Reading Passage 1

Its raining cats and ...

Since ancient times, people have marvelled at the fact that cats always manage to land on all four paws, no matter what height they fall from. It took scientists a considerable amount of research to explain this phenomenon. Only with the advancement of photography was it possible to find a plausible explanation when, at the end of the nineteenth century, French physiologist Marei took pictures of falling cats in different stages of their descent. These pictures were later presented to the Academy of Science for further examination. Specifically, it was ascertained that the cat's tail, which was previously believed to play an important role in the phenomenon, doesn't help in any way. The latter was proven by a series of experiments with tailless animals.

Having debunked the first myth, the scientists assumed that cats somehow push off from the experimenter's hands to gain momentum, which allows them to change body position in midair. This technique is somewhat similar to what springboard athletes use. This proposition, however, got rejected as well, proven wrong by a series of photoshoots. Cats were able to alter their body position even when simply thrown. At the beginning of the twentieth century, it became clear that they are able to do so by actively moving their paws and entire body.

At the beginning of their fall, a cat moves its body so that the front half is turned to the right. This way, the front limbs are moved closer to their head while the rear extremities are drawn as far as they can. Right after that, the cat bends its rear opposite to its front. It all means that a cat directs its front body part towards the ground, being able to clearly see what spot to choose for landing. They part their rear extremities to compensate for the inertia of their front and rear body. Finishing their landing, the feline extends its front limbs, stopping the body from rotating. As the rear extremities gradually reach their final position, the cat assumes a stance to ground with no harm to itself.

It was also established that if a cat is dropped with its limbs pressed to the body, it is unable to turn itself upright and land on its feet. As the technology of photo shooting advanced, it became possible to observe the process in more detail. Among other findings, it was noted that if a cat is propelled upwards with its paws facing up, it will keep that stance until reaching the peak of the ascent, at which point it will then start to turn.

Scientists have also observed how a cat's fall is affected by its sense organs. If the cat is blindfolded, then it will display lower proactivity during the fall. It looks rather odd and awkward, and if the cat in question is put in a spinner prior to being thrown, then it confuses up and down, landing on its back. Interestingly, the absence of hearing has no apparent impact on the way the cat acts while falling.

Another question on everyone's mind is how cats manage to stay alive after falling from great heights. The answer to this is rather simple: a cat weighs much less than a human, and at the same time, it has greater aerodynamic drag, resulting in a rate of fall of about 17 metres per second. To give you an idea of how fast or slow that is, a parachute jumper will reach a velocity of almost 50 metres per second. What is more surprising though is that a cat falling off a higher altitude has more chances to stay alive, supposedly because it relaxes its muscles mid-fall, spreading its body to create better aerodynamic resistance.

Some people have tried to imitate the movements of a falling cat to land upright. One of the daring ones was a high-board diver and Olympic champion, Brian Phelps. As it turned out, it took the highly-trained man 0.3 seconds to do what cat manages to do in just 0.12. Phelps managed to turn his body upright midair after being propelled with his belly pointing down. No other person managed to reproduce said trick.

Questions 1-3

Complete the summary.

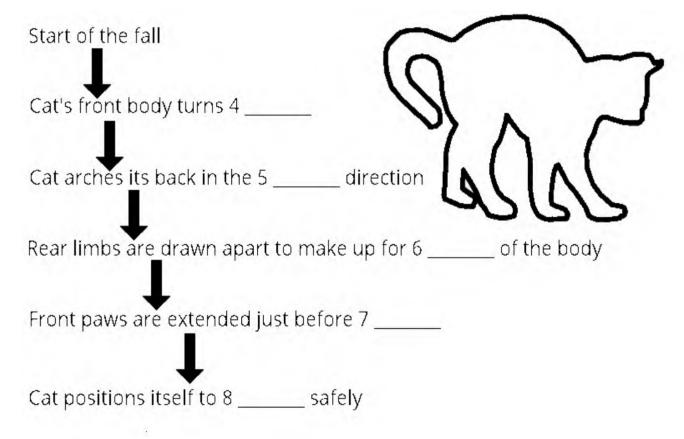
Choose **ONE WORD ONLY** from the passage for each answer.

