

READING PASSAGE 3

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

The hazards of multitasking

Doing more than one thing at once – is it always a good idea?

You arrive at the office, review your to-do list and start to feel a headache coming on. You resolve to tackle the items as quickly as possible. While you return calls, you sort e-mail and other letters. You begin keying in slides for tomorrow's presentation. Then your manager comes in wanting an immediate update on sales figures. You have just opened the spreadsheet when a very important customer calls. With the receiver held between your shoulder and your ear, you continue adding up the sales totals until, 15 minutes later, you finally manage, politely, to get rid of the client. You've been multitasking again.

You may believe that anyone who wants to get ahead today should master the art of multitasking. However, a recent study by the Families and Work Institute in New York City has found that 45 per cent of US workers believe that they are asked or expected to work on too many tasks at once. Managers may be surprised to learn that they are actually wasting their workers' time. As it turns out, the human brain cannot really master the computer's art of crunching data in the background while moving between process windows. Instead, a growing number of studies show that trying to juggle jobs rather than completing them sequentially can take longer and leave workers with a reduced ability to perform each task. In addition, the stress associated with multitasking may contribute to short-term memory difficulties. The combination results in inefficiency, careless thinking and mistakes – not to mention the possible dangers of divided attention for drivers, air-traffic controllers and others who handle machinery.

How can a time-management strategy that has become part of the common wisdom actually be so wrong? Exploring that question requires a closer look at an area of consciousness research that examines how the brain focuses attention. One of the modern foundations of current knowledge of multitasking was laid in 1935, when the American psychologist John Ridley Stroop reported that processing information from one task could cause interference with another. Stroop noticed that when study participants were asked to name the colour of a word – such as 'green' – printed in a different colour – red, for example – they experienced difficulty saying the name of the colour. This phenomenon is thought to occur when two tasks get tangled: the brain must suppress one that has been learned so well that it has become automatic (reading) to attend to a second task that requires concentration (naming the colour).

During the past couple of decades, psychologists have probed more deeply into the nature and limitations of multitasking. Psychologist and brain-researcher Ernst Pöppel, of the Ludwig-Maximilian University in Munich, believes that it is impossible to carry out two or three different tasks simultaneously with the same degree of concentration. He says that seemingly simultaneous awareness and processing of information actually take place in 'three-second windows'.

In these three-second segments, the brain takes in, as a block, all the data about the environment streaming in from the sensory systems; subsequent events are processed in the next window. So a person can concentrate on a conversation for three seconds, then for three seconds on a crying child, and three seconds on a computer screen. While one subject at a time occupies the foreground of consciousness, the others stay in the background until they, in turn, are given access to the central processor.

Another experiment by psychologist David E. Meyer, of the University of Michigan, quantified just how much time we can lose when we shuttle between tasks. The researchers asked test participants to write a report and check their e-mail at the same time. Those individuals who constantly jumped back and forth between the two tasks took about one and a half times as long to finish as those who completed one job before turning to the other. Each switchover from one task to another meant re-thinking and thus involved additional neural resources. In effect, the brain needs time to shut off the rules for one task and to turn on the rules for another. 'Multitasking saves time only when it is a matter of relaxed, routine tasks,' Meyer says. It also takes the brain longer to adapt when switching rapidly back to an interrupted task rather than waiting longer before switching back.

By its nature multitasking is stressful, and the area in the brain most involved with multitasking is also most affected by the resulting stress. Located behind the forehead, the prefrontal cortex – which neuroscientists call the 'executive' part of the brain – helps us to assess tasks, prioritise them and assign mental resources. It also 'marks' the spot at which a task has been interrupted, so that we can return to it later. This stress can also affect brain cells in another region, the hippocampus, which is important for forming new memories; damage in that area also makes it difficult for a person to acquire new skills.

Psychiatrists Edward Hallowell and John Ratey, of Harvard University, say that multitasking can bring about a brain condition that causes sufferers to constantly seek new information while having difficulties concentrating on its content. All in all, it may be wise to let the e-mail wait while you work on your presentation. You will save time and perform each task better.

Questions 27 – 31

Look at the following theories (Questions 27–31) and the list of people below.

Match each theory with the correct person or people, **A**, **B**, **C** or **D**.

Write the correct letter, **A**, **B**, **C** or **D**, in boxes 27–31 on your answer sheet.

NB You may use any letter more than once.

- 27** Less attention will be paid to each task when more than one task is attempted at the same time.
- 28** Repeated changes of task mean that the brain will take a while to adjust.
- 29** Using the skills required for one task may make performing another one more difficult.
- 30** When multitasking, the brain can only focus on single tasks for very short periods.
- 31** Multitasking can lead to a medical problem.

