READING PASSAGE 3

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

When people are ‘deaf’ to music

Music has long been considered a uniquely human concept. In fact, most psychologists agree that music is a universal human instinct. Like any ability, however, there is great variation in people’s musical competence. For every brilliant pianist in the world, there are several people we refer to as ‘tone deaf’. It is not simply that people with tone deafness (or ‘amusia’) are unable to sing in tune, they are also unable to discriminate between tones or recognize familiar melodies. Such a ‘disorder’ can occur after some sort of brain damage, but recently research has been undertaken in an attempt to discover the cause of congenital amusia (when people are born with the condition), which is not associated with any brain damage, hearing problems, or lack of exposure to music.

According to the research of Dr. Isabelle Peretz of the University of Montreal, amusia is more complicated than the inability to distinguish pitches. An amusic (a person who has the condition of amusia) can distinguish between two pitches that are far apart, but cannot tell the difference between intervals smaller than a half step on the Western diatonic scale, while most people can easily distinguish differences smaller than that. When listening to melodies which have had a single note altered so that it is out of key with the rest of the melody, they do not notice a problem. As would be expected, amusics perform significantly worse at singing and tapping a rhythm along with a melody than do non-amusics.

The most fascinating aspect of amusia is how specific to music it is. Because of music’s close ties to language, it might be expected that a musical impairment may be caused by a language impairment. Studies suggest, however, that language and music ability are independent of one another. People with brain damage in areas critical to language are often still able to sing, despite being unable to communicate through speech. Moreover, while amusics show deficiencies in their recognition of pitch differences in melodies, they show no such deficiencies in tonal languages. Amusics who speak tonal languages, such as Chinese, do not report having any difficulty discriminating between words that differ only in their intonation. The linguistic cues inherent in speech make discrimination of meaning much easier for amusics. Amusics are also successful most of the time at detecting the mood of a melody, can identify a speaker based on his or her voice and can discriminate and identify environmental sounds.

Recent work has been focused on locating the part of the brain that is responsible for amusia. The temporal lobes of the brain, the location of the primary auditory cortex, have been considered. It has long been believed that the temporal lobes, especially the right temporal lobe, are most active when engaged in musical activity, so any musical disability should logically stem from here as well. Because it has been shown that there is no hearing deficit in amusia, researchers moved on to the temporal neocortex, which is where more sophisticated processing of musical cues was thought to take place. New studies, however, have suggested that the deficits in amusics are located outside the auditory cortex. Brain scans of amusics do not show any reaction at all to differences smaller than a half step. When changes in tones are large, their brains overreact, showing twice as much activity on the right side of the brain as a normal brain hearing the same thing. These differences do not occur in the auditory cortex, indicating again that the deficits of amusia lie not in hearing impairment, but in higher processing of melodies.

So what does this all mean? Looking only at the research of Peretz in the field of neuropsychology of music, it would appear that amusia is some sort of disorder. As a student of neurobiology, however, I am skeptical. Certainly the studies by Peretz that have found significant differences between the brains of so-called amusics and normal brains are legitimate. The more important question now becomes one of normality. Every trait from skin color to intelligence to mood exists on a continuum—there is a great deal of variation from one extreme to the other. Just because we recognize that basic musical ability is something that the vast majority of people have, this doesn't mean that the lack of it is abnormal.

What makes an amusic worse off than a musical prodigy? Musical ability is culturally valued, and may have been a factor in survival at one point in human history, but it does not seem likely that it is being selected for on an evolutionary scale any longer. Darwin believed that music was adaptive as a way of finding a mate, but who needs to be able to sing to find a partner in an age when it is possible to express your emotions through a song on your iPod?

While the idea of amusia is interesting, it seems to be just one end of the continuum of innate musical ability. Comparing this 'disorder' to learning disorders like a specific language impairment seems to be going too far. Before amusia can be declared a disability, further research must be done to determine whether lack of musical ability is actually detrimental in any way. If no disadvantages can be found of having amusia, then it is no more a disability than having poor fashion sense or bad handwriting.

Questions 27–31

*Choose the correct letter, **A**, **B**, **C** or **D**.*

Write the correct letter in boxes 27–31 on your answer sheet.

