

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Marks 45

Time 2 hours 15 min

Note: 3 marks for each SEQ

Total No. of SEQs: 15

Q.1 How are different salivary factors play role in causing carries?

Topic Specification: Carries Etiology

KEY:

i. Composition

Carries susceptibility is inversely proportional to salivary phosphate content. Higher organic content indicate more plaque formation.

ii. pH

Higher alkaline saliva predisposes to less decay activity.

iii. Viscosity

Low viscosity predisposes to more self cleansing.

iv. Flow

Higher quantity of salivary flow predisposes to less decay activity.

v. Antibacterial activity

vi. Antibody activity

Reference: Operative Dentistry by Marzouk.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.2 What is the systemize approach for the tooth preparation recommended by G.V. Black?

Topic Specification: Restoration/ Cutting

KEY:

- i. Obtaining the outline form.
- ii. Obtaining the resistance form.
- iii. Obtaining the retention form.
- iv. Removal of carious dentine.
- v. Obtaining the convenience form.
- vi. Establishing the configuration and correlation of enamel walls.
- vii. Debridement of the preparation.
- viii. Observing and practicing the biological form.

Reference: Operative Dentistry by Marzouk.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.3 If there is a carious lesion on distal side of canine, what will be the ideal design of cavity preparation for amalgam restoration?

Topic Specification: Restoration/ Cutting

KEY:

Shape of this cavity appear to be triangular with rounded corners. The labial axial side of triangle confronts more to the proximal surface anatomy than the lingual side.

In labio-lingual cross-section the axial wall appear slightly convex.

- Labial margin of cavity is located at labial third of distal surface. In cross section labial wall seen of two planes, inner dentinal plane at right angle to the tangent of axial wall and an outer enamel-dentinal plane following the direction of enamel rods.
- Lingual wall is shorter than the labial wall.
- In incisogingival cross section gingival wall will be formed of 3 planes:
 - An internal retentive grooves.
 - A transition dentinal plane.
 - An outer enamel-dentinal plane diverging distogingivally.

Reference: Operative Dentistry by Marzouk.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.4 A class II restoration has been performed and patients returns next day with pain. What can be the possible causes?

Topic Specification: Restoration and Cutting

KEY:

- i. High restoration.
- ii. Inadequate lining.
- iii. Improper lining.
- iv. Thermal trauma during cavity preparation.
- v. Cuspal contraction in composite restoration.
- vi. Accidental pulpal trauma.

Reference: Operative Dentistry by Marzouk.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.5 What will be your sequence of choice for posterior restoration?

Topic Specification: Restoration / Cutting

KEY:

- i. An amalgam, composite on glass ionomer cement.
- ii. A layered restoration of glass ionomer and composite.
- iii. An amalgam with additional retention.
- iv. A ceramic inlay.
- v. A gold inlay with occlusal protection (onlay).
- vi. A partial crown.
- vii. A complete crown.
- viii. A core of material to replace the missing – dentine followed by a partial crown.
- ix. A core and complete crown.

Reference: Operative Dentistry by Marzouk.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.6 Classify the types of retaining pins for amalgam and tooth colored materials.

Topic Specification: Restoration / Cutting

KEY:

- | | | | |
|------|---------------------------------|----------------|-----------|
| i. | Cemented pins | | |
| | [Pin Channel Diameter] | [Pin Diameter] | |
| | 0.027^4 | 0.025^4 | |
| | 0.021^4 | 0.020^4 | |
| ii. | Frictional grip, friction locks | | |
| | [Pin Channel Diameter] | [Pin Diameter] | |
| | 0.02^4 | → | 0.022^4 |
| iii. | P | | |
| | [Pin Channel Diameter] | [Pin Diameter] | |
| | 0.027^4 | → | 0.031^4 |
| | 0.021^4 | → | 0.023^4 |
| | 0.018^4 | → | 0.020^4 |
| | 0.013^4 | → | 0.015^4 |

Reference: Operative Dentistry by Marzouk.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.7 What are the irritating ingredients and characteristics of the amalgam restoration?

Topic Specification: Restoration / Cutting

KEY:

- i. Mercury.
- ii. Galvanism.
- iii. Thermal conductivity.
- iv. Energy of condensation.
- v. Heat of finishing and polishing.
- vi. Delayed expansion.
- vii. Corrosion products.
- viii. Induced stresses.
- ix. Plaque adhesion.
- x. Loose restoration.