Cat's ability to land on all fours has always fascinated people. It was only with a breakthrough in 1 ______ that scientists succeeded in solving this mistery. The picture of a cat in the state of 2 ______ helped to study the phenomenon in more detail. One of the interesting findings was that cat's 3 ______ plays no role in aiding it to turn upright.

Questions 4-8

Complete the flow-chart

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



Questions 9-13

Do the following statements agree with the information given in Reading Passage 2? 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.** Cats always land on all fours.
- **10.** Cat's aural abilities have no impact on successful landing.

- **11.** Even the biggest of falls leave cats uninjured.
- **12.** Longer falls increase cat's chances to land on four legs.
- **13.** No man managed to successfully reproduce cat's landing technique.

Reading Passage 2

Waking numbness or sleep paralysis

Imagine yourself waking up and not being able to move, not even your finger. The room is pitch black, but you can sense somebody — somebody malicious standing next to your bed or even sitting on your chest, stopping you from breathing.

Such a bizarre phenomenon is commonly referred to as waking numbness, or more ominously, "sleep paralysis" (SP). Unlike today, people of the past thought of it as something supernatural, thus spawning many superstitions around it. In older times, the cause was believed to be demons, or incubi—an evil spirit with the physical appearance of a human male. Some cultures believed the reason for that to be malicious magical rituals or curses aimed at the person suffering from this state.

According to official data, at least five percent of people experienced this state at some point in their lives. Some go through it only once, whereas there are individuals who face the symptoms fairly regularly. Whether you belong to one group or the other, there is good news for you: this state poses no danger to either your life or your health.

This state is very similar to the rapid eye movement (REM) stage of sleep, the one during which you have dreams. The biological purpose of this state is to prevent you from making any abrupt movements, thus ensuring a long, uninterrupted rest. In cases of sleep paralysis, the brain wakes up while the body is still sleeping. Until the body wakes up, you are left motionless. Alternatively, you might experience being able to move your body, but the delay between your impulse to move it and the actual movement feels unbearably long.

The symptoms are not limited to numbness of the body. One can feel imminent danger, fear, or stifling pressure; it can also be difficult to breathe or even have a sensation like being choked. Palpitation, or accelerated heart rate, is also rather common. Some report having an illusion of involuntary body movement, like turning over to one side or to one's stomach or back, even though in reality the person lies still. Voices, unnatural sounds and noises like approaching footsteps are often reported by patients suffering from sleep paralysis. Hallucinations are not unheard of either—silhouettes of ghosts or people. The latter can be held accountable for the popular evil spirit myth.

Sleep paralysis can often be caused by sleeping on one's back. Sleeping on your body side drastically lowers your chances of experiencing most of the symptoms. It can also be a symptom of various sleep disturbances (such as insomnia or narcolepsy). It can only be triggered by waking up naturally. If the person is woken up abruptly, whether it is a bright light or an alarm clock ringing, then sleep paralysis does not take place.

There is no surefire way to battle this condition. A common recommendation is to establish a sleeping routine and follow it religiously. Some break sleep paralysis by rolling their eyes, moving their tongue or thumb on their right hand (or their left hand for lefties). Others are more successful with relaxing completely and remaining calm; this reduces the negative emotional impact, and the state gradually recedes. Brain activity has also been reported to help—thinking about something complex or running calculations in your head seems to aid in overcoming the numbness. Using your pharynx to pronounce something is a good way to break the state too; since you can't open your mouth, it will come out as incomprehensible moaning, but it is likely to help.

Research has shown that analytically minded people are less susceptible to the negative effects of the state. When they happen to suffer from it, they feel less depressed after the occurrence because they are usually not superstitious—they do not allow negative emotions stemming from beliefs connected with evil spirits. As the scientists explained, the type of people mentioned above tend to explain everything from a scientific point of view, whereas people who rely on intuition are more likely to base their conclusions on a less rational basis.

