

Model Curriculum

Neurophysiology Technology Assistant

SECTOR: Healthcare
SUB-SECTOR: Allied Health & Paramedics
OCCUPATION: Diagnostic
REF ID: HSS/Q0801, v1.0
NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

HEALTHCARE SECTOR SKILL COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: **'Neurophysiology Technology Assistant QP No. 'HSS/Qo8o1 NSQF Level 4'**

Date of Issuance: 29th May 2019
Valid up to: 29th May 2022


Authorized Signatory
(Healthcare Sector Skill Council)

* Valid up to the next review date of the Qualification Pack

TABLE OF CONTENTS

1. Curriculum	1
2. Trainer Prerequisite	13
3. Annexure: Assessment Criteria	14

NEUROPHYSIOLOGY TECHNOLOGY ASSISTANT

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Neurophysiology Technology Assistant”, in the “Healthcare” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Neurophysiology Technology Assistant		
Qualification Pack Name & Reference ID. ID	HSS/Q0801, version 1.0		
Version No.	1.0	Version Update Date	29/05/2019
Pre-requisites to Training	12th Standard (Science)		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Discuss the basics of neuroanatomy and neuropharmacology • Carry out electroencephalography and video electroencephalography • Carry out nerve conduction studies and assist the physician in carrying out electromyography • Carry out evoked potentials studies • Provide care and maintenance of neurophysiology equipment • Operate neurodiagnostic testing equipment. • Provide care and assistance to patients during procedures. • Maintain equipment and troubleshoot technical problems. • Participate in student teaching and training as required. • Continue education by participating in in-services, training sessions and seminars as workload permits. 		

This course encompasses 8 out of 8 National Occupational Standards (NOS) of “Neurophysiology Technology Assistant” Qualification Pack issued by “Healthcare Sector Skill Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Principles of clinical neurophysiology</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> • Explain the basics of electricity and electronics • Discuss the concept of analog filtering, high pass and notch filters • Explain the construction and properties of analog filtering, high pass and notch filters • Describe electrodes • Discuss the electrical properties of electrodes according to materials, shape and size • Discuss bias potentials • Explain the electrical properties and uses of surface/scalp electrodes • Discuss monopolar, concentric, and single fibre needle electrodes • Explain sphenoidal electrodes, depth electrodes, and subdural electrodes, electrical interference and grounding. 	<p>e-modules, Electroencephalography (EEG)- 32 Channels ; Video Electroencephalography (EEG) system-32 channels; and Electromyography/ Nerve conduction/ Evoked Potential System- 2 to 4 channels</p>
2	<p>Foundations of human anatomy and physiology</p> <p>Theory duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> • Explain organization of body cells, tissues, systems, membranes and glands • Describe the anatomy and physiology of the musculo-skeletal system • Describe the anatomy and physiology of the digestive system • Describe the anatomy and physiology of the respiratory system • Describe the anatomy and physiology of the cardiovascular system • Describe the anatomy and physiology of the excretory system • Describe anatomy and physiology of the endocrine system, sense organs and reproductive system 	<p>3D models of human body and accessory organs, E-modules</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
3	<p>Basic neuroanatomy</p> <p>Theory Duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code HSS/N0801</p>	<ul style="list-style-type: none"> • Explain the parts of central and peripheral nervous systems • Explain fibre tracts and nuclei • Describe cortical subdivisions and their functions • Discuss visual, sensory, auditory and motor pathways • Explain basal ganglia • Define cerebellum • Explain the autonomic nervous system • Explain the vascular supply to the brain • Discuss in brief the concept of neurophysiology • Explain the concept of nerve conduction from ion channel function to the responses of nerve trunks, fibre tracts and nuclei • Discuss different motor unit types • Discuss motor control and cerebellum • Discuss visual, auditory and somatosensory physiology from receptor to cortex 	<p>3D modules, models of brain structure, 3D computer neuroanatomy models</p>
4	<p>Basic neurophysiology</p> <p>Theory Duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code HSS/N0801</p>	<ul style="list-style-type: none"> • Identify the anatomical and functional divisions of the nervous system • Relate the functional and structural differences between gray matter and white matter structures of the nervous system to the structure of neurons • List the basic functions of the nervous system • Discuss in detail the central and peripheral nervous system • Explain the functional divisions of the nervous system • Explain the integrative, motor and sensory functions of the nervous system 	<p>E- modules and demonstrative videos</p>
5	<p>Technology in Neurophysiology</p> <p>Theory Duration (hh:mm)</p>	<ul style="list-style-type: none"> • Explain measurement techniques, electrodes and transducers • Discuss the effects of time and voltage resolution 	<p>Electroencephalography (EEG), 32 Channel , Video Electroencephalography (EEG) system, 32</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Theory duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code HSS/N9617</p>	<ul style="list-style-type: none"> Determine various electrical safety procedures in the hospital and laboratory 	
8	<p>Soft skills and communication</p> <p>Theory duration (hh:mm) 15:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code HSS/N9615</p>	<ul style="list-style-type: none"> Explain the significance of effective communication Demonstrate the use of effective communication with patients and family without using jargons and colloquial terms Apply effective communication skills with colleagues using appropriate terminology in communication Apply basic reading and writing skills Apply grammar and composition Apply goal setting, team building, team work, time management, thinking and reasoning and communicating with others Apply problem solving and decision making skills Describe the need for customer service and service excellence in medical service Explain work ethics in hospital set up Discuss objection handling Apply basic telephone and e-mail etiquettes Discuss basic computer working like feeding the data, saving the data and retrieving the data. Analyze the information gathered from observation, experience, reasoning, or communication to act efficiently 	Case studies and modules of soft skills, scenario based learning modules

