

**Resource Book for Written Test**  
**Prenatal Nursing Care Competency**

Item	Responses from Literature
I.B.1. List 3 physical and/or psychosocial risks associated with adolescent pregnancy	<p>Physical risks</p> <ul style="list-style-type: none"> <li>• late or absent prenatal care,</li> <li>• pregnancy-induced hypertension, and</li> <li>• poor nutritional status</li> </ul> <p>Psychosocial risks</p> <ul style="list-style-type: none"> <li>• difficulty dealing with adolescent maturation as well as the changes due to pregnancy,</li> <li>• disrupted school attendance,</li> <li>• decreased vocational opportunities,</li> <li>• difficulty adapting to parenting,</li> <li>• repeat pregnancies</li> </ul> <p>May &amp; Mahlmeister, Chpt. 9</p>
I. B.2. Lists 3 benefits of prenatal care for the mother and/or fetus	<p>Benefits for the mother</p> <ul style="list-style-type: none"> <li>• confirm pregnancy,</li> <li>• obtain assistance in dealing with discomforts of pregnancy,</li> <li>• prevent or treat pregnancy complications,</li> <li>• plan and prepare for childbirth.</li> </ul> <p>Benefits for the fetus</p> <ul style="list-style-type: none"> <li>• assess fetal growth,</li> <li>• identify and treat certain congenital disorders,</li> <li>• decrease likelihood of premature labor or childbirth complications.</li> </ul> <p>May and Mahlmeister, Chpt. 13</p>
I.B.3. List at least 1 warning sign for each of the following pregnancy complications: <ul style="list-style-type: none"> <li>• preterm labor</li> <li>• placenta previa and/ or</li> <li>• placenta abruptio</li> </ul>	<p><u>Preterm labor</u> - frequent uterine contractions (4 or more per hour), pelvic pressure, increased vaginal discharge, diarrhea, low backache, menstrual - like cramping, low abdominal pressure; abdominal cramping with or without nausea, vomiting or diarrhea; any vaginal bleeding; thigh pain which is intermittent or persistent</p>

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<ul style="list-style-type: none"> <li>• premature rupture of membrane</li> <li>• fetal demise</li> <li>• preeclampsia</li> </ul>	<p><u>Placenta previa</u> - painless vaginal bleeding (rarely, abdominal pain without bleeding)</p> <p><u>Placenta abruptio</u> - external or concealed bleeding, abdominal pain, uterine tenderness, increased uterine tone -“boardlike”</p> <p><u>Premature rupture of membranes</u> - the amniotic fluid may be expelled in large amounts; in some instances the fluid is expelled in small amounts and may be confused with episodes of urinary incontinence associated with urinary urgency, coughing, or sneezing</p> <p><u>Fetal demise</u> - a slowing or stopping of fetal movement</p> <p><u>Preeclampsia</u> - hypertension, proteinuria, and edema; not all of these parameters have to be present - hypertension and proteinuria are the most significant indicators</p> <p>May &amp; Mahlmeister, chpt 19, 26; AAP &amp; ACOG, p.67; Simpson &amp; Creehan, p. 133; and Olds et al, p. 376. 576 &amp; 735</p>
<p>I.C.1. Identify the purpose and one implication for changes in client’s plan of care related to the following laboratory tests:</p> <ul style="list-style-type: none"> <li>•HIV</li> <li>•glucose tolerance test (GTT)</li> <li>•triple marker screen</li> </ul>	<p><u>HIV</u> - test for human immunodeficiency virus (negative)</p> <p><u>glucose tolerance test</u> - test for diabetes (&lt;135 mg/dl one hour after 50 gm. glucose drink)</p> <p><u>triple marker screen</u> - screening (not diagnostic) test for neural tube defect and certain other (chromosomal) abnormalities, including Down syndrome (within normal limits)</p> <p>May &amp; Mahlmeister, Chpt. 13; AAP &amp; ACOG, p.61-62; and Olds et. al., chapter 7, page 163.</p>
<p>I.C.2. Describes the purpose of and how to prepare the client for the following procedures:</p> <ul style="list-style-type: none"> <li>•ultrasound</li> <li>•amniocentesis</li> <li>•nonstress test (NST)</li> </ul>	<p><u>ultrasound</u> - test for gestational age, congenital anomalies, multiple gestation, source of abnormal bleeding, evaluation of fetal growth (normal or negative)</p> <p><u>amniocentesis</u> - collection of a small sample of amniotic fluid for genetic screening, fetal lung maturity, culture for infection (L/S ratio 2:1 and PG present usually indicates lung maturity)</p> <p><u>nonstress test (NST)</u> - test of fetal well-being using external fetal monitor (reactive)</p> <p>Simpson &amp; Creehan, p. 91, 95 and May &amp; Mahlmeister, chpt. 14 and AAP &amp; ACOG, p 64-65</p>
<p>II.A.1. Lists recommended dietary requirements during pregnancy:</p>	<p><u>Servings for each food group of the food guide pyramid</u></p> <ul style="list-style-type: none"> <li>• 2 or more servings of fruit or juice</li> </ul>

