

請務必於試卷紙上作答，違者該科不於計分。

心理與教育統計學部分 (34 分)

1、某一組織心理學研究者，想要了解正向思考與調節情緒策略對工作滿意度的影響。其研究結果如下表，但該研究者發現結果有不合理的地方。在 step 1 時，正向思考與調節情緒策略對工作滿意度的迴歸係數是正的數值，但在 step 2 時，卻變成負的數值。請問可能的發生原因為何？如何偵測其錯誤？如何修正才能得到正確的結果？(7 分)

模式	未標準化係數		標準化係數	t	顯著性
	B 之估計值	標準誤差	Beta 分配		
1 (常數)	1.461	.513		2.847	.005
正向	.321	.103	.19	3.11	.002
調節	.174	.103	.103	1.686	.093
2 (常數)	3.688	2.278		1.619	.106
正向	-.127	.458	-.075	-.277	.782
調節	-.295	.478	-.175	-.616	.538
交互作用	.093	.093	.477	1.004	.316

a. 依變數: 滿意度

2、請寫出效果量的公式。(8 分)

Cohen's d (標準差已知)=

$\eta^2 =$

χ^2 (2x2 設計)=

F (MSE 已知)=

3、獨立樣本二因子變異數分析公式拆解。(3 分)

$$\sum_{i=1}^p \sum_{j=1}^q \sum_{m=1}^n (X_{ijm} - \bar{X}_{...})^2 =$$

4、解釋名詞：決定係數(coefficient of determination)、等分散性(homoscedasticity)、變異數同質性(homogeneity of variance)。(6 分)

5、請說明全距限制(restriction in range)與異質性次團體(heterogeneous sub-samples)對相關解釋的影響。(4 分)

6、某一車商開發出一款新式節能車宣稱更省能源，一般市面上同款車種平均耗油程度為 20km/L，標準差為 8km。該車商用 25 輛車來測試，其耗油程度平均為 22km/L。今採用單尾檢定， $\alpha=.05$ 。請問(1)效果量多大；(2)車商宣稱是否為真；(3)若根據該結果，如果想要達到 power=.95 時，需要多少測試樣本？(6 分)

心理測驗部分 (30 分)

解釋名詞 (每題 5 分)

1. measurement
2. true score
3. internal consistency method
4. multitrait-multimethod matrix
5. socially desirable response bias
6. expectancy table

心理實驗法部分 (36 分)

甲、簡答題 (每題 8 分)

注意：請仔細閱讀題目再回答

1. 請簡述實驗設計中受試者間設計 (between subject design) 與受試者內設計 (within subject design) 之差異 (也請說明使用時機之限制)。另請利用推論統計概念說明何者為較具統計考驗力的設計 (請由變異量相關問題說明為佳)？
2. 由 Campbell and Stanley (1966) 的想法，準實驗法 (Quasi-experimental design) 分為：一、時間向度插入中斷 (interrupted time-series) 及二、未均等之對照組 (nonequivalent comparison group) 兩種。請說明，實驗法與準實驗法的異與同及上述兩類準實驗法又有何不同？

乙、舉例解釋名詞 (每題最高 6 分)

注意：一、回答時請分：A、舉實際實驗中可能的例子 (杜撰是可以接受，但不接受不可能發生的例子)；B、名詞定義 (請配合你自己提供的例子)。

二、計分：A (舉例) 2 分；B (定義) 3 分。每題總分以 A x B 方式計算。即，若 A 或 B 任缺一項，均為零分。

1. 受試者變項 (subject variables, 請以受試者變項當做獨變項之情況為例)
2. Morgan's canon (宜舉動物實驗為例)

丙、批判題 (一題 8 分)

注意：詳讀以下假研究例子。請以研究方法，尤其以實驗法的角度提出批判。對於「內容」，也應適度提出意見，但請先對研究架構批判後再提內容相關問題。這個假研究相關所有內容都是「假的」。

