TEST 8

READING PASSAGE 1

You should spend about 20 minutes on **Questions 1-13**, which are based on Reading Passage 1 below.

We French do love to demonstrate

(A) Josiane Bertrand has a small family business - a neighbourhood charcuterie selling sausage, poached pigs' trotters, pate and jellied pig snouts. Her ham, she says, is the best in Paris and her queue of customers is long. Despite the ceaseless rain outside - among all its other woes, France is now flooding - it's a convivial crowd waiting to be served, and the animated conversation is all about strikes.

(B) If the opinion pages of Le Monde are to be believed, the charcuterie queue is a pretty accurate reflection of the mood of the country. Split, roughly half and half, between those for the Work Bill and those against. Philippe's 28. He's landed what most French would regard as a dream job. He's a fonctionnaire working in local government. A fonctionnaire is an employee of the French state in almost any form of public administration and service. It's a job for life - with solid pay and conditions, fixed working hours, a good pension, generous holidays. So, what many young French people aspire to is not to change the world - explore, create, set-up alone - but, with self-employment difficult and taxes punitive, they dream of becoming steadily employed bureaucrats.

(C) Philippe knows he's lucky. And he's against any change. "I'm happy," he says. "I know exactly where I am and where I'll be in 40 years' time, with a good pension." Eleonore, who has four children, two of them dancing around the shop as they wait, is in her early 40s. As a secondary school teacher she has also got a job for life and generous state benefits. But, unlike Philippe, she's all for change. "It can't go on like this. For every person like me, there are 20 or more with no hope at all," she says.

(D) A quarter of all French people under 25, many of them well-qualified, have no work. A large number of those are from immigrant families, making their chances of employment even slimmer. These are the kind of people who voted Francois Hollande into the presidency in 2012, with his pledge to end the country's employment troubles.

(E) Now he's made a new promise, putting his own political career on the line - he's not running for re-election next spring unless he cuts unemployment. A bold move for a president with an approval rating of only 14% in a country riven by industrial disputes. Along with his prime minister, Manuel Valls, and Pierre Gattaz - known as the "boss of bosses", president of Medef, the largest federation of employers in France - Hollande stands against the combined power of the country's two biggest unions.

(F) The proposed Work Bill runs to over 500 pages. It aims to simplify and liberalise the French Work Code which, at 3,689 pages, is a vast labyrinth beset with perils for employers. The unions won't even consider negotiations until the bill is removed from parliament. The president and his allies refuse to change a word of it. "It's a good law, good for France," says Hollande. The result? Total stalemate. An ongoing siege. Just after one o'clock on the glassed-in terrace of a popular restaurant on the Boulevard Montparnasse, and everything begins to go quiet. The traffic disappears from the street. Cordons of riot police move in, three columns deep, flanked by armoured vans. There's a whirr of helicopters overhead.

(G) In the distance, a gathering roar and blare - the protesters. The noise becomes deafening. The riot police take up positions. Frederique, the waiter, temporarily locks the doors - and those having lunch find themselves exhibits in a kind of transparent, gastronomic showcase along with various grilled fish, bottles of wine and assorted desserts. Looking in from the outside, hundreds of protesters passing down the boulevard, some marching, others ambling, a few dancing to music booming from the accompanying floats. Looking out from the inside, the lunchers. The lunchers comment on the demonstrators, the demonstrators wave cheerily at the lunchers. There's general resigned, amused talk amid the eating - "Here we go again," and "Where will this round end?" And self-deprecating comments such as, "We French do love to demonstrate…"

(H) Then it all subsides, passes on, the noise, the marchers, the red balloons and pounding music, leaving a trailing wake of litter. Frederique unlocks the doors. The conversation leaves the political, returns to the personal. Similar reforms have already been implemented in Italy and Spain. Germany did so long ago - its unemployment, at 5%, is less than half that of France, which according to some commentators here now stands alone as the last bastion of 20th Century-style socialism in Europe.

Questions 1-8

Reading Passage 1 has eight paragraphs, **A-H.**

Which paragraph contains what information? Choose the headings and write the correct letter, **A-H**, in boxes 1-8 on your answer sheet.

1. A bold promise

2. Similar reforms in other countries

3. A refusal to change the law

4. Unemployment rate statistics

5. The dream of young French people

6. Different opinions

7. Best ham in all Paris

8. The demonstration itself

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. Most french would say that Philippe has a very good job.