Questions 14-17

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

- **14.** People nowadays believe sleep paralysis to be caused by the supernatural
- **15.** Five percent of people suffer from sleep paralysis symptoms regularly
- **16.** Sleep paralysis can make people see things
- **17.** Avoiding sleeping on your back helps reduce sleep paralysis occurrence

Questions 18 and 19

Choose the correct letter A-D

- **18.** Symptoms of waking numbness do not include
- **A** Anxiety
- B Pounding heart
- C Nausea
- D Hallucinations
- **19.** According to the passage
- A SP can be dangerous
- B SP is biologically redundant
- C There are ways to dispel the state
- D Smarter people do not suffer from SP

Questions 20-27

Complete the summary using words from the box below

Sleep paralys	sis is a 20	of not being able t	o move or 21	right after one wakes up. It has certain
22	surrounding it —	most of them dating	back to the ancient t	imes. Biologically, this phenomenon is to
23	you from waking	caused by involunta	ry body movements.	Other typical symptoms of sleep paralysis
include 24 _	and strug	gling for 25	Despite this, a per	son with sleep paralysis faces no 26
fro	om it.			

Words for the gaps:

HALLUCII	NATIONS	DANGER	BREATH		
SPEAK	STOP	HELP	DISEASE	HARM	
SUPERSTI	TIONS	THINK	STATE	FEAR	

Reading Passage 3

The honey bee, or *apis mellifera*, is a fascinating insect. They live in big families or swarms. These swarms have historically been appeared in varying climatic and geographical zones, as long as flowering plants were present there. Natural selection and evolution ensured gradual improvement of the species. Eventually, biological differences shaped the honey bee that inhabits our planet today. Nowadays there exist three distinct types of honey bees, each with defined duties and responsibilities.

The Worker Bee

The predominant type of bee in the hive, they are exclusively female. However, over the course of evolution, they have been deprived of the ability to mate with male bees and, therefore, have offspring. Neither their deteriorated reproductive organs nor the size of their bodies allow that. However, female bees retained their maternal instincts, which makes the young of the hive their prime concern. They have gained and, in the evolutionary course, greatly developed other qualities important for a family member: they feel the urge to build shelter and gather food for future use; they ensure that the larvae are satiated; and their hive is warm and well-protected from intruders. The working bee does everything to make the hive function properly.

The Queen

The queen does not normally leave the hive. There are several occasions when she does so—one of them is the period of chastity to search for mating partners. It makes its first venture out of the hive to scout the surroundings, usually during the warm and quiet morning hours while drone bees are still inside the nest. The only other time the queen leaves her nest is for mating rituals. This usually coincides with the period when young bees go out to learn the vicinity of their hive for their future pollination duties. The queen can go as far as 7 kilometres away from the apiary (or hive, for wild bees). At such a great distance from her home, she is likely to encounter drones from other families, reducing the chances of inbreeding.

A newly-born queen is yet to be considered the supreme mother of the bee family, as she isn't fertile at this point. It is only after several days that she reaches puberty and, with it, the ability to lay eggs after mating with drones. After her first mating eggs start growing inside her bosom, her belly grows larger, and she turns bulky and cumbersome. The queen becomes slow; her movement—paced and gracious. The queen resides in empty honeycombs that she uses to lay eggs. Those eggs are of two types: fertilised and unfertilized. The former give life to female specimens—working bees and other queens—while the latter bring males, or drones. The queen is the cornerstone insect of the swarm, regulating the pace at which it functions, its population, and its prosperity. The queen is the sole ruler of the bee society.

However, the queen bee is nothing without her humble servants. She won't be able to lay an egg unless the worker bees prepare a honeycomb for it. She is totally reliant on worker bees for food and protection because her size doesn't allow her to either provide for or defend herself. It is the ultimate goal for any bee to ensure that the queen is safe, happy, and has everything in abundance. And that isn't surprising—if the queen dies, the whole societal structure of the hive collapses. That is why whenever a queen falls ill, the bees grow agitated and promptly hatch another queen by feeding a larva with royal jelly exclusively.