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Apply the information gathered from observation, experience, reasoning, or communication to act efficiently Evaluate the information gathered from observation, experience, reasoning, or communication to act efficiently Identify rapidly changing situations and adapt accordingly Discuss planning and organization of work 	
9	<p>Basic Electroencephalography and Video Electroencephalography</p> <p>Theory duration (hh:mm) 30:00</p> <p>Practical Duration (hh:mm) 45:00</p> <p>Corresponding NOS HSS/N0801</p>	<ul style="list-style-type: none"> Describe the usages and limitations of EEG in medical disorders. Explain the physiological basis of EEG signals Describe EEG technology Discuss the concept of video EEG Describe special electrodes used in EEG like sphenoidal, subcutaneous wire electrodes Recognize normal variants and abnormalities Assist in interpreting EEG in clinical setting Demonstrate effective care of the patient during the process 	<p>Electroencephalography (EEG), 32 Channel , Video</p> <p>Electroencephalography (EEG) system, 32 Channel and Electromyography/ Nerve conduction/ Evoked Potential System, 2 to 4 channels</p>
10	<p>Basic Nerve Conduction and Electromyography</p> <p>Theory duration (hh:mm) 30:00</p> <p>Practical Duration (hh:mm) 45:00</p> <p>Corresponding NOS HSS/N0802</p>	<ul style="list-style-type: none"> Discuss the physiology of nerve conduction, neuromuscular transmission and excitation-contraction mechanisms in muscle Discuss in brief the physiology of nerve conduction mechanisms in muscle Assist in carrying out the nerve conduction studies Prepare patient for the EMG studies Assist the attending neurologist for EMG studies 	<p>Electroencephalography (EEG), 32 Channel , Video</p> <p>Electroencephalography (EEG) system, 32 Channel and Electromyography/ Nerve conduction/ Evoked Potential System, 2 to 4 channels</p>
11	<p>Basic Evoked Potential</p> <p>Theory duration (hh:mm) 30:00</p>	<ul style="list-style-type: none"> Discuss electromyography Explain quantitative EMG, repetitive stimulation, F wave recording, H reflex recording, 	<p>Electroencephalography (EEG), 32 Channel , Video</p> <p>Electroencephalography (EEG) system, 32</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Practical Duration (hh:mm) 45:00</p> <p>Corresponding NOS Code HSS/N0803</p>	<p>blink reflex recording and jaw jerk recording</p> <ul style="list-style-type: none"> • Discuss Visual Evoked Potential (VEP), Brainstem Auditory Evoked Potential (BAEP), Somatosensory Evoked Potentials (SEP) and Motor Evoked Potentials with magnetic stimulation(MEP) • Explain the concept of standard stimuli for various studies of evoked potential • Explain the technological basis of signal generation • Explain the process of setting up the stimulus and recording apparatus • Explain the technical aspects of pattern and flash visual stimulation • Discuss the aspects of recording • Explain the anatomical generators of evoked potentials • Discuss the basis for determining the generators • Describe various precautions for carrying out the test of adults and children • Analyze main evoked potential components • Discuss the process of recording nerve action potentials, compound action potentials, H reflexes and F waves • Explain in brief the neuro junction analysis 	<p>Channel and Electromyography/ Nerve conduction/ Evoked Potential System, 2 to 4 channels</p>
12	<p>Neurophysiology Equipment</p> <p>Theory duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 45:00</p> <p>Corresponding NOS Code HSS/N0804</p>	<ul style="list-style-type: none"> • Identify the equipment used in neurophysiology • Describe various parts of the neurophysiology equipment • Operate EEG machine • Operate NCV and EMG machine • Operate portable EEG systems • Discuss the method of operating the neurophysiology equipment • Report to the right authority in case of equipment breakdown 	<p>Electroencephalography (EEG),32 Channel , Video Electroencephalography (EEG) system, 32 Channel and Electromyography/ Nerve conduction/ Evoked Potential System, 2 to 4 channels</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
13	Care for instruments Theory Duration (hh:mm) 25:00 Practical Duration (hh:mm) 40:00 Corresponding NOS Code HSS/N0804	<ul style="list-style-type: none"> Apply standard operating procedures for care of instruments including surgical and non-surgical Identify the right cleaning agent and method/procedure for cleaning Inspect the functionality of instruments Apply safe practices while cleaning the neurophysiology equipment Identify faulty medical devices and report in line with relevant requirements, policies and procedures Analyze corrosion risk of debris retained on instruments Disassemble instruments for cleaning as required using correct dismantling techniques Select enzymatic cleaners to soak instruments Inspect instruments during and after processing Inspect instruments for completeness and working function 	Different types of cleaning instruments and cleaning brushes and cleaning agents, standard guidelines of cleaning the equipment
14	Inventory Control Theory Duration (hh:mm) 25:00 Practical Duration (hh:mm) 40:00 Corresponding NOS Code Bridge Module	<ul style="list-style-type: none"> Maintain inventory of stock Explain the importance of keeping record of manufacturing and expiration dates Report any loss of commodities or consumables. Discuss inventory replenishment and distribution systems Identify stock not complying with inventory control guidelines Remove stock not complying with inventory control guidelines. Re-process or discard stock not complying with inventory control guidelines 	Inventory registers, sample inventory lists, inventory separators
15	Maintain interpersonal relationship with colleagues and others Theory Duration (hh:mm)	<ul style="list-style-type: none"> Apply appropriate and timely communication between inter and intra departments Maintain confidentiality and privacy 	Case studies portraying effective networking amongst the team members