XX 基金會，認為「建構式數學」是最好的數學教學方式。但不適合利用原來數學課程的評量方式來測驗其學習成效。因此 XX 基金會近五年來自行開發出「建構式數學學習成熟度達成量表」，也進行了信、效度之考驗。信度以折半信度、效度則以「PISA (the Programme for International Student Assessment) 國際學生能力評量」之樣本題目為效標，初步獲得滿意的結果。並在去年 (2013)，由 XX 基金會長期合作的一私立小學中選取四年級一個班級，進行了純建構式數學教學。教滿一年之後以該量表測量學生學習一年建構式數學的成效，與之對照的是，鄰近公立小學年級相同的學生。結果發現，學生經過一年的建構式數學教學，其學習成熟度明顯高於未學的學生。XX 基金會，據此結果向教育部陳請，在往後的教學課綱當中恢復「建構式數學」。XX 基金會也認為建構式數學有利於學生數學學習，也有利於台灣往後在 PISA 中之表現。

請務必於試卷紙上作答，違者該科不予計分。

選擇題，每題 2 分，共 50 分

- 1、慮病症 (Hypochondriasis) 的認知行為治療中，不包括下列何種作法？
 - A. 引導患者主動放大對身體感覺的注意
 - B. 鼓勵患者看醫師做詳細檢查
 - C. 告訴患者他的身體感覺是可以自主控制的
 - D. 協助患者改變其對身體感覺的錯誤解釋
- 2、下列何種心理疾患的診斷標準，不包含記憶力受損的症狀？
 - A. 失智症
 - B. 解離性漫遊症
 - C. 酒精中毒
 - D. 自我感消失疾患
- 3、有關 Selye's 一般適應症候群的敘述，下列組合，何者正確？
 - ① 探討實驗室中動物長期處於壓力下的反應
 - ② 警覺反應階段，由於激素的作用，所有生理指標都一路上升
 - ③ 在抵抗期中，身體嘗試適應壓力源，而易發生適應性疾病
 - ④ 衰竭期的個體容易生病，如潰瘍及免疫系統的疾病等
 - A. 僅①③
 - B. 僅②③
 - C. 僅②④
 - D. 僅③④
- 4、一般在臨床上，協助患者使用放鬆技術來處理他的壓力，這是協助患者使用下列何種壓力因應策略？
 - A. 問題解決焦點因應
 - B. 情緒處理焦點因應
 - C. 逃避式因應
 - D. 意義創造焦點因應
- 5、下列何者是與「病態的擔心 (pathological worry)」最有關聯性的疾患：
 - A. 慮病症 (hypochondriasis)
 - B. 社會畏懼症 (social phobia)
 - C. 懼曠症 (agoraphobia)
 - D. 廣泛焦慮疾患 (generalized anxiety disorder)
- 6、下列何種性格特質最可能發展出強迫性疾患？
 - A. 外向性 (extraversion)
 - B. 嚴謹性 (conscientiousness)
 - C. 開放性 (openness)
 - D. 神經質 (neuroticism)
- 7、憂鬱症與焦慮症共病的患者，其情緒表徵最正確的是：
 - A. 負向情緒高，生理激起高
 - B. 負向情緒高，生理激起低
 - C. 負向情緒高，正向情緒低，生理激起高
 - D. 負向情緒高，正向情緒低，生理激起低