The Drone

Drones are hatched at the end of spring, when the hive has enough strength to start swarming. Drones are male bees whose primary and only goal is to fertilise the queen. Without them, bees would not be able to procreate, so technically, they are as important as the queen. Bees try to hatch as many drones as they can sustain to ensure female impregnation. They spare no expense in bringing drones up—a growing drone eats up to six times more than a worker bee. Among other foods, an adult drone consumes bee bread, a staple consisting of honey and pollen.

Drones usually mate in the air at an altitude of up to 30 meters. They might choose to travel far away from their hive to find a mating partner, so they require an acute sense of smell to track a bee gueen down as well as sharp eyesight and strength to see and catch her. A drone's eye has up to eight thousand facets, compared to only four or five thousand for a worker bee. This grants drones extreme spatial awareness and a quick reaction capacity to any changes around them. They are also blessed with longer antennae—the bee's organ of smell. They can sense the presence of a bee gueen from 50 metres away.

Drones are exempt from any work in the hive. They do not take part in defending it; they can't even get food to feed themselves and would starve if it weren't for worker bees. Their only *raison d'etre* is to impregnate bee queens. Nature has liberated drones from any duties other than the procreative one. This all comes at a great cost, though. After the mating with the queen is over, the drone dies. Drones are part of the bee family for only as long as the swarming period lasts. After that, drones are exiled, their purpose fulfilled, and no longer needed.

Questions 28-35

Complete the table below.

Choose **NO MORE THAN ONE WORD** from Reading Passage 3 for each answer.

Type of bee	Responsibility	Comments		
	 Ensuring there is enough 27 28 the hive from trespassers Feeding the 39 	Unable to 30 despite being 31		
Queen bee	Breeding new bees	Completely 32 on worker bees		
Drone		 Cannot get 34 for themselves 35 from the hive after swarming is over. 		

Questions 36-40

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

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

- **36.** Worker bees constitute the majority of the hive population
- **37.** There can only be one queen in the hive at a time
- **38.** The gender of a newborn bee is decided by chance
- **39.** Drones are larger than worker bees in size
- **40.** Drone's perception is better than that of a worker bee.

