LIFE BEFORE BIRTH TEST
(Take this exam before and after studying this program.)

T F  1. The most dangerous time of our lives is when we are in our mother’s womb.
T F  2. The cell resulting from the joining of the male sperm and the female egg is known as a zygote.
T F  3. A two-cell embryo is barely visible to the naked eye.
T F  4. Fraternal twins are formed when the two daughter cells arise out of the fertilized egg and separate completely.
T F  5. Three days after fertilization, the new being is usually implanted in the lining of the uterus.
T F  6. The developing organism is called an embryo from one week after conception to the end of the second month.
T F  7. The placenta is the structure that transfers nourishment from the mother to the developing baby.
T F  8. By 42 days, five separations have begun to appear in the hands of the embryo.
T F  9. The process of cell division is called cleavage.
T F 10. The sex of the baby is determined by the mother’s chromosomes.
T F 11. After two months of pregnancy, the developing baby is known as a fetus.
T F 12. After three months of development no new organs will be formed in the developing baby.
T F 13. During the fourth month of development the fetus has comparatively slow rate of growth.
T F 14. If birth occurs, the seven-month-old fetus has at least 10-percent probability of survival.

T F
CHILD DEVELOPMENT:

PRE-NATAL THROUGH ADOLESCENCE

PHYSICAL

EMOTIONAL

INTELLECTUAL

SOCIAL

SPIRITUAL

DECISION-MAKING

Prepared in behalf of the parenting classes for Florence Crane Women's Facility and Camp Branch Women's Facility

Feb. 1999
PRE-NATAL DEVELOPMENT

I. The Germinal Period: The 2 weeks immediately following conception.
   - The fertilized egg or zygote attaches itself to the uterus.

II. The Embryonic Period: 2 weeks to 8 weeks after conception.
   - The zygote has increased rate of cell differentiation, changes to an embryo.
   - Organs and vital life systems develop and appear.

A. Inner layer of cells (endoderm):
   - Digestive System & Respiratory System.
   - Intestinal tract develops at 5 weeks.

B. Middle layer of cells (mesoderm):
   - Circulatory System & Reproductive Systems at 4th week.
   - Four chambers of heart at 4 weeks.
   - Bones & Muscles, e.g., limbs at 4 to 6 weeks.
   - At 5 to 8 weeks the arms/legs begin to differentiate.

C. Outer layer of cells (ectoderm):
   - Central Nervous System - Spinal cord at 3 weeks.
   - Sensory receptors - ears, nose, mouth; eyes at 21 days.
   - Facial features begin to fuse @ 5 to 8 weeks.
   - Hair & nails develop.

D. At 8 weeks the embryo is approximately 1" in size.

E. Placenta:
   - A life support system for embryo, disk shaped group of tissues.

F. Umbilical Cord:
   - Two arteries and 1 vein connect baby to placenta.

G. Amnion:
   - Bag with clear fluid surrounding the embryo.
   - Temperature & humidity controlled environment
   - Shock Proof - protection

III. Fetal Period: 2 months to 9 months

A. At 3 months, face and genitals are distinguishable.

B. Development of the fetus continues to be critical, e.g. proper nourishment and pre-natal care are vital as are avoidance of drugs, medications, alcohol and nicotine.

C. Brain cell development complete at birth and some parts are unchangeable. Much of the brain can be shaped by surrounding and repeated experiences, especially in the first 3 years.
IV. Developmental Risks

A. An embryo or fetus is always AT RISK if it is exposed to certain substances, chemicals or unhealthy conditions. Examples include:
1. Over the counter medications
2. Prescription medications
3. Alcohol/Illegal Drugs/Designer Drugs
4. Nicotine
5. Certain illnesses or diseases of the mother
6. Inadequate nutrition (lack of healthy foods and necessary vitamins)
7. Prolonged stressful circumstances

B. Development is very likely to be hampered if fetus exposed to something harmful:
1. Brain - 15 to 25 days after conception and at 20 to 36 weeks
2. Eyes - 21 to 40 days
3. Heart - 20 to 40 days
4. Legs - 24 to 36 days

NATURAL REFLEXES

I. Natural or instinctual reflexes at birth:

<table>
<thead>
<tr>
<th>REFLEX</th>
<th>PURPOSE</th>
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<tbody>
<tr>
<td>Sucking</td>
<td>Nourishment</td>
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<tr>
<td>Rooting</td>
<td>&quot;Rub cheek &amp; turns head to that side</td>
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<tr>
<td>Moro</td>
<td>Startle response to noise or movement - Arches back, throws head back, flings arms/legs out, then rapidly closing to center of body.</td>
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<tr>
<td>Grasping</td>
<td>Grasp when their hands are touched.</td>
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<tr>
<td>Coughing</td>
<td>Dispel unwanted phlegm, etc.</td>
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<tr>
<td>Blinking</td>
<td>Protect eyes</td>
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<tr>
<td>Crying</td>
<td>Communicate</td>
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<tr>
<td>Smiling</td>
<td>Initially reflexive only, later becomes social - response to environment.</td>
</tr>
<tr>
<td>Yawning</td>
<td></td>
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</tbody>
</table>