

Fetal growth and development •

Objectives:: •

*To know the stages of prenatal period. •

Human fertilization is the union of a female •
oocyte (egg) and male sperm, usually
occurring in the ampulla of the fallopian tube
to form the zygote.



prenatal period •

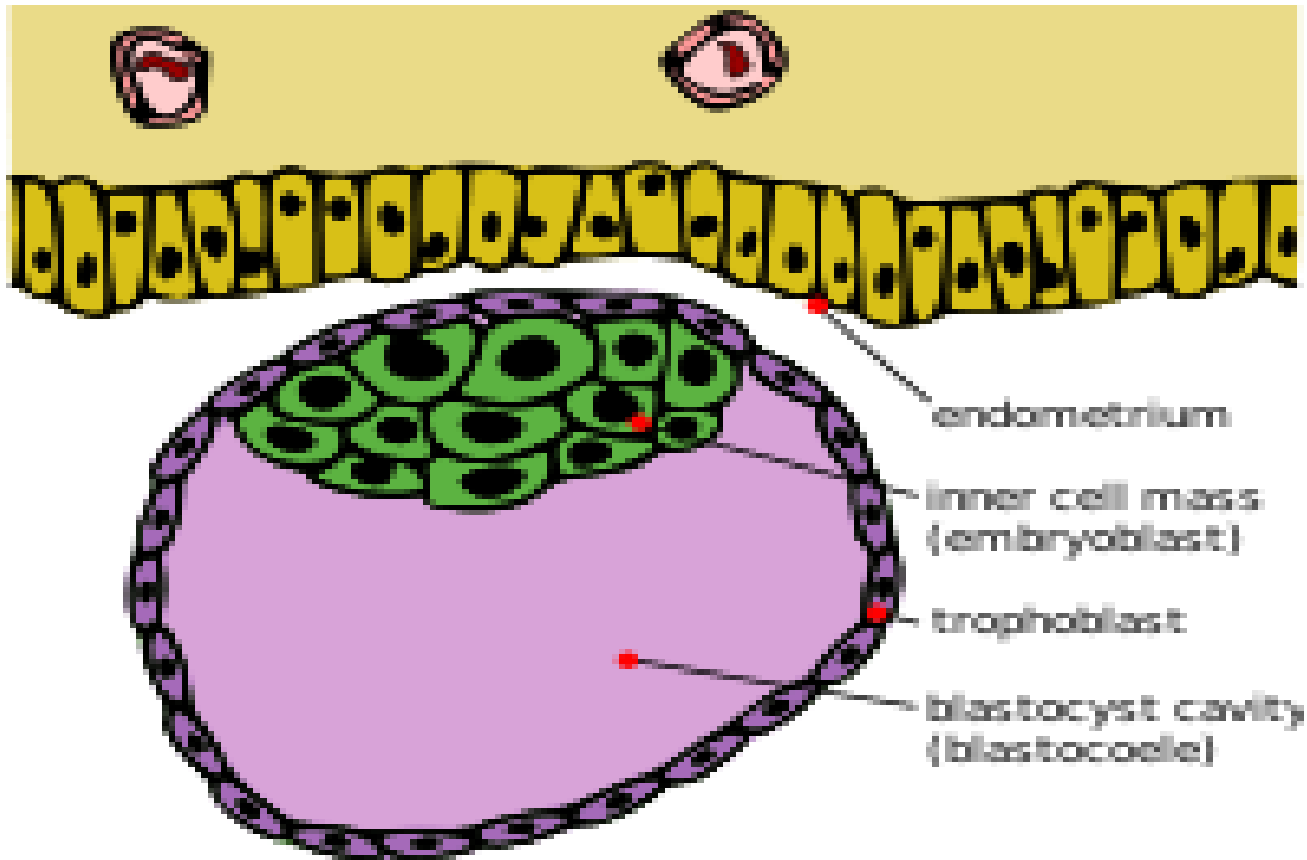
(a) preembryonic stage : lasts 3 weeks •

