Q-TEST: ANSWER KEY FOR PRACTICE TEST 1 WITH RATIONALES

1. B) 25% Rationale: According to NAMS guidelines, 1/4 (25%) of women require long-term care after hip fracture, while 1/2 (50%) experience long-term loss of mobility.

2. B) Lower bone mineral density Rationale: Asians have lower BMD than whites, while blacks have higher BMD than whites.

3. B) 38% osteoporotic fractures, 68% hip fractures Rationale: Excessive alcohol consumption significantly increases fracture risk with specific percentages for different fracture types.

4. B) 300 mg Rationale: Without dairy products, typical diet provides approximately 300 mg of calcium daily, well below recommended intake.

5. B) Osteosarcoma Rationale: PTH receptor agonists carry a black box warning for osteosarcoma risk, particularly in animal studies.

6. B) Hypercalcemia Rationale: PTH receptor agonists can worsen hypercalcemia and should be used cautiously in patients with this condition.

7. C) Patients with incredibly high fracture risk Rationale: PTH receptor agonists are reserved for patients with very high fracture risk, typically after other treatments.

8. B) Vertebral fractures Rationale: Raloxifene is particularly effective for vertebral fracture prevention but less effective for other fracture types.

9. C) 1 in 1000 after 2-3 years Rationale: The risk of atypical femur fractures is relatively low at 1 in 1000 after 2-3 years of bisphosphonate use.

10. A) -1 to -2.49 Rationale: Osteopenia is defined as T-score between -1 and -2.49, with normal being greater than -1.

11. B) Involuntary urine loss with increased intra-abdominal pressure Rationale: SUI is involuntary loss with activities like cough/sneeze that increase intra-abdominal pressure, usually in smaller amounts.

12. B) 100 ml or less Rationale: Normal PVR is 100 ml or less; >200 ml is abnormal; 100-200 ml should be repeated on different day.

13. B) Large volume loss preceded by strong urge Rationale: UUI involves large volumes that soak through pads/clothes, preceded by strong urge, due to detrusor overactivity.

14. C) >8 voids per 24 hours Rationale: OAB includes urinary urgency with frequency >8 voids/24h and sometimes nocturia (≥2 voids per night).

15. B) Incontinence Rationale: The Pyridium challenge is a method used to test for incontinence by tracking urine color changes.

16. C) Hormonal disorders Rationale: The four types are: Desire (HSDD), Arousal (FSAD), Female orgasmic disorder (FOD), and Pain (dyspareunia/vaginismus).

17. B) FSIAD Rationale: Combined into FSIAD - Female Sexual Interest/Arousal Disorder.

18. C) Circulating androgens Rationale: Circulating androgens are most associated with sexual interest and arousal in women.

19. B) Bremelanotide and Flibanserin Rationale: Bremelanotide (Vyleesi) and Flibanserin (Addyi) are the two FDA-approved treatments for HSDD.

20. B) Directed masturbation Rationale: Directed masturbation is the primary treatment approach for FOD to help women learn their sexual response.

21. B) The period around menopause with endocrinologic and somatic changes Rationale: Climacteric describes the transitional period with endocrinologic, somatic, and psychological changes around menopause.

22. B) 45 Rationale: Early menopause is LMP before age 45; late menopause is LMP after age 54.

23. B) Luteal phase Rationale: During transition, more time is spent in luteal phase, leading to more PMS symptoms and frequent periods.

24. B) Lower Rationale: Chinese and Japanese women have lower estrogen levels than white, black, and Hispanic women.

25. B) Elevated FSH Rationale: FSH becomes elevated after menopause due to loss of negative feedback from ovarian hormones.

26. C) It measures ovarian follicle reserve Rationale: AMH is produced by granulosa cells and measures ovarian follicle reserve, making it a superior marker.

27. B) Day 3 - elevated estrogen can suppress FSH Rationale: Check FSH on day 3 because elevated estrogen later in cycle can suppress FSH, giving falsely normal levels.

