Restorative, Prosthodontics, Implants

National Dental Examining Board of Canada (NDEB) Virtual OSCE and Assessment of Fundamental Knowledge (AFK)

About 16% of the AFK · 5 topics · 2026 blueprint

Restorative, Prosthodontics and Implants covers caries management, direct and indirect restorations, dental materials, fixed and removable prosthodontics and dental implants. It makes up about 16% of the AFK in NDEB's 2026 blueprint. Its questions test material choice, preparation principles, classification systems and the reasons restorations and prostheses succeed or fail.

You should be able to: Why does a Class I composite restoration carry more risk of shrinkage stress than a Class IV?

Every topic: the key point and the trap

RI-1 Caries management and direct restorations

Noncavitated lesions can often be arrested with fluoride, sealants or resin infiltration; restore when there is cavitation, a lesion into dentin that cannot be cleaned, or esthetic and functional need.

Trap: Choosing composite because it looks better, without weighing caries risk and moisture control at a root margin.

RI-2 Adhesion and resin composite

Enamel bonding relies on etching with 30 to 40% phosphoric acid (about 15 to 30 seconds), which creates micro-porosities that resin tags lock into.

Trap: Thinking a lower C-factor means more stress; a higher ratio of bonded to free surfaces raises stress.

RI-3 Fixed prosthodontics

Retention and resistance depend on taper, preparation height, surface area and features such as grooves; a small total occlusal convergence (ideally about 6 degrees, clinically up to roughly 10 to 20 degrees) improves retention.

Trap: Placing a subgingival margin right at the bone to gain retention, which violates the supracrestal tissue attachment.

RI-4 Removable prosthodontics

Kennedy classes: I bilateral edentulous areas posterior to remaining teeth, II unilateral posterior, III unilateral bounded by teeth front and back, IV a single bounded anterior area crossing the midline.

Trap: Calling a single anterior space a Class IV when posterior spaces also exist; the posterior areas decide the class and the anterior space becomes a modification.

RI-5 Dental implants

Osseointegration is direct structural and functional contact between living bone and the implant surface without intervening soft tissue.

Trap: Diagnosing peri-implantitis from deep probing alone without comparing bone levels to a baseline radiograph.

Key terms

C-factor: Ratio of bonded to unbonded surfaces in a cavity preparation; higher values mean more shrinkage stress for composite.

Hybrid layer: Zone where resin interlocks with demineralized dentin collagen, forming the dentin bond.

Selective caries removal: Removing caries to hard dentin at the periphery while leaving firm or leathery dentin near the pulp.

Ferrule: Band of sound tooth structure above the finish line encircled by the crown, which resists fracture.

Supracrestal tissue attachment: Junctional epithelium and connective tissue attachment above the alveolar crest, about 2 mm tall; formerly called biologic width.

Ante's law: Guideline that abutment root surface area should equal or exceed that of the teeth replaced by a fixed bridge.

Kennedy classification: System for classifying partially edentulous arches by the location of edentulous areas.

Freeway space: Difference between vertical dimension at rest and vertical dimension of occlusion, usually about 2 to 4 mm.

Vibrating line: Junction of the movable and immovable soft palate, marking the posterior limit of a maxillary denture.

Osseointegration: Direct contact between living bone and the implant surface without soft tissue between them.

Peri-implantitis: Inflammation around an implant with progressive bone loss.

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