

請標明題號，順序作答

1-15 題，每題 6 分；第 16 題為 10 分

1. Does working parents' absence affect children's psyches? Two new studies examine the question from different perspectives. It turns out that early adolescents' sense of well-being isn't affected by how much time their parents spend at work, but it is affected by their view of their parents' moods at the end of the workday, according to research by Sandee Tisdale and Marcie Pitt-Catsouphes, of Boston College. The better the perceived mood, the higher the well-being.

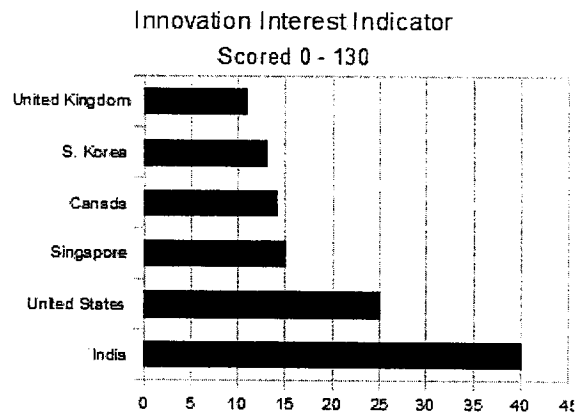
What in the following is the best title for this article?

- (A) The importance of an after-work smile.
- (B) The importance of adolescents' sense of well-being.
- (C) The importance of working parents' absence.
- (D) The importance of mood.
- (E) The importance of children's psyches.

Questions 2~3 are based on the following:

How interested are people in innovation — and how does that change cross-culturally? What do users across the world really want, how can we uncover and design for their unmet needs, and what services can we attach to products to stay close to our customers? We've found that these questions point to a new need for innovative cultures in the world today (distinct from innovative companies).

To start measuring the innovation culture in its pure form, we used Google Insights for Search, which is a keyword optimization tool that reports what people are searching for on the internet. We developed a small lexicon of terms that represent a wide spectrum of innovation activities outside of the core R&D and patent area. For example, we used innovation-linked terms like "design thinking," "Six Sigma," "open innovation," and "product design," among others. We then checked and cross referenced interest in those terms across country lines. Here are the results — the countries we found to be most interested in innovation:



We found India to be a convincing leader, with the United States trailing second and Singapore, Canada, S. Korea, and the United Kingdom following. Note that even without data from China, Asia is bubbling with interest in innovation.

2. Which of the following, if true, would most seriously weaken the result that India is a convincing leader?
- (A) The data does not account for the qualitative difference in the interests.
 - (B) Google search does not operate in China. Therefore, China's data is excluded from the result.
 - (C) The interest indicator showed in the chart cannot represent the capability of new product development for the corresponding country.
 - (D) Innovative companies are far more important than innovative culture.
 - (E) New products does not always address unmet customer needs.
3. Which of the following is relatively an appropriate way to calculate the innovation interest indicator?
- (A) The total search counts for those innovation-linked terms in each country.
 - (B) The search counts for those innovation-linked terms per capita in each country.
 - (C) The average search counts for those innovation-linked terms in each firm in each corresponding country.
 - (D) The total search counts for those innovation-linked terms divided by GDP in each country.
 - (E) The total search counts for those innovation-linked terms divided by R&D expenses in each country.

注意：背面有試題

4. Legislator: The alarming fact is that 90% of the people in the country now report that they know someone who is unemployed.

Governor: But a normal, moderate level of unemployment is 5%, with 1 out of 20 workers unemployed. So at any given time if a person knows appropriately 50 workers, 1 or more will very likely be unemployed.

- (A) The current level of unemployment is not moderate.
- (B) It is unlikely that the people whose statements the legislator cites are giving accurate reports.
- (C) If at least 5% of workers are unemployed, the result of asking a representative group of people cannot be the percentage the legislator cites.
- (D) The fact that 90% of the people know someone who is unemployed is not an indication that unemployment is abnormally high.
- (E) If an unemployment figure is given as a certain percent, the actual percentage of those without jobs is even higher.