28. B) 25 Rationale: AMH peaks at age 25; testing before age 25 isn't helpful as it's influenced by exogenous hormones.

29. B) Higher Rationale: Black women typically have higher FSH levels compared to other ethnic groups.

30. B) Decrease Rationale: SHBG decreases while testosterone stays relatively the same, increasing the free androgen index by 80%.

31. C) Japanese women Rationale: Japanese women have the least likelihood of severe hot flashes, while Black women have the most frequent and longest duration.

32. C) 10 years Rationale: The median duration of hot flashes is 10 years, though this varies significantly among individuals.

33. B) Blocks neurokinin B from binding to KNDy neurons Rationale: Fezolinetant blocks neurokinin B (NKB) from binding to KNDy neurons to modulate thermoregulatory center activity.

34. C) Increased insulin sensitivity Rationale: Hot flash theories include lower estrogen, narrowed thermoregulation, increased GnRH, neurokinin B changes, but not insulin sensitivity.

35. B) Paroxetine 7.5 mg Rationale: Paroxetine 7.5 mg has proven efficacy in randomized controlled trials for VMS treatment.

36. B) Only if symptomatic Rationale: Low-grade VIN (LSIL) is treated only if symptomatic, while high-grade requires referral for excision/ablation.

37. B) Squamous cell carcinoma Rationale: Squamous cell carcinoma is the most common type of vulvar cancer.

38. C) Paget's disease Rationale: Paget's disease is commonly misdiagnosed as eczema/dermatitis but won't respond to steroids; requires screening for associated cancers.

39. B) Stress incontinence Rationale: Systemic estrogen worsens stress incontinence; local estrogen might help, but systemic does not.

40. B) Femring Rationale: Femring delivers the highest dose of topical vaginal estrogen among available preparations.

41. B) Bacterial vaginosis Rationale: BV remains the most common cause of vulvovaginitis even in postmenopausal women.

42. B) Desquamative Inflammatory Vaginitis Rationale: DIV presents with burning, yellow/brown discharge, dyspareunia unresponsive to ET; treat with clindamycin + hydrocortisone + ET.

43. C) Rarely Rationale: Systemic ET rarely causes fibroids to resume growth; they often shrink after menopause.

44. C) Memory and concentration difficulties are common Rationale: Difficulty concentrating and remembering are common symptoms during menopause transition.

45. B) Mediterranean diet with olive oil + tai chi Rationale: Mediterranean diet with olive oil plus tai chi shows small benefits for global cognition and memory.

46. B) Improve due to stable estrogen levels Rationale: Migraines typically improve during pregnancy as estrogen levels stabilize.

47. C) Resolve completely Rationale: Menstrual migraines resolve completely after menopause due to cessation of hormonal fluctuations.

48. B) >2 per week or severe affecting QOL Rationale: Consider preventative treatment if migraines occur >2 times per week or are severe enough to affect quality of life.

49. B) Heart disease and with NSAIDs Rationale: Triptans are contraindicated in heart disease, as are NSAIDs in this population.

50. B) No combined oral contraceptives; caution without aura Rationale: Migraine with aura contraindicates COCs; use caution in those without aura due to stroke risk.

51. B) Hashimoto's thyroiditis Rationale: Hashimoto's thyroiditis is the most common thyroid disorder affecting women.

52. C) TSH upper limit of normal to 10 Rationale: Treat subclinical hypothyroidism when TSH is between upper limit of normal and 10.

53. B) Cold nodules Rationale: Cold thyroid nodules (those that don't take up radioactive iodine) are more likely to be malignant than hot nodules.

54. B) 0.4-4.5 Rationale: Normal TSH range is 0.4-4.5; if elevated, check FT4 and antithyroperoxidase antibodies.

55. B) Monitor TSH in 6-8 weeks; may need to increase levothyroxine Rationale: Oral estrogen increases TBG, which reduces FT4, so levothyroxine dose may need to be increased.

