potential for use at sea quickly became apparent. For the first time, ships could communicate with each other, and with the shore, whatever the weather and even when out of visual range. In 1897 Marconi successfully sent Morse code messages between a shore station and an Italian warship 19km (12 miles) away. By 1910, Morse radio equipment was commonplace on ships.





Questions 1-8

Reading passage 1 has eight paragraphs, A-H.

Choose the correct heading for paragraphs A-H from the list of headings below.

Write the correct number, i-xi, in boxes 1-8 on your answer sheet.

List of Headings	
i	The advantage of Morse's invention
ii	A suitable job for women
iii	Morse's invention was developed
iv	Sea rescue after the invention of radiotelegraphy
v	The emergence of many job opportunities
vi	Standard and variations
vii	Application of Morse code in a new technology
viii	The discovery of electricity
ix	International expansion of Morse Code
x	The beginning of an end
xi	The move of using code to convey information

- 1  Paragraph A
- 2  Paragraph B
- 3  Paragraph C
- 4  Paragraph D

- 5 Paragraph E
- 6 Paragraph F
- 7 Paragraph G
- 8 Paragraph H

Questions 9-13

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

In boxes 9-13 on your answer sheet, write

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

- 9 Morse had already been famous as an inventor before his invention of Morse code.
- 10 Morse waited a long time before receiving support from the Congress.
- 11 Morse code is difficult to learn compared with other designs.
- 12 Companies and firms prefer to employ telegraphy operators from rural areas.
- 13 Morse died from overwork.

READING PASSAGE 2

You should spend about 20 minutes on Questions 14-26, which are based on Reading Passage 2 below.



From A Novice to An Expert

Expertise is commitment coupled with creativity. Specifically, it is the commitment of time, energy, and resources to a relatively narrow field of study and the creative energy necessary to generate new knowledge in that field. It takes a considerable amount of time and regular exposure to a large number of cases to become an expert.

An individual enters a field of study as a novice. The novice needs to learn the guiding principles and rules of a given task in order to perform that task. Concurrently, the novice needs to be exposed to specific cases, or instances, that test the boundaries of such principles. Generally, a novice will find a mentor to guide her through the process of acquiring new knowledge. A fairly simple example would be someone learning to play chess. The novice chess player seeks a mentor to teach her the object of the game, the number of spaces, the names of the pieces, the function of each piece, how each piece is moved, and the necessary conditions for winning, or losing the game.

In time, and with much practice, the novice begins to recognise patterns of behavior within cases and, thus, becomes a journeyman. With more practice and exposure to increasingly complex cases, the journeyman finds patterns not only within cases but also between cases. More importantly, the journeyman learns that these patterns often repeat themselves over time. The journeyman still maintains regular contact with a mentor to solve specific problems and learn more complex strategies. Returning to the example of the chess player, the individual begins to learn patterns of opening moves, offensive and defensive game-playing, strategies, and patterns of victory and defeat.

When a journeyman starts to make and test hypotheses about future behavior based on past experiences, she begins the next transition. Once she creatively generates knowledge, rather than simply matching, superficial patterns, she becomes an expert. At this point, she is confident in her knowledge and no longer needs a mentor as a guide

she becomes responsible for her own knowledge. In the chess example, once a journeyman begins competing against experts, makes predictions based on patterns, and tests those predictions against actual behavior, she is generating new knowledge and a deeper understanding of the game. She is creating her own case, rather than relying on the cases of others.

The Power of Expertise

An expert perceives meaningful patterns in her domain better than non-experts. Where a novice perceives random or disconnected data points, an expert connects regular patterns within and between cases. This ability to identify patterns is not an innate perceptual skill; rather it reflects the organisation of knowledge after exposure to and experience with thousands of cases.

Experts have a deeper understanding of their domains than novices do, and utilise higher-order principles to solve problems. A novice, for example, might group objects together by color or size, whereas an expert would group the same objects according to their function or utility. Experts comprehend the meaning of data and weigh variables with different criteria within their domains better than novices. Experts recognise variables that have the largest influence on a particular problem and focus their attention on those variables.

Experts have better domain-specific short-term and long-term memory than novices do. Moreover, experts perform tasks in their domains faster than novices and commit fewer errors while problem solving. Interestingly, experts go about solving problems differently than novices. Experts spend more time thinking, about a problem to fully understand it at the beginning of a task than do novices, who immediately seek to find a solution. Experts use their knowledge of previous cases as context for creating mental models to solve given problems.

Better at self-monitoring than novices, experts are more aware of instances where they have committed errors or failed to understand a problem. Experts check their solution more often than novices and recognise when they are missing, information necessary for solving a problem. Experts are aware of the limits of their domain knowledge and apply their domain's heuristics to solve problems that fall outside of their experience base.

The Paradox of Expertise

The strengths of expertise can also be weaknesses. Although one would expect experts to be good forecasters, they are not particularly good at making predictions about the future. Since the 1930s, researchers have been testing the ability of experts to make forecasts. The performance of experts has been tested against actuarial tables to determine if they are better at making predictions than simple statistical models. Seventy years later, with more than two hundred experiments in different domains, it is clear that the answer is no.