10. Eleonore and Philippe have same views on the situation.

11. 25% of all people in France have no job.

12. Francois Hollande might not run for re-election next year.

13. The French Work Code is concidered simplier than the proposed Work Bill.

14. The unemployment rate in Spain is less than in Italy.

READING PASSAGE 2

You should spend about 20 minutes on **Questions 15-27**, which are based on Reading Passage 2 below.

How I was floored by a tick

When Allan Little began to feel ill, he knew almost immediately what it was - Lyme Disease. But getting a medical diagnosis, and treatment, took a lot longer. I'd been going for years to the same little town in New England and Lyme Disease is everywhere there. You can't walk more than a few hundred metres in the countryside without coming across a public health notice warning you not to get bitten by a deer tick.

So the intense headache, the aching limbs, the burning joints, the ferocious fever and night sweats that hit me in a matter of hours, a few days after I'd got back to London, were all consistent with what I'd read about the condition. I went to a London GP, who wasn't convinced. She took a blood sample and advised me to go home, rest, and take paracetamol. The next day, the blood test came back. It was negative for Lyme. My condition grew worse. I could hardly stand up. I called another doctor, who came to my house. He was also sceptical. He took another blood test. This too came back negative. But he

gave me a prescription for powerful painkillers which made me feel well enough to get on a train to Edinburgh, my home town.

Within three hours of arriving at Waverley Station I was an in-patient in the Infectious Diseases Department of the city's Western General Hospital: diagnosis, Acute Lyme Disease. By now I had found the tick bite and the distinctive livid red rash, about six inches in diameter. (To be fair to those London GPs, I hadn't noticed it when I'd consulted them.)

"It's attacked your liver," the Edinburgh Consultant said. "You have three distinct kinds of liver inflammation". I made a lame sick-bed joke: "You're sure that's not like Lager-and-Lime Disease then?" She laughed politely and reassured me that that would look quite different. Why then had both blood tests come back negative? Dr Roger Evans of Raigmore Hospital in Inverness is one of the UK's leading Lyme Disease researchers. "In early Lyme Disease," he told me, "the test is not reliable because no antibodies have been produced. In the first few weeks of infection, you could test negative, but still have Lyme Disease."

This is a problem for GPs, especially in urban centres where Lyme Disease is unfamiliar. Lyme is not a viral infection. It's bacterial. GPs will not prescribe antibiotics if they think you're showing symptoms of a viral infection - and it does look and feel like a bad case of flu, or chronic fatigue syndrome, neither of which can, or should, be treated with antibiotics. "In the early weeks of infection, when the blood test is not reliable," says Evans, "the GP needs to assess the patient clinically, looking for other symptoms that identify Lyme Disease." In other words, symptoms that distinguish it from flu.

If you have been bitten:

- Remove the tick as soon as possible - the safest way is to use a pair of fine-tipped tweezers, or a tick removal tool
- Grasp the tick as close to the skin as possible, pull upwards slowly and firmly, as mouthparts left in the skin can cause a local infection
- Once removed, apply antiseptic to the bite area, or wash with soap and water and keep an eye on it for several weeks for any changes
- Contact your GP if you begin to feel unwell and remember to tell them you were bitten by a tick or have recently spent time outdoors

Catching it early is vital. Angela Howard fell ill with Lyme Disease in the 1990s. She had never heard of it. Her doctor, she says, told her to go home

and see whether her symptoms persisted. It was only when a visiting American friend saw the distinctive rash - concentric red rings around the place where the tick bite had occurred that she realised she might have Lyme Disease. She says her doctor was still reluctant to diagnose Lyme. "Doctors say you can only get this abroad - that it comes from overseas. But I hadn't been abroad. I'd been picnicking in Wiltshire." She was not treated early and her symptoms have persisted for years.

There is an accumulation of anecdotal evidence that Lyme Disease often goes undiagnosed. One problem is that no-one knows how prevalent it now is. It is not a notifiable disease in the National Health Service - doctors are not required to inform a central database when they diagnose it. So there is no reliable evidence of how widespread it is, or where in the country you are most likely to get it. Roger Evans at Raigmore Hospital wants to remedy that.

