

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
COMMUNICATION SCIENCES
PAPER - I

lib

[Time allotted: Three hours]

[Max Marks: 75]

Note: Attempt all questions
Draw suitable diagrams wherever necessary

'A': Long question.

(15 x 2)

Q. 1. Explain speech production mechanism with the help of suitable diagram.

OR

What is reference equivalent threshold sound pressure level?

Q. 2. How speech is an overlaid function?

OR

Discuss the acoustic theory of speech production.

'B': Short notes. (Attempt all questions)

(5 x 4)

Q. 3. How children acquire speech & language?

Q. 4. Discuss the cognitive bases of speech and language.

Q. 5. Define and explain Bel and Decibel.

Q. 6. Discuss the scope of Audiology.

'C': Answer in brief. (Attempt all questions)

(5 x 3)

Q. 7. Draw the stair case method for measuring minimum hearing level.

Q. 8. Draw a neat diagram of components of language.

Q. 9. Explain the speech chain with the help of a diagram.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
COMMUNICATION SCIENCES
PAPER – I (MCQs)

Time allotted for MCQs - 15 minutes

'D' : MCQs (Select the most appropriate answer and encircle the alphabet against it.)**(20 x ½ =10 Marks)**

1. Language stands for:
 - a. Linguistic knowledge
 - b. Phonetic aspects
 - c. Cultural aspects
 - d. None of theseWhich one of the following is **not** a characteristic of human language?
 - a. Arbitrariness
 - b. Non-verbalism
 - c. Complexity
 - d. Productivity
3. Asking questions to know others view is called..... :
 - a. Social function
 - b. Heuristic function
 - c. Informative function
 - d. Imaginative function
4. The term RETSPL stands for:
 - a. Reference Equivalent Threshold Sound Pressure Loudness
 - b. Reference Equivalent Threshold Sound Pressure Level
 - c. Reference Equal Threshold Sound Pressure Level
 - d. A & C Both
5. A sound measuring 40 db on the decibels sound scale would be:
 - a. 10 the power 2
 - b. 10 the power 1
 - c. 10 the power 4
 - d. 10 the power 0
6. The intensity of a sound is related to:
 - a. Amount of energy flowing in the sound waves
 - b. Amount of energy flowing in the sound source
 - c. Amount of energy flowing in close set area
 - d. Amount of energy flowing in the different medium
7. What are two important characteristics of sound or noise?
 - a. Frequency and loudness
 - b. Pressure and amplitude
 - c. Loudness and pitch
 - d. None of these
8. Ascending and descending trail are typically used in:
 - a. Method of adjustment
 - b. Method of stimuli
 - c. Method of limits
 - d. PTA
9. Monaural hearing can be applied:
 - a. MAP
 - b. Via headphones
 - c. Via loudspeakers
 - d. MAF
10. The term minimum audible pressure was first used by:
 - a. Rose and Wilson (1932)
 - b. Silverman (1949)
 - c. Sivian & White (1933)
 - d. Sivian & White (1992)
11. What is the speech conversational level?
 - a. 30 - 40 db
 - b. 40 - 55 db
 - c. 50 - 60 db
 - d. All of these
12. Sound 7 Hz is considered as:
 - a. Low frequency
 - b. Ultrasonic
 - c. Infrasonic
 - d. Between 2000 and 6000 Hz
13. Supra-aural earphone is calibrated in a:
 - a. "6" cc coupler such as the NBS-9a coupler
 - b. "2" cc coupler such as the NBS-9a coupler
 - c. Real ear measurement
 - d. Artificial ear
14. The sensory information is turned into neural information through a process called:
 - a. Transformation
 - b. Neurotransmitter
 - c. Transduction
 - d. Synchronism
15. MCL is also known as:
 - a. Most comfortable level
 - b. Most comfortable loudness
 - c. Most comfortable range
 - d. All of these
16. "Sit straight, never tell a lie" is an example of:
 - a. Instrumental function
 - b. Regulatory function
 - c. Social function
 - d. All of these
17. Using language to imagine something is called as:
 - a. Social function
 - b. Imaginative function
 - c. Heuristic function
 - d. None of these
18. Symbol is a code that stands for:
 - a. Object
 - b. Action
 - c. Person
 - d. All of these
19. How many sounds are there in English language?
 - a. 44
 - b. 47
 - c. 41
 - d. 39
20. Rules to combined speech sounds to form the words are called as:
 - a. Syntax
 - b. Phonology
 - c. Morphology
 - d. None of these

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
ANATOMY & PHYSIOLOGY OF SPEECH & HEARING
PAPER - II

[Time allotted: Three hours]

[Max Marks: 75]

Note: Attempt all questions
 Draw suitable diagrams wherever necessary

(ANATOMY)

'A' : Long Question.