List of People

- A** John Ridley Stroop
- B** Ernst Pöppel
- C** David E. Meyer
- D** Edward Hallowell & John Ratey

Questions 32 – 34

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

Write the correct letter in boxes 32–34 on your answer sheet.

- 32** What is suggested about the worker in the opening paragraph?
- A** Anxiety deprived him of sleep the previous night.
 - B** He feels overwhelmed by his workload.
 - C** His manager has expressed disapproval.
 - D** He finds his work dull and uninteresting.
- 33** Drivers and air-traffic controllers are mentioned in the passage because they
- A** need to perform several tasks at once.
 - B** are unable to maintain concentration.
 - C** use their time efficiently.
 - D** cannot afford to make mistakes.
- 34** In John Ridley Stroop's experiment, participants found it difficult to
- A** tell one colour from another.
 - B** match up pairs of similar colours.
 - C** read out the name of one colour printed in another colour.
 - D** decide what colour looks appropriate for a particular word.

Questions 35 – 39

Complete the summary below.

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

Write your answers in boxes 35–39 on your answer sheet.

Multitasking and its effects on the brain

The stressful nature of multitasking has been shown to affect parts of the brain. The area most affected is the prefrontal cortex, which is found to the rear of the **35** _____. It is the part of the brain which judges tasks, then puts them in order of importance and allocates **36** _____; it also enables a worker to resume a task which has been put to one side.

A second area, the hippocampus, may also be affected by the stress of multitasking. If any **37** _____ in the hippocampus are affected, people may have problems with storing **38** _____, as well as learning **39** _____.

Question 40

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

Write the correct letter in box 40 on your answer sheet.

40 The main aim of this passage is to

- A** describe areas where multitasking is useful.
- B** challenge widely held opinions on multitasking.
- C** show the physical damage that multitasking can cause.
- D** call for better psychological experiments on multitasking.

题号	题型/考点	答案	关键原文 (摘录)& 段落	简要解析
27	匹配 (理论-人物)	B Ernst Pöppel	“*believes that it is <i>*impossible to carry out two or three different tasks simultaneously with the same degree of concentration.</i> ” — 第 4 段	无法同度集中 = 若同做多事，每事获注意更少。
28	匹配	C David E. Meyer	“ <i>Each switchover from one task to another meant re-thinking... it takes the brain longer to adapt when switching rapidly back...</i> ” — 第 6 段	频繁改任务 → 大脑需重新加载规则，调整时间变长。
29	匹配	A John Ridley Stroop	“...participants were asked to name the colour of a word... they experienced difficulty ... *” — 第 3 段	读词这一自动技能干扰说颜色，体现“一项技能阻碍另一任务”。
30	匹配	B Ernst Pöppel	“...processing... actually take place in ‘ three-second windows ’...” — 第 5 段	大脑只能在 < 3 秒内聚焦一件事，随后换焦。
31	匹配	D Edward Hallowell & John Ratey	“...multitasking can bring about a brain condition that causes sufferers to constantly seek new information...” — 第 8 段	指多任务可能引发医学/脑部问题。
32	选择	B	场景段: “ <i>start to feel a headache coming on...</i> ” 多任务塞满。” — 第 1 段	头痛 + 忙乱表现“工作负荷压垮”。
33	选择	D	“ <i>possible dangers of divided attention for drivers, air-traffic controllers...</i> ” — 第 2 段	引用原因是他们若失误代价极高 → 不能犯错。
34	选择	C	“ <i>participants were asked to name the colour of a word such as ‘green’ printed in red... they experienced difficulty</i> ” — 第 3 段	难点是说出印刷颜色名字 (而非词义)。
35	Summary	forehead	“ <i>Located behind the forehead, the prefrontal cortex...</i> ” — 第 7 段	按题干“found to the rear of the ____”。
36	Summary	mental resources	“ <i>...prioritise them and assign mental resources</i> ” — 第 7 段	分配资源。
37	Summary	cells	“ <i>stress can also affect brain cells in another region, the hippocampus...</i> ” — 第 7 段	题干已有“in the hippocampus”，只填 <i>cells</i> 即可。
38	Summary	new memories	“ <i>...important for forming new memories...</i> ” — 第 7 段	储存记忆。
39	Summary	new skills	“ <i>...makes it difficult... to acquire new skills.</i> ” — 第 7 段	学习新技能。
40	主旨题	B	通篇结构: 先述“掌握 multitasking 是常识”，后用多项研究驳斥其高效性。	文章核心在于挑战普遍观念，而非列举用途/专讲损伤/呼吁实验。