"We're using Scotland as a pilot study," he said. "We're trying to create maps of areas where there's a risk of tick exposure. We're using satellite data from the European Space Agency to create an app that will give information, but which will also be interactive, so that users can put in information about where they've been bitten and whether the Lyme Disease rash has appeared." Why has Lyme, which 30 years ago seemed largely limited to a small area of New England - Lyme is the town in Connecticut where it was first identified - now so prevalent across the continental USA and in Europe? One theory is climate change: that small gradations in climate can create new habitats for micro-organisms, or keep them alive and active for longer.

I was struck, at the time of my own treatment, that awareness was far greater in Scotland than in England and Wales. And awareness of the condition is vital to catching it early. For when you catch it early, treatment is easy and in most cases successful. It floors you though. It took me four or five months to get my strength and stamina back. It is a debilitating and dangerous illness and there is no doubt that it is getting more common. You can get it in the Scottish Highlands, in Devon and Cornwall, in Richmond Park in London and probably in your own back garden - anywhere where there are small furry animals on whose skins a deer tick can live. If you get it, you can get treatment. But take it from me: it really helps if you know what it is you've got.

Questions 15-22

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

In boxes 15-22 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

15. Alan had no doubt about his illness from the beginning.

16. Both blood tests were negative for Lyme Disease.

17. Alan didn't become a Waverley Station patient for more than 3 hours.

18. Blood tests were inaccurate because they were taken unprofessionaly.

19. Lyme Disease is very unfamiliar in the UK.

20. When bitten, you should remove the tick, preferably with a tool.

21. After you remove the tick and apply antiseptic, you should take paracetamol.

22. It is advise to contact a doctor, if you feel ill after removing the tick.

Questions 23-27

Complete the sentences below.

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

Write your answers in boxes 23-27 on your answer sheet.

23. Angela's friend recognized the Lyme Disease as soon as she saw the _____ rash.

24. One problem is, it's unknown how _____ Lyme Disease is nowadays.

25. Roger Evans says that they try to create maps of Scotland where there's a risk of _____ .

26. The one possible reason for Lyme Diseaes to move all over the world is _____ .

27. You can catch the disease even in your own back _____ .

READING PASSAGE 3

You should spend about 20 minutes on **Questions 28-40**, which are based on Reading Passage 3 below.

Structure and function of cell membranes

(A) Human body is made up of millions of cells - little building blocks of life. Each cell contains many functional subunits (organelles) that enable its proper functioning and is protected from the external environment by a cell membrane. While structure and function of organelles are extensively covered in various biology courses, the importance of study of cell membranes is often underrated. This article is dedicated to provide a short introduction into the basic functions and anatomy of a cell membrane.

(B) Cell membranes protect and organize cells. Most importantly they serve as barriers, discriminating the cell’s interior from the outer milieu. Because cells always exist in aqueous environment their membranes should be structured in such way so they do not solve in water. This function is ideally carried by special chemical molecules - phospholipids. These molecules are

constructed from two parts: tails made up of 2 molecules of fat that ‘avoid’ water and heads that have an affinity for water. For this specific behaviour the phospholipid’s tails are called hydrophobic (‘hydro’ means water and ‘phobia’ means fear) and heads are called hydrophilic (‘philos’ means love). When phospholipids are added to water, they self-assemble into double-layered structures, shielding their hydrophobic portions from water and exposing their hydrophilic portions to the environment. This phospholipid bilayer may resemble a sandwich, where phospholipid heads are bread rolls and tails are the sandwich filling.

(C) In addition to lipids, membranes are loaded with proteins. They usually go through the lipid bilayer and are exposed to both aqueous environment and cell's interior. In fact, proteins account for roughly half the mass of most cellular membranes. They make the membrane semi-permeable, which means that some molecules can diffuse across the lipid bilayer but others cannot. Small hydrophobic molecules and gases like oxygen and carbon dioxide cross membranes rapidly. Small molecules, such as water and ethanol, can also pass through membranes, but they do so more slowly. On the other hand, cell membranes restrict diffusion of highly charged molecules, such as ions, and large molecules, such as sugars and amino acids. The passage of these molecules relies on specific transport proteins embedded in the membrane.

(D) Membrane transport proteins are specific and selective for the molecules they move, and they often use energy to enhance passage. Also, these proteins transport some nutrients against the concentration gradient, which requires additional energy. The ability to maintain concentration gradients and sometimes move materials against them is vital to cell health and maintenance. Thanks to membrane barriers and transport proteins, the cell can accumulate nutrients in higher concentrations than exist in the environment and, conversely, dispose of waste products.