(15)

Q. 1. Draw a well labeled diagram of internal ear. Write development of internal ear.

(05+10)

OR

Write the development of tongue with congenital anomalies. Enumerate the name of its extrinsic and intrinsic muscles. Write its nerve supply.

(7+4+4=15)

'B': Short Notes. (Attempt all questions)

(05 x 2)

Q. 2. Write the development of auricle, external auditory meatus and tympanic membrane.

Q. 3. Draw a well labeled diagram of lateral wall of nose showing openings of paranasal air sinuses.

'C' : Answer in Brief. (Attempt all questions)

(05 x 2)

Q. 4. Describe the Systemic circulation.

Q. 5. Describe the Auditory pathway.

(PHYSIOLOGY)

'A' : Long Question.

(15)

Q. 6. Describe the mechanism of hearing by human ear with reference to role of external, middle and inner ear.

OR

Give an account of different theories of hearing.

'B': Short Notes. (Attempt all questions)

(05 x 2)

Q. 7. Electrical potentials of cochlea.

Q. 8. Vestibular apparatus and its functions.

C' : Answer in Brief.

(05)

Q. 9. Write briefly on Action Potential of a neuron.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
ANATOMY & PHYSIOLOGY OF SPEECH & HEARING
PAPER - II (MCQs)

Time allotted for MCQs – 15 minutes

'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it.**(20 x ½ =10 Marks)****Anatomy**

1. Smooth muscle present in:
 - a. Wall of heart
 - b. Wall of gastrointestinal tract
 - c. Body wall
 - d. Tongue
2. Sensory organ for touch sensation is:
 - a. Ear
 - b. Skin
 - c. Nose
 - d. Tongue
3. Pinna is an example of:
 - a. Hyaline cartilage
 - b. Fibrocartilage
 - c. Elastic cartilage
 - d. Bone
4. Cricoid cartilage is part of:
 - a. Skull
 - b. Larynx
 - c. Nose
 - d. Ear
5. Most movable joint is:
 - a. Fibrous joint
 - b. Cartilaginous joint
 - c. Synovial joint
 - d. Syndesmosis
6. Peripheral nervous system includes:
 - a. 12 pairs of cranial nerves
 - b. 31 pairs of spinal nerves
 - c. 31 pairs of cranial nerves & 12 pairs of spinal nerves
 - d. 12 pairs of cranial nerves & 31 pairs of spinal nerves
7. Vestibulocochlear nerve is:
 - a. 7th cranial nerve
 - b. 8th cranial nerve
 - c. 6th cranial nerve
 - d. 10th cranial nerve
8. Auditory tube connects:
 - a. External ear to middle ear
 - b. Internal ear to middle ear
 - c. Tympanic membrane to external ear
 - d. Nasopharynx to middle ear
9. Mastoid process is part of:
 - a. Temporal bone
 - b. Mandible
 - c. Frontal bone
 - d. Maxilla
10. Incudomalleolar joint is an example of:
 - a. Hinge joint
 - b. Ball & socket joint
 - c. Saddle joint
 - d. Pivot joint