- 8、下列何者屬於憂鬱的素質 (diathesis) 因子？
- ① 兒時母親生病住院
 - ② 工作被裁員
 - ③ 長期缺乏社會支持
 - ④ 伴侶提出分手
- A. 僅①
B. 僅④
C. 僅①③
D. 僅②④
- 9、小英去觀看黃色小鴨時不慎溺水，返家後對黃色毛衣、黃色布偶、黃色計程車都感到害怕，此現象稱為？
- A. Generalization
B. Discrimination
C. Extinction
D. Counter conditioning
- 10、行為學派中著名的個案「Little Albert」，罹患何種疾病？
- A. 強迫症
B. 恐懼症
C. 精神分裂症
D. 廣泛性焦慮症
- 11、下列何者不是 systematic desensitization 的內涵或步驟？
- A. Relaxation
B. Counter conditioning
C. Graded anxiety hierarchy
D. Keep thinking about anxiety-arousing stimuli
- 12、High self-efficacy 個體所具備的特質，以下何者為非？
- A. Select more difficult and challenging goals
B. Greater effort and persistence, and perform better
C. Persist in their efforts
D. Fail to think and act in a calm, analytical manner
- 13、下列何者不是 Erikson's psychosocial theory of development 重要貢獻？
- A. Emphasized interpersonal processes
B. Emphasized stages over the life span
C. Emphasized the future as well as the past
D. Emphasized the collective unconscious
- 14、Reciprocal determinism 是指那三個因素之間的因果關係？
- A. Environment — Trait — Behavior
B. Environment — Personality — Behavior
C. Resource — Personality — Social
D. Social — Cognition — Personality
- 15、下列敘述何者有錯？
- A. Karen Horney 強調文化對性格發展的影響
B. Harry Stack Sullivan 強調同儕關係對性格發展的影響
C. Carl G. Jung 強調自卑與超越對性格發展的影響
D. Heinz Kohut 強調客體關係對性格發展的影響
- 16、有關 Q 分類技術的描述，何者為非？
- A. 在一堆卡片中區分與自我相關以及與自我無關的特質
B. 可測量 actual self 和 ideal self
C. 以兩極化的形容詞量尺進行人格評估
D. 以客觀的測量工具來評估自我概念

- 17、在發展階段，滿足太少，害怕進到下一階段；滿足太多，缺動機進到下一階段，稱為：
- A. Satisfy inhibited
 - B. Defense mechanism
 - C. Denial
 - D. Fixation
- 18、Klineberg 認為貧窮環境，阻礙兒童智力成長，稱為：
- A. 貧窮假說
 - B. 累積缺陷假說
 - C. 智力發展假說
 - D. 社經不利假說
- 19、弗林效應 (Flynn effect) 是指智商分數每 10 年增加幾分
- A. 1 分
 - B. 3 分
 - C. 5 分
 - D. 7 分
- 20、兒童從句子結構來學習新的字彙，稱為：
- A. Fast mapping
 - B. Overextension
 - C. Underextension
 - D. Syntactical bootstrapping
- 21、下列那一類廣泛性發展疾患，不屬於 DSM-5 的自閉症類疾患 (autism spectrum disorder)：
- A. Asperger's disorder
 - B. PDDNOS
 - C. Rett syndrome
 - D. Childhood disintegrative disorder
- 22、2 歲前的自閉症類疾患嬰幼兒，通常不會出現什麼障礙：
- A. 共享式注意力障礙
 - B. 社會互動障礙
 - C. 溝通障礙
 - D. 行為同一性障礙
- 23、下列那一個假說，可以解釋高功能自閉症類疾患在圖形設計表現比較優異：
- A. 中心聚合缺陷假說
 - B. 心智理論假說
 - C. 執行功能假說
 - D. 情感缺陷假說
- 24、依據 Loeber 的觀點，犯罪行為最早的預測因子為何？
- A. Difficult temperament
 - B. Hyperactivity
 - C. Conduct problems
 - D. Poor peer relationships
- 25、下列哪一項不符合 organic mental retardation 描述？
- A. Moderate mental retardation
 - B. Severe mental retardation
 - C. Low SES
 - D. Associated other physical disability

問答題，共 50 分

一、回想起來，在我的病形成期間，我的身體斷續發出了警號，包括：失眠、頭痛、心悸、情緒低落等等，只是我毫不察覺或意識到它們的嚴重性。往後數年，我進出醫院無數次，但任憑醫生的檢查測試，也找不出令我頭暈心跳的原因。我利用意志力去支撐每天的生活，憂慮與驚恐卻一天比一天多，我對無法控制自己的身體狀況感到害怕和焦慮，我減少活動、遠離社交，思想逐漸變得消極，越來越看不見未來。

在苦無良方之下，我辭職養病。在平靜的生活中，我的狀況似乎有所改善，但其實驚恐及憂慮從沒遠離我。稍遇壓力我的精神便異常緊張，我過著小心計算與安排的生活，把自己與壓力和會引發驚恐的場合隔離；我不能開車上高速公路，不能在劇院中觀賞表演，冗長的旅途叫我焦慮。」

(1)請說明上述這位病患目前可能有的主要診斷為何？(4分)

(2)請由「情緒」的相關理論，說明其症狀是如何產生？(5分)