If supplied with an equal amount of data about a particular case, an actuarial table is as good, or better, than an expert at making calls about the future. Even if an expert is given more specific case information than is available to the statistical model, the expert does not tend to outperform the actuarial table.

Theorists and researchers differ when trying to explain why experts are less accurate forecasters than statistical models. Some have argued that experts, like all humans, are inconsistent when using mental models to make predictions. That is, the model an expert uses for predicting X in one month is different from the model used for predicting X in a following month, although precisely the same case and same data set are used in both instances.

A number of researchers point to human biases to explain unreliable expert predictions. During the last 30 years, researchers have categorised, experimented, and theorised about the cognitive aspects of forecasting. Despite such efforts, the literature shows little consensus regarding the causes or manifestations of human bias.

Questions 14-18

Complete the flow-chart below.

Choose **NO MORE THAN THREE WORDS** from the passage for each answer. Write your answers in boxes **14-18** on your answer sheet.

Novice: needs 14 _____ and to perform a given task; exposed to specific cases; guided by a 15 _____ through learning
↓
Journeyman: starts to identify 16 _____ within and between cases; often exposed to 17 _____ cases; contacts a mentor when facing difficult problems
↓
Expert: creates predictions and new 18 _____; performs task independently without the help of a mentor

Questions 19-23

Do the following statements agree with the information given in Reading Passage 2?

In boxes **19-23** on your answer sheet, write

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

- 19 Novices and experts use the same system to classify objects.
- 20 A novice's training is focused on memory skills.
- 21 Experts have higher efficiency than novices when solving problems in their own field.
- 22 When facing a problem, a novices always tries to solve it straight away.
- 23 Experts are better at recognising their own mistakes and limits.

Questions 24-26

Complete the summary below.

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

Write your answers in boxes 24-26 on your answer sheet.

Though experts are quite effective at solving problems in their own domains, their strengths can also be turned against them. Studies have shown that experts are less 24 _____ at making predictions than statistical models. Some researchers theorise it is because experts can also be inconsistent like all others. Yet some believe it is due to 25 _____, but there isn't a great deal of 26 _____ as to its cause and manifestation.

READING PASSAGE 3

You should spend about 20 minutes on Questions 27-40, which are based on Reading Passage 3 below.



High speed photography

A Photography gained the interest of many scientists and artists from its inception. Scientists have used photography to record and study movements, such as Eadweard Muybridge's study of human and animal locomotion in 1887. Artists are equally interested by these aspects but also try to explore avenues other than the photo-mechanical representation of reality, such as the pictorialist movement. Military, police, and security forces use photography for surveillance, recognition and data storage. Photography is used by amateurs to preserve memories, to capture special moments, to tell stories, to send messages, and as a source of entertainment. Various technological improvements and techniques have even allowed for visualising events that are too fast or too slow for the human eye.

B One of such techniques is called fast motion or professionally known as time-lapse. Time-lapse photography is the perfect technique for capturing events and movements in the natural world that occur over a timescale too slow for human perception to follow. The life cycle of a mushroom, for example, is incredibly subtle to the human eye. To present its growth in front of audiences, the principle applied is a simple one: a series of photographs are taken and used in sequence to make a moving-image film, but since each frame is taken with a lapse at a time interval between each shot, when played back at normal speed, a continuous action is produced and it appears to speed up. Put simply: we are shrinking time. Objects and events that would normally take several minutes, days or even months can be viewed to completion in seconds having been sped up by factors of tens to millions.

C Another commonly used technique is high-speed photography, the science of taking pictures of very fast phenomena. High-speed photography can be considered to be the opposite of time-lapse photography. One of the many applications is found in biology

studies to study birds, bats and even spider silk. Imagine a hummingbird hovering almost completely still in the air, feeding on nectar. With every flap, its wings bend, flex and change shape. These subtle movements precisely control the lift its wings generate, making it an excellent hoverer. But a hummingbird flaps its wings up to 80 times every second. The only way to truly capture this motion is with cameras that will, in effect, slow down time. To do this, a greater length of film is taken at a high sampling frequency or frame rate, which is much faster than it will be projected on screen. When replayed at normal speed, time appears to be slowed down proportionately. That is why high-speed cameras have become such a mainstay of biology.

D In common usage, high-speed photography can also refer to the use of high-speed cameras that the photograph itself may be taken in a way as to appear to freeze the motion, especially to reduce motion blur. It requires a sensor with good sensitivity and either a very good shut-tering system or a very fast strobe light. The recent National Geographic footage—captured last summer during an intensive three-day shoot at the Cincinnati Zoo—is unprecedented in its clarity and detail. “I’ve watched cheetahs run for 30 years,” said Cathryn Milker, founder of the zoo’s Cat Ambassador Program. “But I saw things in that super slow-motion video that I’ve never seen before.” The slow-motion video is entrancing. Every part of the sprinting cat’s anatomy—supple limbs, rippling muscles, hyperflexible spine—works together in a sym-phony of speed, revealing the fluid grace of the world’s fastest land animal.