Physiology

11. The part of the cell that monitors the steps of cell division is:
 - a. Ribosome
 - b. Centrosome
 - c. Mitochondria
 - d. Lysosome
12. Total volume of blood present in an adult human is around :
 - a. 3 litres
 - b. 5 litres
 - c. 8 litres
 - d. 10 litres
13. The function of eustachian tube is:
 - a. Transmission of sound
 - b. Amplification of sound
 - c. Equalization of pressure
 - d. Damping of sound
14. The action potential in motor nerve has the following phases **except**
 - a. Depolarization
 - b. Repolarization
 - c. Hyperpolarization
 - d. Plateau
15. Interruption of respiration during swallowing is called:
 - a. Deglutition apnoea
 - b. Sleep apnoea
 - c. Hyperpnoea
 - d. Dyspnoea
16. The muscle of middle ear is:
 - a. Malleus
 - b. Incus
 - c. Sternocleidomastoid
 - d. Tensor tympani
17. The form of transport that requires the expenditure of energy is:
 - a. Diffusion
 - b. Osmosis
 - c. Active transport
 - d. Facilitated diffusion
18. In the cochlea, the scala media and scala tympani are separated by:
 - a. Basilar membrane
 - b. Reissner's membrane
 - c. Tympanic membrane
 - d. Tectorial membrane
19. True about cochlear microphonic potential is:
 - a. It is potential difference between perilymph and endolymph
 - b. It is propagated action potential
 - c. It is non-propagated graded potential
 - d. It has latent period
20. The end organ in semicircular canals is:
 - a. Organ of Corti
 - b. Crista ampullaris
 - c. Macula
 - d. Hair cells

Regn. No.

Paper Code : B 1.3

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
CLINICAL PSYCHOLOGY
PAPER - III

[Time allotted: Three hours]

[Max Marks: 75]

Note: Attempt all questions
Draw suitable diagrams wherever necessary

'A' : Long Question. (Attempt any **two** questions from this Section) (15 x 2)

- Q. 1. Discuss the application of psychology in various fields.
- Q. 2. What are the various techniques to assess the personality?
- Q. 3. Explain briefly the cognitive theory of intelligence.

'B': Short Notes. (Attempt any **four** questions from this Section) (5 x 4)

- Q. 4. Describe developmental psychology and its scope.
- Q. 5. Explain the meaning of growth and development
- Q. 6. Write a note on motor development
- Q. 7. Describe cognitive development
- Q. 8. Define counselling and write the types of counselling.

'C' : Answer in Brief. (Attempt any **three** questions from this Section) (5 x 3)

- Q. 9. Classification of abnormal behavior
- Q. 10. Adoptive Functions
- Q. 11. Assessment of cognitive functions
- Q. 12. Difference between development, growth and maturation

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
CLINICAL PSYCHOLOGY
PAPER - III (MCQ)

Time allotted for MCQs – 15 minutes

'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it. (20 x ½ = 10 Marks)

1. A neural synapse for communication is located between:
 - a. Cell bodies of different neurons
 - b. Dendrites of different neurons
 - c. The cell body of one neuron and the dendrite of another neuron
 - d. None of the above
2. Which of these is a benefit of early childhood development?
 - a. Improved reading skills
 - b. Increased comfort and confidence at school
 - c. Higher IQs
 - d. All of the above
3. When does most of a child's brain development occur?
 - a. Ages 0 to 6 yrs
 - b. Ages 7 to 12 yrs
 - c. Ages 13 to 17 yrs
 - d. After 18 yrs
4. Which of these is most important in Early Childhood Development?
 - a. Playing with kids
 - b. Reading to kids
 - c. Teaching kids long division
 - d. Both the first and second option are correct
5. When should you start reading to your child?
 - a. At birth
 - b. At age 1
 - c. At age 4
 - d. At age 6
6. When do children start to learn the Hindi or English language?
 - a. As soon as they are born
 - b. Once they learn to talk
 - c. Once they have started school
 - d. Once they can read on their own
7. At what age to infants begin to cry if handled by a stranger?
 - a. 4 months
 - b. 2 months
 - c. 6 months
 - d. 9 months
8. In a child's speech development, which stage comes directly after gurgling?
 - a. Babbling
 - b. Cooing
 - c. Single word labels for familiar objects
 - d. Projective speech to describe present and past happenings
9. At what age can children usually drink from a normal cup using two hands?
 - a. 18 months
 - b. 12 months
 - c. 3 years
 - d. 5 years
10. What is the modal age for 'unaided' walking in infants?
 - a. 15 months
 - b. 18 months
 - c. 12 months
 - d. 09 months
11. At 6 months, babies should be able to (select the latest milestone):
 - a. Sit supported on a firm surface
 - b. Smiling, imitating and forming attachments
 - c. Locomotion, looking and reaching
 - d. None of the above
12. According to E. Gibson, the hallmarks of psychological development are:
 - a. Seeing, hearing and tasting
 - b. Smiling, imitating and forming attachments
 - c. Agency, prospectively, flexibility, and means/ends problem solving
 - d. Cooing, babbling and talking
13. Typically, infants master action systems in which order:
 - a. Locomotion, looking and reaching
 - b. Reaching, locomotion and looking
 - c. Reaching, looking and locomotion
 - d. Looking, reaching and locomotion
14. Psychology is a _____.
 - a. Natural science
 - b. Physical science
 - c. Biological science
 - d. Social science
15. Clinical Psychology deals with the practical aspect of _____.
 - a. Abnormal psychology
 - b. Educational psychology
 - c. Child psychology
 - d. Experimental psychology
16. Developmental Psychology studies _____.
 - a. Personality
 - b. Motivation
 - c. Intelligence
 - d. Various stages of development of man
17. Sigmund Freud is regarded as the father of _____ in psychology.
 - a. Gestalt school
 - b. Behaviouristic school
 - c. Functionalistic school
 - d. Psychoanalytic school
18. According J.B. Watson, 'Psychology is a Science of _____.'
 - a. Soul
 - b. Mind
 - c. Behaviour
 - d. Brain
19. When a six year old child performs the tests of a three year old child only, he is said to be:
 - a. Intelligent
 - b. Highly intelligent
 - c. Dull or idiot
 - d. None of the above
20. Mental age (MA) reaches its maximum limit by about the age of:
 - a. 16
 - b. 17
 - c. 14
 - d. 20

