



**Answer any FIVE Questions:-**

**PART B (5 x 16 = 80 Marks)**

**(Answer not more than 400 words)**

11. a) A national Conference on “Technology Forecasting Techniques” is being organized in Delhi under the auspices of the Department of Science and Technology, Government of India. About 200 Scientists, Engineers, and Technocrats from Academic, Research and Industrial Organizations, both Government and Private, are expected to attend. The topics such as frontiers in Bio Technology, Energy prospects, Telecommunication, Appropriate technology and education for the 21<sup>st</sup> Century, are likely to come up for discussion. Assume yourself to be the Conference Organizing Secretary, Construct a brochure giving details of the conference - theme, venue, time, sessions, president, etc. 8 CO3 [K6]

- b) The Board of Directors of Jindal Steels, Nagpur held its second meeting for the year on 9<sup>th</sup> March 2023 at 11.00 AM on the company premises. The agenda was as follows: 8 CO3 [K6]
- Minutes of the previous meeting
  - Decrease in Sales in the current year leading to losses
  - Expansion of the annual capacity from 2 Lakh tons to 4 Lakh tons of steel
  - Deputation of three Mechanical Engineers to the USA technical collaboration programme
  - Improvement in the housing facilities for employees
  - Any other matter with the permission of the chair

As Secretary to the Board meeting, develop a notice to be circulated among the participants and write the minutes of the meeting.

12. a) Interpret the bar chart into a readable paragraph in about 300 words 8 CO2 [K5]

Bar graph showing the number of fatal accidents category-wise during 2011-2015



- b) Assume that you are the secretary of Students Union of Kumaraguru College of Technology. You have been nominated by the Dean – Student Affairs to visit an International Science Exhibition organized by IIT, Madras. After your visit, write a recommendation report to the Principal of your institution to organize similar programmes in your campus. Your report should include different programmes planned for schools and colleges, number of expected participants, sponsors required etc. 8 CO2 [K4]

13. a) Appraise a book which you have read on “Global Warming” in about 300 words. Your review should 8 CO1 [K1]
- Emphasize the importance of pollution control and the preventive mechanism to avoid the hazards in the future.
  - Seek the appropriate initiatives taken by the industry
  - Provide suggestions to avoid pollution in future

- b) Assume that you have the requisite credentials. Draft a letter of application for a job in response to the following advertisement and prepare your resume also: 8 CO3 [K3]
- “Wanted - a recent post graduate in science and interested in research. Apply for the post of Junior Research Associate in our R&D Division. You should hold a postgraduate degree in Mathematics, Physics, Chemistry or Biology. If Selected, you will be given a

Research Assistantship of Rs. 25000/= per month and you will have an opportunity to work in excellent laboratories. Apply within 15 days to the Manager - Research, R&D Division, Wipro Industries, Bengaluru - 560012”.

14. a) Read the text below and select the word that best fills in each space: 8 CO2 [K1]
- Dams and their Adverse Environmental Effects**
- Big dams have had several adverse effects on the environment and the people. Some of them are the ----1----- of thousands of families and their resettlement at some other site, making them refugees in their own land; the increase in the incidence of some diseases; --- --2----- of earthquakes and dam bursts; and the destruction of ecosystems. The last mentioned consequence has been a cause for great concern -----3----- people. The design and constructions of dams in India have been achieved mainly as civil engineering tasks neglecting their harmful -----4----- impact. Engineers seem to be concerned with instant solutions of problems rather than the long – term effects and consequences of the solutions proposed. Thus, the provision of the intended benefits to down - stream areas causes the neglect or wanton -----5----- of the environment of the catchment regions upstream in most cases. Its immediate victims are the tribals, the peasants in the river valleys and the hill folk whose lives -----6----- on the resources provided by their immediate environment. This is, of course, a pitiable situation. But more so is the ecological ruin with its grave long – range -----7----- consequences for the nation. The discrimination of vital forests in the -----8----- areas is one of the most serious problems effected by the engineering approach. Large tracts of forests have been lost as a result, particularly in the Himalayan hills and the Western Ghats. Submerging forest lands have aggravated the problem. Large scale deforestation for dams can lead to subtle imbalances in the ecosystems. Following the construction of dams -----9----- life is often grievously harmed. Changes in water velocity, water chemistry, temperature and turbidity -----10----- the free passage of fish to and from their spawning grounds. Weeds often disturb in irrigation reservoirs. The spread of diseases among human beings and cattle is often due to many of these weeds.
- (distribute, proliferate, exploitation, depend, catchment, economic, aquatic, urban, problem, conviction, defend, among, triggering, ecological, eviction, disturb)
- b) Elaborate the guidelines to be followed during the preparation for an interview and suggest ways for overcoming the difficulties of facing an interview process 8 CO# [K6]
15. a) Read the following Case Study and answer the questions that follow: 8 CO3 [K6]
- Founded in 1995, Santropol Roulant is an intergenerational Meals-on-Wheels service founded and run by young people in Montréal. This organization uses food as a vehicle to address social and economic isolation between generations, and to strengthen the local community.
- The concept is simple: food is prepared in a central kitchen in the Plateau Mont-Royal neighbourhood and is then delivered on foot, by bike, and by car across the city. The Meals-on-Wheels program connects and nourishes seniors or people living with a loss of autonomy in addition to providing meaningful experience and employment for young people in the community. Santropol Roulant is currently the largest independent Meals-on-Wheels organization in Montréal, and the only one run entirely by young people.
- Jane Rabinowicz has been the organization's executive director for two years. As is typical of many employees, she has a long history with the organization. Rabinowicz was a volunteer for two years, and then held various staff positions for another three years before becoming executive director. The staff team is made up of ten full-time and two part-time employees and is supported by a network of more than 500 volunteers, who annually contribute almost 50,000 hours of work to the organization.
- Santropol Roulant is a lean operation, with annual expenditures of slightly more than