(3)對這位病患可以使用什麼認知行為治療技巧？請舉病患的例子，具體說明進行的步驟。(8分)

二、請簡述冠狀動脈心臟病的危險因子(3分)、心理病理機制(6分)，以及臨床心理介入方案(6分)。

三、請舉例解釋、說明 proto-imperative gestures 和 proto-declarative gestures (8分)?自閉症類疾患的表現為何？(2分)

四、MTA 在處理過動疾患的研究結果為何？(8分)

請務必於試卷紙上作答，違者該科不予計分。

I. SENTENCE COMPLETION: You are to choose the word or phrase that best completes the sentence. 20%

- _____ he began studying in the high school, he experienced strange health problems.
(A) Shortly before (B) Not long after (C) No sooner than (D) No longer
- She didn't work on the project yesterday, _____ work on it tomorrow.
(A) nor she will (B) nor she does (C) nor will she (D) nor does she
- _____ hardiness, orchids can be cultivated particularly easily.
(A) Their (B) Since their (C) Because of their (D) It is their
- A linguist does not merely analyze language, but is able to investigate _____ make errors.
(A) what causes language learners to (B) causes language learners to what
(C) what to cause language learners (D) what cause to language learners
- The primary activity of the panda, Yuan Zai, is sleep, _____ its waking hours looking for food.
(A) that it spends (B) for spending (C) and it spends (D) will spend
- They were running although they suspected that the shuttle bus _____.
(A) has already gone (B) was already going (C) already went (D) had already gone
- _____ the movie for years, Mrs. Holiday knew instinctively what the next crisis would be.
(A) Watch (B) Watched (C) She watched (D) Having watched
- Engines are machines _____ power or motion.
(A) produce (B) producing (C) produced (D) which produced
- Besides being expensive, the food in this restaurant tastes _____.
(A) badly (B) too much bad (C) too badly (D) bad
- Being seriously anxious, _____.
(A) we have to ask him to take medicine. (B) he went to the restroom for several times.
(C) a doctor was sent for him at once. (D) his test score was really low.

II. CLOZE TEST: This passage contains several missing words or phrases. You are to choose the best answer for each missing word or phrase in the passage. 10%

Amid leaden wintry skies, it may come as a surprise to Londoners (11) new figures suggest the city has beaten its arch rival, Paris, to become the world's most popular city for tourists. However, a growing spat between the two cities' administrations suggests that, when it comes to comparisons between London and Paris, there are only lies, damn lies and statistics.

Figures (12) this week by the UK's Office for National Statistics show that 4.9 million people visited London from July to September 2013. That was an increase of 20% on the same period in the previous year – (13) London hosted the Olympics – and a new quarterly record. Taking a wider view, for the first nine months of 2013, 12.8 million visitors (14) to the British capital, an increase of 12% compared with the previous year. The figures prompted the city's promotional body, London and Partners, to proclaim that London was "on course to welcome over 16 million visitors in one year." That in turn has led to reports in Britain and abroad that London has trumped Paris as the most visited city in the world.

The two cities have actually swapped the top spot on various lists in recent years. According to the MasterCard Global Destinations Cities Index for 2012, London narrowly beat (15) Paris for the top spot with 16.9 million visitors.

(Source: "London beats Paris as top tourist city. Really?" by Simon Busch in *CNN*, published on January 20, 2014)

- (A) but (B) and (C) or (D) so
- (A) releasing (B) is releasing (C) released (D) has released
- (A) which (B) during which (C) that (D) X
- (A) flattered (B) interceded (C) attributed (D) flocked

15. (A) out (B) on (C) in (D) up

III. WRITTEN EXPRESSION: In questions 16-20 each sentence has four underlined words or phrases. Identify the one underlined word or phrase that must be changed in order for the sentence to be correct. 10%

16. Jane Addams, pursuing social reforms and humanitarianism, founding the first charitable institution, Hull-House, in

Chicago and expertly organized civic groups to bring pressure on legislatures and government officials.

17. Behind the notion of the nuclear reactors are the release of the tremendous energy in each fission.

18. The economic development of a country lies not only in a stable basis of finance, but also on a firm foundation of industry.