27 What does the writer tell us about people with tone deafness (amusia) in the first paragraph?

A They usually have hearing problems
B Some can play a musical instrument very well
C Some may be able to sing well-known melodies
D They have several inabilities in regard to music

28 What is the writer doing in the second paragraph?

A outlining some of the factors that cause amusia
B summarising some findings about people with amusia
C suggesting that people with amusia are disadvantaged
D comparing the singing ability of amusics with their sense

29 What does the writer say about the relationship between language ability and musical ability?

A People who are unable to speak can sometimes sing
B People with amusia usually have language problems too
C Speakers of tonal languages like Chinese rarely have amusia
D People with amusia have difficulty recognizing people by their voices

30 In the third paragraph, the writer notes that most amusics are able to

A learn how to sing in tune
B identify a song by its tune
C distinguish a sad tone from a happy tune
D recognise when a singer is not singing in tune

31 What is the writer doing in the fourth paragraph?

A claiming that amusics have problems in the auditory cortex
B outlining progress in understanding the brains of amusics
C proving that amusia is located in the temporal lobes
D explaining why studies of hearing are difficult

Questions 32–36

Do the following statements agree with the views of the writer in Reading Passage 3?

In boxes 32–36 on your answer sheet, write

YES	*if the statement agrees with the views of the writer*
NO	*if the statement contradicts the views of the writer*
NOT GIVEN	*if it is impossible to say what the writer thinks about this*

32 Peretz's research suggesting that amusia is a disorder is convincing.

33 People with musical ability are happier than those without this ability.

34 It is inappropriate to consider amusia as a real disorder.

35 People with amusia often have bad handwriting.

Questions 36–40

*Complete each sentence with the correct ending, **A–H**, below.*

*Write the correct letter, **A–H**, in boxes 36–40 on your answer sheet.*

36 The reason why some people are born with amusia is

37 One of the difficulties amusics experience is

38 For amusics, discrimination of meaning in speech is

39 Certain reactions in the brain of an amusic are

40 In most cultures, musical ability is

A	an inability to hear when spoken language rises and falls.
B	considered to be desirable.
C	an inability to follow the beat of music.
D	not a problem.
E	not yet well understood.
F	a result of injury to the mother.
G	more marked than with other people.
H	associated with intelligence.

题目 27–31（单选）

题号	答案	题干翻译	精确定位句（原文）	定位句翻译	详细解释
27	**D**	作者在第1段告诉我们：对音乐“音盲”（失乐症 amusia）的人有什么特点？	**第1段**：“*It is not simply that people with tone deafness (or 'amusia') are unable to sing in tune, they are also unable to discriminate between tones or recognize familiar melodies.*”	这类人不只是唱不准音，他们还**无法分辨音高差异或识别熟悉的旋律**。	**D 对**：定位句列出多项能力缺失（唱准、分辨音、识别旋律）= “several inabilities”。**A 错**：第1段明确说先天性失乐症“**not associated with… hearing problems**”。**B/C 错**：文中没有说“有人能演奏得很好/能唱出熟悉旋律”，反而说“无法识别熟悉旋律”。
28	**B**	作者在第2段在做什么？	**第2段**：“*An amusic … cannot tell the difference between intervals smaller than a half step…*”；“*When listening to melodies… do not notice a problem.*”；“*As would be expected, amusics perform significantly worse…*”	失乐症者分不清半音以内的音程；旋律里有一个音跑调也常察觉不到；唱歌、打节拍表现明显更差。	这一段主要在**汇总/概述研究发现**（他们能分辨大跨度音高但分不清细微音程；对跑调不敏感；节奏/唱歌更差），属于 **summarising findings**。**A 错**：没有在列举“导致失乐症的因素/原因”。**C 错**：没有强调“处于劣势/被社会歧视”，只是描述实验表现。**D 错**：不是“比较唱歌能力和感官”，而是在陈述研究结果。
29	**A**	作者对“语言能力”和“音乐能力”的关系怎么说？	**第3段**：“*People with brain damage in areas critical to language are often still able to sing, despite being unable to communicate through speech.*”	语言关键脑区受损、**无法用言语交流**的人，往往仍然**能唱歌**。	**A 对**：原文就是“不能说话/不能通过语言交流，但仍能唱”。这用来支撑“语言和音乐能力相对独立”。**B 错**：第3段明确说二者“independent”，并非“失乐症通常也有语言问题”。**C 错**：文中只是说会说中文等声调语言的失乐症者**不觉得分辨语调困难**，并没说“他们很少有失乐症”。**D 错**：相反，文中说他们常能“identify a speaker based on… voice”。
30	**C**	第3段提到：大多数失乐症者能够……	**第3段**：“*Amusics are also successful most of the time at detecting the mood of a melody…*”	失乐症者多数时候仍能**判断旋律的情绪/氛围**。	**C 对**：“detecting the mood” ≈ 能分辨旋律情绪（悲伤/快乐等）。**A 错**：文中从未说他们能学会唱准音，反而多处强调对音高细微差异不敏感。**B 错**：第1段说他们无法“recognize familiar melodies”，与“凭曲调认出歌曲”相冲突。**D 错**：他们对音高差异识别有缺陷，不支持“能听出歌手跑调”。
31	**B**	作者在第4段做什么？	**第4段**：“*Recent work has been focused on locating the part of the brain that is responsible for amusia.*”；以及后文对新研究与脑扫描结果的描述	近期研究聚焦于定位导致失乐症的大脑区域，并呈现新发现（并非只在听觉皮层）。	**B 对**：这段是“研究进展/路径”：先考虑颞叶/听觉皮层 → 再转向更高级加工 → 新研究指出缺陷在听觉皮层之外，并给出脑扫描证据。**A 错**：反而说缺陷“不在 auditory cortex”。**C 错**：没有“证明就在颞叶”，只是曾被考虑、后来推翻/修正。**D 错**：并非解释研究困难，而是在报告发现。

