Unit 25 · Human Population

WORKSHEET

Full marks 29

Name _____ Class _____ Roll no. _____ Date _____ Marks _____ / 29

1 Key words [4]

Fill in the blanks with words from the box. Two words in the box are not needed. Each blank carries 0.5 mark.

carrying capacity	census	emigration	environmental resistance	immigration
J-shaped	morbidity	natality	tubectomy	vital index

The production of new individuals by birth is _____. The largest population an environment can support indefinitely is its _____. Everything that holds a population's growth below its biotic potential is _____. A one-way movement of individuals out of a population is _____. A population growing with nothing to stop it, then crashing, follows a _____ curve. The official count of every person in a country at one time is a _____. Births divided by deaths, times 100, is the _____. Cutting and tying each fallopian tube is _____.

2 Multiple choice [5]

Choose the correct option for each of the following questions.

i. According to Malthus, food supply increases in [1]

a. a geometric progression **b.** an arithmetic progression
c. an exponential curve **d.** a sigmoid curve

ii. In which stage of the demographic cycle are both the birth rate and the death rate high? [1]

a. the first stage **b.** the third stage
c. the fourth stage **d.** the fifth stage

iii. In which phase of the S-shaped curve do births equal deaths? [1]

a. lag phase **b.** log phase
c. stationary phase **d.** both lag and log phases

iv. Which of these is a cause of population growth, not a consequence of it? [1]

a. unemployment **b.** deforestation
c. a falling death rate **d.** shortage of drinking water

v. Which of these is a permanent method of birth control in men? [1]

a. the condom **b.** coitus interruptus
c. vasectomy **d.** the safe period

3 Short answers [9]

Write short answers to the following questions.

a. What are the positive and preventive checks of Malthus's theory? Give one example of each. [2]

b. Why does a population with many young people keep growing for years even after families become small? [2]

c. The UN reckons that Nepal's total growth in 2025 was about zero, though its births (19 per 1,000) far outnumbered its deaths (7 per 1,000). How can this be? [2]

d. Write three differences between the J-shaped and S-shaped growth curves. [3]

4 Numerical problem [4]

Show your working.

A municipality of 40,000 people on 50 km^2 had 880 live births and 240 deaths in a year.

a. Find its crude birth rate and crude death rate.
b. Find its rate of natural increase, as per 1,000 and as a percentage.
c. Find its population density.
d. About how many years would it take to double at this rate?

Answer: _____

5 Long answer [4]

Write a long answer to the following question.

What is the demographic cycle? Describe its five stages.

6 Think [3]

In 1944, 29 reindeer were taken to St. Matthew Island in Alaska, where there were no predators. By 1963 there were about 6,000; after the next winter nearly all were dead. Explain what happened, using the ideas of biotic potential and carrying capacity.

7 Activity: Your family's three generations (not marked)

Ask at home how many children your grandparents had, how many your parents had, and how many your aunts and uncles have on average. Collect your classmates' answers too.

Generation	Average number of children (mine)	Class average
grandparents		
parents		
aunts and uncles		

What does the change tell you about the stage of the demographic cycle Nepal is in?