

Answer all questions

Time: Three hours

1. Case study: Smoking is OK, despite the claims of medical experts

Don't give up smoking - giving up may damage your health. This message was the result of a recently conducted research project carved out by the Sri Lankan government a surprising outcome? No, it stands to logic.

It was found in the survey that more illness was suffered by ex-smokers than by continuing smokers and never-smokers- Actually, it was continuing smokers that were ill the least, though never-smokers fared almost as well. Researchers discovered that those who had given up smoking suffered more 'recent and long-term conditions combined' than the other two groups.

Various illnesses featured differently. Smokers and ex-smokers suffered more frequently from bronchitis and emphysema than never-smokers. However, hypertension, high cholesterol and long term conditions were reported by fewer smokers than by ex- and never-smokers. Small variations were also reported due to age, sex- living situations and other factors. Despite this, the main finding was that 'smokers were, if anything, healthier than never-smokers'. This was despite the fact that smokers tended to be amongst the poorest employed and educated in society, where the poorest health would also be expected.

What does the survey say about passive smoking? 'Only slight differences between children living in households with or without smokers in the likelihood of children experiencing recent and/or long term conditions' were noted. Taking into account the fact that unemployed and poorly educated people tend to smoke more and their children always have worse health records, these conclusions undermine the widely held belief that passive smoking has bad effects on health.

Have our beliefs about smoking been wrong at this time? To begin with, remember that many statisticians and medical experts have challenged the reported claims that hundreds of thousands of deaths are directly attributable to smoking. That heavy smoking is bad for you is not doubted, nor is the fact that smoking increases the risk of suffering from disorders such as cancer and heart disease. However, a causal link between smoking and ill-health is difficult to establish, as it is only one among hundreds of other risk factors. As only one out of ten smokers dies of lung cancer, smoking cannot be regarded as a sufficient cause of death. Similarly, as one out of ten people who do die of lung cancer is not a smoker, smoking cannot be a necessary cause.

So, how can causality be established? If giving up smoking prevented cancer and heart diseases, as is often asserted, then we should have a solid piece of proof. Regrettably there has been no clinical study that has substantiated this assertion, or even established that giving up smoking is good for your health. Some researchers claim that earlier estimated deaths amongst smokers as compared with non-smokers are due to their smoking habits. However, these guesstimates are of questionable value and vary widely amongst experts. They are all based on a very obvious

misconception. Whilst they argue that the practice of smoking is a major cause of earlier death, they ignore the fact that smoking is powerfully associated with other risk factors, such as drinking heavily, poor diet, low socio-economic status and many others. It is often the same person who drinks heavily, survives on junk food, lives in poor conditions and smokes heavily. It is well known that cumulative risk factors have the effect of multiplying rather than simply adding to the risk. This greatly complicates the researchers' calculations.

One could easily maintain that smoking is by far the most Influential of these risk factors, and therefore of by far the greatest Importance. However, consider the following research results about stress, and in particular about stress prone personalities. In the mid 1940s, Medical faculty of Colombo University monitored 1300 healthy medical students, and continued to follow them up over the next 30 years. She discovered that people who habitually stifled their feelings were 16 times more likely to develop cancer than more outgoing typos. Compare this with the estimates list smokers were only 2.5 times more likely to die from cancer and only twice as likely to die from heart disease as non-smokers. Claims are made that mortality from heart disease is also strongly affected by personality type.

It is obvious that there is still a lively debate about the effects of smoking. We should therefore demand reliable evidence before we accept a politically correct orthodoxy. The Australian study demonstrates the need to look at the Issue from other perspectives. Obviously, smoking is not good for your health, but is it such a lethal habit as is often portrayed? It is one of many risk factors; we should neither under- nor over-estimate its Impedance. The factors of stress may possibly be of greater importance, and can probably be controlled more easily than smoking. Perhaps some of the millions of pounds spent on research into smoking could more usefully be spent on research into the effects of stress.

## Questions

- a. What hypothesis does the writer of this article put forward as an alternative to the commonly accepted hypothesis that 'smoking is bad for your health'?  
(10 Marks)
- b. Summarize the main conclusions from research projects put forward to support this hypothesis.  
(08 Marks)
- c. What argument is given to falsify the hypothesis 'smoking is bad for your health'? Does the argument rely on induction or deduction?  
(06 Marks)

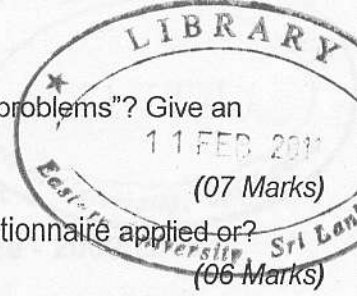
(24 Marks)

02.

- a. What is research? Describe the major types of research approaches?  
(07 Marks)
- b. What are the items which should be included in the Research Proposal? Explain  
(06Marks)
- c. Define the following terms
  - i. Scientific Investigation
  - ii. Conceptual Frameworks  
(06Marks)

(06Marks)

(19 Marks)



03.

- a. How do you differentiate "Management Problems from Research problems"? Give an example (07 Marks)
  - b. What are the factors to be considered when you construct a questionnaire applied or? (06 Marks)
  - c. Write short notes on the following
    - i. Basic or Fundamental research
    - ii. Applied Research(06 Marks)
- (19 Marks)**

04.

- a. Differentiate probability and non-probability sampling methods (05 Marks)
  - b. Distinguish between "Validity" and "Reliability", and explain the importance of these two concepts in scientific research (06 Marks)
  - c. Explain the following hallmarks of scientific research:
    - i. Objectivity
    - ii. Testability
    - iii. Generalability
    - iv. Parsimony(08 Marks)
- (19 Marks)**

05.

The incidence of sexual harassment in private sector organizations appears to be an understated phenomenon. As a researcher investigating this issue, comment on the following:

- a. What is the basic approach to research that you would adopt in investigating this issue & why? (04 Marks)
  - b. What instruments would you use to collect information? (04 Marks)
  - c. How would you identify the persons to be interviewed and what would be the sampling technique and sample size? (04 Marks)
  - d. How would you record and analyze the data? (03 Marks)
  - e. At what stage in the research process would a literature review be useful? (04 Marks)
- (19 Marks)**