E But things can’t get any more complicated in the case of filming a frog catching its prey. Frogs can snatch up prey in a few thousandths of a second—striking out with elastic tongues. Biologists would love to see how a frog’s tongue roll out, adhere to prey, and roll back into the frog’s mouth. But this all happened too fast, 50 times faster than an eye blink. So natu-rally people thought of using high-speed camera to capture this fantastic movement in slow motion. Yet one problem still remains—viewers would be bored if they watch the frog swim in slow motion for too long. So how to skip this? The solution is a simple one—adjust the playback speed, which is also called by some the film speed adjustment. The film will origi-nally be shot at a high frame (often 300 frames per second, because it can be converted to much lower frame rates without major issues), but at later editing stage this high frame rate will only be preserved for the prey catching part, while the swimming part will be converted to the normal speed at 24 frames per second. Voila, the scientists can now sit back and enjoy watching without having to go through the pain of waiting.

F Sometimes taking a good picture or shooting a good film is not all about technology, but patience, like in the case of bat. Bats are small, dark-colored; they fly fast and are active only at night. To capture bats on film, one must use some type of camera-tripping device. Photog-raphers or film-makers often place camera near the bat cave, on the path of the flying bats. The camera must be hard-wired with a tripping device so that every time a

bat breaks the tripping beam the camera fires and it will keep doing so through the night until the camera's battery runs out. Though highly-advanced tripping device can now allow for unmanned shooting, it still may take several nights to get a truly high quality film.

G Is it science? Is it art? Since the technique was first pioneered around two hundred years ago, photography has developed to a state where it is almost unrecognisable. Some people would even say the future of photography will be nothing like how we imagine it. No matter what future it may hold, photography will continue to develop as it has been repeatedly demon-strated in many aspects of our life that “a picture is worth a thousand words.”

Questions 27-30

Look at the following organisms (Questions 27-30) and the list of features below. Match each organism with the correct feature, A-D.

Write the correct letter, A-D, in boxes 27-30 on your answer sheet.

- 27 Mushroom
- 28 Hummingbird
- 29 Frog
- 30 Bat

A	too fast to be perceived
B	film at the place where the animal will pass
C	too slow to be visible to human eyes
D	adjust the filming speed to make it interesting

Questions 31-35

Complete the summary below.

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

Write your answers in boxes 31-35 on your answer sheet.

Fast motion (professionally known as time-lapse photography) and slow motion (or high-speed photography) are two commonest techniques of photography. To present before audiences something that occurs naturally slow, photographers take each picture at a 31 _____ before another picture. When these pictures are finally shown on screen in sequence at a normal motion picture rate, audiences see a 32 _____ that is faster than what it naturally is. This technique can make audiences feel as if 33 _____ is shrunk. On the other hand, to demonstrate how fast things move, the movement is exposed on a 34 _____ of film, and then projected on screen at normal playback speed. This makes viewers feel time is 35 _____

Questions 36-40

Reading Passage 3 has seven paragraphs, A-G.

Which paragraph contains the following information?

Write the correct letter, A-G, in boxes 36-40 on your answer sheet.

- 36 a description of photography's application in various fields
- 37 a reference to why high-speed photography has a significant role in biology
- 38 a traditional wisdom that assures readers of the prospects of photography
- 39 a reference to how film is processed before final release
- 40 a description of filming shooting without human effort



Solution:

- | | |
|----------------------------------|------------|
| 1 x | 2 xi |
| 3 iii | 4 i |
| 5 vi | 6 ii |
| 7 ix | 8 vii |
| 14 rules, guiding principles | 15 mentor |
| 16 patterns of behavior/patterns | 17 complex |
| 18 knowledge | 27 C |
| 28 A | 29 D |
| 30 B | 9 FALSE |
| 10 TRUE | 11 TRUE |

12 NOT GIVEN

13 NOT GIVEN

19 FALSE

20 NOT GIVEN

21 TRUE

22 TRUE

23 TRUE

31 lapse/time interval

32 continuous action

33 time

34 greater length

35 slowed down proportionately

24 accurate

25 human biases

26 consensus

36 A

37 C

38 G

39 E

40 F

Review and Explanations

1 Answer: **x**

Note:

In section 1, you are given two different types of questions: matching heading questions and True/False/Not Given questions. Normally you are recommended to finish the latter first because it takes less time and effort, but due to these questions are in order, we can do T/F/NG questions at the same time as completing matching heading. By doing this you will be able to get the general meaning of the text and this will help you to finish T/F/NG more quickly without locating information twice. The suggestion strategy is as below:

skim and read for gist to grab the main idea of each paragraph. Try to sum up the general meaning of each paragraph in one or two words.

look at the headings and identify keywords within each heading. Then match the general content to one heading that you are sure about. If you cannot find an answer for a question, leave it pending and proceed.

Take a quick look at the first question of T/F/NG section to see whether you can complete it or not (for sure, you should read the first two questions, just in case because the first one could be Not Given). Keep in mind that those questions are in order, so as long as the first two questions are still not answered yet, you do not have to read the following questions. For example, paragraph A does not contain any information to answer neither Q9 nor Q10 of T/F/NG part, you can move to paragraph B straight ahead without looking at Q11-Q13. Then while doing matching heading for paragraph B we find out that we can locate the answer for Q9, hence the answers for questions from no.10 to no.13 should be seen at paragraph after B.