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>10:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code HSS/N9615</p>	<ul style="list-style-type: none"> Describe the importance for ensuring fulfilment of commitments Explain organization's policies and procedures Discuss the importance of effective communication amongst colleagues Maintain a positive work friendly milieu 	
16	<p>Maintain professional and medico-legal conduct</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code HSS/N9616</p>	<ul style="list-style-type: none"> Apply rules and policies of organization Apply code of conduct and demonstrate best practices Explain the importance of carrying out one's duties and responsibilities and effects of non-compliance Maintain relationship with other departments and seek support if required Reduce risks associated with quality and safety measures 	Sample case studies
17	<p>Maintain a safe, healthy and secure working environment</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code HSS/N9617</p>	<ul style="list-style-type: none"> Enhance awareness of the responsibilities to maintain health safety and security Enhance awareness for performing basic first aid in case of emergencies Identify potential hazards in the hospital and hospital colour coding system Demonstrate documentation related to safety and security Identify the suspicious package or items Follow the policy and rules of the organisation Demonstrate the skills of infection control and use of personal protective equipment (PPE) 	First Aid Kit, Colour coding diagrams, Infection control protocols, Personal Protective Equipment, videos on safety
18	<p>Infection control policies and procedures</p> <p>Theory Duration 10:00 (hh:mm)</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code</p>	<ul style="list-style-type: none"> Describe the importance of infection control and prevention and guiding others about it in accordance with healthcare team Identify the factors which influence the outcome of an exposure to infection List strategies for preventing transmission of pathogenic organisms 	Current Guidelines on Hand washing and Hand rub techniques, Spill kit, PPE