19. The most living things depend on two main types of cell division, mitosis and meiosis, to reproduce themselves.

20. He has finally got used to cook on an electric stove after having a gas one for so long.

IV. COMPREHENSION QUESTION: read each passage and answer questions. 60%

READING ONE

You Just Don't Understand

- A People have different conversational styles. So when people from different parts of the country, or different ethnic or class backgrounds, talk to each other, it is likely that their words will not be understood exactly as they were meant. The desire to affirm that women are equal has made some scholars reluctant to show that they are different. There *are* gender differences in ways of speaking, and we need to identify and understand them.
- B Men often engage the world as “an individual in a hierarchical social order in which they are either one-up or one-down”, a question of gaining and keeping the upper hand. Women are more likely to approach it as “a network of connections” in which conversations are negotiations for closeness and people try to seek and give confirmation and support, and to reach consensus.
- C So, to Josh, checking with his wife about a convenient date for a dinner party resembles “seeking permission”; to Linda it is simply a recognition that lives are interwoven and complex. This is the struggle between independence and **intimacy**. The modern face of chivalry: holding the door is an act of power — showing that I (the male) grant you (the female) permission to pass through. There seems to be a male obsession with ‘freedom’ or independence. Women academics value the opportunity to pursue interests; men value the freedom from others’ control.
- D Throughout history, women have been punished physically and psychologically for talking too much, yet studies show that men talk more and for longer periods. In one study men’s turns ranged from 10.66 to 17.07 seconds, while women’s lasted from 3 to 10 seconds. The difference is that men are more comfortable with public speaking, report talk, women with private speaking, rapport talk. Rapport talk establishes relationships, seeking similarities and matching experiences. “For most men, talk is primarily a means to preserve independence and negotiate and maintain status in a hierarchical order.” Men are more likely to tell jokes in public than women: it is another way of gaining centre stage and proving their abilities.
- E Whereas women’s cooperative overlaps frequently annoy men by seeming to coopt their topic, men frequently annoy women by taking over or switching the topic. Women and men feel interrupted by each other because of the differences in what they are trying to accomplish with talk. Men who approach conversation as a contest are likely to expend effort not to support the other’s talk but to lead the conversation in another direction, perhaps one in which they can take centre stage by telling a story or joke or by displaying knowledge. Women’s effusion of support can be irritating to men who would rather meet with verbal debates.
- F Women are frequently judged differently even if they speak the same way as men. Hayes Bradley found that women using tag-questions were judged less intelligent than men who also used them. Women who did not provide evidence to support their arguments were judged less intelligent than men who did not. People asked why a baby is crying say — if it is a boy — that he is angry and — if it is a girl — that she is scared. When women and men are together, women tend to follow the topics the males want: “male-female conversations are more like men’s conversations than they are like women’s.”
- G “If you understand gender differences in what I call conversational style, you may not be able to prevent disagreements from arising, but you stand a better chance of preventing them from spiraling out of control... Understanding the other’s ways of talking is a giant leap across the communication gap between women and men, and a giant step toward opening lines of communication.”