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
LINGUISTICS & PHONETICS
PAPER - IV

[Time allotted: Three hours]

[Max Marks: 75]

Note: Attempt all questions
Draw suitable diagrams wherever necessary

'A' : Long Question.**(15 x 2)**

Q. 1. Discuss the pathological aspects of speech sound production.

OR

Discuss the phonological processes in children.

Q. 2. What are the different methods of syntactic analysis?

OR

How does the child acquire syntax, semantics & pragmatics? Explain the developmental process.

'B' : Short Notes. (Attempt all questions)**(5 x 4)**

Q. 3. What is the relationship between language and cognition?

Q. 4. Define inter-language theory.

Q. 5. Deep structure versus surface structure.

Q. 6. Langue versus parole.

'C' : Answer in Brief. (Attempt all questions)**(5 x 3)**

Q. 7. Draw flow chart of language acquisition.

Q. 8. Draw phrase syntactic structure tree.

Q. 9. Write your name in IPA format.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
LINGUISTICS & PHONETICS
PAPER - IV(MCQ)

Time allotted for MCQs – 15 minutes

‘D’ : MCQs : Select the most appropriate answer and encircle the alphabet against it. (20 x ½ = 10 Marks)

1. Nature of the human language is most commonly known as:
 - a. Arbitrariness
 - b. Duality
 - c. Productivity
 - d. Redundancy
2. What is meant by the statement that there is no obvious connection between the signal & the message?
 - a. Arbitrariness
 - b. Productivity
 - c. Displacement
 - d. None of these
3. What does the term Parole signify?
 - a. Collective fact of language
 - b. Form of language
 - c. Act of speaking on individual basis
 - d. Consists of convention, rule & codes
4. IPA stands for:
 - a. Indian Phonetic Alphabet
 - b. Italian Phonetic Alphabet
 - c. International Phonetic Alphabet
 - d. All of these
5. When the velum is raised, it produces:
 - a. Oral sounds
 - b. Nasal sounds
 - c. Both a and b
 - d. None of these
6. The term ‘peak’ is used in the description of:
 - a. Passive articulators
 - b. Active articulators
 - c. The nucleus comprising a vowel/diphthong
 - d. A consonant
7. Which word does the sequence CCVCVCCCC (comprised of vowel & consonant elements) represent?
 - a. Straighten
 - b. Pretexts
 - c. Characteristics
 - d. Blasts
8. Sounds formed at the teeth ridge are called:
 - a. Alveolar
 - b. Labiodental
 - c. Dental
 - d. Bilabial
9. Fricatives are sounds:
 - a. When the vocal cords are vibrating
 - b. When the soft palate is lowered
 - c. When there is no obstruction of the air passage
 - d. When the air passing through active & passive articulators produces audible friction
10. Which of the following factors has no importance in the production of vowel sounds?
 - a. Height of tongue
 - b. Tongue advancement (front, central, back)
 - c. Shape of the lips (rounded or unrounded)
 - d. None of the above
11. “A vowel that does not change its quality” is called as:
 - a. Pure vowel
 - b. Diphthongs
 - c. Both
 - d. None of these
12. The most basic element in the sound-system of a language is:
 - a. Stress
 - b. Intonation
 - c. Phonemes
 - d. None of the above
13. Which of the following element is not a part of suprasegmentals:
 - a. Phonemes
 - b. Stress
 - c. Juncture
 - d. Intonation
14. Pure vowel is also called as:
 - a. Diphthongs
 - b. Monophthongs
 - c. Both
 - d. None of these
15. Diphthongs are also called as:
 - a. Vowel glides
 - b. Glides
 - c. Pure vowel
 - d. All of these
16. Which of these is not a level of language?
 - a. Phonology
 - b. Grammar
 - c. Running
 - d. Semantics