56. B) 10-12% Rationale: Women lose 10-12% of bone mass during menopause transition (equivalent to 1 T-score), then 0.5%/year after.

57. C) Less than -2.5 Rationale: Osteoporosis is defined as T-score less than -2.5 in postmenopausal women.

58. B) In premenopausal women to compare to same age/gender/ethnicity Rationale: Z-score compares to average BMD of same age, gender, and ethnicity; used in premenopausal women.

59. B) 10-year fracture risk Rationale: FRAX predicts 10-year probability of hip or major osteoporotic fracture; normal is <10%.

60. B) All women 65 and older; younger postmenopausal with risk factors Rationale: Screen all women ≥65 and younger postmenopausal women with one or more risk factors.

61. C) A few months Rationale: Benefits of estrogen therapy abate within a few months of discontinuation.

62. C) Estrogen agonists/antagonists with tissue-specific effects Rationale: SERMs have weak estrogen agonist properties in bone while functioning as antiestrogens in reproductive tissues.

63. C) Denosumab Rationale: Denosumab (Prolia) is a RANK ligand inhibitor used after 5 years of bisphosphonates for additional bone gains.

64. B) 30% Rationale: After 3 years, raloxifene reduces vertebral fracture risk by 30% and also reduces invasive breast cancer risk.

65. C) Osteoporosis Rationale: Osteoporosis is an indication, not contraindication for HRT. Contraindications include endometrial CA, breast CA, VTE, liver disease.

66. C) Coronary artery disease Rationale: Premature menopause increases risk for CAD, abdominal adiposity, diabetes, and dyslipidemia.

67. B) Improves lean body mass, reduces abdominal fat, improves insulin resistance Rationale: HRT improves lean body mass, reduces abdominal fat, improves insulin resistance, lipids, and decreases BP in non-diabetic women.

68. B) Increases HDL and triglycerides Rationale: Oral estrogen increases HDL and triglycerides, also increases coagulation factors and some inflammatory markers.

69. B) Fat increases, lean mass decreases Rationale: Rate of fat gain doubles and lean mass declines during menopause transition; stabilizes 2 years after FMP.

70. B) Pre-transition increase, transition steady increase, post-menopause no change Rationale: Weight increases before and during transition, then stabilizes post-menopause.

71. C) At least 3x per week for 3 months Rationale: Insomnia is defined as sleep complaints ≥3x per week for ≥3 months with distress or impaired daytime functioning.

72. A) Zolpidem, zaleplon, zopiclone Rationale: Z-drugs include zolpidem, zaleplon, and zopiclone (not available in US); they shorten sleep onset time.

73. B) Promptly treat with antidepressants and psychotherapy, monitor closely Rationale: Women with multiple severe depressive episodes require prompt treatment with antidepressants and close monitoring.

74. C) SCOFF Rationale: SCOFF is the screening tool for eating disorders; GAD-7 for anxiety, PHQ-9 for depression, CAGE for alcohol.

75. C) 30% Rationale: By age 80, women have lost approximately 30% of their bone mass.

76. C) Hormonal, infectious, autoimmune Rationale: PALM-COEIN: Polyp, Adenomyosis, Leiomyoma, Malignancy/hyperplasia, Coagulopathy, Ovulatory dysfunction, Endometrial, Iatrogenic, Not classified.

77. B) Usually benign but small minority have atypical/malignant features Rationale: Most endometrial polyps are benign, but a small percentage may have atypical or malignant features requiring evaluation.

78. C) Lining <4 mm Rationale: EMB is not needed when endometrial lining is <4 mm; >4 mm requires evaluation in postmenopausal women.

79. C) Immediate hysterectomy Rationale: Conservative management includes COCs (4-day, not 7-day placebo), IUD, NSAIDs; surgery is reserved for failed medical management.

