

系所組別： 電腦與通信工程研究所乙組

考試科目： 通訊工程英文

考試日期： 0307，節次： 1

※ 考生請注意：本試題 可 不可 使用計算機

I. 閱讀理解 (20*2%=40%)

Putting feelings into words makes sadness and anger less intense, U. S. brain researchers said on Wednesday, in a finding that explains why 1 to a therapist often makes people feel better.

They said talking about negative feelings 2 a part of the brain 3 for impulse control. "This region of the brain seems to be 4 in putting on the brakes," said researcher Matthew Lieberman. He and colleagues 5 the brains of 30 people-18 women and 12 men between 18 and 36-who were shown pictures of faces 6 strong emotions. They were asked to 7 the feelings in words like sad or angry, or to choose between two gender-specific names 8 "Sally or Harry" that matched the face.

9 they found is that when people 10 a word like "angry" to an angry-looking face, the 11 in the portion of the brain that handles fear, panic and other strong emotions decreased. "This seems to dampen down the response in these basic emotional 12 in the brain" Lieberman said in a telephone interview.

What lights 13 instead is the part of the brain that controls impulses. "This is the only region of the entire brain that is more active when you choose an emotional word for the picture 14 when you choose a name for the picture," he said.

He said the same region of the brain has been found in 15 studies to play a role in motor control. "If you are driving along and you see a yellow light, you have to inhibit one response in order to 16 on the brake," he said. "This same region helps to inhibit emotional responses as well."

The researchers did not find significant differences along gender lines, 17 Lieberman said prior studies had hinted at some 18 in the benefits men and women derived from talking about their feelings. "Women may do more of this 19, but when men are instructed to do it, they may get 20 benefit from it," he said.

- | | | | | |
|----|--------------|-----------------|----------------|----------------|
| 1 | A) going | B) resorting | C) talking | D) complaining |
| 2 | A) activates | B) stimulates | C) sparkles | D) assimilates |
| 3 | A) suitable | B) applicable | C) responsive | D) responsible |
| 4 | A) engaged | B) involved | C) encountered | D) evolved |
| 5 | A) studied | B) investigated | C) scanned | D) examined |
| 6 | A) showing | B) expressing | C) having | D) presenting |
| 7 | A) describe | B) generalize | C) change | D) categorize |
| 8 | A) as | B) like | C) by | D) with |
| 9 | A) Thing | B) Result | C) What | D) which |
| 10 | A) talked | B) referred | C) pointed | D) attached |

(背面仍有題目,請繼續作答)

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- 11 A) response B) action C) activity D) motion
- 12 A) expressions B) movements C) circuits D) responses
- 13 A) up B) in C) off D) on
- 14 A) as B) than C) to D) comparing
- 15 A) early B) original C) senior D) prior
- 16 A) stop B) step C) stamp D) drive
- 17 A) and B) therefore C) but D) because
- 18 A) similarities B) discoveries C) studies D) differences
- 19 A) willingly B) reluctantly C) unconsciously D) spontaneously
- 20 A) more B) less C) no D) much

II 挑錯與改正：從 S1 到 S10 有 10 個空格，每一空格代表該句有一錯誤，請挑出該錯誤並改正 (10*3%=30%)

例：

Now he had the capability to leave that planet S0 _____
and move out into the universe to those worlds which he
has known previously only directly.

答案：S0: had → has

The National Endowment for the Arts recently released
the results of its "Reading at Risk" survey, which described
the movement of the American public away from books and
literature and toward television and electronic media.

According to the survey, "reading is on the decline on every
region, within every ethnic group, and at every educational level." S1 _____

The day the NEA report released, the U.S. House, in a tie S2 _____
vote, upheld the government's right to obtain bookstore and
library records under a provision of the USA Patriot Act. The

House proposal would have barred the federal government
from demand library records, reading lists, book customer
lists and other material in terrorism and intelligence investigations. S3 _____

These two events are completely unrelated to, yet they S4 _____
echo each other in the message they send about the place of
books and reading in American culture. At the heart

of the NEA survey is the belief in our democratic S5 _____
system depends on leaders who can think critically, analyze
texts and writing clearly. All of these are skills promoted by

reading and discussing books and literature. At the same time, S6 _____

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through a provision of the Patriot Act, the leaders of our country are unconsciously sending the message that reading may be connected to desirable activities that might undermine our system of government rather than helping democracy flourish.

S7 _____

Our culture's decline in reading began well before the existence of the Patriot Act. During the 1980s' culture wars, school systems across the country pulled some books from library shelves because its content was deemed by parents and teachers to be inappropriate. Now what started in schools across the country is playing itself out on a national stage and is possibly having an impact on the reading habits of the American public.

S8 _____

S9 _____

S10 _____

III 英翻中 (30%)

In data communications all bits are equally important; hence, they must be reliably delivered. In contrast, in uncompressed video streams some bits are more important than others. For instance, compared to the least significant bit (LSB), the most significant bit (MSB) of a color pixel has the maximum impact on the video quality. Therefore, bits can be treated differently, and it is not always necessary to deliver all bits with the same error control scheme. Unequal error protection (UEP) provides a way to protect bits in the order of their importance. In UEP, the bit error rate (BER) for high importance bits is much lower. Numerous studies in the past have shown the benefits of using UEP at the physical layer in the context of compressed video. In addition, an uncompressed video stream contains rich spatial redundancy, which can be used to overcome some pixel errors.

Compression at the transmitter and decompression at the receiver incur problems in wireless multimedia applications. First, the processing time during compression and decompression generates an intrinsic latency, which may not be suitable for some delay-sensitive applications such as interactive gaming. Second, degradation in picture quality at the receiver is inevitable. Third, high-definition (HD) streaming is confined between two devices that employ the same compression technique. A transcoder, which converts a compressed HD video into another compression format, is required if a device is to relay the received HD stream to another device employing a different compression technique. This incurs both cost and complexity at a video display (e.g., HDTV). Hence, the need to support uncompressed HD streaming is great.

(source: "A 60 GHz wireless network for enabling uncompressed video communication", Harkirat Singh; Jisung Oh; Changyeul Kweon; Xiangping Qin; Huai-Rong Shao; Chiu Ngo, IEEE Communications Magazine • December 2008, Page(s): 71-78)