

NATIONAL BOARD OF EXAMINATION IN REHABILITATION (NBER)
(An Adjunct Body of Rehabilitation Council of India, Under Ministry of Social Justice and Empowerment)
(Department of Empowerment of Persons with Disabilities, Govt. of India)

Examination Conducted by
Ali Yavar Jung National Institute of Speech and Hearing Disabilities (Divyangjan), Mumbai
DIPLOMA IN HEARING AID AND EAR MOULD TECHNOLOGY (DHAEMT)

PAPER - II : EAR MOULD TECHNOLOGY

विषय कोड/Subject Code : P04 – T02

ओएमआर विषय कोड / : 16112

OMR Subject Code

कोर्स कोड / Course Code : DHAEMT

ओएमआर कोर्स कोड / : 301

OMR Course code

अवधि / Duration : 3 घंटे / hours

दिनांक / Date : 21.06.2025

अधिकतम अंक/Max. Marks : 80

Q. I ANSWER THE FOLLOWING QUESTIONS IN ONE OR TWO SENTENCES (2 m x 5 = 10 marks)

- (1) Two causes of conductive Hearing Loss / संवाहक श्रवण हानि के दो कारण
- (2) Function of Otoscope / ओटोस्कोप का कार्य
- (3) Swimmer's plugs / स्विमर्स प्लग्स
- (4) Role of Pinna in hearing / सुनने में पिन्ना की भूमिका
- (5) Instructions to be given before taking ear mould impression
कर्ण साँचे का छाप लेने से पहले दिए जाने वाले निर्देश

Q. II WRITE WITH BRIEF EXPLANATION (ANY 4 OUT OF 5) (5 m x 4 = 20 marks)

- (1) Procedure for Impression taking of custom hearing aids
कस्टम हियरिंग एड्स के लिए छाप लेने की प्रक्रिया
- (2) Candidacy for hearing aids / श्रवण यंत्र के लिए उम्मीदवारी
- (3) Neat labelled diagram of external ear / बाहरी कान का साफ-सुथरा लेबल वाला आरेख
- (4) Ear mould and its role in hearing / कर्ण साँचा और सुनने में इसकी भूमिका
- (5) Stages in making hard mould / कठोर (कठिन) मोल्ड बनाने के चरण

Q. III WRITE SHORT NOTES (ANY 5 OUT OF 6) (4 m x 5 = 20 marks)

- (1) Care and maintenance of ear mould / कान के साँचे की देखभाल और रखरखाव
- (2) Hard Vs Soft moulds / कठोर बनाम नरम साँचे
- (3) Difference between standard and custom ear moulds /
स्टैंडर्ड और कस्टम कान के साँचे के बीच अंतर
- (4) Different parts of ear moulds / कान के साँचे के विभिन्न भाग

- (5) Community based ear mould impression taking
समुदाय आधारित कर्ण के साँचे के लिए छाप लेना
- (6) Precautions which are to be taken while taking ear impression for paediatric population
बालकों के लिए कान की छाप लेते समय बरती जाने वाली सावधानियां

Q. IV ANSWER IN DETAIL (ANY 2 OUT OF 4)

(15 m x 2 = 30 marks)

- (1) Describe in detail the step by step protocol: before taking an impression, while taking an impression and after taking an impression of the ear.
चरण दर चरण प्रोटोकॉल का विस्तार से वर्णन करें: छाप लेने से पहले, छाप लेते समय और कान की छाप लेने के बाद।
- (2) Describe different types of ear moulds with the help of diagrams.
आरेखों की सहायता से विभिन्न प्रकार के कान के साँचों का वर्णन करें।
- (3) Explain about acoustic modifications of ear mould and their effects.
कान के साँचे के ध्वनिक बदलाव (अकोस्टिक मोडीफिकेशन) और उनके प्रभावों के बारे में बताएं।
- (4) Write about materials used in ear mould impression, their properties, bio-interaction with skin allergies and precautions while selecting materials.
कर्ण साँचे की छाप में उपयोग की जाने वाली सामग्री, उनके गुण, त्वचा की एलर्जी के साथ जैविक-अंतःक्रिया और सामग्री का चयन करते समय सावधानियों के बारे में लिखें।