Repeatedly apply these above steps for other paragraphs

If you find this tip complicated and hard to follow, just finish each part one by one. It's up to you to decide the sequence of matching heading before T/F/NG or vice versa.

Keywords in Questions/ Answers	Similar words in Passage
Q1: Paragraph A x: The beginning of an end	It was a message signal-ling the end of the use of Morse code for distress calls in French waters. Since 1992 countries around the world have been decommissioning their Morse equipment with similar (if less poetic) sign-offs, as the world's shipping switches over to a new satellite-based arrangement, the Global Maritime Distress and Safety System.

Note:

To understand the general idea of a paragraph, you are expected not to read everything but try to skip the text, usually reading the first and the last sentences is enough. But for this article, you have to briefly look at the whole paragraph.

The paragraph talked about Morse equipment which had been decommissioned (officially stop being used) worldwide and replaced by a new satellite-based system. Among the given heading, the heading “x: the beginning of an end” is the one suitable for the main content. **The answer is x**

2 Answer: **xi**

Keywords in Questions/ Answers

Q2: Paragraph B

Note:

Paragraph B indicated the history of the code. It's quite hard to identify the main idea of this section and easily get confused to choose which heading suits best. Therefore you can move on and come back later. After you have matched the headings of the rest paragraphs, the answer reveals itself even there are more headings than paragraphs. In this circumstance, the answer is “xi: The move of using code to convey information”. Because in the past, information was transferred by radio operators, then with Morse's idea, information/messages in code could be conveyed by an electric telegraph. Thus, **the final answer should be "xi"**

Tip: It is noticeable that paragraph B contains information of the answers for Q9 and Q10, you should take no time to finish these two questions even though you have not yet made the final decision of matching heading.

3 Answer: **iii**

Keywords in Questions/ Answers	Similar words in Passage
Q3 Paragraph C: iii: Morse's invention was developed	Morse later abandoned this scheme and, with the help of an associate, Alfred Vail, devised the Morse alphabet , which could be used to spell out messages a letter at a time in dots and dashes.

Note:

If you only read the very first sentence of this paragraph which compared Morse's design to his rival design, you would probably get the answer wrong by choosing the statement "i: The advantage of Morse's invention" as the heading of this section.

However, the first sentence talked about how the first Morse's design was operated, then the last sentence indicated that he changed his mind to abandon his first idea of a number-based code and invented/devised a new alphabet code later. Thus the whole paragraph told readers about how Morse's invention was developed, we can **match C to iii**.

4 Answer: **i**

Keywords in Questions/ Answers	Similar words in Passage
Q 4 : Paragraph D: "i: The advantage of Morse's invention"	But although this meant that anyone could use it, it also required five wires between telegraph stations. Morses telegraph needed only one. And some people, it soon transpired, had a natural facility for Morse code.

Note:

This paragraph required us to briefly read the whole text to understand its main content because using skim technique did not work for this section. We can see that compared to other telegraphs, Morse's design was much more simply by using only one needle and one wire (instead of five as others) to send a message. This advantage made Morse's invention become popular. **Heading i suits best with paragraph D.**

Tip: after reading this paragraph and doing matching heading, you should move to T/F/NG to see whether there is any question could be answered. You might realize that this paragraph contained information to answer Q11 as well.

5 Answer: **vi**

Keywords in Questions/ Answers	Similar words in Passage
--------------------------------	--------------------------

Q5: Paragraph E “vi: Standard and variations”	It was adopted as the European standard in 1851, allowing direct connections between the telegraph networks of different countries [...] By this time Morse code had been revised to allow for accents and other foreign characters, resulting in a split between American and International Morse that continues to this day.
Note: In order to identify the final answer, you might see yourself considering 03 headings “vi: Standard and variations”; “vii: Application of Morse code in a new technology” and “ix: International expansion of Morse Code”. First off, we can eliminate choice ix because this paragraph did not mention anything related to the expansion of Morse code. It said the code had been divided/split into American Morse code and International version, not international expansion. There is not enough information to confirm a NEW technology had been used to apply Morse code. Paragraph E just indicated how Morse code had been changed/modified/revised to be suitable for other foreign languages. Therefore, heading vii is not a correct answer. At the beginning sentence, we could see that Morse code had been recognized as an European standard and at the end of paragraph E, we knew the code had more than one variation. Thus, we can make a match “E - vi”	

6 Answer: ii

Keywords in Questions/ Answers	Similar words in Passage
Q6: Paragraph F ii: A suitable job for women	Telegraphy was also deemed suitable work for women. By 1870, a third of the operators in the Western Union office in New York, the largest telegraph office in America, were female.

Note:

After quickly running eyes over the paragraph and all given headings, there are 02 headings left that might sum up the general content of paragraph F: “ii: A suitable job for women” or “v: The emergence of many job opportunities”. According to the article, with the development of Morse code, “a distinct telegraphic sub-culture was emerging” and there were job opportunities for first-class operators in big cities as well as inexperienced operators in rural areas. However, paragraph F did not clarify the number of emerging job opportunities thus we don’t know it’s “many” or not. Furthermore, the last sentence of the paragraph confirmed that telegraphy was suitable for women. With these reasons, **the final answer is “ii”**

For your understanding: “at the bottom of the pile” does not literally mean something located at the bottom of a machine’s pile, it is an idiom implied to the least important position in a society or an organization.

