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Internal Assessment Test 1 – October 2024

Sub:	Environmental Protection and Management					Sub Code:	21CV753	Branch:	All Branches
Date:	.10.2024	Duration:	90 min's	Max Marks:	50	Sem / Sec:	VII		OBE

SCHEME

		MARKS	CO	RBT
1	Explain the national policies for the abatement of pollution. **explain any five national policies for the abatement of pollution**	**5 x [02]**	CO1	L1
2	Describe the drivers and barriers of the business charter for sustainable production and consumption. **drivers of the business charter (mention and explain any 5)** **barriers of the business charter (mention and explain any 5)**	**[05]** **[05]**	CO1	L2
3	Elucidate the unique characteristics of environmental problems with example. **Mention any 5 characteristics of environmental problems with example**	**5 x [02]**	CO1	L2
4	With a neat sketch of pollution prevention hierarchy, explain pollution prevention techniques? **Sketch** **Explaination**	**[03]** **[07]**	CO2	L2
5	Explain the environmental quality objectives. **Mention and explain any 5 environmental quality objectives**	**5 x [02]**	CO2	L2
6	Discuss about the different systems approach to corporate environment management. Sketch Explaination	**[06]** **[04]**	CO1	L2

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SOLUTION

		MARKS	CO	RBT
1	Explain the national policies for the abatement of pollution. Pollution abatement refers to technology applied, or measure taken to reduce pollution and/or its impacts on the environment. The most used technologies are scrubbers, noise mufflers, filters, incinerators, waste—water treatment facilities and composting of wastes. In India, the various initiatives taken for pollution abatement are listed □ Control of Pollution o Development of Environmental Standards o Charter on Corporate Responsibility for Environment Protection (CREP) o Environment Pollution (Prevention Control) Authority for the National Capital Region □ National Environment Appellate Authority (NEAA) □ Loss of Ecology (Prevention and Payments of Compensation) Authority for the State of Tamil Nadu □ Recognition of Environmental Laboratory under Environment (Protection) Act, 1996 o Noise Pollution/Water/Air/ o Auto Fuel Policy o Industrial Pollution Complaints □ Capacity Building for Industrial Pollution Management Project (CBIPMP) □ Assistance for Abatement of Pollution o Common Effluent Treatment Plant o Eco-cities o Industrial Pollution Abatement through Preventive Strategies o Environmental Audit o Environmental Statistics & Mapping □ Development and Promotion of Cleaner Technology □ Central Pollution Control Board	[10]	CO1	L1
2	Describe the drivers and barriers of the business charter for sustainable production and consumption. In general, the drivers for EMS adoption can be categorized as either internal or external. The main external drivers are regulations, customers, competitors, and the local community. The main internal drivers include improving corporate image, leadership commitment to environmental sustainability, lowering costs and risks and increasing process efficiency. Compliance with local and international government regulations and industry standards is an important driver for implementing ISO 14001 certification Regulations are often necessary to compel companies to improve their EM practices and reduce their environmental impact Without enforced regulations, top managers will not enact costly EM practices that they perceive as weakening company competitiveness Stringent, strictly-enforced regulations are particularly important in emerging and developing economies. Regulations in these countries are often weak or absent, and even if present they are poorly enforced, such that existing legislation has very little effect on organizations' environmental practices. Companies may only comply with regulations when they know they are being monitored. Certification is also important for companies with an international presence that have to adhere to regulations in several different jurisdictions. Satisfying customers and market demands is another driver for companies to	[10]	CO1	L2

adopt a certified EMS. Some corporate customers require their suppliers to provide them with written certification of their compliance with all environmental regulations. Some clients require their vendors to improve their environmental performance and adopt proactive EM practices. Chinese manufacturers improve environmental performance if supply chain customers demand it. Manufacturing companies in India that fail to practice "green manufacturing" may lose core customers. The demand for green products has increased over the years, particularly in Western Europe. Several studies found that market demand was an important driver for improving EM practices in emerging markets as well. Small, private, entrepreneurial companies in Russia improved their manufacturing process and their finished products to profit from increased demand for green products. It is important to note, however, that consumer demand for green products can vary a lot by country. In countries where overall environmental awareness is low, or where consumers cannot afford the added cost of "green" products, demand may be low.

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Competitors are another driver for EMS certification. Some organizations adopt ISO 14001 early on, to differentiate themselves from their competitors and gain an advantage. Other organizations adopt ISO 14001 later, to mimic the practices of their competitors and gain legitimacy in their institutional environment. This mimetic isomorphism is particularly important in developing countries.