5. Companies considering new cost-cutting manufacturing processes often compare the projected results of making the investment against the alternative of not making the investment with costs, selling prices, and share of market remaining constant.

Which of the following, assuming that each is a realistic possibility, constitutes the most serious disadvantage for companies of using the method above for evaluating the financial benefit of new manufacturing processes?

- (A) The period of year chosen for averaging out the cost of the investment might be somewhat longer or shorter, thus affecting the result.
- (B) The costs of materials required by the new process might not be known with certainty.
- (C) In several years interest rates might go down, reducing the interest costs of borrowing money to pay for the investment.
- (D) Some cost-cutting processes might require such expensive investments that there would be no net gain for many years, until the investment was paid for by savings in the manufacturing process.
- (E) Competitors that do invest in a new process might

reduce their selling prices and thus take market share away from companies that do not.

- 6. For large farms to be as productive as they can be, their owners need to invest heavily in expensive machinery. This typically requires them to go into considerable debt, and interest on this debt is then a significant fixed cost. This high fixed cost makes those farmers vulnerable to operating losses if the prices of their products drop.

This information above best supports which of the following inferences about large farmers?

- (A) They can be highly productive without being profitable.
- (B) They tend to be so highly productive that they drive down market prices.
- (C) They tend to be consistently profitable if their owners borrow at low interest rates.
- (D) They respond to operating losses by increasing their productivity.
- (E) They cannot be profitable if their owners depend on credit.

7. Stronger patent laws are needed to protect inventions from being pirated. With that protection, manufacturers would be encouraged to invest in the development of new products and technologies. Such investment frequently results in an increase in a manufacturer's productivity. Which of the following conclusions can most properly be drawn from the information above?

- (A) Stronger patent laws tend to benefit financial institutions as well as manufacturers.
- (B) Increased productivity in manufacturing is likely to be accompanied by the creation of more manufacturing jobs.
- (C) Manufacturers will decrease investment in the development of new products and technologies unless there are stronger patent laws.
- (D) The weakness of current patent laws has been a cause of economic recession.
- (E) Stronger patent laws would stimulate improvement in productivity for many manufacturers.

8. Efficiency experts will attempt to improve the productivity of an office by analyzing production

注意：背面有試題

procedures into discrete work tasks. They then study the organization of those tasks and advise managers on techniques to speed production, such as rescheduling of employee breaks or relocating various equipment such as the copying machines. I have found a way to accomplish increases in efficiencies with much less to do. Office workers grow increasingly productive as the temperature drops, so long as it does not drop fall below 68°F. The passage leads most naturally to which of the following conclusions?

- (A) Some efficiency gains will be short-term only.
- (B) To maintain peak efficiency, an office manager must occasionally restructure office tasks.
- (C) Employees are most efficient when the temperature is at 68°F.
- (D) The temperature-efficiency formula is applicable to all kinds of work.
- (E) Office workers will be equally efficient at 67°F and 69°F.

9. After the national speed limit of 55 miles per hour was imposed in 1974, the number of deaths per mile driven on a highway fell abruptly. Since then, however, the average speed of vehicles on highways has risen, but the number of deaths per mile driven on a highway has continued to fall.

Which of the following conclusions can be properly drawn from the statements above?

- (A) The speed limit alone is probably not responsible for the continued reduction in highway deaths in the years after 1974.
- (B) People have been driving less since 1974.
- (C) Driver-education courses have been more effective since 1974 in teaching drivers to drive safely.
- (D) In recent years highway patrols have been less effective in catching drivers who speed.
- (E) The change in the speed limit cannot be responsible for the abrupt decline in highway deaths in 1974.

10. Corporations exist to make money for their shareholders. Corporations have no money to give away because any excess funds belong to the shareholders. Therefore, corporations should not contribute to charities.

Which of the following most seriously weaken the reasoning in the argument above?

