

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
(For candidates admitted from the academic year 2006–07 & thereafter)

SUBJECT CODE : CH/PS/IM44

M.Sc. DEGREE EXAMINATION APRIL 2009
BRANCH IV – CHEMISTRY
FOURTH SEMESTER

REG.NO

COURSE : SPECIALISATION

PAPER : INDUSTRIAL WASTE MANAGEMENT

TIME : 30 MINS

MAX. MARKS :20

SECTION – A
TO BE ANSWERED ON THE QUESTION PAPER ITSELF.

Answer all the questions.

I CHOOSE THE CORRECT ANSWER: (20 x 1= 20)

1. Suspended particulate matter causes
a) Respiratory disease b) Asbestosis c) Lukemia c) Depression
2. SO_2 causes
a) Lukemia b) Acid Rain c) *Smog* d) *Fog*
3. Hazardous wastes exhibits the following characters
a) Ignitability b) Corrosivity c) Toxicity d) All
4. To have the good solid waste management, the following is essential
a) good house keeping b) motivation of workers
c) awareness in society d) All
5. ISO 14000 is related to
a) Educational institutes b) Industries c) Govt sector
d) International standard on environmental management
6. Environmental objectives are usually
a) Short term plans b) Final control of pollution
c) Long term plans d) All of these
7. ISO 14001 standard was brought by ISO in
a) 1996 b) 1994 c) 1995 d) 1993
8. The maximum amount of pollution is caused by
a) cement industry b) paper industry
c) leather industry d) sugar industry
9. Decomposition of organic matter in the absence of oxygen resulting in rich amount of methane is
a) Biomethanation b) methanation
c) Biogassification d) All the above
10. Artificial recharging can base the
a) cooking purpose b) water table
c) ground water crisis d) soil infiltration

II FILL IN THE BLANKS:

11. $NO_2 + h\nu \rightarrow \text{_____} + O^\bullet$
12. Clean technology has become important because _____.
13. UNEP programme was formed in _____.
14. Aerobic Biological treatment is done using _____.
15. PAH is _____

III ANSWER IN ONE OR TWO SENTENCES:

16. Suggest an antidote for *Hg* poisoning.

17. Give one method for the purification of emulsified impurities.

18. Why nuclear wastes are considered to be dangerous?

19. Define – Biodiversity.

20. Give the importance of EPA.

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PAPER : INDUSTRIAL WASTE MANAGEMENT

TIME : 2 HOURS & 30 MINUTES

MAX. MARKS :80

SECTION – B

Answer any five questions.

(5x8=40)

1. Write notes on air quality standards.
2. What are the effects of air pollution? Explain.
3. Reverse Osmosis. Give its importance.
4. Name filtration. Comment.
5. How afforestation can be implemented effectively?
6. Polluter pays principle is the best for all environmentalists. Why?
7. Write notes on any one of the following:
 - a) Nano filtration
 - b) Vermi Composting
 - c) Urbanisation

SECTION – C

Answer any two questions.

(2x20=40)

8. a) What are the pollutants present in the effluents of
 - (i) Leather industry
 - (ii) Distilleries
 - (iii) How these effluents can be treated? (10)b) "Rain water Harvesting" is a blessing in disguise. Explain. (10)
9. Write notes on the following
 - (i) Electrostatic precipitation
 - (ii) Wet scrubbers
 - (iii) ISO 14001
 - (iv) Steps taken towards green future
10. a) Recycling of waste water is a boon to environmentalist. Comment. (5)
b) Write notes on activated sludge process. (5)
c) Explain the importance of solidwaste management and Industrial safety. (5+5)

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