



**NEBO BCO Written Exam
Forms 875 & 876
Item Counts by Classification**

Domain I: Preliminary Examination and Evaluation Principles 24 items (16%)

Task 1: Obtain the patient's history and medical/surgical information using questionnaires, interviews, and consultations with the patient, the patient's family, and/or other health care providers in order to determine an appropriate treatment. **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- f. Fitting techniques (e.g., empirical, modified empirical with impression, modified impression [a. alginate, b. polyvinyl siloxane])

Task 2: Implement the use of standard precautions (e.g., gloves). Remove prosthesis (if present), examine socket/globe/orbit for suture line health, implant exposure, the presence of edema, prosthesis/implant motility, implant used (if present), implant location, corneal condition, conformer/prosthesis retention, conformer/prosthesis fit, lid position, and other anomalies by visual inspection, opening the eyelids and inverting the upper and lower eyelids to observe tissue condition (e.g., giant papillary conjunctivitis) to determine an appropriate plan. **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- f. Fitting techniques (e.g., empirical, modified empirical with impression, modified impression [a. alginate, b. Polyvinyl Siloxane])
- g. Principles of measurement
- h. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 3: Discuss with the patient, the patient's family (if applicable), the patient's doctor, and other relevant members of the health care team by a HIPPA compliant method of communication the suggested treatment plan (such as new conformer, prosthesis adjustment, polish or replacement of present prosthesis, and/or suggested surgical intervention that may be necessary). **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)

- e. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- f. Fitting techniques (e.g., empirical, modified empirical with impression, modified impression [a. alginate, b. Polyvinyl Siloxane])
- g. Recognizing changes
- h. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 4: Evaluate the patient's completed conformer/prosthesis/scleral shell/etc., by visual inspection, measurements, photography, etc., to provide maximum comfort, motility, and natural appearance. **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Principles of measurement
- f. Recognizing changes
- g. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Domain II: Fitting

34 items (23%)

Task 1: Select appropriate fitting technique(s) (such as empirical, modified empirical with impression, modified impression) for patient's condition by using preliminary evaluation data to determine the shape of the prosthesis/conformer/scleral shell/clear trial shell. **6 items (4%)**

Knowledge and skill areas:

- h. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- i. Elements of treatment plans
- j. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- k. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- l. Fitting techniques (e.g., empirical, modified empirical with impression, modified impression [a. alginate, b. polyvinyl siloxane])
- m. Principles of measurement
- n. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 2: Fit the patient's socket/globe using the empirical, empirical with impression, or modified impression methods to create the appropriate shape that will be used in modeling the prosthesis. **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- f. Fitting techniques (e.g., empirical, modified empirical with impression, modified impression [a. alginate, b. Polyvinyl Siloxane])
- g. Principles of measurement
- h. Recognizing changes

- i. Accommodating changes
- j. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 3: Modify the size and shape of a patient's conformer/prosthesis/scleral shell/etc. in order to compensate for changes in the socket/globe (e.g., ptosis, patient growth) or to deliver a completed prosthetic device by enlarging, reducing, or taking a new impression. **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- f. Fitting techniques (e.g., empirical, modified empirical with impression, modified impression [a. alginate, b. polyvinyl siloxane])
- g. Selecting, mixing, and packing acrylic
- h. Acrylic polymerization
- i. Principles of measurement
- j. Mold making
- k. Trimming, finishing, and polishing the prosthesis
- l. Recognizing changes
- m. Accommodating changes
- n. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 4: Select iris/pupil size, shape, color, by sampling/measuring the companion eye in order to achieve the most natural result. **6 items (4%)**

Knowledge and skill areas:

- o. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- p. Principles of measurement
- q. Mold making
- r. Preparation for painting
- s. Iris painting
- t. Recognizing changes
- u. Accommodating changes
- v. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 5: Recommend to the patient, the patient's family (if applicable), physician, and other appropriate health care professionals by a HIPPA compliant method of communication the cosmetic optics alternatives in order to enhance aesthetic appearance (e.g., plus and minus spheres, tinting, prisms). **5 items (3%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Elements of treatment plans
- c. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- d. Principles of measurement
- e. Recognizing changes
- f. Accommodating changes
- g. Using glasses/cosmetic optics
- h. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 6: Fit custom conformers (e.g., pressure, expanding) for patients with socket anomalies to therapeutically manipulate socket tissues by using one of the fitting methods (e.g., empirical, impression) in order to better accommodate an ocular prosthesis. **5 items (3%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- f. Fitting techniques (e.g., empirical, modified empirical with impression, modified impression [a. alginate, b. Polyvinyl Siloxane])
- g. Principles of measurement
- h. Mold making
- i. Selecting, mixing, and packing acrylic
- j. Acrylic polymerization
- k. Trimming, finishing, and polishing the prosthesis
- l. Recognizing changes
- m. Accommodating changes
- n. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Domain III: Fabrication

68 items (45%)

Task 1: Cast the fitting shape by mixing stone/plaster and water and pouring the mixture into a two-piece flask using an appropriate separator in order to prepare for the polymerization of the acrylic shape. **6 items (4%)**