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	HSS/N9617	<ul style="list-style-type: none"> Demonstrate the steps of spill management Ensure hand hygiene and infection control and exposure control Describe nosocomial infections Explain the importance of incident reporting Develop techniques of self-grooming and maintenance Explain the concept of immunisation to reduce the health risks for self and patients. 	
19	Bio Medical Waste Management Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code HSS/N9618	<ul style="list-style-type: none"> Explain the importance of proper and safe disposal of bio-medical waste and treatment Explain the categories of bio-medical waste Discuss about disposal of bio-medical waste – colour coding, types of containers, transportation of waste, etc. Explain standards for bio-medical waste disposal Discuss means of bio-medical waste treatment 	Different coded colour bins, chart for colour coding of bins
20	Basic Computer Knowledge Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code Bridge Module	<ul style="list-style-type: none"> Discuss the application of computers Explain the concepts of computers including block diagram, input and output devices and storage devices. Discuss the foundation concept of operating systems Such as their and functions Discuss the latest version of software such as Windows 2010, its utilities and basic operations Microsoft office 2000 – MS Word, MS Excel, PowerPoint Presentation Explain basic concepts about computer hardware and software used in neurophysiology Discuss the application of computer in neurophysiology department 	Computer with internet facility and latest MS Office

Sr. No.	Module	Key Learning Outcomes	Equipment Required
21	<p>Reporting and Documentation</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> Define the scope of practice for neurophysiology technology assistant in reporting and documentation Define reporting matrix and discuss the methods. Explain the importance of maintaining various records Explain various types of records to be maintained by the neurophysiology department Demonstrate essential components of various records and the method of their documentation and retrieval 	Sample formats of reports and hospital documents
22	<p>Personal Hygiene</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code HSS/N9618</p>	<ul style="list-style-type: none"> Explain the concept of healthy living. Demonstrate the procedures of hand hygiene to prevent cross infection including effective hand washing to include; social and clinical techniques Demonstrate the techniques of proper usage of PPE Explain the importance of PPE Explain various vaccinations against common infectious diseases. 	PPE, vaccination kits, latest hand hygiene protocols
	<p>Total Duration</p> <p>Theory Duration (hh:mm) 410: 00</p> <p>Practical Duration (hh:mm) 590: 00</p> <p>Total mandatory OJT Duration (hh:mm) 700:00</p>	<p>Classroom equipped with following arrangements:</p> <p>e-modules, Electroencephalography (EEG)- 32 Channels, Video Electroencephalography (EEG) system-32 channels, and Electromyography/ Nerve conduction/ Evoked Potential System- 2 to 4 channels, 3D models of human body and accessory organs, 3D modules, models of brain structure, 3D computer neuroanatomy models, E-modules and demonstrative videos, computer-aided learning modules, charts of rules of electrical safety, goggles, rubber and latex gloves and apron, case studies and modules of soft skills, scenario based learning modules, different types of cleaning instruments and cleaning brushes and cleaning agents, standard guidelines</p>	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>of cleaning the equipment, inventory registers, sample inventory lists, inventory separators, case studies portraying effective networking amongst the team members, first aid kit, colour coding diagrams, infection control protocols, Personal Protective Equipment, videos on safety, current guidelines on hand washing and Hand rub techniques, Spill kit, different coded colour bins, chart for colour coding of bins, computer with internet facility and latest MS office, sample formats of reports and hospital documents, vaccination kits, latest hand hygiene protocols</p> <p>Interactive lectures and discussion</p> <ul style="list-style-type: none"> • Brain Storming • Charts and Models • Activity • Video presentation <p>Skill lab equipped with following arrangements:</p> <ul style="list-style-type: none"> • Unique equipment as enlisted at the last • Practical Demonstration of various functions • Case study • Role play 	