21. The article is mainly about _____.
(A) reasons women talk differently from men
(B) ways people have different conversational style
(C) the differences between men and women using language
(D) things that make understanding opposite gender difficult
22. The main idea of Paragraph A is _____.
(A) understanding people's words is difficult
(B) understanding people of the same ethnic backgrounds is easier
(C) scholars are reluctant to show that genders are different
(D) we need to know the differences between genders in ways of speaking
23. Paragraph B is mainly about _____.
(A) the engagement of a hierarchical social order
(B) the importance of social network
(C) the gender differences regarding social relationships
(D) how men and women have different social status in speaking
24. Paragraph C is mainly about _____ existing in different genders.
(A) the struggle between independence and intimacy
(B) the difference between permission and recognition
(C) the discrepancy between power and interests
(D) the contradictory between freedom and opportunity
25. In Paragraph C, *intimacy* probably means _____.
(A) closeness (B) control (C) power (D) freedom
26. The main idea of Paragraph D is _____.
(A) women talk more than men
(B) it's a stereotype that women talk more than men
(C) men and women have different styles of talking
(D) women talk more in private, and men talk more in public
27. Which sentence from Paragraph E states the main idea?
(A) Men frequently annoy women by taking over or switching the topic.
(B) Women and men feel interrupted by each other because of the differences in what they are trying to accomplish with talk.
(C) Men are likely to expend effort not to support the other's talk but to lead the conversation in another direction.
(D) Women's effusion of support can be irritating to men who would rather meet with verbal debates.
28. Which sentence from Paragraph F states the main idea?
(A) Women are frequently judged differently even if they speak the same way as men.
(B) Women using tag-questions were judged less intelligent than men who also used them.
(C) Women who did not provide evidence to support their arguments were judged less intelligent than men who did not.
(D) Male-female conversations are more like men's conversations than they are like women's.
29. Which of the following is a logical inference based on Paragraph F?
(A) People have stereotype regarding gender differences in speaking.
(B) Women use tag-questions more than men do.
(C) Men talk with evidence more than women do.
(D) Boys have bad temper than girls do.
30. Paragraph G is mainly about _____.
(A) the importance of understanding the differences of gender in conversational style
(B) the disagreements existing in the communication gap between women and men
(C) the giant communication gap between women and men
(D) the ways of understanding a giant leap and step in communication

READING TWO

Slow Down! Why Some Languages Sound So Fast

A It's an almost universal truth that any language you don't understand sounds like it's being spoken at 200 m.p.h. — a storm of alien syllables almost impossible to tease apart. That, we tell ourselves, is simply because the words make no sense to us. Surely our spoken English sounds just as fast to a native speaker of Urdu. And yet it's equally true that some languages seem to zip by faster than others. Spanish blows the doors off French; Japanese leaves German in the dust — or at least that's how they sound.

B But how could that be? The dialogue in movies translated from English to Spanish doesn't whiz by in half the original time after all, which is what it should if the same lines were being spoken at double time. Similarly, Spanish films don't take four hours to unspool when they're translated into French. Somewhere among all the languages must be a great equalizer that keeps us conveying information at the same rate even if the speed limits vary from **tongue** to tongue.

C To investigate this puzzle, researchers from the Université de Lyon recruited 59 male and female volunteers who were native speakers of one of seven common languages — English, French, German, Italian, Japanese, Mandarin and Spanish — and one not so common one: Vietnamese. All of them were instructed to read 20 different texts, including the one about the house cat and the locked door, into a recorder. All of the volunteers read all 20 passages in their native languages. Any silences that lasted longer than 150 milliseconds were edited out, but the recordings were left otherwise untouched.

D The investigators next counted all of the syllables in each of the recordings and further analyzed how much meaning was packed into each of those syllables. A single-syllable word like *bliss*, for example, is rich with meaning — signifying not ordinary happiness but a particularly serene and rapturous kind. The single-syllable word *to* is less information-dense. And a single syllable like the short *i* sound, as in the word *jubilee*, has no independent meaning at all.

E With this raw data in hand, the investigators crunched the numbers together to arrive at two critical values for each language: the average information density for each of its syllables and the average number of syllables spoken per second in ordinary speech. Vietnamese was used as a reference language for the other seven, with its syllables (which are considered by linguists to be very information-dense) given an arbitrary value of 1.

F For all of the other languages, the researchers discovered, the more data-dense the average syllable was, the fewer of those syllables had to be spoken per second — and thus the slower the speech. English, with a high information density of .91, was spoken at an average rate of 6.19 syllables per second. Mandarin, which topped the density list at .94, was the spoken slowpoke at 5.18 syllables per second. Spanish, with a low-density .63, ripped along at a syllable-per-second velocity of 7.82. The true speed demon of the group, however, was Japanese, which edged past Spanish at 7.84, thanks to its low density of .49. Despite those differences, at the end of, say, a minute of speech, all of the languages would have conveyed more or less identical amounts of information.

G "A tradeoff is operating between a syllable-based average information density and the rate of transmission of syllables," the researchers wrote. "A dense language will make use of fewer speech chunks than a **sparser** language for a given amount of semantic information." In other words, your ears aren't deceiving you: Spaniards really do **sprint** and Chinese really do stroll, but they will tell you the same story in the same (39) of time.