Reference: Operative Dentistry by Marzouk.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.8 What are the drawbacks of composite restorations?

Topic Specification: Clinical Dental Materials

KEY:

- i. Technique sensitive.
- ii. Toxic for pulp.
- iii. Change color with time.
- iv. Get stained on the surface.
- v. Become rough on the surface.
- vi. No cariostatic.
- vii. Not very strong.
- viii. Bond at the interphase of dispersion phase, and dispersion phase fails after some time.
- ix. Poor or no bonding to dentine.

Reference: Operative Dentistry by Marzouk.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q9. What will be the criteria for choosing suitable retainer?

Topic Specification: Crown and Bridge

KEY:

- i. Alignment of abutment teeth and retention.
- ii. Appearance.
- iii. Condition of abutment teeth.
- iv. Conservation of tooth tissue.
- v. Occlusion.
- vi. Cast.

**Reference: Planning and Making Crowns and Bridges by Bernard GN
Smith 3rd Ed.**

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.10 What will be the principle considerations in designing crown preparation?

Topic Specification: Crown and Bridge

KEY:

- i. Materials.
- ii. Functions.
- iii. Appearance.
- iv. Adjacent teeth.
- v. Periodontal tissues.
- vi. Pulp.

Reference: Planning and Making Crowns and Bridges by Bernard GN Smith 3rd Ed.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.11 Classify the minimal preparation bridge.

Topic Specification: Crown and Bridge

KEY:

Minimal preparation bridge.

A. Direct.

B. Indirect

It has four types:

- i. Macromechanical retention e.g. Rochette.
- ii. Medium mechanical retention e.g. Verginia salt Mesh crystal salt bond.
- iii. Micromechanical retention e.g. Maryland.
- iv. Chemically adhesion e.g. Panavion ex.

Reference: Planning and Making Crowns and Bridges by Bernard GN Smith 3rd Ed.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.12 What are the basic techniques of behavior management of child patient?

Topic Specification: Peadodontics (Dental Anatomy)

KEY:

- i. Conditioning.
- ii. Reconditioning.
- iii. Behavior.
- iv. Defiant behavior.
- v. Timid behavior.
- vi. Tense behavior.
- vii. Cooperative behavior.
- viii. Wheigning behavior.
- ix. Restrained behavior.
- x. Pre-medication.
- xi. Role of general anesthesia.

Reference: Textbook of Pediatric Dentistry by Raymond.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.13 What are the objectives of Peadodontics?

Topic Specification: Peadodontics

KEY:

- i. Quality.
- ii. Comfort.
- iii. Motivation.
- iv. Satisfaction.

Reference: Textbook of Pediatric Dentistry by Raymond.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q.14 Write down the design principles for access cavity preparation.

Topic Specification: Endodontics including Surgical Endodontic

KEY:

- i. Access cavity should enable root canal instruments to be introduced into canals up to apical constriction without bending & binding coronally.
- ii. Access cavity should be large enough for complete debridement.
- iii. In multi-rooted tooth floor of pulp chamber must not be perforated.
- iv. Access cavity should funnel into the canal orifice.
- v. Oulneal portion of cavity should be larger than the base of cavity.

Reference: Endodontic in Clinical Practice F.J. Harty.

BDS FINAL PROFESSIONAL EXAMINATION 2007
OPERATIVE DENTISTRY (SEQs)

Model Paper

Q15. What are indications/requirements to choice conservative or surgical treatment in Endodontics?

Topic Specification: Endodontics including Surgical Endodontic

Key:

Neither the size of area of rarefaction nor the severity of any acute abscess nor the presence of chronic infection draining through a sinus definite indications for surgery.

Even an area of rarefaction as large as 1 cm in diameter is rarely cystic. All cases may be treated conservatively in the first instance except:

1. Where it is not possible to clean the canal and to seal the apical foramnea and any other communications between the canals and the periodontium (e.g.
 - a. An open apical foramnea
 - b. A sharp bend in apical third of root canal
 - c. Immoveable obstruction in the canal
 - d. More than one apical foramnea in the canal
 - e. Where an adequate restoration exists (e.g. a porclein jacket crown).
2. Where the patient has not the time for a course of conservative treatment.
3. Where antibiotics cover is needed for each session of treatment e.g. the patient with Rheumatic Heart Disease.

Reference: Endodontic in Clinical Practice F.J. Harty.