- Grand Total Course Duration 1700:00 Hours (410:00 Hours duration for Class Room, 590:00 Hours Skill Lab Training and 700:00 Hours of mandatory OJT)
- 700 Hours of mandatory OJT/Internship/Clinical or Laboratory Training)

(This syllabus/ curriculum has been approved by SSC: Healthcare Sector Skill Council)

Trainer Prerequisites for Job role: “Neurophysiology Technology Assistant” mapped to Qualification Pack: “HSS/Q0801, v1.0”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “HSS/Q0801”.
2	Personal Attributes	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field..
3	Minimum Educational Qualifications	<ul style="list-style-type: none"> DM / DNB in Neurology with 3 years’ experience or DM / DNB in Paediatric Neurology with 3 years’ experience or MBBS and MD in Physiology with 6 years’ experience in Clinical Neurophysiology
4a	Domain Certification	Certified for Job Role: “ <u>Neurophysiology Technology Assistant</u> ” mapped to QP: “HSS/Q0801”, version 1.0 with scoring of minimum 80%.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q2601” with scoring of minimum 80%.
5	Experience	<ul style="list-style-type: none"> DM / DNB in Neurology with 3 years’ experience or DM / DNB in Paediatric Neurology with 3 years’ experience or MBBS and MD in Physiology with 6 years’ experience in Clinical Neurophysiology

Annexure: Assessment Criteria

Criteria for Assessment of Trainees	
Job Role:	Neurophysiology Technology Assistant
Qualification Pack:	HSS/Q0801
Sector Skill Council:	Healthcare Sector Skill Council
Guidelines for Assessment:	
<ol style="list-style-type: none"> Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC. The assessment for the theory part will be based on knowledge bank of questions created by the SSC. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below.) Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack. In case of <i>unsuccessful completion</i>, the trainee may seek reassessment on the Qualification Pack. 	

Compulsory NOS			Marks Allocation			
Total Marks: 1000			Theory	Viva	OJT	Skills Practical
Assessment outcomes	Assessment Criteria for outcomes	Total Marks				
HSS/N0801 Carry out electroencephalography and video electroencephalography	PC1.check if the procedure room is suitable for performing electroencephalography with respect to cleanliness, temperature and humidity	271	101	65	39	
	PC2.check the emergency tray/ crash cart for required resources as per standard protocols					
	PC3.recognize normal components of the EEG and evolution of maturational changes					3
	PC4.obtain a brief history of the patient such as any previous history of seizures, duration of the illness, treatment taken and investigation studies performed					3
	PC5.check that the patient has relevant documents such as photo ID, insurance card, list of allergies and current medicines, seizure log (if used) and other requirements like containers for contact lenses, glasses					4
	PC6.obtain a signed consent form from the patient/ guardian after verifying the patient to carry out the procedure					

PC7.encourage the patient to ask questions to seek clarity on the procedures					2
PC8.provide pre-procedural instructions to the patient such as precautions related to hair (washing hair with shampoo, without using a conditioner or any other hair care products, such as hairspray or gels), caffeine intake, medicines and supplement consumption, fasting, etc.					4
PC9.maintain a suitable distance from the patient during the procedure					
PC10.clean/ wash hands before initiating the procedure					2
PC11.create a relaxing environment for the patient					3
PC12.attach 16 to 25 electrodes to the scalp with a special paste or put the cap containing the electrodes as per standard medical procedure					5
PC13.check that the patient remains still once the recording begins, throughout the test					
PC14.provide breathing instructions to the patient while conducting EEG test Breathing instructions: e.g. take a deep breath for 3 minutes					
PC15.monitor the patient through a window in an adjoining room to observe any movements that can cause an inaccurate reading, such as swallowing or blinking					2
PC16.inform the patient about the photic stimulation where a series of flashes occur at varying frequencies for a few seconds					2
PC17.conduct test on the patient to produce brain wave activity that does not show up while resting e.g. making the patient breathe deeply and rapidly for 3 minutes or exposing to a bright flashlight light					2
PC18.register any abnormal movements, jerking or any abnormal behaviour during the test					4
PC19.follow standard medical and organisational procedures in case of an emergency					2
PC20.remove the electrodes from the scalp following standard medical procedures					
PC21.soak and clean the electrodes with lukewarm water by following institutional guidelines					2
PC22.follow post-procedure care as per medical standards such as providing rest to sedated patients and instructing patients for the resumption of medication, etc.					2
PC23.save and print the recordings as directed by the attending physician					
PC24.prepare the procedure room and equipment for the next patient					4
PC25.record EEG during wakefulness and sleep to get the maximum information from this test					4
PC26.communicate information such as prescribed schedule for taking medicines, medicines to be taken as per the type of ailment, etc. to the patient as per the Standard Operating Procedure					2

