READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14-26**, which are based on Reading Passage 2 on the following pages.*

Questions 14–20

*Reading Passage 2 has seven paragraphs, **A–G**.*

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

*Write the correct number, **i-x**, in boxes 14-20 on your answer sheet.*

List of headings

i	The best moment to migrate
ii	The unexplained rejection of closer feeding grounds
iii	The influence of weather on the migration route
iv	Physical characteristics that allow birds to migrate
v	The main reason why birds migrate
vi	The best wintering grounds for birds
vii	Research findings on how birds migrate
viii	Successful migration despite the trouble of wind
ix	The contrast between long-distance migration and short-distance migration
x	Mysterious migration despite lack of teaching

14 Paragraph **A**

15 Paragraph **B**

16 Paragraph **C**

17 Paragraph **D**

18 Paragraph **E**

19 Paragraph **F**

20 Paragraph **G**

Bird Migration

A Birds have many unique design features that enable them to perform such amazing feats of endurance. They are equipped with lightweight, hollow bones, intricately designed feathers providing both lift and thrust for rapid flight, navigation systems superior to any that man has developed, and an ingenious heat-conserving design that, among other things, concentrates all blood circulation beneath layers of warm, waterproof plumage, leaving them fit to face life in the harshest of climates. Their respiratory systems have to perform efficiently during sustained flights at altitude, so they have a system of extracting oxygen from their lungs that far exceeds that of any other animal. During the later stages of the summer breeding season, when food is plentiful, their bodies can accumulate considerable layers of fat, to provide sufficient energy for their long migratory flights.

B The fundamental reason that birds migrate is to find adequate food during the winter months when it is in short supply. This particularly applies to birds that breed in the temperate and Arctic regions of the Northern Hemisphere, where food is abundant during the short growing season. Many species can tolerate cold temperatures if food is plentiful, but when food is not available, they must migrate. However, intriguing questions remain.

C One puzzling fact is that many birds journey much further than would be necessary just to find food and good weather. Nobody knows, for instance, why British swallows, which could presumably survive equally well if they spent the winter in equatorial Africa, instead of flying several thousand miles further to their preferred winter home in South Africa's Cape Province. Another mystery involves the huge migrations performed by arctic terns and mudflat-feeding shorebirds that breed close to Polar Regions. In general, the further north a migrant species breeds, the further south it spends the winter. For arctic terns, this necessitates an annual round trip of 25,000 miles. Yet, en route to their final destination in far-flung southern latitudes, all these individuals overfly other areas of seemingly suitable habitat spanning two hemispheres. While we may not fully understand birds' reasons for going to particular places, we can marvel at their feats.

D One of the greatest mysteries is how young birds know how to find the traditional wintering areas without parental guidance. Very few adults migrate with juveniles in tow, and youngsters may even have little or no inkling of their parents' appearance. A familiar example is that of the cuckoo, which lays its eggs in another species' nest and never re-encounters its young. It is mind-boggling to consider that, once raised by its host species, the young cuckoo makes its way to ancestral wintering grounds in the tropics before returning single-handedly to northern Europe the next season to seek out a mate among its kind. The obvious implication is that it inherits from its parents an inbuilt route map and direction-finding capability, as well as a mental image of what another cuckoo looks like. Yet nobody has the slightest idea as to how this is possible.

E Mounting evidence has confirmed that birds use the positions of the sun and stars to obtain compass directions. They also seem to be able to detect the earth's magnetic field, probably due to having minute crystals of magnetite in the region of their brains. However, accurate navigation also requires an awareness of position and time, especially when lost. Experiments have shown that after being taken thousands of miles over an unfamiliar landmass, birds are still capable of returning rapidly to nest sites. Such phenomenal powers are the product of computing several sophisticated cues, including an inborn map of the night sky and the pull of the earth's magnetic field. How the birds use their 'instruments' remains unknown, but one thing is clear: they see the world with a superior sensory perception to ours. Most small birds migrate at night and take their direction from the position of the setting sun. However, as well as seeing the sun go down, they also seem to see the plane of polarized light caused by it, which calibrates their compass. Travelling at night provides other benefits. Daytime predators are avoided and the danger of dehydration due to flying for long periods in warm, sunlit skies is reduced. Furthermore, at night the air is generally cool and less turbulent and so conducive to sustained, stable flight.

F Nevertheless, all journeys involve considerable risk, and part of the skill in arriving safely is setting off at the right time. This means accurate weather forecasting and utilizing favourable winds. Birds are adept at both, and, in laboratory tests, some have been shown to detect the minute difference in barometric pressure between the floor and ceiling of a room. Often birds react to weather changes before there is any visible sign of them. Lapwings, which feed on grassland, flee west from the Netherlands to the British Isles, France, and Spain at the onset of a cold snap. When the ground surface freezes, the birds could starve. Yet they return to Holland ahead of a thaw, their arrival linked to a pressure change presaging an improvement in the weather.

