



INSTITUSI JURUTERA MALAYSIA

The Institution of Engineers, Malaysia

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THE PROFESSIONAL INTERVIEW QUESTIONS

Questions applicable to Section B of the Essay as at 1.1.2001

Code of Ethics Questions

The main purpose of these questions is to manifest professionalism of a candidate. A candidate should have gained some understanding of the Professional Code of Ethics and conduct before entering for the Professional Interview. The questions selected by the Examiners may be expected to be familiar.

A candidate would be expected to demonstrate :-

- (a) That he has thought sufficiently about the role of the engineer in the society vis-à-vis his professional Code of Ethics.
- (b) That he can write in clear and concise manner that is intelligible to laymen.

Candidate would be expected to answer only 1 question out of 2 selected by the Examiners from among the 15 questions listed below:-

1. Discuss the dilemma engineers face in balancing capital expenditure versus optimum design for efficient operations and maintenance, bearing in mind the impact of capital expenditure on the engineer's fees.
2. Technological and economic efficiencies in providing service to the public are the expected benefits from the privatisation of public utilities companies in Malaysia. Discuss with examples whether the technological benefits of privatisation have been achieved.
3. Are the present safety practices of your industry adequate? What steps do you consider should be taken by the industry to address the present situation?
4. The manifestation of professionalism among engineers occurs through their interactions with other segments of the society, which can be viewed essentially as an exercise in group dynamics. In this regard, the Institution of Engineers, Malaysia (IEM) is ideally constituted to serve this purpose. Discuss the various functions that can be provided by IEM in promoting professionalism.

5. In this technological age, the power of the engineers in shaping the society and environment is all pervading and can profoundly affect the lives of many members of the society. Enumerate, from your personal experience, how largely positive impacts have accrued from the contributions of engineers.
6. "He shall not under any circumstances solicit advisory or consultative work, either directly or by an agent, nor shall he pay, by commission or otherwise any person who may introduce clients to him". Discuss the ways in which an engineer, especially one that is a newcomer to the field, can project him/herself as a responsible professional to the society without being guilty of violating the above.
7. As an engineer responsible for the development of a new project, your first task according to the planning schedule is to clear the land and prepare the site for construction. To do so, you will need to clear vast stretches of land that will undoubtedly cause land erosion and subsequently contaminating of streams and rivers around the site. You are under tremendous pressure to finish the task as the job is already behind schedule. Given the constraints that you have with regards to deadline, limited technical solutions and the preservation of the environment, discuss the ethical considerations, which confront you under the circumstances.
8. Engineers are often entrusted with the responsibility of implementing large-scale projects involving millions of dollars. In view of the large amount of money changing hands, the integrity and ethical standards of engineers are being put to test. What measures can an engineer take to prevent corruption and unethical practice of cutting corners in order to safeguard the good image of the engineering profession?
9. In recent years, there is stronger awareness by the public at large for better quality works in a construction project. How can a professional engineer ensure better quality construction without conflicting with the profit objectives of both the owner and the contractor?

10. 'Conflict of professional interest frequently arises in the working environment of an engineer'. Discuss the statement and propose the appropriate solutions for overcoming the problems.
11. Recent years have seen increased national and international Protocols and Regulations and national Acts and Legislation on the control of many forms of pollution. Discuss the needs and consequences of observing these regulations with special reference to the particular industry you are involved in.
12. "In today's dynamic marketplace, many organisations/industries are initiating cost reduction measures to remain competitive". Discuss the contradictory demand of cost reduction programmes and the need to invest to enhance the standards of Health, Safety and Environment (HSE) in the industry. Is it possible to be cost-effective yet meeting the ever-increasing HSE requirements?
13. Engineers are increasingly playing a significant role in the nation's fast pace development. Please suggest how engineers can make greater contributions with awareness in safety, health and environment and how engineers can keep abreast with the development of technology without confining to one's specific roles or disciplines.
14. In a turnkey project, the turnkey contractor requested you as a consultant to put up irregular (i.e. non-conforming to current engineering practice) proposals to maximise profits from the project. Discuss the key points that you must address so as not to compromise on your professional ethics.
15. With the rapid development in IT, would virtual Laboratories be a good substitute for real ones in engineering? Elaborate on the merits and demerits of the issue.