I. Breast Health, Screening and Early Detection, Risk Assessment and Reduction — 15%
   A. Issues related to special populations (e.g., male, elderly, disabled, adolescent, pregnancy, cultural, ethnicity, healthcare disparities)
   B. Breast health
      1. breast anatomy
      2. breast development across the life span
      3. hormonal influences
   C. Benign pathology
      1. anomalies (e.g., asymmetry, nipple deviation)
      2. conditions (e.g., mastodynia, fibroadenomas, infection)
   D. Screening and early detection
      1. imaging modalities
      2. screening recommendations based on risk
   E. Elements of a clinical breast exam and lymph node examination
      1. abnormal physical findings
      2. education related to breast awareness (self-breast exam)
   F. Risk assessment
      1. epidemiology (population-based risk factors)
      2. breast cancer risk prediction models (e.g., Gail Model, Tyrer Cuzick)
      3. high-risk lesions (e.g., LCIS, ADH)
   G. Risk factors
      1. hereditary (e.g., germ line mutations in BRCA1, BRCA2, TP53)
      2. non-modifiable (e.g., age, gender, prior radiation)
      3. modifiable (e.g., lifestyle behaviors)
   H. Risk reduction
      1. interventions to modify risk (e.g., chemoprevention, prophylactic surgery, clinical trials)
      2. education to reduce risk (e.g., lifestyle modification)

II. Diagnosis and Staging — 16%
   A. Process of carcinogenesis
   B. Diagnostic procedures and tests
      1. imaging modalities (e.g., mammogram, US, MRI)
      2. imaging results (e.g., BI-RADS)
      3. Biopsies (e.g., FNA, core, surgical)
   D. Pathology and tumor characteristics
      1. cellular (e.g., grade, histology)
      2. Tumor features (LVI, margins)
   C. Prognostic and predictive markers
      1. ER/PR
      2. Her-2
      3. Ki-67 (MIB or MIB-1)
      4. gene assay (e.g., Oncotype DX)
   E. Staging criteria (AJCC)
      1. clinical (e.g., TNM)
      2. pathological (e.g., pTNM)
      3. additional staging studies (e.g., PET, bone scan, chest x-ray, LFT, CT scan)

III. Treatment Modalities: Local and Systemic — 20%
   A. Local treatment modalities: Surgery
      1. treatment considerations (e.g., performance status, comorbidities)
      2. breast (e.g., breast conservation, mastectomy)
      3. axilla (e.g., SLNB, ALND)
   B. Local treatment modalities: Surgical reconstruction
      1. autologous (e.g., DIEP, TRAM flap)
      2. implant
   C. Local treatment modalities: Radiation therapy
      1. treatment considerations (e.g., range of motion, wound healing, comorbidities)
      2. external beam
      3. brachytherapy
   D. Systemic treatment modalities
      1. treatment considerations (e.g., cardiac status, vascular access, bone health, fertility, comorbidities)
      2. neoadjuvant
      3. adjuvant
      4. metastatic
   E. Treatment considerations for:
      1. special populations (e.g., male, elderly, disabled, adolescent, pregnancy, cultural, ethnicity, healthcare disparities)
      2. triple-negative
      3. inflammatory breast cancer
      4. Paget's disease
      5. local recurrence
      6. phyllodes tumor

IV. Symptom Management (assessment, risk factors, pathophysiology, prevention, education, and management) — 18%
   A. Surgical
      1. wound complications
      2. arm and shoulder dysfunction
      3. cording
      4. lymphedema
      5. pain
      6. neurosensory changes
   B. Medical
      1. alopecia
      2. fatigue
      3. gastrointestinal complications
      4. myelosupression
      5. menopausal symptoms
      6. cardiovascular complications
      7. peripheral neuropathy
      8. cognitive dysfunction
      9. sleep disturbance
      10. skin changes
      11. pulmmary complications
      12. musculoskeletal issues
      13. pain
   C. Radiation
      1. skin changes
      2. pain
      3. fatigue
      4. range of motion
      5. pulmonary issues
      6. lymphedema
      7. infection
   D. Complementary and integrative modalities (assessment, risk factors, pathophysiology, prevention, education, and management)
V. Psychosocial and Spiritual — 9%

A. Influence of culture, spirituality, gender, sexual preference, age, and healthcare disparities on psychosocial response across the continuum of breast care

B. Psychosocial components accompanying hereditary predisposition to cancer (e.g., survivor guilt, transmitter guilt, family conflict)

C. Altered body image

D. Sexual health

E. Emotional state (e.g., anxiety, depression, fear of recurrence, family conflict)

F. Socioeconomic considerations related to screening, diagnosis, treatment and follow-up

G. Coping strategies

H. Principles of stress response and crisis management

I. Psychosocial assessment techniques (e.g., related to spiritual, sexual, distress, coping, family function)

J. Communication strategies and issues (e.g., active listening, clarification, family dynamics)

VI. Survivorship — 10%

A. Physical issues
   1. breast fibrosis and scarring
   2. brachial plexopathy
   3. breast asymmetry and skin changes
   4. cardiac toxicity
   5. fatigue
   6. fracture (rib and other)
   7. genitourinary dysfunction
   8. implant rupture, contracture and displacement
   9. infertility
   10. lymphedema
   11. menopausal symptoms
   12. neuropathy
   13. osteonecrosis of the jaw
   14. osteoporosis
   15. pain
   16. pulmonary fibrosis
   17. range of motion limitations
   18. secondary malignancy
   19. sexual dysfunction
   20. weight gain

B. Psychosocial issues
   1. body image changes
   2. cognitive changes
   3. emotional distress
   4. fear of recurrence
   5. financial, employment, and insurance issues
   6. loss of libido
   7. quality of life (physical, spiritual, cultural, emotional)
   8. relationship role changes
   9. survivorship guilt

C. Surveillance for recurrence
   1. breast cancer screening
   2. symptom-directed work-up
   3. physical examination
   4. screening for second primaries

D. General knowledge
   1. familial risk assessment and implications for genetic counseling
   2. rehabilitation (pain, range of motion, lymphedema, cognitive impairment)
   3. survivorship care plan

VII. End-of-Life Care — 6%

A. Legal and ethical issues (e.g., advance directive, medical power of attorney, DNR)

B. Philosophy of hospice care

C. End-of-life care principles (e.g., pathophysiology, symptom management, family and caregiver support, cultural diversity, education)

D. Palliative care services

E. Financial issues (e.g., hospice care benefits, insurance, reimbursement)

F. Spirituality, grief, and bereavement

VIII. Professional Performance — 6%

A. Scope and standards of nursing practice

B. Professional practice guidelines (e.g., ONS, NCCN, ASCO, ACR)

C. Teaching and learning principles (e.g., adult learning)

D. Patient navigation

E. Community assessment, program planning, and health promotion

F. ONS standards of education: Patient/significant other and public

G. Professional development activities (e.g., continuing education)

H. Advocacy and legislative issues impacting breast care delivery and access

I. Resources (e.g., local, state, federal, institutional, internet)

J. Clinical trials (e.g., phases, accessing trials, elements of informed consent)

K. Quality improvement process (e.g., evidence-based practice)

L. Regulatory requirements (e.g., mammography standards, compliance issues)

M. Accreditation standards (e.g., NAPBC)

Please note: ONCC uses generic names of drugs used in treatment, not brand names, on tests.