- (A) Managers are being trained to consider the ethical, moral and social effects of their decisions in addition to the economic factors.
- (B) Some of the largest corporations in the country are known to be major contributions to philanthropic organizations.
- (C) Shareholders tend to make larger individual donations to charities than do people who hold no shares in corporations.
- (D) Most corporations contribute solely to large well-known, and highly organized charitable organizations rather than to individuals in need.
- (E) The favorable publicity and tax advantages gained by corporate charity often result in an increase in profits greater than the actual costs of making the donations.

11. 「工管研究所入學考試的管理學試題，應該測出考生對管理學的基本認識(了解管理理論、了解管理學派的發展)，因為管理學是研讀工管所課程的基礎」

以下何項論述如果成立，最能削弱(weaken)上述說法

- (A) 郭台銘、Bill Gates、Steve Jobs 都沒有工管所學歷，但經營企業都非常成功。
- (B) 郭台銘、Bill Gates、Steve Jobs 都沒有修過管理學，但經營企業都非常成功。
- (C) 郭台銘、Bill Gates、Steve Jobs 都不了解管理學派的發展，但經營企業都非常成功。
- (D) 大學主修電機系的老王，進入工管研究所前對管理學一無所知，兩年後順利取得工管碩士學歷。
- (E) 管理學考試無法測出考生對管理學的基本認識

12. 「有一堂微積分共有 100 位大學生選修，從學期總成績中發現，出席率與學期總成績呈高度顯著相關。所以，學生上課出席率，影響學習效果甚鉅。」

以下哪個選項如果成立，能削弱(weaken)上述推論？(複選;全對才得分)

- (A) 學生上課出席，並不表示他認真聽課。
- (B) 學期總成績中，出席率佔 90%。
- (C) 學生認真聽課，並不表示他理解上課的內容。
- (D) 出席率高的學生，是屬於比較用功的學生，其考試成績通常較一般學生高。
- (E) 牛頓(Isaac Newton)上這堂課常翹課，但他這堂課學期總成績很高。

注意：背面有試題

13. 所有有效的管理者都會關心其員工的福祉；所有關心其員工福祉的管理者，都會願意基於員工私人需要而給假。所以，所有不願意基於員工私人需要而給假的管理者都不是有效的管理者。如果上述的論述是正確的，以下何者也為真？

- (A) 沒有任何一個無效的管理者會願意基於員工私人需要而給假
- (B) 沒有任何一個無效的管理者會關心員工福祉
- (C) 有些有效的管理者不願意基於員工私人需要而給假
- (D) 所有有效的管理者都願意基於員工私人需要而給假
- (E) 所有基於員工私人需要而的到的假都來自有效的管理者

14. 購買消費品時，購買者需依其所付金額被課以固定百分比的消費稅，如此一來，窮人的所得中，支付消費稅的比率比富人高。根據上述推論，以下何者為真？

- (A) 窮人賦稅人口多於富人
- (B) 窮人的所得中，花在購買消費品的比率，高於富人
- (C) 平均每一個富人較每一個窮人負擔更多的稅額
- (D) 所有窮人花在購買消費品的總額，多過所有富人的購買消費品的總額
- (E) 富人花在消費品的平均單一件的價格，高於窮人的平均單價

15. Correctly measuring the productivity of service workers is complex. Consider, for example, postal workers: they are often said to be more productive if more letters are delivered per postal worker. But is this really true? What if more letters are lost or delayed per worker at the same time that more are delivered?

The objection implied above to the productivity measure described is based on doubts about the truth of which of the following statements?

- (A) Postal workers are representative of service workers in general.
- (B) The delivery of letters is the primary activity of the postal service.
- (C) Productivity should be ascribed to categories of workers, not to individuals.
- (D) The quality of services rendered can appropriately be ignored in computing productivity.

(E) The number of letters delivered is relevant to measuring the productivity of postal workers.

16. (10%)

根據第 15 題，請設計一套 KPI (說明每個指標的計算方式)，可以合理而全面地衡量一個郵差的工作績效。

注意：背面有試題