7 Answer: **ix**

Keywords in Questions/ Answers	Similar words in Passage
Q7: Paragraph G: ix : International expansion of Morse Code	By the time of his death in 1872, the world was well and truly wired: more than 650,000 miles of telegraph line and 30,000 miles of submarine cable were throbbing with Morse code; and 20,000 towns and villages were connected to the global network.
Note: By running eyes over the noticeable statistics in paragraph G, we acknowledged that Morse code had become popular all over the world (“20.000 towns and villages were connected to the global network”). Among all the given headings, statement “ix: international expansion of Morse code” fits the main idea the most. Without doubt, the final answer is ix	

8 Answer: **vii**

Keywords in Questions/ Answers	Similar words in Passage
Q8: Paragraph H: vii: Application of Morse code in a new technology	Morse code, however, was about to be given a new lease of life thanks to another new technology: wireless.

Note:

The first sentence of paragraph H said that Morse code had been come to an end by 1980s and the author also indicated in the last sentence that 20 years later, "Morse radio equipment was commonplace on ships". Therefore, it is implied that Morse code must have been updated during that time. Briefly looking at the paragraph one more time, we found out it's wireless technology that made Morse code popular again. Hence **the match of "H-vii" is a correct answer.**

14 Answer: rules, guiding principles

Keywords in Questions/ Answers	Similar words in Passage
Q14: Novice: needs _____ and to perform a given task;	The novice needs to guiding principles and rules of a given task in order to perform that task.
Note: By using scan technique, the keyword "novice" was first seen in the second paragraph. Due to the word limit, the statement can be completed with missing words: "guiding principles; rules" . It's allowed to change the order of these words in the answer sheet.	

15 Answer: mentor

Keywords in Questions/ Answers	Similar words in Passage
Q15: Novice: guided by a _____ through learning	Generally, a novice will find a mentor to guide her through the process of acquiring new knowl-edge.
Note: We can find needed information to answer Q15 in the same paragraph as Q14. In this situation, "the process of acquiring new knowledge" is understood as "learning". Without hesitation, we can confirm that "mentor" is the answer.	

16 Answer: patterns of behavior/patterns

Keywords in Questions/ Answers	Similar words in Passage
Q16: Journeyman: starts to identify _____ within and between cases	the novice begins to recognise patterns of behavior within cases and, thus, becomes a journeyman.

Note:

When scanning for the answer, make sure you are thinking about paraphrasing and synonyms. As you can see, if you were looking for words that exactly match those in the text you wouldn't find them: verbs such as "begin" and "recognise" in the passage had been replaced by "start" and "identify" relatively in the question. As obviously indicated in the 3rd paragraph, **"patterns of behavior" or "patterns" are both accepted as a correct answer.**

17 Answer: **complex**

Keywords in Questions/ Answers	Similar words in Passage
Q17: Journeyman: often exposed to _____ cases; contacts a mentor when facing difficult problems	With more practice and exposure to increasingly complex cases, the journeyman finds patterns not only within cases but also between cases.
Note: The type of words that fit in the space should be adjective because they were before a noun "cases". Q16 and Q17 were close to each other and both talked about a journeyman, hence we could find out information for the answer of Q17 near where the answer for Q16 located. In the 3rd paragraph, it was said that a journeyman had practiced and exposed more to increasingly complex cases than a novice. The final answer can be "increasingly complex" or just "complex"	

18 Answer: **knowledge**

Keywords in Questions/ Answers	Similar words in Passage
Q18: Expert: creates predictions and new _____ ; performs task independently without the help of a mentor	When a journeyman starts to make and test hypotheses about future behavior based on past experiences, she begins the next transition. Once she creatively generates knowledge , rather than simply matching, superficial patterns, she becomes an expert. At this point, she is confident in her knowledge and no longer needs a mentor
Note Keep in mind that when doing sentence completion, the answers appear in the same order as the questions and follow the progression from a novice to a journeyman, finally an expert. By scanning keyword "expert", we could identify the answer in the 4th paragraph. As you can see, the verb "create" had been paraphrased as "starts to make and test" and represented by synonym "generate" in the article. Reading carefully, we can fill in the gap with the noun "knowledge"	

27 Answer: **C**

Keywords in Questions/ Answers	Similar words in Passage
Q27: Mushroom C: too slow to be visible to human eyes	Time-lapse photography is the perfect technique for capturing events and movements in the natural world that occur over a timescale too slow for human perception to follow. The life cycle of a mushroom, for example, is incredibly subtle to the human eye.
Note: Looking for keyword “mushroom”, we located information in paragraph B which talked about time-lapse photography. In addition, the adjective “subtle” means “not obvious, and therefore difficult to notice”. The author’s opinion was the whole life cycle of a mushroom is too slow and complicated for human eyes to see/watch/witness/observe. For this reasons, the correct feature of a mushroom is “C: too slow to be visible to human eyes” .	