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DIPLOMA IN HEARING AID AND EAR MOULD TECHNOLOGY (DHAEMT)

PAPER - I : HEARING AIDS AND ASSISTIVE LISTENING DEVICES

विषय कोड/Subject Code : P04 – T01

ओएमआर विषय कोड / : 16111

OMR Subject Code

कोर्स कोड / Course Code : DHAEMT

ओएमआर कोर्स कोड / : 301

OMR Course code

अवधि / Duration : 3 घंटे / hours

दिनांक / Date : 20.06.2025

अधिकतम अंक/Max. Marks : 80

Q. I ANSWER THE FOLLOWING QUESTIONS IN ONE OR TWO SENTENCES (5 x 2 m = 10 marks)

- (1) Types of resistors / प्रतिरोधकों के प्रकार
- (2) Role of capacitors / कैपेसिटर की भूमिका
- (3) Role of digital filter / डिजिटल फिल्टर की भूमिका
- (4) Principle of transformers / ट्रांसफॉर्मर का सिद्धांत
- (5) Different types of battery cells used in hearing aid
श्रवण यंत्र में उपयोग की जाने वाली विभिन्न प्रकार की बैटरी सेल

Q. II WRITE WITH BRIEF EXPLANATION (ANY 4 OUT OF 5) (4 x 5 m = 20 marks)

- (1) Limitations of analog hearing aids / एनालॉग श्रवण यंत्रों की सीमाएं
- (2) Types of controls used in hearing aid / श्रवण यंत्र में प्रयुक्त नियंत्रण के प्रकार
- (3) Need and types of compression in hearing aid
श्रवण यंत्र में संपीड़न की आवश्यकता और प्रकार
- (4) Advantages and Disadvantages of FM system / एफएम प्रणाली के लाभ और हानियां
- (5) Types of transformers / ट्रांसफॉर्मर के प्रकार

Q. III WRITE SHORT NOTES (ANY 5 OUT OF 6) (4 x 5 m = 20 marks)

- (1) Describe the general block diagram of a hearing aid and explain the function of its main components. श्रवण यंत्र के सामान्य ब्लॉक आरेख का वर्णन करें तथा इसके मुख्य घटकों के कार्य की व्याख्या करें।
- (2) Explain the importance of channel separation in the performance of hearing aids
श्रवण यंत्रों के प्रदर्शन में चैनल पृथक्करण के महत्व की व्याख्या करें।
- (3) Differentiate between Hard wire and Induction Loop Systems.
हार्ड वायर और इंडक्शन लूप सिस्टम के बीच अंतर करें।
- (4) Describe the preventive maintenance and care required for hearing aids
श्रवण यंत्रों के लिए आवश्यक निवारक रखरखाव और देखभाल का वर्णन करें।

- (5) Discuss the advantages and limitations of programmable hearing aids
प्रोग्राम योग्य श्रवण यंत्रों के लाभ और सीमाओं पर चर्चा करें।
- (6) What are the factors that influence speech perception through hearing aids?
श्रवण यंत्रों के माध्यम से वाक् धारणा को प्रभावित करने वाले कारक क्या हैं?

Q. IV ANSWER IN DETAIL (ANY 2 OUT OF 4)

(2 x 15 m = 30 marks)

- (1) Describe the types of group hearing aid systems. Provide a detailed note on the working, applications and advantages of each system.
समूह श्रवण सहायता प्रणालियों के प्रकारों का वर्णन करें। प्रत्येक प्रणाली के कार्य, अनुप्रयोग और लाभों पर विस्तृत नोट लिखें।
- (2) Discuss the role of assistive listening devices (ALDs) in improving communication and explain the need for troubleshooting them.
संप्रेषण को बेहतर बनाने में सहायक श्रवण उपकरणों (ALD) की भूमिका पर चर्चा करें और उनकी समस्या निवारण की आवश्यकता बताएं।
- (3) Explain the importance of electroacoustic measurements in hearing aids. Discuss the role of hearing aid analyzers.
श्रवण सहायता में इलेक्ट्रोएकॉस्टिक माप के महत्व की व्याख्या करें। श्रवण सहायता विश्लेषक यंत्र की भूमिका पर चर्चा करें।
- (4) What are the different types of personal hearing aids? Give their advantages and limitations.
व्यक्तिगत श्रवण सहायता के विभिन्न प्रकार क्या हैं? उनके लाभ और सीमाएं बताएं।