17. Which of the term refers to the study of speech sounds of a given language and their function within the sound system of that language?
 - a. Phonetics
 - b. Phonology
 - c. Syntax
 - d. Morphology
18. Which of these is the study of meaning of words, and the development of the meaning of words?
 - a. Morpheme
 - b. Phonetics
 - c. Semantics
 - d. Syntax
19. The view that speech is genetically programmed was held by:
 - a. Chomsky
 - b. Bloomfield
 - c. Sassure
 - d. Hockett
20. Study of problems and principles of the use of language in social interaction is called as:
 - a. Syntax
 - b. Semantics
 - c. Phonology
 - d. Pragmatics

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
ELECTRONICS & ACOUSTICS
PAPER - V

[Time allotted: Three hours]

[Max Marks: 75]

Note: Attempt all questions
 Draw suitable diagrams wherever necessary

(ELECTRONICS)

(15)

‘A’ : Long Question.

Q. 1. Draw and explain the block diagram of analog to digital conversion.

OR

Q. 2. With neat sketches explain the mechanism of auditory transduction in detail.

(05 x 2)

‘B’ : Short Notes. (Attempt all questions)

Q. 3. Op-Amp.

Q. 4. Unit step signal and Unit impulse signal.

(05 x 2)

‘C’ : Answer in Brief. (Attempt all questions)

Q. 5. State and explain the various units used for the measurement of sound.

Q. 6. Write about uninterruptible power supply.

(ACOUSTICS)

(15)

‘A’ : Long Question.

Q. 7. What is amplitude? Discuss about Fast Fourier transformation.

OR

Q. 8. What is Frequency? Discuss the different types of loudspeaker.

(05 x 2)

‘B’ : Short Notes. (Attempt all questions)

Q. 9. Explain the basic concept of vibration and its types?

Q. 10. What is rarefaction?

(05)

C’ : Answer in Brief. (Attempt all questions)

Q. 11. Draw a block diagram of different types of microphones.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
ELECTRONICS & ACOUSTICS
PAPER - V (MCQ)

Time allotted for MCQs – 15 minutes

'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it.**(20 x ½ = 10 Marks)****Electronics**

1. A filter is used to remove _____ of signal.
 - a. Wanted part
 - b. Unwanted part
 - c. Both a and b
 - d. None
2. A digital filter uses:
 - a. Analog processor
 - b. Mechanical processor
 - c. Digital processor
 - d. All of the above
3. Correct sequence of analog to digital conversion of signal is:
 - a. Sampling, quantization, coding
 - b. Coding, quantization, sampling
 - c. Quantization, sampling, coding
 - d. Sampling, coding, quantization
4. The human ear can distinguish _____ different sounds.
 - a. 4,000
 - b. 40,000
 - c. 4,00,000
 - d. 40,00,000
5. The human ear responds to vibrations ranging from _____.
 - a. 2 to 2000 Hz
 - b. 20 to 20,000 Hz
 - c. 2 to 20,000 Hz
 - d. 20 to 2000 Hz
6. The transmission of sound through the external and middle ear to the internal ear is known as _____.
 - a. Air conduction
 - b. Bone conduction
 - c. Both a and b
 - d. None of the above
7. Which of the following device belongs to Thyristor family?
 - a. Uni-junction transistor
 - b. Silicon controlled rectifier
 - c. Metal oxide semiconductor field effect transistor
 - d. All of the above
8. Which of the following devices are called as unilateral device?
 - a. JFET
 - b. MOSFET
 - c. PN Diode
 - d. BJT
9. Which of the following PN Diode parameters is sensitive to temperature?
 - a. Reverse saturation current
 - b. Diffusion capacitance
 - c. Transition capacitance
 - d. All of the above
10. Which of the following is a DC-DC converter?
 - a. Rectifier
 - b. Filter
 - c. Buck converter
 - d. None of the above