H None of that, of course, makes the skull-cracking business of trying to learn a new language any easier. It does, however, serve as one more reminder that beneath all of the differences that separate Tagalog from Thai, from Norwegian, from Wolof, from any one of the world's 6,800 other languages, lie some very simple, very common rules. The DNA of speech — like our actual DNA — makes us a lot closer to one another than we think.

(Source: "Slow Down! Why Some Languages Sound So Fast" by Jeffrey Kluger in *Time*, published on September 8, 2011)

31. In Paragraph B, *tongue* probably means _____.

- (A) an organ (B) a language (C) a mouth (D) a word

32. In Paragraph G, *sparse* probably means _____.

- (A) little (B) abundant (C) ancient (D) diverse

33. In Paragraph G, *sprint* probably means _____.

- (A) wander (B) spat (C) run (D) roam

34. One word is missing in Paragraph G. Which of the following can make the sentence meaningful?

- (A) way (B) number (C) line (D) span

35. Regarding the speed limits of languages, which of the following is not true?
- (A) The speed of spoken Mandarin is faster than that of English.
 - (B) The speed of spoken Urdu is as fast as that of English.
 - (C) The speed of spoken Spanish is faster than that of French.
 - (D) The speed of spoken German is slower than that of Japanese.
36. Which of the following descriptions about the study mentioned in the article is correct?
- (A) Because a two-hour Spanish film is always translated into a four-hour French one, a group of researchers conducted the research.
 - (B) The study recruited subjects who could speak at least two languages.
 - (C) Mandarin is a common language, and so is Italian.
 - (D) All the silences were excluded from the experiment.
37. Which language was used as a reference language for the study?
- (A) English (B) Spanish (C) Mandarin (D) Vietnamese
38. Researchers of the study collected two critical values for each language they investigated. What were they?
- (A) the number of raw data and the information density for each syllable
 - (B) the information density for each syllable and the number of syllables spoken per second
 - (C) the number of raw data and the number of syllables spoken per second
 - (D) None of the above.
39. What was the finding of the study?
- (A) The shorter a syllable is, the more meaning it carries.
 - (B) Each Spanish syllable carries more information than each English syllable does.
 - (C) The number of raw data for Mandarin is higher than that for Spanish.
 - (D) All languages would have carried more or less identical amounts of information during the same amount of time.
40. Which language is easier to learn?
- (A) the one which bears less information in a sentence
 - (B) the one which is spoken in a relatively slow way
 - (C) the one whose DNA is closer to our body's DNA
 - (D) none of the above

READING THREE

British Education System

- A Education in the UK is **compulsory**. Children are legally obliged to attend school from the ages of 5 (4 in Northern Ireland) to 16. In 1992 there were 9.5 million full-time school/college students.
- B Parents can choose between ending their children to state schools or to private schools. State schools are funded by local and central government. About 93% of pupils receive free education from the public sector. The government also sometimes assists schools established by religious groups.
- C Since 1993, parents have the right to express a preference for a particular state school for their children. A system of “**league tables**” – comparative tables which rank schools according to public examination results, truancy rates, destinations of school leavers, and so on – are published in order to help parents make choices. While children usually attend the school they live closest to, now ambitious parents sometimes move to a different neighborhood in order to be close to a well-performing school. Needless to say, good schools tend to be in middle class neighborhoods and it is the wealthier middle classes who can most easily afford to move if they think it is necessary.
- D In the private sector there are independent schools which are commonly, but confusingly, called public schools. (They are called public schools because they were originally seen as “public” alternatives to having private tutors in aristocratic households.) Independent schools receive their funding through the private sector and through tuition rates, with some government assistance. Independent schools are not part of the national education system, but the quality of instruction and standards are maintained through visits from Her Majesty's Inspectors of Schools. Parents choose to pay fees in order to send their children to these schools because the quality of education is such that their children have a better chance of getting into good universities and/or getting better jobs when they leave school.