Answer Keys

- **1. photography.** Paragraph 1, sentence 3. 'Breakthrough' from the task is paraphrased as 'advancement' in the text.
- **2. falling/descent.** Both words convey the meaning and are present in the text, namely in the middle of paragraph
- **3. tail.** To aid means to help, to make something easier. The cat's tail, surprisingly, does not help it land on its paws. 'Upright' means not upside down.
- **4. right.** Paragraph 3, sentence 1. Pay attention to the fact that in the task you can only use ONE word, and in the text we have 'to the right'. Therefore, just putting 'right' in the answer form is the only option here.
- **5. opposite.** Paragraph 3, sentence 3. 'Rear' in the text is the paraphrased 'back' from the task.
- **6. inertia.** Last sentence of paragraph 3. The main paraphrase here is 'to make up for', transformed to 'compensate'.
- **7. landing.** Ending of paragraph 3: Just before landing, the cat puts its front paws forward.
- **8. ground.** Note that the word we need in the gap should be a verb, as suggested by 'to' before the gap. Normally, you would expect to use 'land', but it is not present in the context of these sentences.
- **9. FALSE.** First sentence in paragraph 4 states the opposite. 'All fours' in the task match 'feet' in the text. Do not be alarmed by the usage of 'feet' in relation to an animal; this is perfectly acceptable, just as much as 'paws' or 'legs'.
- 10. TRUE. The biggest challenge is understanding what 'aural' means. This word refers to one's ability to hear things. Last sentence of paragraph 6 states that it has no impact on a cat's successful landing.
- **11. NOT GIVEN.** Paragraph 6 starts with a question about how cats manage to survive falling from heights. This is the extent of the information we get, but there is no statement about cats being able to survive a fall from any height. No definitive answer can be given here.
- **12. TRUE.** Last sentence of paragraph 6 mentions that cats get a chance to relax their muscles and spread their bodies, thus increasing aerodynamic drag and lowering the speed of their fall.
- **13. FALSE.** The opposite is true; Brian Phelps is mentioned as an example of accomplishing such a feat.
- 14. FALSE. Directly opposite information is given in paragraph 2, second sentence. 'Unlike today' shows clear contrast with the statement made in the task.
- **15. FALSE.** 5 percent is the total number of people suffering from this phenomenon. Of those 5%, some experience it regularly, while others do so much less frequently.
- **16. TRUE.** Paragraph 5, last sentence states that hallucinating can be one of the effects of sleep paralysis. 'To see things' means to have visions that are not real.
- **17. TRUE.** Sentences 1 and 2 of paragraph 6 confirm the idea, suggesting sleeping on the side as a viable alternative.
- **18. C.** Paragraph 5 mentions all the symptoms, with nausea not being mentioned as one.
- **19. C.** The ways to 'dispel' this state (make it go away) are listed in paragraph 7. The opposite of Answer A is stated: it is harmless, according to the last sentence of paragraph 3. Answer B is wrong; the biological purpose of SP is given in paragraph 4, sentence 2. Answer D, probably referring to first sentence of paragraph 8, says that such people are less likely to have SP but are not immune to it.
- **20. state.** A fairly simple answer. 'Danger' doesn't fit as it is a real condition rather than just a risk of it happening. It is not a disease; you can't get it from somebody else. 'Fear' doesn't fit either - see 'danger'.
- **21. speak.** The one other word that fits grammatically is 'think', but according to the text, you are quite conscious even when affected by sleep paralysis.
- **22. superstitions.** 'Dating back to ancient times' is a helpful part, making it easy to connect the idea to paragraph 2 of the text.

- **23. stop.** Sentence 2 of paragraph 4 mentions the biological need for sleep paralysis.
- **24. fear.** Paragraph 5. Note that 'danger' doesn't work here, as 'danger' cannot be used as a symptom, only as a sensation, e.g. 'a sensation/sense of danger'.
- **25. breath.** Paragraph 5: 'it can also be difficult to breathe'.
- **26.** danger. Last sentence of paragraph 3 contains the answer. Note that 'harm' shouldn't be used as the word cant be found in the text - in IELTS Reading you should favour the words that are present in the test text.
- **27. food.** The middle of paragraph 2 says that they gather food for future use.
- **28.protecting/defending.** In the second paragraph, they ensure hive safety from outsiders. This time, you get some leeway with phrasing the answer.
- **29. larvae.** Plural of 'larva', this part can prove difficult if you are not familiar with the word 'satiated'. It means 'well-fed, not hungry'.
- **30. mate.** Do not use 'have offspring' as the answer is limited to one word only.
- **31. female.** Over the course of evolution, worker bees reproductory function has gone.
- **32. reliant.** Sentence 3 of paragraph 5 mentions the queen's total reliance on worker bees when it comes to food. 'Totally' is synonymized as 'completely'.
- **33. fertilizing/impregnating.** Second sentence of the paragraph relating to drones has the answer. Once again, you get some freedom with wording, as both words can be found in the text.
- **34. food.** Last paragraph mentions this peculiarity of drones.
- **35. exiled.** Last two sentences of the text contain the answer. As is often the case with the last part of IELTS Reading, you face more difficult vocabulary that is needed to get some questions right.
- **36. TRUE.** Paragraph 2 of the text states that worker bees are the predominant type in a bee colony. It is also added that they can only be female, which is irrelevant to the question but might add to the confusion.
- **37. TRUE.** Last sentence of paragraph 4 says that a queen is 'the sole ruler', meaning that there can be only one queen at a time. There is also a part that mentions fertilised eggs that give birth to other queens. However, they are used when the queen is dead or dying, as stated in the last sentence of paragraph 5.
- **38. FALSE.** The opposite is mentioned in paragraph 4 bees can control the gender by choosing to fertilise the egg or not, effectively manipulating the gender.
- **39. NOT GIVEN.** You are tricked into assuming that the drone is larger because it is male and eats much more than a worker bee. However, no information about their relative size is presented in the text, so be careful with the answer.
- **40. TRUE.** Middle of paragraph 7 mentions the drone's much more developed eyesight and perception that it has thanks to more facets in their eyes. A direct comparison with a worker bee is given here, so a conclusive answer can be chosen this time.