Acoustics

11. The relationship between frequency and time is :
 - a. $f = 1/p$
 - b. $f = p/1$
 - c. $f = p/s$
 - d. None of the above
12. The oscillation of a simple pendulum is an example of:
 - a. Free vibration
 - b. Undamped vibration
 - c. Forced vibration
 - d. None of the above
13. Direction of movement at a given angle in the vibration cycle is:
 - a. Waves
 - b. Frequency
 - c. Phase
 - d. Amplitude
14. Huygens's geometry says:
 - a. The reflected sound waves, where both the incidence and reflection angle are equal
 - b. The reflected sound waves, where both the incidence and reflection angle are not equal
 - c. The reflected sound waves, where both the incidence and reflection angle are equally diffracted
 - d. None of these
15. Loudness is :
 - a. Psychological sensation
 - b. Physiological sensation
 - c. Sensory phenomenon
 - d. None of the above
16. Digital signal processing technique to analyze a waveform is:
 - a. Waves transformation
 - b. FFT
 - c. Signal analyzer
 - d. None of the above
17. A ray of light hitting the surface, is called the:
 - a. Reflected ray
 - b. Incident ray
 - c. Angle of incidence
 - d. Angle of reflection
18. The reverberation times in an audiology room should be no greater than:
 - a. 0.20 sec
 - b. 0.25 sec
 - c. 0.30sec
 - d. 0.15sec
19. A single acoustic wall is usually capable of achieving sound reduction of:
 - a. 40-45dB
 - b. 45-50dB
 - c. 50-55dB
 - d. All of the above
20. Sound waves interacting with the material or object surface is:
 - a. Reflection
 - b. Refraction
 - c. Diffraction
 - d. Absorption

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
RESEARCH METHODS & STATISTICS
PAPER - VI

[Time allotted: Three hours]

[Max Marks: 75]

Note: Attempt all questions

Draw suitable diagrams wherever necessary

'A': Long Question.

(15 x 2)

- Q. 1.** What is meant by Likert type scale? Discuss its importance as a measurement scale in research. Describe the different type of levels of measurement; furnish it with suitable example on variables.

OR

What do you understand by variability of a set of values? Write its uses and the name of different measures of variability/dispersion.

Find the mean, median and standard deviation of incubation period of 10 polio cases given below:

17, 20, 18, 24, 16, 19, 21, 22, 23, 20

- Q. 2.** What is ANOVA test? Explain its significance in statistical analysis.

Systolic blood pressure of 10 hypertensive patients were:

183	179	165	190	175	180	155	182	170	159
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

After administration of particular drug for one week the B.Ps were

187	175	150	180	180	170	150	179	165	158
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Could such difference arise due to chance? Test value at 5% level of significance with 9 degree of freedom is 2.26.

OR

What is correlation and rank correlation? Write a comparison of the Pearson and Spearman correlation methods.

Ten students got the following percentage of marks in anatomy and physiology:

Marks in Anatomy	78	45	36	78	62	90	65	75	39	41
Marks in Physiology	84	55	50	60	82	86	58	60	47	51

Find rank correlation coefficients.

'B': Short Notes. (Attempt all questions)

(5 x 4)

- Q. 3.** Mathematical average and for what purposes these averages are utilized?

- Q. 4.** Diagrammatic representation of Quantitative Data.

- Q. 5.** What is meaning and purpose of Research in your Subject?

- Q. 6.** Write a note on skewness and kurtosis. Explain the purpose and different formulae for measuring it.