28 Answer: **A**

Keywords in Questions/ Answers	Similar words in Passage
Q28: Hummingbird A: too fast to be perceived	But a hummingbird flaps its wings up to 80 times every second. The only way to truly capture this motion is with cameras that will, in effect, slow down time.
Note: By using scan technique to search for keyword “Hummingbird”, the answer could be found in paragraph C. This section demonstrated another technique of high-speed photography which is “the science of taking pictures of very fast phenomena”. According to the paragraph, people have to use cameras to perceive/capture the movement of a hummingbird’s wings when it flaps because it’s too fast. Therefore, the final answer is A .	

29 Answer: **D**

Keywords in Questions/ Answers	Similar words in Passage
Q29 Frog D : adjust the filming speed to make it interesting	The solution is a simple one—adjust the playback speed, which is also called by some the film speed adjustment.

Note:

Keyword “frog” was first seen in paragraph E. This paragraph said that the scene of a frog catching its prey must be filmed by high-speed photography technique but it would be boring to see “the frog swim in slow motion for too long.” In order to attract viewers, it’s necessary to adjust the filming speed, hence **the answer is D.**

30 Answer: **B**

Keywords in Questions/ Answers	Similar words in Passage
Q30: Bat B: film at the place where the animal will pass	Photographers or film-makers often place camera near the bat cave, on the path of the flying bats.
Note: Using scan technique, information about “bat” could be seen in paragraph F. According to the article, bats are often filmed near their cave or on their flying path. For this reason, we can confirm that B is the correct answer. <i>Tips: this section asked you to match 04 organisms with a list of 04 features, thus right at the beginning, you should pay attention that the number of given answers are equal to the number of questions. If you make sure 03 answers are correct, then you do not have to locate information for the 4th question in this section. You can match the final organism with the leftover feature without doubt, and then move to the next questions.</i>	

9 Answer: **FALSE**

Keywords in Questions/ Answers	Similar words in Passage
Q 9 : Morse had already been famous as an inventor before his invention of Morse code.	At the time Morse Was a painter and occasional inventor, but when another of the ships passengers informed him of recent advances in electrical theory, Morse was suddenly taken with the idea of building an electric telegraph to send messages in codes.
Note: You should acknowledge the keywords in the statement are “famous as an inventor” and “before”. According to paragraph B, while Morse was on a ship crossing the Atlantic, he came up with the idea of new codes for sending messages. It was clearly said that at that time (or in other words: before he invented Morse code) he was an occasional inventor, not a famous one. We can confirm that the statement is False.	

10 Answer: **TRUE**

Keywords in Questions/ Answers	Similar words in Passage
Q10: Morse waited a long time before receiving support from the Congress.	it was 12 years, for example, before he secured money from Congress to build his first telegraph line
Note: By searching for a particular name of “Congress”, we find out that the answer should be located in paragraph B. In this circumstance, “support from the Congress” should be understood as “money”. In addition, it took Morse such a long time up to 12 years before receiving/securing money from Congress. With this reason, the final answer is True.	

11 Answer: **TRUE**

Keywords in Questions/ Answers	Similar words in Passage
Q11: Morse code is difficult to learn compared with other designs.	At first, the need to learn this complicated-looking code made Morses telegraph seem impossibly tricky compared with other, more user-friendly designs, Cookes and Wheatstones telegraph, for example, used five needles to pick out letters on a diamond-shaped grid.
Note: The first sentence in paragraph D said that Morse code had a complicated looking and was impossibly tricky to learn, whereas other codes had user-friendly designs. Therefore, we can make sure that the statement is True.	

12 Answer: **NOT GIVEN**

Keywords in Questions/ Answers
Q12: Companies and firms prefer to employ telegraphy operators from rural areas.
Note: According to paragraph F, first-class operators usually secured the best-paid jobs in big cities while inexperienced operators were likely to get part-time jobs in rural areas. There is no information about telegraphy operators from the countryside are more preferred by companies/firms thus we can write down “Not given” as the final answer.

13 Answer: **NOT GIVEN**

Keywords in Questions/ Answers	Similar words in Passage
Q13: Morse died from overwork .	
Note: The information about Morse's death was presented in paragraph G but the provided data is not enough to confirm that overwork had caused his death. It can be said that the statement is not given , of course.	

19 Answer: **FALSE**

Keywords in Questions/ Answers	Similar words in Passage
Q19: Novices and experts use the same system to classify objects.	A novice, for example, might group objects together by color or size, whereas an expert would group the same objects according to their function or utility.
Note: In the second paragraph of section "The power of expertise", authors gave two detail examples comparing how a novice and an expert classify things. According to the provided information, we knew the methods to group objects together used by experts were different from those used by novices. Therefore, the statement is False .	

20 Answer: **NOT GIVEN**

Keywords in Questions
Q20: A novice's training is focused on memory skills.
Note: There is no information in the article mentioned to a novice's training at all. We can quickly write "not given" on the answer sheet and move to the next question to save time.

21 Answer: **TRUE**

Keywords in Questions/ Answers	Similar words in Passage
Q21: Experts have higher efficiency than novices when solving problems in their own field.	experts perform tasks in their domains faster than novices and commit fewer errors while problem solving.