Vocabulary

The vocabulary below is meant to help you with the more difficult words. If the word isn't on the list then you are either supposed to know it or it is too specific to be worth learning and you don't have to know it to answer the question. Symbols in brackets mean part of speech (see bottom of the list). Sentences in italics give examples of usage for some more complex words and phrases.

And remember — you are not given a vocabulary list (or a dictionary) at your real exam.

Section 1

Paw (n) - the part of the leg of an animal, such as a dog, a cat, or a wolf, which has claws and soft pads of skin.

Plausible (adj) - something that looks or sounds possible or trustworthy. *A plausible explanation for the increased* smoking among teenagers is the positive portrayal of smoking in movies and TV-series.

Descent (n) - the process of going down. During the plane's descent, you might feel the aircraft shaking; this is completely normal, and you shouldn't be alarmed by it.

Ascertain (v) - to make sure, to confirm something.

Latter (pron) - the last one mentioned. *Dogs and cats are both very popular as pets; the latter are more favoured* by people living in flats.

Debunk (v) - to prove something untrue, especially a myth or a theory. *I know a guy who debunks urban myths on* YouTube for a living.

Momentum (n) - (here) to gain and maintain speed in a particular direction. *In order to ride up this steep bridge*, you will need momentum to carry you up, so make sure to accelerate hard when approaching it.

Proposition (n) - a suggestion or an idea that is open to consideration by others. *My proposition to push the lunch* break to 1 p.m. was rejected by people because most of them do not have breakfast at home and get hungry by noon.

Extremity (n) - a limb such as an arm, leg, or other limb that extends beyond the end of one's body.

Inertia (n) - used a physics-related word here; inertia is an object's tendency to keep doing what it currently does. If it is stationary, then it requires energy to move; if it is moving, it too requires energy to be stopped.

Propel (v) - push or apply force to move something in a particular direction.

Blindfolded (adj) - with one's eyes covered and therefore unable to see. *I was blindfolded and given some food to* taste, then choose then one I liked best.

Proactivity (n) - acting before something happens, as opposed to reacting, which is acting after something has already taken place.

Aerodynamic drag - the force that prevents you from gaining more speed as air density goes higher.

Section 2

Malicious (adj) - evil by nature, desiring to do harm.

Numbness (n) - a state of not having any sensation; can refer to both physical and emotional aspects. *I had* numbness in my left arm because I was sleeping on it.

Ominous (adj) - if something is ominous, then it is a sign of something bad that is likely to happen in the future. The teacher had an ominous look on his face - I quessed that most of us had failed the exam.

Spawn (v) - give birth to, either figuratively or literally.

Superstition (n) - a widely held belief that is based on myths or legends rather than facts and experience. *One* common superstition is that a black cat crossing your path means bad luck.

Abrupt (adj) - sudden and unexpected; often used negatively. *It took her a while to get used to the abrupt change* in life that introduced the death of her relative.

Uninterrupted (adj) - without any unwanted stops (interruptions).

Unbearably (adv) - too much to tolerate; used negatively. *The commercial breaks during this show are unbearably* dull and uninspired.

Imminent (adj) - unavoidable and coming very soon; almost always used negatively. The realisation that death is imminent makes many people uncomfortable with themselves.

Stifling (adj) - uncomfortably hot. A stifling day in July really makes you want to move to the seaside.

