

STUDENT'S NOTES

Ans 1: WBC normal count is 4000-11000/mm<sup>3</sup>

Ans 2: WBC pipette has a small bulb & white lead in it & has a matching upto 11

Ans 3: WBC count is about 30,000/cm<sup>3</sup> in infants & 10,000-15,000/mm<sup>3</sup> of blood in child

Sex: Slightly more in female diurnal variation: minimum in early morning & maximum in afternoon

Exercise: slight increase during exercise

Sleep: count decrease during sleep decrease

Pregnancy: increase

Menstruation: increase

Ans 4: Leucytosis:- During this condition TLC is above the normal up to 150,000-20,000/cmm - Immature cells are sent mostly occur due to inflammation & disease

Leukemia: It is abnormal & uncontrolled increase in WBC upto 45,000-50,000 or upto 1lac. Bdrn mature & immature cells are present

EXPERIMENTAL PHYSIOLOGY MANUAL  
OBSERVATIONS AND CALCULATIONS

$$L \times W \times H \\ \frac{1}{4} \times \frac{1}{4} \times \frac{1}{10} = \frac{1}{160} \text{ mm}^3$$

So,  $\frac{1}{160} \text{ mm}^3 = \frac{2}{64}$

$$1 \text{ mm}^3 = \frac{2}{64} \times 160 \times 20$$

$$1 \text{ mm}^3 = 50 \times x \text{ (total leukocyte count in one square)}$$

$$\text{WBC} = 216 \times 50$$

$$\text{WBC} = 10,800 \text{ cells/mm}^3$$

$\therefore$  where  $x$  is no. of  
WBC counted of  
64 square.

### RESULTS

Normal range = 4000 - 11000 cells/mm<sup>3</sup>

Observed value = 10,800/mm<sup>3</sup>

So above TLC lies normal range