

RC TEST PAPER 4

Passage –1

In its more extreme forms persecution mania is a recognised form of insanity. Some people imagine that others wish to kill them, or imprison them, or to do them some other grave injury. Often the wish to protect themselves against imaginary persecutors leads them into acts of violence which make it necessary to restrain their liberty. This, like many other forms of insanity, is only an exaggeration of a tendency not at all uncommon among people who count as normal. I do not propose to discuss the extreme forms, which are a matter for a psychiatrist. It is the milder forms that I wish to consider, because they are a very frequent cause of unhappiness, and because, not having gone so far as to produce definite insanity, they are still capable of being dealt with by the patient himself, provided he can be induced to diagnose the trouble rightly and to see that its origin lies within himself and not in the supposed hostility or unkindness of others.

We are all familiar with the type of person, man or woman, who according to his own account, is perpetually the victim of ingratitude, unkindness, and treachery. People of this kind are often extraordinarily plausible, and secure warm sympathy from those who have not known them long. There is, as a rule, nothing inherently improbable about each separate story that they relate. The kind of ill-treatment of which they complain does undoubtedly sometimes occur. What in the end rouses the hearer's suspicions is the multiplicity of villains whom it has been the sufferer's ill-fortune to meet with.

In accordance with the doctrine of probability, different people living in a given society are likely in the course of their lives to meet with about the same amount of bad treatment. Of one person in a given set receives, according to his own account, universal ill-treatment, the likelihood is that the cause lies in himself, and that he either imagines injuries from which in fact he has not suffered, or unconsciously behaves in such a way as to arouse uncontrollable irritation. Experienced people therefore become suspicious of those who by their own account are invariably ill-treated by the world; they tend, by their lack of sympathy, to confirm these unfortunate people in the view that everyone is against them. The trouble, in fact, is a difficult one to deal with, since it is inflamed alike by sympathy and by lack of sympathy. The person inclined to persecution mania, when he finds a hard-luck story believed, will embellish it until he reaches the frontier of credibility; when, on the other hand, he finds it disbelieved, he has merely another example of the peculiar hard-heartedness, and this understanding, and this understanding must be conveyed to the patient if it is to serve its purpose.

1. Persecution mania is

- a form of temporary insanity.
- an exaggerated form of insanity.
- in its more extreme forms, an incurable form of insanity
- none of the above.

2. The liberty of a person suffering from extreme persecution mania has to be restrained because

- his ills are imaginary
- he might turn violent
- he is insane
- none of these.

3. The author would seem to suggest that

- persecution is present in most normal people.
- like persecution, many other forms of insanity quite uncommon in many normal people.
- [1] & [2]
- in a milder form, many forms of insanity are common among normal people.

4. The author feels that the milder variety of persecution mania can be dealt with by the patient himself because
- his affliction has not so far produced definite insanity.
 - he can induce himself to diagnose his trouble rightly.
 - he can realise that the origin of his disease lies in himself.
 - [2] & [3].
5. All the following facts, about people suffering from mild persecution mania are true, except that
- they are apparently reasonable.
 - there is nothing improbable about the stories they tell.
 - the kind of ill-treatments they complain of do sometimes occur.
 - they get warm sympathy from those who have known them for long.

Passage – 2

After singing for their supper, bees sleep soundly. When they hover around, sucking fluid from hibiscus flowers during the day, their wings beat about 60 times a second.

An expenditure led by Dr. John Joseph from the University of Aarhus in Denmark went to Brazil to see how bees manage their energy supplies. It concentrated on the grounds of the Biological Museum in Santa Teresa, 500 kilometers north of Rio de Janeiro.

The park boasts of 3,200 wild bees from 15 species, including the tiny *Lophornis Magnifica*, whose name refers to its green, red, and white plumage rather than its size. Its body would fit into this paragraph with room to spare.

They found that a hovering ten-gram bee used about half a liter of oxygen every hour. In terms of oxygen per gram, that is about ten times the amount an energetic person might use up in the same time. To pump all this oxygen around its body a bee's heartbeat has to be high – about 1,440 beats per minute, compared to around 110 for an exercising human. The oxygen is used to burn up food, making the energy that keeps the bee warm and powers its wings. Eating lets it hover, and hovering lets it eat.

During the day such an energetic metabolism keeps a bee's body temperature at about 40° c. But the bees cannot store enough food in their tiny bodies to keep their temperature that high all night. So, at night *L. Magnifica* slows its metabolism enough to cut its body temperature by 20-30° c. It may breathe around 50-100 times less oxygen than during the day, which means that it uses by 50-100 times less food. It works well, but it does mean that waking up is hard to do.

Dr. Joseph found that the bee uses almost as much oxygen shivering itself awake in the morning as it does when hovering. It takes the bee about 15-20 minutes to raise its temperature back up to its day-time level – all the time using up energy. With only small food reserves, the bees – especially small ones like *L. Magnifica* – sometimes get only one chance to wake up. If they nod off again, they sleep the sleep of the dead.

6. Which of the following statements is false?
- There are only 15 species of the bees in the world.
 - Of the bees found on the grounds of the Biological Museum in Santa Teresa, *Lophornis magnifica* is one of the tiniest.
 - The bees survive on fluid from flowers.
 - The name *Lophornis magnifica* does not refer to the size of the bee.
7. The bee needs to maintain a high rate of heart beat
- to send the abnormally high amount of oxygen round its body.

- to digest food.
- to generate energy.
- to keep itself warm.

8. Which of the following statements is false?

- The less the weight of a bees, the greater are its chances of dying in its torpor.
- A normal human being needs less than a half a litre of oxygen per hour.
- The task of the expedition led by Dr-Joseph was to examine how bees managed their energy supplies.

9. Which of the following statements is true ?

- The bees eats while it hovers.
- In order to keep its night temperature low the bees eats little at night.
- Eating gives the bees energy to hover and hovering makes it hungry.
- The larger the body of a bees, the faster it hovers.

10. Which of the following measures, even if successfully adopted, is unlikely to bring down the death rate among bees?

- A device to shorten the time span the bees take to raise their body temperature while waking up.
- A device to make them store more energy in their bodies before and during their sleep
- Making them take more nutritious food than fluid from the flowers.
- A device to make them breathe at night at the same rate as during the day.

Answers to Paper IV

1. [4] 2. [2] 3. [4] 4. [1] 5. [4] 6. [4] 7. [1] 8.[2] 9.[3] 10. [4]