	PC27.confirm that the patient has avoided drinks containing caffeine such as coke, coffee, etc. one hour before the test					
	PC28.check that the visitors do not touch the dressing on the patient's head, electrodes, wires, the keyboard or the EEG/video monitor					
	PC29.assist the patient when he/she tries to get out of bed or is going to the bathroom					2
	PC30.cover the electrodes with a head dressing if necessary or directed by the physician.					3
	PC31.provide procedural instructions to the patient, such as to wear the monitor at all times, not to pick, scratch, pull or play with the wires around the head or body and use any plug-in devices					3
	PC32.push the event button as soon as any symptoms are observed					3
	PC33.remove the dressing and the electrodes after the procedure					3
	PC34.clarify any doubts that the patient may have					
		271	101	65	39	66
HSS/N0802 Carry out nerve conduction studies and prepare the patient for electromyography	PC1.obtain appropriate patient history of numbness, tingling, pain and/or weakness etc. on detection of decreased sensation, reflex abnormalities, weakness and/or atrophy	234	73	50	30	5
	PC2.explain the procedure to the patient while clarifying their doubts					5
	PC3.obtain a signed consent form from the patient for permission to start the procedure					
	PC4.monitor the body temperature of the patient before and during the procedure					4
	PC5.obtain information about patient's medicine and other herbal supplement intakes					
	PC6.ensure that the patient removes any clothing, jewellery, hairpins, eyeglasses, hearing aids, or other metal objects that may interfere with the procedure					
	PC7.prepare the client suitably for the procedure by providing relevant clothing					5
	PC8.check to ensure there is no usage of lotions or oils for a few days prior to the procedure by the patient					
	PC9.instruct the patient not to fast unless suggested by the physician					2
	PC10.inform the patient about what to expect during the NCV and EMG procedures including the need for sedation, minor discomforts such as mild and brief electrical shocks					3
	PC11.ensure the patient is sedated as per standard procedures					
	PC12.position the patient according to the physician's direction					6
	PC13.assist the physician in locating the nerve(s) to be studied					6

	PC14.attach a recording electrode to the skin over the nerve, using the special paste as per standard medical procedure					8
	PC15.place a stimulating electrode away from the recording electrode at the standard distance of 8 cm unless specific study has different requirements					8
	PC16.remove the paste attached to the skin as per medical standards					5
	PC17.apply ice or a cold pack on the area for 10 to 20 minutes at a time					4
	PC18.provide an analgesic as instructed by the physician					4
	PC19.instruct the patient to avoid immediate strenuous activities after the procedure					
	PC20.measure the amplitude of the negative phase of evoked motor response/CMAP (Compound Muscle Action Potential)					9
	PC21.save, record and take a printout of all final waveforms and hand over to the attending physician					7
		234	73	50	30	81
HSS/N0803 Carry out evoked potential studies	PC1.obtain a signed consent form from the patient/guardian to carry out the procedure	220	66	20	33	3
	PC2.provide pre-procedural instructions to the patient such not to fast, no sedation required, washing hair without using conditioner or hairsprays, any other specific preparation after consulting with attending physician, etc.					6
	PC3.obtain information from the patient or significant others about all medicines (prescription and over-the-counter) and herbal supplements being used by the patient					3
	PC4.make the patient comfortable					
	PC5.measure and mark the head to ensure accurate placement of the electrodes on the scalp					7
	PC6.set up a stimulus and recording apparatus to elicit a reproducible visual					8
	PC7.position the patient on the chair as per standards eg. about 3 feet away from a TV screen					4
	PC8.clean the scalp points where the electrodes need to be attached using a special adhesive on the scalp as per standard medical procedures					4
	PC9.ensure that the hair and scalp is free of oil and hairspray					
	PC10.apply a patch to cover the eye that is not being tested					6
	PC11.ensure that the patient is focusing their gaze on a dot at the center of the TV screen when displaying a visual stimulus (usually a rapidly moving checkerboard)					5
	PC12.record the activities in the optic nerve and brain, testing each eye at least twice					5
	PC13.ensure to make the patient sit in a soundproof room					