题目 32–35（YES / NO / NOT GIVEN）

题号	答案	题干翻译	精确定位句（原文）	定位句翻译	详细解释
32	**NO**	Peretz 的研究认为失乐症是一种“障碍”，这一观点很有说服力。	**第5段**：“*…it would appear that amusia is some sort of disorder. As a student of neurobiology, however, I am skeptical.*”	看起来像某种障碍；但作为神经生物学学生，我**持怀疑态度**。	题干说“convincing（有说服力）”，而作者明确“skeptical（怀疑）”。= 观点不被作者认同 → **NO**。
33	**NOT GIVEN**	有音乐能力的人比没有音乐能力的人更快乐。	——（全文未谈“更快乐/幸福感比较”）	——	文中讨论的是能力差异、脑机制、以及“是否算障碍/是否不利”，没有出现“更快乐/幸福”相关论断或数据 → **NOT GIVEN**。
34	**YES**	把失乐症当作一种真正的障碍是不恰当的。	**第7段**：“*Comparing this 'disorder' to learning disorders… seems to be going too far.*”；“*Before amusia can be declared a disability, further research must be done…*”	把这种“障碍”和学习障碍相提并论似乎过头了；在宣布它是残疾之前，还需要更多研究。	作者核心立场：**对“障碍/残疾”标签保持保留**，认为下结论为时过早、甚至“too far”。这与题干“inappropriate（不恰当）”方向一致 → **YES**。（注意：作者不是说研究无效，而是说“把它定性为真正的障碍/残疾”目前不合适。）
35	**NOT GIVEN**	失乐症者经常字迹很差。	**第7段**：“*…no more a disability than having poor fashion sense or bad handwriting.*”	这并不比审美差或字迹差更算“残疾”。	这里“bad handwriting”只是**类比**，用来说明“即便某种能力较弱也不必算残疾”，并没有说失乐症者“经常字迹差”。缺乏频率与因果陈述 → **NOT GIVEN**。

题目 36–40（句子结尾匹配 A–H）

题号	答案	题干翻译	精确定位句（原文）	定位句翻译	详细解释
36	**E**	有些人天生患失乐症的原因是……	**第1段**："*…research has been undertaken… to discover the cause of congenital amusia …*"	（人们）已开展研究来试图发现先天性失乐症的原因。	既然"正在研究以发现原因"，说明原因尚**未明确/未被很好理解 → E not yet well understood**。其余选项（母体受伤、智力相关等）文中无依据。
37	**C**	失乐症者面临的困难之一是……	**第2段**："*…perform significantly worse at singing and tapping a rhythm along with a melody…*"	在唱歌以及**跟着旋律打节拍**方面明显更差。	"tapping a rhythm along with a melody" ≈ **跟随节拍/节奏**能力弱 → **C an inability to follow the beat of music**。
38	**D**	对失乐症者来说，分辨言语中的意义……	**第3段**："*The linguistic cues inherent in speech make discrimination of meaning much easier for amusics.*"	言语中固有的语言线索使失乐症者更容易分辨意义。	"much easier / do not report difficulty" → 对他们而言这**不是问题 → D not a problem**。（A 是"听不出语调起伏"，与原文相反。）
39	**G**	失乐症者大脑中的某些反应是……	**第4段**："*…their brains overreact, showing twice as much activity… as a normal brain…*"	他们的大脑会过度反应，活动量是正常人大脑的两倍。	"twice as much activity"= 反应更强、更显著 → **G more marked than with other people**。
40	**B**	在大多数文化中，音乐能力是……	**第6段**："*Musical ability is culturally valued…*"	音乐能力在文化上被看重。	"culturally valued" ≈ 被认为是可取/理想的 → **B considered to be desirable**。