\$600,000. Only 20% of its funding comes from various levels of governments; the bulk of its revenue is provided by donors (foundations, individuals, and corporations), clients (payment for the food delivery service), fundraising events, and social enterprise.

A defining feature of the organization is its very flexible work environment. Rabinowicz likens it to a “functional family” setting where employees have job titles but it's understood that when there is work to be done it will be shared; one individual may be designated as the lead, but everyone pitches in. Volunteers, staff and clients are equally valued. In 2004 Santropol Roulant became membership-driven, providing ample opportunity for volunteers, staff, clients and donors to influence the operation in a structured way. The organization is a breeding ground for new ideas, and staff and volunteers are encouraged to pursue these as far as they can.

The organization has been phenomenally successful in delivering on its mission. It is also recognized for its ability to engage young people and volunteers at a time when many other very well-established agencies struggle to find ways to involve both these groups.

After 13 years Santropol Roulant’s staff and board have identified long-term planning as a priority in the short-term. It is striving to become even more environmentally conscious. The organization also believes that having increased decision-making authority over its space, through ownership or a long-term lease agreement, will provide even greater opportunities to grow and improve on their work. Long-range planning will encompass these types of capital considerations as well as an examination of the organization’s core business activities.

Rabinowicz has also flagged the creation of HR policies as an organizational priority essential for continued success. As a relatively new organization run by young people – both staff and volunteers – Santropol Roulant has experienced growing pains typical of many nascent businesses, and some of its challenges may be attributable to the youth and inexperience of its leaders.

While the flexibility and lack of a lot of formal structure and infrastructure has enabled those involved to gain a tremendous amount of experience in a variety of areas it has also led to some problems:

- The absence of formal HR policies contributes to inconsistencies in how decisions are made about staff vacation time, hours of work, overtime compensation and salary increases.
- Because staff were busy building an organization (including creating positive, nurturing relationships with volunteers, clients and donors), they are only now able to allocate time to build networks with other social service agencies and take advantage of opportunities to learn from others with more or different experience.
- The mix of core (base funded) and project-based staff positions creates and tension when it comes to activities such as long term planning or undertaking new projects.

**Questions:**

1. What are the communication barriers involved in this case study and explain?
2. Assume that you are in position of Robinowicz, how would you have resolved the issues stated above?
3. If you are an employee of this organization, how would you have made your voices heard by authorities?
4. Explain the challenges to be overcome in order to regain the undertaking of new projects or long term planning from your perspectives.

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| b)    | Assume that your company is going to launch a new model Electric Car in two weeks’ time, Create an advertisement for the same with appropriate tagline. | 8 | CO3 | [K3] |
| 16. a | Describe a situation where you have converted the greatest challenge into opportunity.  | 8 | CO3 | [K4] |
| b     | Draft a proposal for the event mentioned in Q.No15.b.   | 8 | CO2 | [K3] |

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