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<ul style="list-style-type: none"> <li>• using the <u>food</u> guide pyramid</li> <li>• <u>specific nutrients</u>, their food sources and their function in supporting a healthy pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>• 3 or more servings of vegetables</li> <li>• 6 - 11 servings of grain or starchy vegetables</li> <li>• 2 servings of low fat meat, fish, poultry, beans or nuts</li> <li>• 3 or more servings of milk or calcium-rich foods like cheese or yogurt</li> <li>• 6 - 8 cups of liquids</li> </ul> <p><u>Specific nutrients, good food sources &amp; their function in supporting a healthy pregnancy (those in bold are the most important to know)</u></p> <p><u>Protein</u>: Rapid fetal tissue growth; amniotic fluid; placenta growth &amp; development; maternal tissue growth; increased maternal circulating blood volume; maternal storage reserves for labor, delivery, and lactation. Milk, cheese, egg, meat, grains, legumes, nuts.</p> <p><u>Vitamins</u></p> <p><u>Thiamine</u>: Coenzyme for energy metabolism. Pork, liver, whole or enriched grains, legumes.</p> <p><u>Vitamin A</u>: Promotes growth and development. Needed for healthy skin. Also protects against infections and is important for normal vision. Vegetable group.</p> <p><u>B<sub>6</sub></u>: Coenzyme in protein metabolism; Increased fetal growth requirements. Wheat, corn, liver, meat.</p> <p><u>B<sub>12</sub></u>: Coenzyme in protein metabolism, especially vital cell proteins such as nucleic acid; formation of red blood cells. Milk, Egg, meat, liver, cheese.</p> <p><u>Minerals</u></p> <p><b><u>Folate</u></b>: Helps the body form red blood cells and aids in the formation of genetic materials within every body cell. Helps prevent neural tube defects. Liver, dark green vegetables, dried beans, lentils, nuts, cereals fortified with folic acid.</p> <p><b><u>Calcium</u></b>: Fetal skeleton formation; fetal tooth bud formation; increased maternal calcium metabolism. Helps build and maintain strong bones and teeth. Helps muscles and nerves function normally. Helps blood clot. Milk, cheese, whole grains; leafy vegetables; egg yolk</p> <p><b><u>Iron</u></b>: Increased maternal circulating blood volume, increased hemoglobin; fetal liver iron storage; high iron cost of pregnancy. Helps form and maintain blood cells. Helps protect against infection. Helps the body carry oxygen to cells. Liver, meats, egg, whole or enriched grain, leafy vegetables, nuts, legumes, and dried fruits.</p> <p><u>Iodine</u>: Increased basal metabolic rate - increased thyroxine production. Iodized salt.</p> <p><u>Magnesium</u>: Coenzyme in energy and protein metabolism; enzyme activator; tissue growth, cell metabolism; muscle action. Nuts, soybeans, cocoa, seafood, whole grains, dried beans and peas.</p>

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	US Dept. of Health and Human Services Health Diary and Worthington-Roberts & Williams, 1993, chapter 6.
II.A.2. Assess weight gain using a standard weight gain grid for a 15 year old G1P0 who is 16 weeks pregnant, pre-pregnant weight is 113 pounds and weighs 118 at 16 weeks	<ul style="list-style-type: none"> <li>• identifies weight status category to determine appropriate weight gain range</li> <li>• obtains prepregnant weight and notes if it was known or estimated</li> <li>• determines weight gain or loss from prepregnant and current weight</li> <li>• determines weeks gestation at time weight is done and</li> <li>• plots pounds gained or lost</li> </ul> <p>VDH Weight Gain Chart Guidelines, 11/90 and US Dept. of Health and Human Services Health Diary</p>
<p>III.A.1. List 1 self-care measure for each of the following discomforts associated with pregnancy</p> <ul style="list-style-type: none"> <li>• backache</li> <li>• frequent urination</li> <li>• heart burn</li> <li>• leg cramps</li> <li>• nausea &amp; vomiting</li> <li>• varicose veins</li> </ul>	<p><u>Backache</u> may be caused by compensation for the increased weight of uterus and fetus. Comfort measures may include using good posture and body mechanics, avoiding unnecessary lifting, heat or massage to the back.</p> <p><u>Frequent urination</u> may be caused by uterine pressure on the bladder. Comfort measures may include limiting caffeine, voiding often enough to prevent bladder distention, and doing Kegel exercises.</p> <p><u>Heartburn</u> is caused by the increased production of progesterone, decreasing gastrointestinal motility and increasing relaxation of the cardiac sphincter, displacement of stomach by the enlarging uterus thus regurgitation of acidic gastric contents into the esophagus. Comfort measures include eating small and more frequent meals; using low-sodium antacids; avoiding overeating fatty and fried foods, lying down after meals and sodium bicarbonate.</p> <p><u>Leg cramps</u> may be caused by calcium/phosphorus imbalance, fatigue, or muscle strain. Comfort measures involve correcting dietary deficiencies, assessing for and treating phlebitis, dorsiflexing the foot when cramps occur, applying local heat, and mild exercise.</p> <p><u>Nausea and vomiting</u> may be related to increased progesterone, HCG, or gastric secretions. Comfort measures may include small frequent meals, drinking fluids between (rather than with) meals, high protein snacks.</p> <p><u>Varicose veins</u> is due to the venous congestion in the lower veins that increase due to pregnancy, hereditary factors, and increased age and weight gain. Comfort measures include elevating legs frequently, wearing supportive hose, avoiding crossing legs at knees, standing for long periods and hosiery with constrictive bands.</p> <p>May &amp; Mahlmeister, Chpt 15 and Olds et. al, chapter 15, page 369-370</p>
III.A.2. Describe the impact of 3 of the	<u>Cigarette smoking</u> is associated with low birth weight and preterm birth.