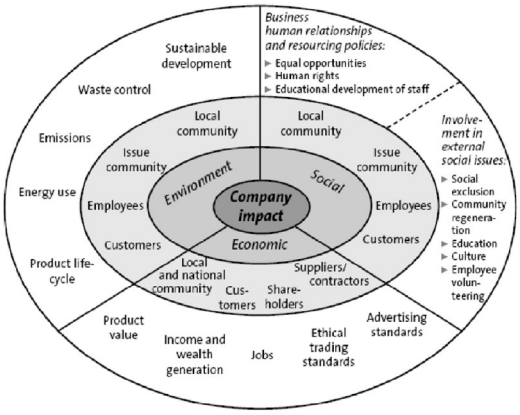
The community, including non-governmental organizations, environmental groups, neighbourhood organizations, the media and labour unions may also drive organizations to adopt EMSs by mobilizing public opinion. The community pressure could change Chinese firms' environmental practices, because citizen complaints led to more government inspections, which is turn led to better company environmental performance. It was also found that community pressure was a significant driver for Chinese chemical manufacturing firms to improve their environmental performance. The government devised a color-coded rating system for companies, and the results were available to the public. The colors indicated whether the firms were exceeding government regulations, meeting them, or in violation. Public hearings were required for any project that negatively impacted the environment, and citizens were encouraged to lodge environmental complaints against companies to the government.

Improving corporate image is an important driver for ISO 14001 adoption and in several cases, this was identified as the most important driver. Certification sends a clear signal to customers and government agencies that the certified organization is committed to EM. It was found that early adopters of ISO 14001 in the USA became certified in order to improve company image and reinforce their existing environmental strategies rather than dramatically improve their environmental practices.

Leadership and top management's commitment to improve environmental practices is another key driver for EMS certification. The internal desire to become more environmentally proactive was an important driver for ISO 14001 certification. Companies that were internally motivated perceived higher benefits and were more satisfied with the certification results The main driver for Greek companies to obtain ISO 14001certification was a commitment by top and middle managers to institute environmentally-friendly policies, and this commitment contributed to fewer difficulties in implementation.

Lowering cost and risk and increasing process efficiency are two economic drivers for EMS adoption and certification. EMSs can contribute to lowering costs by identifying ways companies can reduce material use and waste, recycle materials, implement energy and other resource conservation measures and avoid fines and penalties associated with non-compliance. Capital markets may react unfavorably to negative environmental news about a company, such as violations, accidents, lawsuits, etc. and may react positively to favorable news about environmental practices. It was found that "improving internal efficiency" was the third most important driver for becoming ISO 14001 certified in Spanish companies.

	Barriers for business strategy The main challenges are high costs, lack of qualified human resources, lack of internal support and practical challenges. High costs of certification include the time and costs associated with preparing documentation and training employees, but also include the costs of internal and external auditors. found that costs were the most important barrier to EMS implementation in organizations. The high costs were also barrier to implementation for small and medium sized enterprises in the UK, and that many of these companies were uncertain about the market benefits of becoming certified. Lack of qualified human resources to implement and maintain the certification can be a serious challenge. Skills and knowledge development is important not only for the initial implementation and adoption of an EMS, but also for its maintenance and continued operation. The barriers to EMS adoption for small and medium sized enterprises, are found that a lack of human resources was a more important barrier for successful implementation and maintenance of the EMS than a lack of financial resources. An unfavourable company culture, including inconsistent support from top management, hindered successful implementation. Practical, operational challenges can delay successful implementation. EMS implementation and maintenance is a complex process, that can present multiple practical challenges. Estonian companies struggled with practical challenges during the planning phase of ISO 14001, specifically with the environmental aspect assessment requirement (EAA). This assessment is the most fundamental part of the ISO 14001 planning phase, as companies must identify elements of the organization's activities, products and services that impact the environment. ISO 14001 gives only general principles for EAA; the assessment criteria overall are ill-defined and inadequate, and therefore cannot be systematically adapted. The Greek companies experienced only low levels of difficulties implementing ISO 14001, in part because many of them had prior experience with ISO 9001 certification. Their greatest difficulty came during the planning phase in "determining environmental performance issues" which included setting objectives and measurable aims			
3	Elucidate the unique characteristics of environmental problems with example. Number of people and nations involved Geographical distribution of the problem Temporal distribution of the problem (temporary or long-term effects) Degree of irreversibility of the effects Degree of impact on health, standard of living, social structure and economy Degree of international significance of the problem Multi Sectoral links - Environmental problems reverberate across a range of sectors through many pathways, calling for coordinated policies and concerted efforts. Regional and global implications - Many environmental impacts have broad cross boundary and global effects that require international frameworks and agreements to deal with them. Need for government intervention - Environmental problems are often a consequence of market failures. Without government intervention to introduce regulations and create markets where they do not exit, the private sector alone cannot achieve optimal environmental outcomes	[10]	CO1	L2
4	With a neat sketch of pollution prevention hierarchy, explain pollution prevention techniques?	[10]	CO2	L2
5	Explain the environmental quality objectives. Reduced Climate Impact •Clean Air •Natural Acidification Only •A Non-Toxic Environment •A Protective Ozone Layer	[10]	CO2	L2

	•A Safe Radiation Environment •Zero Eutrophication •Flourishing Lakes and Streams •Good-Quality Groundwater A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos Thriving Wetlands Sustainable Forests A Varied Agricultural Landscape A Magnificent Mountain Landscape A Good Built Environment			
6	Discuss about the different systems approach to corporate environment management. Corporate enterprises are some of the important vehicles of economic development in a country. There is a nexus between economic development issues and environmental management issues. Therefore, sustainable economic development should be environment-friendly. The social contract argument and the quality-of-life argument under pin a company' s duty for managing its environmental activities in a responsible way.  	[10]	CO1	L2