

K.J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES & RESEARCH

PG/MMS (O) – Core & Others Elective – VI 2016-18 BATCH

ENVIRONMENT CONCIOUS MANUFACTURING

Date : 06/04/2018

Time : 2 Hours

Marks : 25

Solve for 25 marks from 6 questions.

1. What are Global Reporting Initiative (GRI) General standard disclosures? (5 marks)
2. What are GRI's specific standard disclosures in economic and environmental dimension? (5 marks)
3. When late Ray Anderson (founder of a carpet manufacturing firm B), set a target for his business to have zero impact on the environment by 2020 many thought it an outrageous ambition. But the company has made such great strides that, twenty years later, its European operations are within touching distance.

At a time when very few companies were making public commitments to sustainability, "mission zero" was a bold vision. Since then company's journey towards sustainability has seen a momentous shift in the way the company operates – and some outstanding results.

Since January 2014, company's plants in Holland and Northern Ireland have been using around 90% less carbon and 95% less water than in 1996, with no waste going to landfill. Its plant in Scherpenzeel, The Netherlands, has hit two of its zero targets.

*Describe **The Natural Step (TNS) principles and the ABCD methodology** as used by Ray Anderson for his company. (5 marks)*
4. Discuss in brief any number of the following (2.5 marks each):
 - a. Cleaner production or pollution prevention
 - b. Industrial Ecology
 - c. Sustainable supply chains
 - d. Life cycle Assessment
 - e. Design for environment
 - f. Hazard identification and risk assessment
5. Using ISO 14001:2015, do the aspect impact study of Pollute and Run company (case 1). Identify 7 aspects, their impacts, give scores based on criteria, do a risk calculation, define a cutoff, and identify significant aspects – sheet 1 (5 marks).
6. This is the list form latest book of Paul Hawken titled Drawdown. And after some serious studies, he has come out with top 100 solutions for climate change (top 15 listed below). Looking at the list with climate change lens, what initiatives can a company take in CSR and environmental management to improve its carbon

performance i.e. emitting less carbon (5 marks).

Rank	Solution	Sector	TOTAL ATMOSPHERIC CO2- EQ REDUCTION (GT)	NET COST (BILLIONS US \$)	SAVINGS (BILLIONS US \$)
1	<u>Refrigerant Management</u>	<u>Materials</u>	89.74	N/A	\$-902.77
2	<u>Wind Turbines (Onshore)</u>	<u>Electricity Generation</u>	84.60	\$1,225.37	\$7,425.00
3	<u>Reduced Food Waste</u>	<u>Food</u>	70.53	N/A	N/A
4	<u>Plant-Rich Diet</u>	<u>Food</u>	66.11	N/A	N/A
5	<u>Tropical Forests</u>	<u>Land Use</u>	61.23	N/A	N/A
6	<u>Educating Girls</u>	Women and Girls	59.60	N/A	N/A
7	<u>Family Planning</u>	Women and Girls	59.60	N/A	N/A
8	<u>Solar Farms</u>	<u>Electricity Generation</u>	36.90	\$-80.60	\$5,023.84
9	<u>Silvopasture</u>	<u>Food</u>	31.19	\$41.59	\$699.37
10	<u>Rooftop Solar</u>	<u>Electricity Generation</u>	24.60	\$453.14	\$3,457.63
11	<u>Regenerative Agriculture</u>	<u>Food</u>	23.15	\$57.22	\$1,928.10
12	<u>Temperate Forests</u>	<u>Land Use</u>	22.61	N/A	N/A
13	<u>Peatlands</u>	<u>Land Use</u>	21.57	N/A	N/A
14	<u>Tropical Staple Trees</u>	<u>Food</u>	20.19	\$120.07	\$626.97
15	<u>Afforestation</u>	<u>Land Use</u>	18.06	\$29.44	\$392.33