G In one instance a Welsh Manx shearwater carried to America and released was back in its burrow on Skokholm Island, off the Pembrokeshire coast, one day before a letter announcing its release! Conversely, each autumn a small number of North American birds are blown across the Atlantic by fast-moving westerly tailwinds. Not only do they arrive safely in Europe, but, based on ringing evidence, some make it back to North America the following spring, after probably spending the winter with European migrants in sunny African climes.

Questions 21 and 22

*Choose **TWO** letters, **A–E**.*

Write the correct letters in boxes 21 and 22 on your answer sheet.

Which **TWO** of the following statements are true of bird migration?

A Birds often fly further than they need to.
B Birds travelling in family groups are safe.
C Birds flying at night need less water.
D Birds have much sharper eyesight than humans.
E Only shorebirds are resistant to strong winds.

Questions 23–26

Complete the sentences below.

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

Write your answers in boxes 23-26 on your answer sheet.

23 It is a great mystery that young birds like cuckoos can find their wintering grounds without _____.

24 Evidence shows birds can tell directions like a _____ by observing the sun and the stars.

25 One advantage for birds flying at night is that they can avoid contact with _____.

26 Laboratory tests show that birds can detect weather without _____ signs.

14–20 选标题（List of Headings）

题号	段落	答案	解释与定位
14	A	**iv**	第A段整段都在描述鸟类为迁徙而“与生俱来的设计”：轻骨、羽毛、隔热与防水羽衣、呼吸系统“extracting oxygen… far exceeds any other animal”、以及在繁殖季末囤积脂肪以供长途飞行——典型对应 **Physical characteristics that allow birds to migrate**。
15	B	**v**	第B段开门见山：“**The fundamental reason that birds migrate is to find adequate food during the winter months**… many species can tolerate cold… **but when food is not available, they must migrate.**” ⇒ 主因是食物。
16	C	**ii**	第C段核心是“**many birds journey much further than would be necessary**… overfly other areas of seemingly suitable habitat”，即**不解释地拒绝更近的适宜地**，对应 **The unexplained rejection of closer feeding grounds**。
17	D	**x**	第D段提出“**how young birds know… without parental guidance**”，以布谷鸟为例说明**没有教学**也能完成迁徙，故为 **Mysterious migration despite lack of teaching**。
18	E	**vii**	第E段集中呈现“证据/实验发现”：**sun & stars、earth's magnetic field、polarized light** 等导航机制与“实验表明…被带到数千英里外仍能返巢”。这是**研究发现**，对应该项。
19	F	**i**	第F段首句点题：“**part of the skill… is setting off at the right time**”，随后讲天气预报、顺风与气压变化的感知，强调**把握最佳出发时机**，故选 **The best moment to migrate**。
20	G	**viii**	第G段两组例子：被带到美国的海鸥迅速返巢；被**强风**吹到欧洲的北美鸟类仍能存活并在来年返回北美——说明**尽管有风的干扰仍能成功迁徙**，对应 **Successful migration despite the trouble of wind**。

21–22 多选题（选两项）

答案：A，C

- **A** Birds often fly further than they need to.
定位：第C段：“**many birds journey much further than would be necessary**… overfly other areas of seemingly suitable habitat.”

- **C** Birds flying at night need less water.
定位：第E段：“Travelling at night… **the danger of dehydration due to flying for long periods in warm, sunlit skies is reduced.**”（夜飞可减少脱水风险 ⇒ 对水的需求更低/不易丧失水分。）

其余选项排除：

- **B** 第D段表明很少有成鸟带幼鸟同行，并非“家庭群体安全”；
- **D** 文中说鸟类**overall superior sensory perception**，并未声称“视力（eyesight）更锐利”；
- **E** 第G段显示被风吹过大西洋的**不止岸鸟（shorebirds）**，因此错误。

23–26 句子填空（NO MORE THAN TWO WORDS）

题号	正确答案	解释与定位
23	**parental guidance**	D段：“how young birds know… **without parental guidance**.”
24	**compass**	E段：“evidence has confirmed that birds use the positions of the sun and stars to obtain **compass** directions.”（题干同义改写“like a ___”。）
25	**(daytime) predators**	E段：“Travelling at night… **Daytime predators are avoided**.” 题干“avoid contact with ___”，≤2词——最佳作答为 **daytime predators**；若命题允许同义省略，**predators** 亦可被判对（但以原文限定词更稳妥）。
26	**visible**	F段：“react to weather changes **before there is any visible sign** of them.” 题干已有“signs”，空格应填形容词 **visible**。