	PC14.attach the electrodes to the top of the patient's head including the earlobe being tested and put headphones on them					6
	PC15.produce a series of clicking sounds to be delivered through the headphones to each ear successively, by using a 100 usec rectangular pulse (single monophasic square wave), a standard audiometric ear speaker having a relative flat frequency spectrum					8
	PC16.record the signals produced by the patient's brain in response to the clicks					5
	PC17.ensure to test each ear twice					3
	PC18.ensure the patient is comfortable					
	PC19.ensure patients and his/ her significant others are informed about the procedure					1
	PC20.ensure the patient is not using any oil, creams or lotions on the arms or legs on the day of the procedure					1
	PC21.attach the recording electrodes to the scalp and neck, wrist, lower back and back of the knee as per standard medical procedure					6
	PC22.place the stimulating electrodes over the ankle as per standard medical procedures					5
	PC23.deliver mild, painless electrical shocks to the stimulating electrodes for about 2 minutes at a time					6
	PC24.measure and record the brain's response to the electrical stimulus by the recording electrodes					9
		220	66	20	33	101
HSS/N0804 Perform basic maintenance of neurophysiology equipment	PC1.identify the range and purpose of neurophysiology equipment	120	37	5	26	1
	PC2.set up, check and maintain equipment in accordance with organizational policies, procedures and manufacturer's specifications					8
	PC3.identify maintenance procedures and appropriate documentation for each equipment					1
	PC4.follow procedures for timely set-up, troubleshooting, shut-down, cleaning and storage of neurophysiology equipment					1
	PC5.complete care and maintenance of equipment required, prior to use, including sterilization					6
	PC6.calibrate all electro-encephalography equipment accurately					7
	PC7.identify and correct minor equipment problems					1
	PC8.report hazardous, damaged or faulty equipment to concerned authority following laid down procedures					7
	PC9.complete, review and update the documentation in accordance with organizational policies and procedures, relevant standards and manufacturer's guidelines					9
	PC10.identify and label faulty equipment accurately					1
	PC11.complete documentation of breakdown and/or maintenance					6

	PC12.ensure equipment repair is completed					4
		120	37	5	26	52
HSS/N9615 Maintain a professional relationship with patients, colleagues and others	PC1. communicate effectively with all individuals regardless of age, caste, gender, community or other characteristics without using terminology unfamiliar to them	13	13	0	0	0
	PC2. utilize all training and information at one's disposal to provide relevant information to the individual					
	PC3. confirm that the needs of the individual have been met					
	PC4. respond to queries and information needs of all individuals					
	PC5. adhere to guidelines provided by one's organization or regulatory body relating to confidentiality					
	PC6. respect the individual's need for privacy					
	PC7. maintain any records required at the end of the interaction					
	PC8. integrate one's work with another people's work effectively					
	PC9. utilize time effectively and pass on essential information to other people on timely basis					
	PC10. work in a way that shows respect for other people					
	PC11. carry out any commitments made to other people					
	PC12. reason out the failure to fulfill commitment					
	PC13. identify any problems with team members and other people and take the initiative to solve these problems					
	PC14. establish, agree, and record the work requirements clearly					
	PC15. ensure his/her work meets the agreed requirements					
	PC16. treat confidential information correctly					
	PC17. work in line with the organization's procedures and policies and within the limits of his/her job role					
		13	13	0	0	0
HSS/N9616 Maintain professional medico-legal conduct &	PC1. respect patient's individual values and needs	19	19	0	0	0
	PC2. maintain patient's confidentiality					
	PC3. meet timelines for each assigned task					
	PC4. respect patient's dignity and use polite language to communicate					
	PC5. maintain professional environment					
	PC6. work within organizational systems and requirements as appropriate to one's role					
	PC7. adhere to legislation, protocols and guidelines relevant to one's role and field of practice					
	PC8. maintain competence within one's role and field of practice					
	PC9. evaluate and reflect on the quality of one's work and make continuing improvements					

