

B.Sc. (Part-III) (CBCS Pattern) Sem-V
**USENVDST-09 DSE-IX - Environmental Science Paper-I : Environmental
Engineering**

P. Pages : 1

Time : Three Hours



GUG/W/22/13101

Max. Marks : 50

- Notes : 1. All questions are compulsory and carry equal marks.
2. Illustrate the answers with suitable diagrams and examples.

1. Discuss the devices used to collect water sample. **10**
OR
a) Draw a neat sketch of dust fall jar and explain its working. **5**
b) Explain method of collection and preparation of soil sample for analysis. **5**
2. Discuss principle and working components of gas chromatography. **10**
OR
a) Write importance of errors in environmental measurements. **5**
b) What is the principle of gravimetric analysis? **5**
3. Discuss operation and maintenance of settling tank and sludge drying bed. **10**
OR
a) Highlight operational problems of ESP. **5**
b) Explain operation start up procedure of aeration tank. **5**
4. What is the structure of planning? Write steps in planning. **10**
OR
a) Explain process of decision making. **5**
b) Write short account on corporate environmental planning. **5**
5. Answer in brief **any ten**. **1x10**
=10
a) Write significance of stack sampling.
b) What precautions can be taken for locating sampling sites?
c) What is the meaning of quartering method of soil sampling?
d) Define spectroscopy.
e) What is determinate error?
f) Write any two methods of minimization of errors.
g) List out operational problems in fabric filter.
h) Write operation procedure of screen.
i) What is the basic purpose of equalization, tank in wastewater treatment plant?
j) Write objectives of environmental management.
k) Mention features of decision making.
l) What is the full form of CSR?
