

KATHMANDU UNIVERSITY
Second Internal Examination

Set A

Level : B.E. (CE/Spring)
Year : I/II

Course: ENVE 101
Time: 45 mins

F.M. :20
Date:

Name:

Roll No.:

A) Circle the most appropriate option.

[10]

1. If water is to be transported from a higher elevation to a lower elevation on the hill, the required additional unit or chamber is _____.
 - a. Pumping system
 - b. Digital meter
 - c. Control Valve and Sensors
 - d. Break Pressure Tank
2. _____ is the first step of water treatment, which has openings of uniform size for removing large suspended or floating matter.
 - a. Filtration
 - b. Aeration
 - c. Screening
 - d. Sedimentation
3. The sewer that unloads the sewage at the point of treatment is called _____ sewers.
 - a. Outfall
 - b. Branch
 - c. laterals
 - d. Sub-Mains
4. Full form of AQI is _____.
 - a. Air Quality Index
 - b. Air Quality Indicator
 - c. Air Quota Index
 - d. Aerosol Quality Indicator
5. The process of burning municipal waste under suitable temperature in a specific furnace is called _____.
 - a. Landfill
 - b. Recycling
 - c. Incineration
 - d. Vermi-composting
6. _____ the dirty liquid that extracts solutes from other refuses as it passes through different layers of landfill
 - a. Black water
 - b. Leachate
 - c. Sludge
 - d. Runoff
7. _____ is a filtration device based on centrifugal force used to remove particles like smoke and fine dust from flowing gas
 - a. Black water
 - b. Leachate
 - c. Sludge
 - d. Runoff
8. The solid waste generated from city of 60,000 at the rate of 2 kg/capita/day is forwarded to a landfill of an area 75 m². If the daily waste covers 4 m depth of the landfill, the typical density of solid waste is..... kg/m³.
 - a. 4000
 - b. 400
 - c. 1000
 - d. 40
9. Two examples of e-waste: a..... b.....

B) Numericals

[10]

1. What sound power level results from combining the following three levels: 60 dB, 70 dB, and 75 dB?
2. Estimate the total moisture content (MC), and density of the waste sample.

Components	% by mass	DC %	Density kg/m ³
Food waste	45	30	290
Paper	25	94	85
Cardboard	15	95	40
Plastics	15	98	60