	PC10. use relevant research-based protocols and guidelines as evidence to inform one's practice					
	PC11. recognize the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority					
	PC12. promote and demonstrate good practice as an individual and as a team member at all times					
	PC13. identify and manage potential and actual risks to the quality and safety of practice					
	PC14. maintain personal hygiene and contribute actively to the healthcare ecosystem					
	PC15. maintain a practice environment that is conducive to the provision of medico-legal healthcare					
		19	19	0	0	0
HSS/N9617 Maintain a safe, healthy and secure working environment	PC1. identify individual responsibilities in relation to maintaining workplace health safety and security requirements	59	20	30	9	0
	PC2. comply with health, safety and security procedures for the workplace					
	PC3. comply with health, safety and security procedures and protocols for environmental safety					
	PC4. identify potential hazards and breaches of safe work practices					
	PC5. identify and interpret various hospital codes for emergency situations					
	PC6. correct any hazards that individual can deal with safely, competently and within the limits of authority					
	PC7. provide basic life support (BLS) and first aid in hazardous situations, whenever applicable					
	PC8. follow the organization's emergency procedures promptly, calmly, and efficiently					
	PC9. identify and recommend opportunities for improving health, safety, and security to the designated person					
	PC10. complete any health and safety records legibly and accurately					
	PC11. report any identified breaches in health, safety, and security procedures to the designated person					
	PC12. report the hazards that individual is not allowed to deal with to the relevant person and warn other people who may get affected promptly and accurately					
		59	20	30	9	0
HSS/N9618 Follow infection control policies & procedures including biomedical waste disposal protocols	PC1. handle, package, label, store, transport and dispose of waste appropriately to minimize potential for contact with the waste and to reduce the risk to the environment from accidental release	64	21	30	13	0
	PC2. store clinical or related waste in an area that is accessible only to authorized persons					
	PC3. minimize contamination of materials, equipment and instruments by aerosols and splatter					

PC4. apply appropriate health and safety measures following appropriate personal clothing & protective equipment for infection prevention and control					
PC5. identify infection risks and implement an appropriate response within own role and responsibility in accordance with the policies and procedures of the organization					
PC6. follow procedures for risk control and risk containment for specific risks. Use signs when and where appropriate					
PC7. follow protocols for care following exposure to blood or other body fluids as required					
PC8. remove spills in accordance with the policies and procedures of the organization					
PC9. clean and dry all work surfaces with a neutral detergent and warm water solution before and after each session or when visibly soiled					
PC10. demarcate and maintain clean and contaminated zones in all aspects of health care work					
PC11. confine records, materials and medicaments to a well-designated clean zone					
PC12. confine contaminated instruments and equipment to a well-designated contaminated zone					
PC13. decontaminate equipment requiring special processing in accordance with quality management systems to ensure full compliance with cleaning, disinfection and sterilization protocols					
PC14. replace surface covers where applicable					
PC15. maintain and store cleaning equipment					
PC16. report and deal with spillages and contamination in accordance with current legislation and procedures					
PC17. maintain hand hygiene following hand washing procedures before and after patient contact and/or after any activity likely to cause contamination					
PC18. cover cuts and abrasions with water-proof dressings and change as necessary					
PC19. change protective clothing and gowns/aprons daily, more frequently if soiled and where appropriate, after each patient contact					
PC20. perform additional precautions when standard precautions alone may not be sufficient to prevent transmission of infection					
	64	21	30	13	0