

## Examrace

# Competitive Exams Essay: Scientific Temper and Rational Planning

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Realizing these limitations of reason and scientific method, we have still to hold on to them with all our strength, for without that firm basis and background we can, have no grip on any kind of truth or reality.

These are a large number of people in our society who have formally studied or are studying science, clearly driven by job expectations. This has caused the retreat of traditional values and a degree of modernization and homogenization of society, it is now certainly far less segregated along lines of caste, language or religion. Those who are engaged in industry, business and ' commerce have no time to determine what identity their counterparts belong to. This is certainly a major achievement in free India.

However, if one looks at some of our fundamental problems, there is much cause for dismay and disappointment. Take the question of population. Even 50 years ago. At the time of Independence, the Indian subcontinent was already crowded. Today's India is adding in population in terms an Australia every year. But we are not adding to our resource base in the same proportion.

Irrationality is the lack of access to safe drinking water and sanitary toilets for a large majority of our population, while a small segment is busy with star TV, CNN, MTV and so on:

After independence a substantial and comprehensive base of science and technology has been created and several scientists and technologists trained. Among the laboratories of the Council of Scientific and Industrial Research, there have been some very good examples of integration with application. To mention only two: The Central Leather Research Institute has done well to help export leather goods; the National Chemical Laboratory too has a good record of working with industry.

The other laboratories, in spite of high quality manpower and facilities, have not yet been able to upgrade industry or provide new designs and processes. A recent move to make them earn fifty percent of their operating cost outside of the government funds, may force them to integrate with industry.

Agriculture has seen a really successful tieup between the laboratories and the farms. We must continue their association as agriculture will now face another revolution based on biotechnological innovations, it is in atomic energy and space sciences, where the applications have been tightly knit with laboratory work, that progress has been really very impressive. Indian scientists and technologist expected that links between

the laboratories and application areas would be strengthened, and that we would soon see a strong, self-reliant industrial and agricultural development.

But now we face irrationality. The opening up of the economy and liberalization, after four decades of regulation and control, has been widely welcomed. If the new open door policy succeeds, India is expected to have large manufacturing bases for products of multinationals, hopefully supplying an overseas market with goods that will compete globally in price, quality and performance. This could happen at least in a range of products where our resource base would augment the advantage of low-cost skilled labor.

On the other hand, we will only be manufacturing to designs evolved in one of the advanced countries. The design capability we have built up is in danger of wilting. The exceptions would be where the MNCs find it profitable to integrate Indian design effort into their mainline work. This is likely to be limited.

What are the prospects of product of Indian technology breaking into the export market? Software export has been growing well and there is considerable scope for expansion. As a general rule, the scale of manufacture has been small. Even our larger activities would be mini or micro in international comparison. Many of these industries have been too small to support independent design effort, let alone research and development. There is a real danger to the survival of many of these industries in the face of competition from overseas giants who can indulge in price cutting and dumping with takeovers, dismantling of any line of manufacture could easily happen in the guise of rationalization.

Why is it important for India to continue its faith in self-reliance? Many people would point out that many economies such as those of South Korea, Taiwan, Thailand, Indonesia, Malaysia and others have done well in growing as part of international division of labour. Let us recall that India with a population of 800 million and China with over one billion are the two potentially largest economies. They will grow for the next several decades. They will therefore, be large markets for both capital goods and consumer articles.

India will continue to build power stations, extend electricity supplies, add to its fleet of trucks, modernize the railway system, build petroleum refineries, and so on. Equally, the consumer demands for automobiles, two wheelers, TV sets and so forth will also continue. It is important, therefore, that we not only manufacture these articles in the country but also improve them with newer designs based on research and development undertaken in the country. There is a need to integrate ourselves into the global economy at our own pace as equal partners but not be stamped into joining as second class citizen.

Whenever one defends the policy of the opening up of our economy the case is on the basis of bringing in the latest technology required to rapidly build up the nation. Quite often we end up getting technology, for soft drinks or fast food. Verghese Kurien posed the question Why do we need to import the technology for potato chips? A news item talks about the entry to India of the American fast food chain, Mc Donalds. The entry is justified on the ground that it would attract overseas tourists.

The list of irrationalities does not end here. At another level, there is the irrationality of the Indian Science Congress instituting an award for astrology. Another irrationality staring us in the face is the Dunkel Draft that is being negotiated by the GATT. Western Pharmaceutical companies have complained in the past about India's patent laws. Even if, these laws did not suit them, the country has been able to supply lifesaving drugs at affordable prices. Under the new dispensation, this may not be so.

Even more ominous are the provisions relating to intellectual property rights as they apply to agriculture. According to noted agricultural scientist MS Swaminathan, free flow of knowledge across national frontiers helped the growth of agriculture and animal husbandry worldwide. The provisions, of the Dunkel Draft favour Europe and North America and mitigate against the developing countries. Even in the field of computer software, the Dunkel provisions mitigate against the hours. In a number of cases, court orders were wrongly interpreted to the chagrin of the affected parties, forcing them to go to the High Court or the Supreme Court for contempt proceedings.

Not surprisingly, the system of ready justice dispensed by criminals and antisocial elements with the connivance of political parties is finding increasing acceptance in society. The Kini murder case is only the tip of the iceberg. Political parties are not prepared to take up the cudgels against the trend. Rather, they denigrate the judiciary.

It is not therefore, surprising that the leaders of political parties at the national level are talking of reasserting the supremacy of Parliament visavis the judiciary and of amending the Prevention of Corruption Act to exclude the elected representatives from its purview and so on. There is also a move to amend the provisions of the Constitution to bring the judiciary under the undisputed hold of the executive in the matter of appointment and transfers of judges of the higher judiciary. The latest in this series of the proposed onslaughts is the move to curtail the scope of Public Interest Litigation by making it obligatory for the applicant to pay a deposit of ₹ 1 lakh and to confine the eligibility of the applicants to those who are below the poverty line and so on:

The arrogance and insensitivity of the executive at the State and Central levels were decisively brought home recently once again by its actions of invoking the provisions of the Official Secrets Act. In a recent PIL case in the Bombay High Court pertaining to the reported death of over 1,000 children during the last four, years in the tribal area of Melghat in Amravati district, the Maharashtra Government took the unbelievable stand that the two reports of inquiry made by Secretaries to the Government could not be made available as they were secret. Fortunately, the court did not uphold this plea and directed that they be made available to the parties to the litigation immediately. The other PIL on an equally vital public issue the safety standards in nuclear establishments asked whether precautions were being taken conforming to international standards and whether the regulatory and overseeing institutional arrangements were adequate. Again, a plea of the matter being secret was taken in the court by the Government of India. Unfortunately, the court accepted the plea and dismissed the PIL.

As it happens, the State Government concerned is being ruled by a coalition of the Shiv Sena and the BJP, and the Centre by a coalition of 13 political parties with Congress support. Therefore, in a sense, almost all political parties are partners in making a mockery of an open, transparent and responsible government which a democracy is expected to provide. It also shows their disregard for the judicial process and judicial review in such areas of critical public interest.

This inevitably raises the question of the direction in which the Indian democracy is heading. Sooner than later, the question which Mr. Thackeray asked Who rules this country, the executive or the judiciary, will have to be answered in no uncertain terms. It is the rule of law which governs the country. The executive or the judiciary or Parliament are mere instrumentalities. It is a travesty of truth to say that during the 50<sup>th</sup> anniversary of our Independence, answers to such basic questions are still unclear to the ruling political elite.

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