'C': Answer in Brief. (Attempt all questions)

(5 x 3)

- Q. 7.** Give your understanding of non-parametric or distribution free methods explaining their important characteristics.

- Q. 8.** Explain statistical significance of the difference in mean values between two or more populations and write all appropriate tests in it.

- Q. 9.** What do you understand by sampling methods?

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY
FIRST SEMESTER EXAMINATION, FEBRUARY - 2019
RESEARCH METHODS & STATISTICS
PAPER - VI (MCQ)

Time allotted for MCQs – 15 minutes

(20 x ½ = 10 Marks)

'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it.

1. The standard error increases when sample size is:
 - a. Increase
 - b. Decrease
 - c. Fixed
 - d. More than 30
2. Sample is a sub-set of:
 - a. Population
 - b. Data
 - c. Set
 - d. Distribution
3. Whenever using the t distribution in estimation, we must assume that:
 - a. The sample size is at least 30 and normal distributed
 - b. The sample size is more than 30 and normal distributed
 - c. The sample size is less than 30 and normal distributed
 - d. The sample size is more than 30 and not normal distributed
4. Which kind of graph is best used to show continuity in data?
 - a. Bar graph
 - b. Pie chart
 - c. Line graph
 - d. pictograph
5. The calculation of mean and variance is based on:
 - a. Small values only
 - b. Large values only
 - c. Extreme values only
 - d. All values
6. When data is given in form of pre & post, what condition should be used?
 - a. T-test for single mean
 - b. T-test for different mean
 - c. Paired t-test
 - d. None of the above
7. Which of the following values is **not** typically used for α ?
 - a. 0.01
 - b. 0.05
 - c. 0.10
 - d. 0.25
8. Which of the following correlation values indicates the strongest linear relationship between two quantitative variables?
 - a. $r = -0.65$
 - b. $r = 0.00$
 - c. $r = 0.11$
 - d. $r = 0.95$
9. Non-parametric tests include:
 - a. ANOVA
 - b. Student's t-test
 - c. Chi-square test
 - d. Wilcoxon signed rank test
10. Correlation coefficient ranges from:
 - a. 0.01 to 0.05
 - b. 0 to 1
 - c. -1 to +1
 - d. -3 to +3
11. Convenience sampling is an example of:
 - a. Probabilistic sampling
 - b. Stratified sampling
 - c. Non probabilistic sampling
 - d. Cluster sampling
12. The standard deviation of any sampling distribution is called:
 - a. Standard error
 - b. Non-sampling error
 - c. Type I error
 - d. Type II error
13. The data collected directly by the investigator or his/her team is called:
 - a. Secondary data
 - b. Primary data
 - c. Population data
 - d. Sample data
14. The front row in a movie theatre has 23 seats. If you were asked to sit in the seat that occupied the median position, in which seat would you have to sit?
 - a. 1
 - b. 11
 - c. 23
 - d. 12
15. The height of a student is 60 inches. This is an example of?
 - a. Qualitative data
 - b. Categorical data
 - c. Continuous data
 - d. Discrete data
16. Find the median of the following data: 160, 180, 200, 280, 300, 320, 400 :
 - a. 140
 - b. 300
 - c. 180
 - d. 280
17. Power of test occurs when:
 - a. The null hypothesis do not reject when it is false
 - b. The null hypothesis is rejected when it is true
 - c. The null hypothesis do not reject when it is true
 - d. The test is biased
18. The alternative hypothesis is also known as the:
 - a. Elective hypothesis
 - b. Optional hypothesis
 - c. Research hypothesis
 - d. Null hypothesis
19. Correlation is often assessed by eye, which type of plot is usually used for this purpose?
 - a. Histogram
 - b. Bar chart
 - c. Boxplot
 - d. Scatter plot
20. Which of the following is a qualitative variable?
 - a. Annual salary
 - b. Weight
 - c. Number of sibling
 - d. Eye color

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)
FIRST SEMESTER EXAMINATION, FEBRUARY, 2020
COMMUNICATION SCIENCES
PAPER - I

[Time allotted: Three hours]

[Max Marks: 75]

Note: Attempt all questions
 Draw suitable diagrams wherever necessary

'A' : Long Questions.