Note:

As clearly indicated in “The power of expertise”, experts solved their problems faster and committed fewer errors, or in other words, they got higher efficiency than novices while solving problems. Without hesitation, we can **confirm the answer is true.**

Tips: actually the name “experts” and “novices” have themselves raised the answer to this question. Experts are those who get a lot of experiences while novices are who have no professional knowledge, thus, of course, experts have higher efficiency than novices, the statement is true. If you find yourself got a few minutes left, then it’s better to use your logical thinking and move to the next question.

22 Answer: **TRUE**

Keywords in Questions/ Answers	Similar words in Passage
Q 2 2 : W h e n facing a problem, novices always tries to solve it straight away.	Experts spend more time thinking about a problem to fully understand it at the beginning of a task than do novices, who immediately seek to find a solution,
Note In term of solving problems, experts commit fewer mistakes than novices because they are more carefully to understand the problems. Meanwhile, it takes no time for novices to find solutions for the problems. For this reason, the given statement is True.	

23 Answer: **TRUE**

Keywords in Questions/ Answers	Similar words in Passage
Q 2 3 : Experts are better at recognising their own mistakes and limits.	experts are more aware of instances where they have committed errors or failed to understand a problem. Experts check their solution more often than novices and recognise when they are missing information necessary for solving a problem. Experts are aware of the limits of their domain knowledge
Note In the first sentence of the last paragraph in section “The power of expertise”, it was said that experts are “Better at self-monitoring than novices”. Self-monitoring is the ability to both observe and evaluate one’s behavior such as learning from his/her mistakes. For further information, the whole paragraph specified this opinion. With no doubt, True is the final answer. <i>Tips: one more time, it makes sense to use your logical thinking in case you don’t have much time left but a lot of questions awaiting.</i>	

31 Answer: **lapse/time interval**

Keywords in Questions/ Answers	Similar words in Passage
Q31: To present before audiences something that occurs naturally slow, photographers take each picture at a _____ before another picture.	To present its growth in front of audiences, [...] since each frame is taken with a lapse at a time interval between each shot
<p>Note:</p> <p>The information to fill in the gaps from Q31 to Q33 can be found in paragraph B of which the main idea is time-lapse photography technique.</p> <p>To present a slow growth of a mushroom, photographers take pictures at a lapse. Because the missing word is after article “a”, the answer for Q31 should be “lapse” or “time interval”, both are accepted.</p> <p>(Notice: the answer “interval” makes the sentence correct in meaning but incorrect in grammar because it needs article “an” standing before it).</p>	

32 Answer: **continuous action**

Keywords in Questions/ Answers	Similar words in Passage
Q32: When these pictures are finally shown on screen in sequence at a normal motion picture rate, audiences see a _____ that is faster than what it naturally is.	the principle applied is a simple one: a series of photographs are taken and used in sequence to make a moving-image film, [...] when played back at normal speed, a continuous action is produced and it appears to speed up.
<p>Note:</p> <p>The information to fill in the gaps from Q31 to Q33 can be found in paragraph B of which the main idea is time-lapse photography technique.</p> <p>The gap needs a noun or noun phrase less than 03 words. When the final moving-image film is played back at a normal speed, viewers/audiences can see a continuous action on screen. Due to word limits, we can fill in the gap of Q32 with “continuous action”.</p>	

33 Answer: **time**

Keywords in Questions/ Answers	Similar words in Passage
Q33: This technique can make audiences feel as if _____ is shrunk.	Put simply: we are shrinking time
<p>Note:</p> <p>While doing IELTS reading, besides to synonyms and paraphrases, you should always look for verb forms in the text as well. In the summary section, “shrunk” is the past participle of the verb “shrink” . We can make sure that “time” is the correct answer for Q33.</p>	

34 Answer: **greater length**

Keywords in Questions/ Answers	Similar words in Passage
On the other hand, to demonstrate how fast things move, the movement is exposed on a _____ of film,	a hummingbird flaps its wings up to 80 times every second. The only way to truly capture this motion is with cameras that will, in effect, slow down time. To do this, a greater length of film is taken at a high sampling frequency or frame rate, which is much faster than it will be projected on screen.
Note: In contrast to time-lapse photography, information of high-speed photography can be found in paragraph C. To get the sentence grammatically correct, the answer for Q34 must be a noun or noun phrase which might indicate the film's feature. "Greater length" is the correct answer for Q34.	

35 Answer: **slowed down proportionately**

Keywords in Questions/ Answers	Similar words in Passage
Q35: and then projected on screen at normal playback speed. This makes viewers feel time is _____	When replayed at normal speed, time appears to be slowed down proportionately.
Note: We can locate information for Q35 in the next sentences where contained information for the answer of Q34.. It was said that when the motion replayed on screen at normal speed, time is slowed down. Therefore, it's obvious that the answer for Q35 is "slowed down proportionately"	

24 Answer: **accurate**

Keywords in Questions/ Answers	Similar words in Passage
Q 24: Studies have shown that experts are less _____ at making predictions than statistical models.	Theorists and researchers differ when trying, to explain why experts are less accurate forecasters than statistical models.