Involuntary (adj) - something that you have no control over; also, something you did not agree to. A strange fit that made one of my fingers twitch involuntary.

Drastically (adv) - considerably, very much. *Quitting drinking and smoking has drastically changed her life for* the better.

Surefire (adj) - guaranteed to succeed. A surefire way to do well at college is to apply yourself academically since elementary school and never miss classes.

Recede (v) - to gradually become less intense. The storm receded, and eventually we were able to leave our underground shelter.

Incomprehensible (adj) - extremely difficult or impossible to understand because of the way it is said or written. *Teachers always complain about my supposedly incomprehensible writing, but my mother can read it just fine.*

Susceptible (adj) - more likely to be affected by something negative. *Having lived in a warm climate all my life, I* catch a cold easily whenever I hate to travel to a country with a temperate climate.

Stem from (v) - to come from, to have something as the source. *My fear of dogs probably stems from my traumatic* childhood experience with one.

Section 3

Swarm (n) - normally means a big group of flying insects; used in a slightly different meaning that is explained in the text right after. A swarm of mosquitoes clouded above the street lamp.

Predominant (adj) - occurring in most cases or in greater numbers than anything else. *Pines are the predominant* type of tree in these woods.

Deprive of (v) - to take something away, especially something that one wants or needs. *Prisoners in third-world* countries are usually deprived of the most basic human rights.

Offspring (n) - children, more often used in reference to animals, birds, or insects than humans.

Deteriorated (adj) - something that became worse than it was before. With time, his lonely life deteriorated into spending days staring at the wall and reminiscing about the past.

Retain (v) - to keep something, to continue having it.

Prime (adj) - most important. Your prime duty at this job is to organise Mr. Brown's schedule and redirect his phone calls.

Larvae (n) - a first, primitive, and helpless stage of life for many insects.

Satiated (adj) - fed, not hungry.

Intruder (n) - an unwelcome, often aggressive thing or person to one's place of living. *There was a rather* disturbing sign at the gate entrance: "Intruders are shot on sight".

Chastity (n) - state of not engaging in an intercourse (mating).

Coincide with (v) - to happen at the same time. *It took me great effort to make my 10-day vacation coincide with* the Christmas holidays.

Pollination (v) - a process of plant reproduction that happens thanks to bees and other insects who seek nectar and, incidentally, carry pollen from male to female flowers, fertilising them in the process.

Apiary (n) - a location where artificially made small houses with bee hives are kept. The person working with bees is known as an apiarist.

Inbreeding (n) - mating among closely related males and females. This is considered unnatural, and if it leads to pregnancy, it might lead to genetic disorders in the offspring.

Fertile (adj) - (about living things) able to get pregnant and give birth.

Puberty (n) - stage of physical maturity and reproductive functionality. *They say that teens reach puberty earlier*

nowadays than they did several decades ago.

Bosom (n) - female breasts.

Bulky, cumbersome (adj) - big and awkward.

Cornerstone (adj) - an integral, fundamental part of something that cannot be taken away. *Sharing is a* cornerstone principle of our community; you should be ready to both give and take without feeling sorry about it. **Humble** (adj) - not proud, thinking of oneself as not better than others. *They say that geniuses are rarely humble* because, usually, they are fully aware of how special they really are.

Agitated (adj) - visibly worried. *Anna seemed quite agitated*; it was later that I found out the reason—she had been shortlisted for the local beauty pageant.

Procreate (v) - to have progeny; in other words, to give birth and to continue one's lineage.

Spare no expense - to do everything possible to achieve a goal. *We spared no expense in organising this holiday* for you, so hopefully it will be to your satisfaction.

Acute (adj) - (about senses) well-developed.

Spatial (adj) - relating to space.

Exempt from (adj) - not having to participate in something, especially something unpleasant or undesirable. *Postgraduate students in this country are exempt from compulsory military duty.*

Raison d'etre (French): reason to exist, ultimate purpose.