OMB # 0925-XXXX

Expiration Date: XX/XXXX

ENDOCRINOLOGY KNOWLEDGE CHECK

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1. Global prevalence of Type 2 diabetes is \_\_\_\_ in men than women before age 69 and \_\_\_\_ in men than women afterwards.
   1. Lower; Lower
   2. Lower; Higher
   3. Higher; Higher
   4. **Higher; Lower**

The correct answer is D. Men exhibited a slightly higher prevalence of diabetes than women before age 60. At older ages, the prevalence of diabetes was slightly higher in women than men.

1. As they age, men are \_\_\_\_ likely to experience dramatic declines in sex hormones compared to women, resulting in \_\_\_\_\_\_ bone loss.
   1. More; slower
   2. **Less; slower**
   3. More; faster
   4. Less; faster

The correct answer is B. Men are less likely to experience dramatic declines in sex hormones compared to women. This results in slower rates of bone loss.

1. Well-Differentiated Thyroid Cancer is the only non-reproductive cancer with \_\_\_\_\_ predominance, exhibiting a \_\_\_\_\_ female:male ratio.
   1. Female; 2:1
   2. Male; 1:2
   3. **Female; 3:1**
   4. Male; 1:3

The correct answer is C. Well-Differentiated Thyroid Cancer is the only non-reproductive cancer with female predominance, exhibiting a 3:1 female:male ratio.

1. In adult ovariectomized mice, estrogen replacement with 17-β estradiol attenuates bone loss.
   1. **True**
   2. False

The correct answer is A. Estrogen replacement with 17-β estradiol attenuates bone loss in adult ovariectomized mice.

1. Preclinical studies clearly show that androgens (testosterone) increase the risk of diabetes.
   1. **True**
   2. False

The correct answer is A. While some preclinical studies show a protective role for androgens against diabetes, others show testosterone supplementation may be harmful.

1. The Women’s Health Initiative at the NIH included a randomized trial with over 15,000 non-diabetic, postmenopausal women given either combination hormone therapy or placebo. That study found:
   1. Participants in the treatment arm had a lower cumulative incidence of self-reported diabetes.
   2. Participants in the treatment arm had a higher cumulative incidence of self-reported diabetes.
   3. Participants in the treatment arm had improved metabolic profiles compared to baseline.
   4. All of the above
   5. **A and C only**

The correct answer is E. Participants in the treatment arm had a lower cumulative incidence of self-reported diabetes and improved metabolic profiles compared to baseline.

1. After a hip fracture, men exhibit a \_\_\_\_\_ mortality risk than women of comparable age, a difference that persists for at least \_\_\_\_ years post-fracture.
   1. Higher; 7 years
   2. **Higher; 5 years**
   3. Lower; 7 years
   4. Lower; 5 years

The correct answer is B. Men exhibit higher mortality risk than women of comparable age, and the difference persists for at least 5 years post-fracture.

1. Estrogen has been shown to have what effect on thyroid cells in vitro?
   1. **Estradiol exposure increases proliferation in cultures of primary (normal) thyroid cells.**
   2. Estradiol causes loss of thyroid hormone production.
   3. Estradiol causes mutations and uncontrolled growth.
   4. All of the above
   5. A & B only

The correct answer is A. Estradiol exposure increases proliferation in cultures of primary (normal) thyroid cells.

1. Studies have indicated a net decrease in bone density of 1-4% during pregnancy and lactation, but bone density typically recovers by \_\_\_ post-weaning.
   1. 3 months
   2. 6 months
   3. 9 months
   4. **12 months**

The correct answer is D. Bone density typically recovers by 12 months post-weaning.

1. Although Well-Differentiated Thyroid Cancer is more prevalent in women, men with Well-Differentiated Thyroid Cancer exhibit higher mortality rates.
   1. **True**
   2. False

The correct answer is A. Although Well-Differentiated Thyroid Cancer is more prevalent in women, men with Well-Differentiated Thyroid Cancer exhibit higher mortality rates.