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<p>following <del>smoking, drugs, alcohol and environmental hazards</del> on fetal growth and development:</p> <ul style="list-style-type: none"> <li>• <u>cigarette smoking</u></li> <li>• <u>marihuana</u></li> <li>• <u>cocaine</u></li> <li>• <u>heroin</u></li> <li>• <u>alcohol</u></li> </ul>	<p><u>Marihuana</u> has been associated with intrauterine growth retardation and preterm birth. <u>Cocaine</u> has been associated with growth retardation, prematurity, and cerebral, myocardial, and intestinal infarcts in the fetus. <u>Heroin</u> use is associated with fetal infection, fetal death, prematurity and growth retardation, fetal distress in labor, and narcotic withdrawal after birth. <u>Alcohol</u> use is associated with fetal alcohol syndrome, including mental retardation and physical abnormalities.</p> <p>May &amp; Mahlmeister, Chpts 15-16</p>
<p>III.A.3. List at least 1 preventive measure for each of the following:</p> <ul style="list-style-type: none"> <li>• <u>car safety</u> for pregnant women and infants</li> <li>• <u>sleep safety (positioning, bedding, crib)</u></li> </ul>	<p><u>Car safety - infants</u></p> <ul style="list-style-type: none"> <li>• Infants until at least 1 year old and at least 20 pounds are in rear-facing car seats in the back seat</li> <li>• Never place an infant (and children under 12) in front of an active airbag, the back seat is the safest</li> <li>• Do not place blankets, pillows or head supports behind the baby's back or head</li> <li>• Use lowest harness slots for a newborn infant. Keep the straps in the slots or below the baby's shoulder for the rear-facing position</li> <li>• Dress baby in clothes that keep legs free. A bulky snowsuit or bunting can make the harness too loose</li> </ul> <p><u>Car safety-pregnant women</u></p> <ul style="list-style-type: none"> <li>• always wear seat belt</li> <li>• wear seat belt low on the hips, under the baby/abdomen</li> </ul> <p>How to Protect Your New Baby in the Car, National Highway Traffic Safety Administration, 4/97 and Children are Depending on You to Buckle'Em Up Properly! Governor's Highway Safety Commission, Vt</p> <p><u>Sleep safety</u></p> <ul style="list-style-type: none"> <li>• Place baby on back to sleep unless the baby has a health condition that requires sleeping on the tummy</li> <li>• Crib slats are spaced no more than 2 3/8 inches apart</li> <li>• Mattress fits snugly - less than two fingers width between edge of mattress and crib side</li> <li>• Remove pillows, quilts, comforters, sheepskins, stuffed toys and other soft products</li> </ul>

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	<p>from the crib</p> <ul style="list-style-type: none"> <li>• Do not place baby on a waterbed, sofa, soft mattress, pillow or other soft surface to sleep</li> <li>• Consider using a sleeper as an alternative to blankets, with no other covering. If using a blanket, put baby with its feet at the foot of the crib. Tuck a thin blanket around the crib mattress, only as far as the baby's chest. Make sure your baby's head remains uncovered during sleep.</li> <li>• Corner posts are no higher than 1/16 inch to prevent entanglement of clothing, etc.</li> <li>• Do not place a crib near draperies or blinds where a child could become entangled and strangle on cords</li> </ul> <p>Back to Sleep Campaign, 6/98 ; Tips for Your Baby's Safety, Consumer Product Safety Commission and CPSC April 1999 Recommendations Revised to prevent Infant Deaths from Soft Bedding</p>