

KATHMANDU UNIVERSITY  
End Semester Examination [C]  
May/June, 2019

Marks scored: \_\_\_\_\_

Level : B.Sc./B.Tech.  
Year : IV

Course : ENVS 431  
Semester: I

Exam Roll No. : \_\_\_\_\_ Time: 30 mins.

F. M. : 20

Registration No.: \_\_\_\_\_

Date **07 JUN 2019**

**SECTION "A"**  
[15Q. × 1 = 15 marks]

Choose the most appropriate answer among the given options and **encircle** the letter of your choice.

1. The formal waste management system in Kathmandu Valley was introduced on  
a. 1970 A.D                      b. 1980 A.D                      c. 1990 A.D                      d. 2000 A.D
2. The value of  $P_c + U_c$  for the hoist truck is taken as  
a. 0.067 hr/trip                      b. 0.67 hr/trip                      c. 0.077 hr/trip                      d. 0.072 hr/trip
3. The percentage of the organic waste in Kathmandu Valley is approximately .....  
a. 50                                      b. 55                                      c. 60                                      d. 65
4. Transfer station is consider when haulage distance is  
a. Greater than 7 km                                      c. Less than 10 km  
b. Greater than 10 km                                      d. Less than 7 km
5. FC of commingled MSW is found to be .....  
a. 30~40%                                      b. 40~50%                                      c. 55~65%                                      d. 50~60%
6. Landfill for the individual waste is ..... landfill  
a. monofill LFS                                      c. commingled LFS  
b. landfill for shredded waste                                      d. sanitary LFS
7. Limbs, organs, blood, tissues are referred as ..... waste.  
a. surgical                                      b. municipal                                      c. clinical                                      d. pharmaceutical
8. .... analysis of SW is also known as the elemental analysis of the SW.  
a. Proximate                                      b. Ultimate                                      c. Duglung's                                      d. Unit
9. Bench is provided where the height of the landfill exceeds to ..... meters.  
a. 5                                      b. 20                                      c. 25                                      d. 30
10. Which of the following convention is related to SWM?  
a. UNFCC convention                                      c. Kyoto convention  
b. Basel Convention                                      d. Copenhagen Convention

Fill in the blank(s).

11. Odor is developed in solid waste due to anaerobic decomposition of \_\_\_\_\_.
12. The unit of expression for street sweeping waste is \_\_\_\_\_.

13. Enhanced stabilization landfill is also known as \_\_\_\_\_ method.
14. The waste carrying capacity of skip vehicle is \_\_\_\_\_.
15. Biodegradable fraction is expressed as  $BF =$  \_\_\_\_\_.

SECTION "B"  
[5Q.  $\times$  1 = 5 marks]

*Define the following terminologies in one sentence.*

16. Off route time:
17. Door to door waste collection system:
18. Factor of safety for stability analysis (only formula):
19. Formula to calculate BOD mix in surface water:
20. Bench in a LFS: