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SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH (A DEEMED TO BE UNIVERSITY

Bachelor in Audiology and Speech—Language Pathology First Year Semester-II, September 2021 Examination.

Time: 3 Hrs

Max Marks: 80

Neurology QP Code:S2050

Your answers should be specific to the question asked Draw neat labelled diagrams wherever necessary

I	1.	a)	Write a note on cerebral plasticity and cerebral dominance.	4 + 4
		b)	Describe the origin, innervation and function of vagus nerve and glossopharyngeal nerve.	4 + 4
			OR	
	2.	a)	How is circle of willis formed? Illustrate with the help of a neat diagram. What is its clinical significance?	6 + 2
		b)	How is blood supplied to the speech, language and hearing areas of the brain?	8
II	3.	a)	Discuss in detail, the pyramidal and extrapyramidal pathway.	4 + 4
		b)	Discuss in brief the somatosensory and sensory association cortices. How is the sensation of touch, pain and temperature mediated by the brain?	3 + 5
		\$2	OR	
	4.	a)	How are basal ganglia and cerebellar system involved in the motor control of speech?	4 + 4
***	_	b)	Trace the pathway of optic nerve with a neat diagram.	8
III	5.	a)	Discuss the etiology, clinical features, diagnosis, complications and treatment of hydrocephalus.	8
		b)	Differentiate between i) hypokinetic and hyperkinetic dysarthria	4 + 4
			ii) spastic and flaccid dysarthria.	
			OR	
	6.	a)	Discuss the etiology, pathogenesis, clinical features, diagnosis, complications, treatment of viral encephalitis.	8
		b)	Discuss prion diseases, Bell's palsy, normal pressure hydrocephalus and Arnold chiari malformations.	8
IV	7.	a)	Discusshypoxic ischemic encephalopathy and Guillain-Barré syndrome.	8
		b)	Discuss the aetiology, pathogenesis, and symptoms of Wilson's disease. How do you manage speech problems associated with this disease?	6 + 2
			OR	
	8.	a)	What is traumatic brain injury and discuss its neuropathology. What are the changes that happen to the nerve during diffuse axonal injury?	5 + 3
		b)	Discuss the etiology, pathogenesis, clinical features, variants and treatment of Multiple Sclerosis.	8
V	9.	a)	What is neurogenic dysphagia? List the causes and symptoms associated with neurogenic dysphagia. How is mastication and deglutition assessed by a speech language pathologist?	1 + 4 + 3
		b)	Describe the language functions in non-fluent aphasias. OR	8
	10.	a)	Discuss the perisylvian language areas with a neat diagram. How are the subcortical structures involved in language processing and production?	6 + 2
		b)	Discuss apraxia of speech in adults and agnosia.	4 + 4

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Max Marks: 80

Otolaryngology QP Code:S2060

Your answers should be specific to the question asked Draw neat labelled diagrams wherever necessary

			Draw neat labelled diagrams wherever necessary				
I	1.	a)	Discuss the etiology, pathology, clinical features and management of acute suppurative otitis media.				
		b)	Discuss the difference between adult and infant eustachian tube. OR				
	2.	a)					
П	 b) Describe the traumatic perforation of tympanic membrane. 3. a) Discuss the etiology and signs, symptoms of any two peripher vestibular disorders 				8		
		b)	What is Meniere's disease? What are the causes and clinical features of them?	2	+	6	
			OR				
	4.	a)	What is ototoxicity? Discuss the pathophysiology and the diagnostic procedures.	2	+	6	
		b)	What is cochlear implant? Discuss candidacy for cochlear implantation.	2	+	6	
III	5.	a)	Describe the functions of oropharynx and hypopharynx.	4	+	4	
		b)	What are malignant lesions? Describe the different malignant lesions of oral cavity.	2	+	6	
			OR				
	6.	a)	Describe the structural anatomy of oral cavity.		8		
		b)	Describe the different tumours of nasopharynx.		8		
IV	7.	a)	Draw a neat, labelled diagram of superior view of larynx as viewed through a flexible laryngoscope. List the intrinsic and extrinsic muscles of larynx.	4	+	4	
		b)	Briefly describe any 4 chronic inflammations of larynx.				
			OR				
	8.	a)	Differentiate between adult and infant larynx. List any 4 congenital laryngeal pathologies.	6	+	2	
		b)	List 6 important surgical techniques in direct microlaryngoscopy. How are medialisation thyroplasty and injections conducted to narrow the glottis?	3	+	5	
V	9.	a)	What are the two types of esophageal cancer? How do they differ in etiology and pathophysiology?	8			
		b)	What is the condition of Barrett's oesophagus? Discuss its pathophysiology and symptoms. What is its relationship with oesophageal carcinoma?			4	
			OR				
	10.	a)	THE COLUMN TO TH			3	
		b)	Discuss the causes, types, symptoms and treatment of reflux esophagitis.		8		
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Bachelor in Audiology and Speech-Language Pathology First Year Semester-II, September 2021 Examination.

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Ti	m	e:	.5	н	rs

Max Marks: 80

Speech Language Pathology

QP Code:S2070

Your answers should be specific to the question asked Draw neat labelled diagrams wherever necessary

I	1.	a)	Describe the causes of speech and language disorders.			
		b)	Describe the principles of assessment and appraisal.			
	2.	a)	(OR)	0		
	2.	b)	Describe the characteristics of a diagnostic clinician.	8		
II	3.	a)	Describe any one diagnostic model with its merits and demerits. Discuss the advantages and disadvantages of individual and	8		
11	٥.	u)	group therapy.	0		
		b)	Discuss the approaches involved in speech language therapy	8		
		-)	(OR)	O .		
	4.	a)	Define reinforcement? Describe positive and negative	2 + 6		
		363	reinforcement.			
		b)	Describe the types of speech language therapy.	8		
III	5.	a)	How do you assess the persons with voice disorders.	8		
		b)	Describe the therapeutic procedures for children with fluency	8		
			disorders.			
		20	(OR)			
	6.	a)	What do you understand by the term prevention and early	2 + 6		
			identification? Why is early identification of speech and			
		b)	language disorders important? Describe your approach to manage communication disorders in	0		
		U)	intellectually challenged children.	8		
IV	7.	a)	Describe the various child language disorders and its clinical	8		
)	features.	O		
		b)	Describe the management procedure for Specific language	8		
			impairment.			
			(OR)			
	8.	a)	Name any 4 language disorders seen in children. Describe	4 + 4		
			assessment process for any one of language disorders seen in			
			children.			
		b)	Define Aphasia. Describe its assessment process.	2 + 6		
V	9.	a)	Describe the code of conduct given by ISHA.	8		
		b)	Highlight the need for, and use of, clinical records in the	8		
			diagnosis and management of speech disorders in children.			
	10.	a)	(OR) Who is an itinerant speech therapist? Discuss the role of an	2 + 6		
	10.	a)	itinerant speech therapist in our context.	2+0		
		b)	Discuss the revised PWD Act 2016.	8		

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Bachelor in Audiology and Speech—Language Pathology First Year Semester-II, September 2021 Examination.

Time: 3 Hrs

Max Marks: 80

Audiology

QP Code: S2080

Your answers should be specific to the question asked Draw neat labelled diagrams wherever necessary