(E) Other membrane-embedded proteins have communication-related jobs. Large molecules from the extracellular environment, such as hormones or immune mediators, bind to the receptor proteins on the cell membrane. Such binding causes a conformational change in the protein that transmits a signal

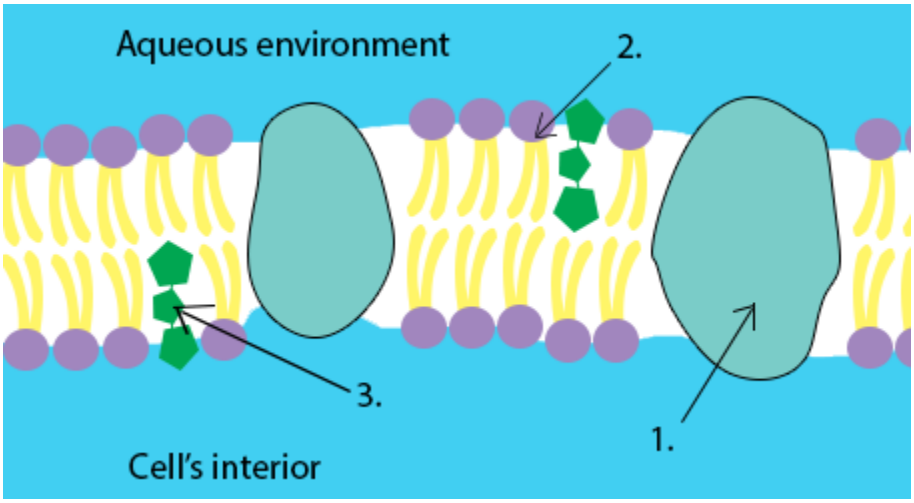
to intracellular messenger molecules. Like transport proteins, receptor proteins are specific and selective for the molecules they bind.

(F) Another important type of membrane's components are cholesterol molecules, which account for about 20 percent of the lipids in animal cell plasma membranes. However, cholesterol is not present in bacterial membranes or mitochondrial membranes. The cholesterol molecules are embedded in place of phospholipid molecules and help to regulate the stiffness of membranes. To function properly, the cell membrane should be in fluid state. Cholesterol reduces membrane fluidity at moderate temperatures by reducing the moving of phospholipids. But at low temperatures, it hinders solidification by disrupting the regular packing of phospholipids.

Questions 28-30

Label the diagram below.
Write **NO MORE THAN ONE WORD** from the passage for each answer. Do not write the articles.

Which elements of cell membrane correspond to the numbers in the diagram?



28. _____
29. _____
30. _____

Questions 31-35

Reading Passage 3 has six paragraphs, **A-F**.

Which paragraph contains the following information?

Write the correct letter, **A–F**, in boxes 31–35 on your answer sheet.

31. Specific proteins transport nutrients from the external environment against the concentration gradient. [ ]

32. The barrier function of cell membranes is supported by a bilayer of phospholipids. [ ]

33. The level of membrane fluidity is regulated by cholesterol molecules. [ ]

34. The importance of cell membranes are often underestimated. [ ]

35. Proteins make the membrane semi-permeable. [ ]

Questions 36–40

Complete the summary below.

Choose **ONLY ONE WORD** from the passage for each answer.
Write your answers in boxes **36–40** on your answer sheet.

Cell membranes protect cells and organize their activities. The first main function of cell membrane - barrier function - is carried by phospholipids. These molecules don't solve in water and, thus, are ideal for cells that always exist in **36.** [ ] environment.

In addition to lipids, membranes are loaded with **37.** [ ] that make the membrane **38.** [ ] , which means that some molecules can diffuse across the lipid bilayer but others cannot. One of the most important types of membrane proteins are **39.** [ ] proteins and receptor proteins.

The last type of membrane elements are cholesterol molecules, which are embedded in place of **40.** [ ] molecules and help to regulate the stiffness of membranes.

Section 1

1. E
2. H
3. F
4. D
5. B
6. C
7. A
8. G
9. True
10. False
11. False
12. True
13. Not Given

Section 2

15. True
16. True
17. False
18. False
19. Not Given
20. True
21. Not Given
22. True
23. Distinctive
24. Prevalent
25. Tick exposure
26. Climate change

Section 3

28. Protein
29. Phospholipid
30. Cholesterol
31. D
32. B
33. F
34. A
35. C
36. Aqueous
37. Proteins
38. Semi-permeable
39. Transport
40. Phospholipids