SECTION 'B' (60 / 70 / 80 MARKS, WITH A DURATION OF 3 HOURS)

INSTRUCTION:

- The examination will be for 60 / 70 / 80 marks, with a duration of 3 hours.
- Marks will be calculated in accordance with the weightage assigned in the syllabus.
- Courses : DCBR/DRT/DPO /DHLS/DHAEMT

Q.1 MULTIPLE CHOICE QUESTIONS (All questions are compulsory) (4 x 1 m = 4 marks)

- (01) Which act protects the rights of persons with disabilities in India?
- | | |
|--------------|------------------------|
| (a) RCI Act | (c) Equal Rights Act |
| (b) RPwD Act | (d) Mental Health Act. |
- (02) Which one of the following employability skills help a person to grow in a work place?
- | | |
|----------------------------------|-----------------------|
| (a) Honesty | (c) Dressing sense |
| (b) High Educational Achievement | (d) Family background |
- (03) What do you mean by goal in the statement "A goal is what you wish for from your life?"
- | | |
|-----------------------------------|------------------------------------|
| (a) Wish + Money + Recommendation | (c) Wish - Plan + Action |
| (b) Wish + Plan + Action | (d) Wish - Money + Recommendations |
- (04) Which is the most essential skill required for a divyangjan to work as a Data Entry Operator?
- | | |
|--------------------------|--------------------------|
| (a) Downloading an app | (c) Using Instagram |
| (b) Typing on a computer | (d) Repairing a computer |

Q. II STATE TRUE OR FALSE (All questions are compulsory) (4 x 1 m = 4 marks)

- (01) Employability skills focus only on technical skills.
- (02) Critical thinking is way of thinking to solve the problem.
- (03) Inclusion is essential for happiness and growth at work for all staff including divyangjan.
- (04) NALSA works only for PwDs.

Q. III MATCH THE FOLLOWING (All questions are compulsory) (4 x 1 m = 4 marks)

- | | |
|-------------------|---------------------|
| (01) 18th Century | (a) Electricity 2 |
| (02) 19th Century | (b) Robots 1 |
| (03) 20th Century | (c) Steam engines 1 |
| (04) 21st Century | (d) Computers 3 |

Q. IV ANSWER IN ONE WORD/SENTENCE (All questions are compulsory) (6 x 2 m = 12 marks)

- (01) What do we call the way people share information with each other at work?
- (02) Define diversity in the workplace.
- (03) Which skill helps a person to think clearly, solve problem and make good discussion at work?
- (04) What is digital literacy?
- (05) What do we call the important skills like communication, teamwork and problem solving that are needed to succeed in today's job?
- (06) Full form of FAB

Q. V SHORT NOTES (ANY 6 OUT OF 8) (6 x 3 m = 18 marks)

- (01) Importance of self-learning in employability.
- (02) Importance of problem-solving skills.
- (03) Benefits of Online payments in offices.
- (04) Role of digital skills in the modern job market.
- (05) Impact of effective communication on career growth.
- (06) Techniques for managing workplace stress.
- (07) Decoding Interviews – Do's and Don'ts of Interview.
- (08) List down Rights and Duties of an Indian Citizen.

Q. VI WRITE IN DETAIL (ANY 2 OUT OF 4) (2 x 9 m = 18 marks)

- (01) Describe in detail, How teamwork contribute to organizational success?
- (02) Explain how learning English skills can improve an employee's work efficiency?
- (03) What are the characteristics of effective communication? Explain importance of communication and its types.
- (04) Discuss the major barriers to having diverse work force. Suggest measures to overcome those barrier.