Note

In this circumstance, “forecasters” in the text had been paraphrased as who “made predictions” in the question. The given statement was a comparative sentence thus we must fill in the gap with one adjective. As being clearly stated in the first sentence in the 2nd paragraph of section “The paradox of expertise”, **the final answer is “accurate”**.

Tips: Locating information in this article are quite easy because all the answers can be found by just following the article’s structure from the beginning to the end. You are expected to acknowledge that Q14 - Q23 were all responded by information in the introductory paragraphs and in “The power of Expertise” section. Therefore, the section of “The paradox of expertise” should contain answers for the summary exercise from Q24 to Q26.

If you did not notice that, then you might find out the first sentence in the summary completion questions which said “their strengths can also be turned against them” was an explanation for the subtitle “the paradox of expertise”. All you need is just to focus on this part to establish accurate answers, no need to waste time to reread the whole passage.

25 Answer: **human biases**

Keywords in Questions/ Answers	Similar words in Passage
Yet some believe it is due to _____	A number of researchers point to human biases to explain unreliable expert predictions.
Note: After “due to” is a noun, hence you should complete Q25 with a noun or a noun phrase but no more than 02 words. In order to explain why “ experts are less accurate at making predictions than statistical models ” (or in another expression, “to explain unreliable expert predictions ”), some researchers believed that “human biases” was the main cause. Therefore, “human biases” is the correct answer for Q25.	

26 Answer: **consensus**

Keywords in Questions/ Answers	Similar words in Passage
Q26: but there isn’t a great deal of _____ as to its cause and manifestation .	the literature shows little consensus regarding the causes or manifestations of human bias.

The word form of the answer for Q26 is noun because it followed the phrase “a great deal of”. We can locate information of Q26’s answer at the end of the passage. Over 30 years with a lot of efforts, there was a little consensus (agreement in general) had been shown. Once understanding the text, we can confirm **“consensus” is the final answer.**

Tips: in the summary completion part, Q25 and Q26 are put next to each other in the same sentence. Therefore, it is extremely important to get Q25’s answer correct. If you get Q25’s answer wrong or cannot locate information for this question, the answer for Q26 will be incorrect.

36 Answer: **A**

Tips:

The kind of these questions is to match information to paragraphs. It is recommended to do this section last because it takes time. The answers might not be the main idea of each paragraph and do not come in order, thus they could be in any part of the paragraph and you can not just quickly skim to find it.

Keywords in Questions/ Answers	Similar words in Passage
Q36: a description of photography’s application in various fields	Military, police, and security forces use photography for surveillance, recognition and data storage. Photography is used by amateurs to preserve memories, to capture special moments, to tell stories, to send messages, and as a source of entertainment.

Note:

In paragraph A, the author said that photography has been used for many different purposes such as surveillance, recognition and data storage. In addition, people also take pictures to tell stories, send messages, etc. Therefore, paragraph A contains information of given statement, **the final answer is A**

37 Answer: **C**

Keywords in Questions/ Answers	Similar words in Passage
Q37: a reference to why high-speed photography has a significant role in biology	That is why high-speed cameras have become such a mainstay of biology.

Note:

By scanning, we can locate information of “high-speed photography” in paragraph C, D and E. As doing Q27 - Q30 before completing this section, we could acknowledge that high-speed photography was mentioned once as the way to capture frog’s movements in paragraph E, thus E is a wrong answer. In paragraph D, high-speed photography was mentioned to refer to the use of high-speed cameras; therefore the answer could not be D. Furthermore, paragraph C introduced general knowledge of high-speed photography technology and confirmed its important role in biology at the end of paragraph. For better understanding, “A reference” in the statement is the example of how to capture the way a hummingbird flaps by high-speed cameras. **The correct answer is C undoubtedly.**

38 Answer: **G**

Keywords in Questions/ Answers	Similar words in Passage
Q 38: a traditional wisdom that assures readers of the prospects of photography	No matter what future it may hold, photography will continue to develop as it has been repeatedly demonstrated in many aspects of our life that “a picture is worth a thousand words.”
Note: In paragraph G, the author confirmed that photography will continue to develop in the future. In the whole passage, we could only find information about the prospects of photography in nowhere else but paragraph G. Therefore, G is a correct answer.	

39 Answer: **E**

Keywords in Questions/ Answers	Similar words in Passage
Q39: a reference to how film is processed before final release	The film will originally be shot at a high frame (often 300 frames per second, because it can be converted to much lower frame rates without major issues), but at later editing stage this high frame rate will only be preserved for the prey catching part, while the swimming part will be converted to the normal speed at 24 frames per second.
Note: the final answer is E because paragraph E gave a specific example of filming speed adjustment and editing stage before a completion video of frog catching its prey was released.	

40 Answer: **F**

Keywords in Questions/ Answers	Similar words in Passage
Q 4 0 : a description of filming shooting without human effort	Though highly-advanced tripping device can now allow for unmanned shooting, it still may take several nights to get a truly high quality film.
Note: When reading the question, it's better if you can think about synonyms and how to paraphrase the statement. This will help you identify the answer more quickly and precisely. In this question, the saying "without human effort" could be replaced by an adjective "unmanned". Paragraph F contains information about how to capture bats on film without human effort, hence the answer is F.	