The zygote has 3 layers : •

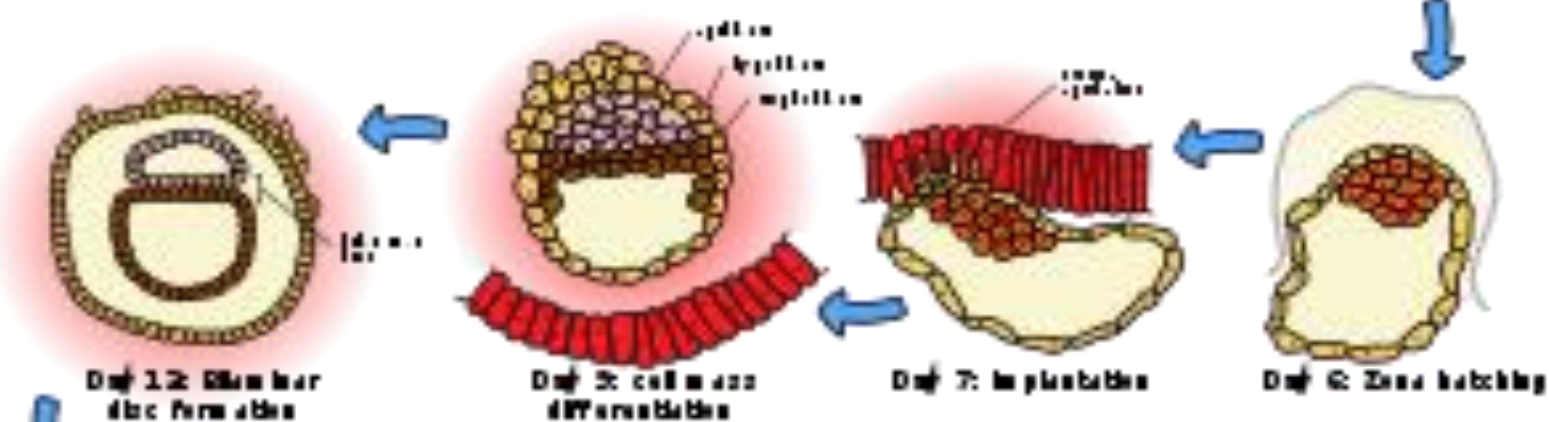
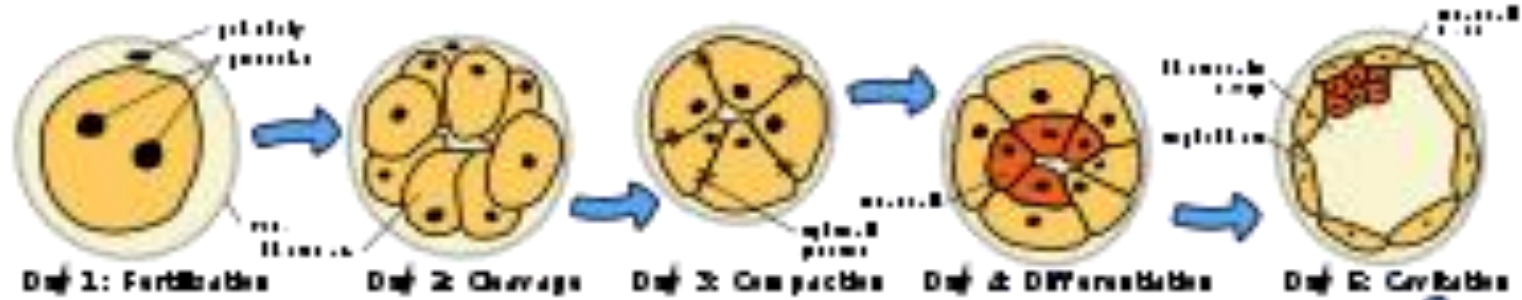
1-Endoderm: becomes the respiratory system , •
the digestive system , the liver , and the pancreas
.

2- Mesoderm :becomes the skeleton , connective •
tissue , cartilage , muscles, & circulatory ,
lymphoid, reproductive and urinary system .

3- Ectoderm: becomes the brain, spinal cord , •
nervous system , and outer body parts (skin , nail
& hair)



(b)embryonic stage : from the 4th to 8th week . •
rapid growth & differentiation of the cell
layers take place .



(c) fetal stage last from 9 weeks to birth . •
All body organs and systems continue to grow •
and develop . At the end of the 1st trimester
(12 week gestation) , some reflexes are present
, kidney secretion begins , heart sound heard
by Doppler , sex can be distinguished .

At the end of the 2nd trimester (24 week • gestation), fetal heart tones are audible by stethoscope ,the liver and pancreas are functioning , hair forms, sleep-awake patterns established, lung surfactant is produced , and eyelids open

. At the end of the 3rd trimester (40 week • gestation), testes have descended , lung alveoli , are formed , subcutaneous fat is deposited , and the fetus actively kicks . By birth, the average neonatal weight 3.4 kg and is 50.8 cm long .

Question: •

Q1. Enumerate the stages of prenatal period? •