I	1.	a)	What are central auditory disorders? Write the possible causes and the characteristic features of the same.	2 + 6
		b)	How do you classify genetic causes of hearing loss? Describe any one syndrome associated with hearing loss.	4 + 4
			OR	
	2.	a)	Discuss different configuration of hearing loss with neat audiogram depiction for each type.	8
		b)	Discuss why it may be important to identify and understand the underlying cause of a hearing loss.	8
II	3.	a)	Describe in detail, with examples, the need for case history.	8
		b)	What is Stenger principle? Describe the tuning fork test that is based on this principle.	1 + 7
			OR	
	4.	a)	Is it necessary to have two different case history forms for children and adults? Justify your answer with suitable examples.	8
		b)	Tabulate the results of the 4 tuning fork tests for conductive hearing loss and sensori - neural hearing loss?	8
III	5.	a)	What is an audiometer? Describe the components of an audiometer with a neat block diagram	1 + 7
		b)	Discuss the importance of an audiogram OR	8
	6.	a)	What are ear cushions? Describe the two types of ear cushions used with external type earphones.	1 + 7
		b)	Discuss the importance of test environment in an audiometric room. Write in brief about the maximum permissible noise levels for an audiometric room	4 + 4
IV	7.	a) b)	Discuss the different variables affecting speech audiometry results Describe the clinical applications of the different measures obtained in speech	8
			audiometry. OR	
	8.	a)	Explain the concept of performance intensity function with a neat diagram. Add	4 + 4
	0.	a)	a note on PIPB function in different types of hearing loss and discuss roll over phenomenon	4 + 4
		b)	Define speech recognition threshold. Describe any one procedure for estimation of speech recognition threshold with an illustration.	1 + 7
\mathbf{V}	9.	a)	Explain cross over, cross hearing and shadow curve with suitable examples.	8
		b)	Define calibration and mention its types. Discuss the rationale for calibration of audiometers.	3 + 5
			OR	
	10.	a)	Discuss in brief the procedure and clinical application of the following tests. i)	4 + 4
			Fusion at the inferred threshold (FIT) test ii) Rainville test	
		b) -	Why is the daily listening check of the pure tone audiometer done? Explain the	2 + 6
		1 1 1 m	procedure for the same	

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Bachelor in Audiology and Speech-Language Pathology First Year Semester-II, September 2021Examination.

Time: 3 Hrs		

Max Marks: 80

Electr	onics	and	Acoustics
OP	Code	:S20	90

		OP Code S2000	
		QP Code:S2090 Your answers should be specific to the question asked	
		Draw neat labelled diagrams wherever necessary	
I	1 (a)	Which passive electronic device is used as a volume control in hearing aids?	8
	(-)	Explain how this device works as a volume control.	
	(b)	How does a light emitting diode (LED) produce light? Illustrate with an	
		appropriate diagram.	8
		OR	
	2 (a)	Which passive electronic device is used as a tele-coil in hearing aids?	8
	1	Explain how this device works as a tele-coil.	
	(b)	Describe the other functions of this passive electronic device.	8
II	3 (a)	With a diagram, explain how sound propagates through a medium. Describe	8
11	J (a)	the essential properties a medium should have, to propagate sound through it.	0
	(b)	Write short note on: i) Longitudinal wave propagation	8
	(0)	ii) Timbre.	O
		OR	
	4 (a)	Explain the concept of an electro-mechano-acoustic transformer. Relate this	8
		concept with the functioning of human ear.	0
	(b)	Write short note on: i) Acoustic impedance	
	(-)	ii) Amplitude and frequency of a pure tone.	8
TIT	5 (0)		
III	5 (a)	Draw the diagram of the AC mains output socket and label the connections.	8
	(b)	Illustrate the importance of ground connection.	0
	(b)	Expand SMPS and explain its principle of operation and functions. OR	8
	6 (a)	Briefly explain, with functional diagram and truth table, how a 3 bit counter	
	0 (a)	functions.	8
	(b)	"The loud speaker (receiver) used in hearing aids is different from the one	0
	(0)	which is used for stage performance." Do you agree with this? Justify your	
		answer.	8
IV	7 (a)	Describe the process of sampling in analog (continuous) to digital conversion	8
	21.5	of a speech signal.	
	(b)	Explain the process of decomposition in digital signal processing.	8
	0 (-)	OR	
	8 (a)	With supporting diagrams, explain the procedure for computation of short	0
	(b)	time energy of a speech signal.	8
	(b)	How is speech coded using Linear Predictive Coding (LPC)? Why is LPC considered as the most accurate technique of speech coding?	0
		•	8
V	9 (a)	Why a preamplifier always follows the microphone in audio signal	8
		processing?	
		Explain the technology with which an immittance meter measures middle ear	8
	(b)	impedance.	
	10 ()	OR	
	10 (a)	Explain the role of filters in a signal processing system.	8
	(b)	Show the equipment setup required for calibrating a puretone audiometer in	0
		air conduction and bone conduction modes. Elaborate the step by step	8
		process for calibration.	