80. B) 500 mg TID x 5 days Rationale: Mefenamic acid 500 mg TID x 5 days; ibuprofen 600 mg Q6H or 800 mg Q8H for first 3 days.

81. B) Pruritic purple polygonal planar papules and plaques Rationale: Lichen planus presents as pruritic purple polygonal planar papules/plaques; treat only when symptomatic with steroids.

82. B) An autoimmune inflammatory condition with antibodies against extracellular matrix Rationale: LS is autoimmune with antibodies against extracellular matrix; treat with topical steroids (clobetasol).

83. B) Leukoplakie with thick, leathery vulvar skin from chronic scratching Rationale: LSC shows hyperplasia of vulvar squamous epithelium from chronic irritation; treat with triamcinolone 0.1%.

84. C) Minoxidil 2% solution or 5% foam daily Rationale: Topical minoxidil is first-line treatment for FPHL; systemic options include spironolactone (finasteride not approved for women).

85. C) Vitamin B12, folate Rationale: Check CBC, CMP, thyroid, iron, ferritin, zinc for FPHL evaluation; B12/folate not routinely recommended.

86. C) Increase caffeine intake Rationale: Avoid caffeine, alcohol, smoking; try sleep hygiene, relaxation, warm baths, vibration, massage for RLS.

87. A) Pramipexole and ropinirole Rationale: Pramipexole and ropinirole are first-line pharmacologic treatments for restless leg syndrome.

88. C) Gradual onset over months Rationale: Red flags include systemic symptoms, neurologic symptoms, sudden onset, but gradual onset over months is less concerning.

89. B) Beta blockers, antiepileptics, TCAs Rationale: Preventative therapy includes propranolol, divalproex, amitriptyline; triptans and NSAIDs are abortive therapy.

90. C) Acute infections only Rationale: Consider menopause, arthritis, rheumatologic conditions, endocrine causes (vitamin D deficiency, thyroid); not just acute infections.

91. B) Loss of ovarian follicular activity before age 40 Rationale: POI is loss of ovarian follicular activity prior to age 40; prevalence is 1% in US (early menopause 3%).

92. B) Oligomenorrhea for 4 months and FSH >25 on 2 occasions 4 weeks apart Rationale: POI diagnosis requires oligo/amenorrhea ≥4 months AND FSH >25 on 2 occasions ≥4 weeks apart.

93. B) PRL, FSH, E2, TSH, pregnancy test Rationale: Check prolactin, FSH, estradiol, TSH, and pregnancy test for women <40 missing 3+ cycles.

94. B) 100 mcg patch, 1.25 mg CEE, or 2 mg oral E2 Rationale: Age 12: 100 mcg patch, 1.25 mg CEE, or 2 mg oral E2; add progesterone 12 days/month if intact uterus.

95. C) Yes, in both conditions Rationale: Consider testosterone replacement in both POI and surgical menopause for sexual function and well-being.

96. B) BMI 27-29.9 with comorbidity or BMI >30 with lifestyle failure Rationale: Add anti-obesity meds as adjunct to lifestyle for BMI 27-29.9 + comorbidity or BMI >30 with failed lifestyle.

97. B) GI lipase inhibitor, 8% loss Rationale: Orlistat is a GI lipase inhibitor achieving approximately 8% weight loss with GI side effects.

98. C) 14-16% Rationale: Semaglutide (GLP-1 agonist) achieves 14-16% weight loss; liraglutide achieves 7-10%.

99. B) BMI >40, or BMI >35 + comorbidity, or BMI 30-35 + poorly controlled T2DM
Rationale: Bariatric surgery criteria: BMI >40, BMI >35 + 1 comorbidity, or BMI 30-35 + poorly controlled T2DM.

100. B) Helping pancreas release insulin, delaying stomach emptying, reducing appetite
Rationale: GLP-1 agonists help pancreas release insulin, delay gastric emptying, and reduce appetite for weight loss.