- E Up to age 5, children may have some pre-primary schooling in nursery schools, daycare, or play groups. The government has no obligation to provide such facilities and so many are private enterprise arrangements. However, the state realizes such provision is important, especially now that many mothers work, and so they provide some financial support.
- F Between the ages of 5 and 11, pupils mainly attend state sector primary schools. These schools are called co-educational or mixed schools because they admit both boys and girls.
- G From the age of 11 up to around the age of 19, students attend secondary schools. More than 80% of pupils in secondary schools in England and Wales attend mixed schools; 60% in Northern Ireland; Scotland, nearly all.
- H About 90% of secondary schools are comprehensive schools which admit children without reference to their academic abilities. Such schools provide a general education. Pupils can study everything from academic subjects like literature and sciences, to more practical subjects like cooking and carpentry.
- I Foreign languages are taught as an **integral** part of the National Curriculum, reflecting the importance of Britain's relationship with Europe.
- J Those children who do not attend comprehensive schools attend grammar schools instead. Grammar schools select children, usually at the age of 11, through an examination called "the 11-plus". Those who show academic potential are admitted to the grammar schools where the emphasis is on advanced academic work rather than the more general curriculum of the comprehensive schools. In Northern Ireland the grammar school/non-grammar school division is still common, but throughout the rest of Great Britain grammar schools are becoming increasingly rare.
- K After five years of secondary education, (at about age 16) English, Northern Irish and Welsh students sit their GCSEs exams (General Certificate of Secondary Education). GCSEs are the main means of assessing pupils' progress in their final two years of compulsory education. Based on these results, pupils then decide what avenue of education they would like to follow. They have a number of choices. At the age of 16, they can decide to quit school and find a job; or they can prepare to sit exams for university entrance; or they can concentrate on vocational training. Every 16 and 17 year old is guaranteed a place in full-time education or training.
- L Pupils who hope to attend university carry on their academic study in the sixth form for a further two years and then sit A-levels exams (General Certificate of Education – Advanced). Most pupils try to achieve three or four A-levels in the subjects they are most proficient at. Since admittance to universities depends largely on A-level results, the two years spent in the sixth form are very important and often very stressful for British pupils. Among first year university students getting to know each other, the most common question after "What's your name?" and "Where are you from?" is "What A-levels did you take?"
- M Other pupils who decide not to go to university may choose to take vocational training. The vocational equivalent of A-levels are GNVQs (General National Vocational Qualifications), which provide a broadly based preparation for work or for taking further vocational.

(Source: "The Present Education System" in *The Society and Culture of Major English-Speaking Countries*, Bookman, 2002)

41. In Paragraph A, *compulsory* probably means _____.
 (A) comprehensive (B) obligatory (C) complete (D) optional
42. In Paragraph I, *integral* probably means _____.
 (A) immigrant (B) essential (C) international (D) redundant
43. _____ receive their funding entirely through government assistance.
 (A) private schools (B) independent schools (C) state schools (D) public schools
44. The system of "league tables" shows _____.
 (A) which schools are better than others
 (B) which schools ask for more tuition
 (C) which schools have more examinations
 (D) which schools receive less funding from government
45. Which of the following is not true?
 (A) The majority of children go to boarding schools.
 (B) Good schools tend to be in middle class neighborhood.
 (C) The quality of instruction and standards of private schools are supervised.
 (D) Children studying in private schools can get better jobs when they leave school.

46. Which of the following is not true?
- (A) 3 year olds can go to nursery schools.
 - (B) 9 year olds study in primary schools.
 - (C) 15 year olds attend secondary schools.
 - (D) None of the above is correct.
47. If a student wants to emphasize on advanced academic work, which school should he or she go to?
- (A) comprehensive school
 - (B) secondary school
 - (C) independent school
 - (D) grammar school
48. The number of _____ in Britain is decreasing.
- (A) grammar schools
 - (B) comprehensive schools
 - (C) state schools
 - (D) technical schools
49. A fifth-grader of a secondary school may decide his or her future grounded on the examination called _____.
- (A) General Certificate of Education – Advanced
 - (B) General Certificate of Secondary Education.
 - (C) the common entrance examination
 - (D) General National Vocational Qualifications
50. Which of the following is not true about the British education system?
- (A) All the state sector primary schools admit both boys and girls.
 - (B) Comprehensive schools provide a general education.
 - (C) The system guarantees students of 16 years old a full-time education or training.
 - (D) The university entrance in Britain is not competitive.