Knowledge and skill areas:

- a. Mold making (e.g., mold modification, shim)
- b. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 2: Replicate the patient's iris color/pupil by painting onto an appropriate surface in order to achieve desired iris color. **6 items (4%)**

Knowledge and skill areas:

- a. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- b. Principles of measurement
- c. Preparation for painting
- d. Iris painting
- e. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 3: Prepare iris/cornea button for investment into the mold by trimming, polishing, and adhering. **6 items (4%)**

Knowledge and skill areas:

- a. Principles of measurement
- b. Mold making (e.g., mold modification, shim)
- c. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 4: Mix PMMA powder and monomer in a suitable container by using the appropriate ratio in order to prepare for investment into the flask. **6 items (4%)**

Knowledge and skill areas:

- a. Selecting, mixing, and packing acrylic
- b. Acrylic polymerization
- c. Principles of measurement
- d. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 5: Pack acrylic mixture into a properly prepared flask and place into a press, which is then tightened in order to obtain a properly cured acrylic prosthesis. **7 items (5%)**

Knowledge and skill areas:

- a. Selecting, mixing, and packing acrylic
- b. Acrylic polymerization
- c. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 6: Polymerize acrylic with an accepted method using appropriate times and temperatures associated with the selected polymerization method (e.g., water bath, microwave, dry heat, pressure cure) in order to produce a properly cured ocular prosthetic device. **6 items (4%)**

Knowledge and skill areas:

- a. Acrylic polymerization
- b. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 7: Cut back for painting surface/vascularization and create painting shell if used. **6 items (4%)**

Knowledge and skill areas:

- a. Principles of measurement
- b. Preparation for painting
- c. Vascularity and scleral tone
- d. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 8: Simulate patient's vascularization and scleral tone by tinting and applying veins in order to achieve desired scleral replication and iris over painting (e.g., anatomically correct arcus senilis, limbal blend). **6 items (4%)**

Knowledge and skill areas:

- a. Principles of measurement
- b. Vascularity and scleral tone
- c. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 9: In a correctly prepared flask, pack painted surface of the ocular prosthesis with properly prepared clear PMMA and process using appropriate times and temperatures for the polymerization methods selected in order to reestablish original corneal shape. **6 items (4%)**

Knowledge and skill areas:

- a. Principles of measurement
- b. Selecting, mixing, and packing acrylic
- c. Acrylic polymerization
- d. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 10: Prepare the cured, clear capped prosthesis by trimming, polishing, and inspecting the surface with a minimum 5X loupe for surface irregularities and disinfect prior to delivering the finished ocular prosthesis to the patient. **7 items (5%)**

Knowledge and skill areas:

- a. Principles of measurement
- b. Trimming, finishing, and polishing the prosthesis
- c. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 11: Insert prosthesis and evaluate (e.g., overall cosmesis, gaze, motility, lid position, patient comfort). **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- f. Principles of measurement
- g. Recognizing changes
- h. Accommodating changes
- i. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])
- j. Using glasses/cosmetic optics

Domain IV: General Care and Services

24 items (16%)

Task 1: Maintain detailed records of dates and procedures for care given according to accepted documentation protocol. **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Elements of treatment plans
- c. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- d. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- e. Fitting techniques (e.g., empirical, modified empirical with impression, modified impression [a. alginate, b. polyvinyl siloxane])
- f. Principles of measurement
- g. Using glasses/cosmetic optics

Task 2: Instruct the patient, the patient's family, and other care givers (if applicable) in proper care (e.g., insertion/removal, cleaning and storage of the prosthesis), safety issues, follow-up visits, and hygiene techniques using individualized written and spoken communication strategies in order to facilitate successful wearing of the prosthesis. **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Principles of measurement

- f. Recognizing changes
- g. Accommodating changes
- h. Using glasses/cosmetic optics
- i. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 3: Maintain proper office hygiene by following disinfection standards and standard precautions in order to prevent cross-contamination of patients, equipment, prosthetic devices, etc. **6 items (4%)**

Knowledge and skill areas:

- a. Elements of treatment plans
- b. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

Task 4: Instruct the patient in the use of ancillary products (e.g., lubricants, lubricant delivery systems, cleansers, safety glasses) and procedures by verbal and written instruction in order to help the patient adapt to the wearing a prosthesis. **6 items (4%)**

Knowledge and skill areas:

- a. Communicating a treatment plan to the patient, the family, and the caregivers
- b. Principles of examination and evaluation (e.g., enucleation, evisceration, microphthalmia, anophthalmia, phthisis)
- c. Elements of treatment plans
- d. Evaluating aesthetic appearance (e.g., ptosis, lagophthalmos, superior sulcus, lid malposition)
- e. Recognizing and accommodating socket anomalies (e.g., enophthalmos, contracture, granuloma)
- f. Using glasses/cosmetic optics
- g. Office and lab hygiene (e.g., disinfection, MSDS, PPE [personal protective equipment])