(2 x 15 = 30)

Q. 1. Explain MAP & MAF along with missing 6 dB effects.

OR

What is reference equivalent threshold sound pressure level and hearing level?

Q. 2. How is speech an overlaid function?

OR

Discuss the acoustic theory of speech production.

'B': Short Notes. Attempt all questions

(4 x 5 = 20)

Q. 3. Explain any two methods to measure Minimum Audible Level.

Q. 4. How do cultural and linguistic issues play a major role in communication?

Q. 5. Define speech chain. Justify, how communication is two way process.

Q. 6. Discuss the scope in the field of Audiology & branches of audiology.

'C' : Answer in Brief. Attempt all questions

(3 x 5 = 15)

Q. 7. Draw the stair case method for measuring minimum hearing level.

Q. 8. Draw a neat diagram of components of language.

Q. 9. Draw a neat diagram of anterior and posterior view of larynx.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)
FIRST SEMESTER EXAMINATION, FEBRUARY, 2020
COMMUNICATION SCIENCES
PAPER - I (MCQs)

Time allotted for MCQs – 15 minutes

'D' : MCQs :

Select the most appropriate answer and encircle the alphabet against it.

(20 x 0.5 = 10)

1. Sound 7 Hz is considered as:
 - a. Low frequency
 - b. Infrasonic
 - c. Ultrasonic waves
 - d. None of the above
2. What is the speech conversational level?
 - a. 25-35 db
 - b. 35-45 db
 - c. 45-55 db
 - d. All of these
3. The term minimum audible pressure was first used by:
 - a. Rose and Wilson (1993)
 - b. Silverman (1933)
 - c. Sivian & White (1933)
 - d. Sivian & White (1993)
4. Monaural hearing can be applied:
 - a. MAP
 - b. MAF
 - c. Via loudspeaker
 - d. Via headphones
5. The human range is commonly given as:
 - a. 200 Hz - 20,000 Hz
 - b. 20 Hz - 20,000 Hz
 - c. 20 Hz - 20,0000 Hz
 - d. None of the above
6. Ascending and descending trail are typically used in:
 - a. Method of limits
 - b. Methods of adjustment
 - c. Methods of stimuli
 - d. PTA
7. Two important characteristics of sound or noise are:
 - a. Frequency and loudness
 - b. Pressure and amplitude
 - c. Loudness and pitch
 - d. All of the above
8. The intensity of a sound is related to the amount of energy in the:
 - a. Sound source
 - b. Sound waves
 - c. Closed set area
 - d. Different medium
9. A sound measuring 40 db on the decibels sound scale would be:
 - a. 10 the power 2
 - b. 10 the power 4
 - c. 10 the power 1
 - d. 10 the power 0
10. The vocal tract consists of the following anatomical constituents:
 - a. The pharyngeal cavities
 - b. The pharyngeal cavities, oral and nasal cavities, which may be differentially coupled
 - c. The pharyngeal cavities
 - d. The pharyngeal cavities and nasal cavities
11. The oral cavity is composed of:
 - a. The vestibule and oral cavity proper
 - b. Only the oral cavity proper
 - c. The area between the dental arches back to the posterior pharyngeal wall
 - d. None of the above
12. Speech and language control are usually dominated by:
 - a. Right hemisphere
 - b. Left hemisphere
 - c. Both right and left hemisphere
 - d. None of the above
13. The Central Nervous System consists of:
 - a. The nerves innervating the lungs, heart and digestive system
 - b. Only the basal ganglia, in the center of the brain, which control speech production
 - c. The brain and spinal cord
 - d. The fifth, seventh and eight cranial nerves

14. The soft palate (or velum) consists of how many pairs of muscles:
- Two
 - Five
 - Eight
 - None of the above
15. Sound intensity is normally measured as:
- N/m^2 or Pascal's
 - N/m^2
 - Pascal's
 - None of these
16. A smaller logarithmic scale as *decibels* as a ratio of a reference intensity:
- $(2 \times 10^{-2} \text{ N/m}^2)$
 - $(2 \times 10^{-3} \text{ N/m}^2)$
 - $(2 \times 10^{-5} \text{ N/m}^2)$
 - $(2 \times 10^{-10} \text{ N/m}^2)$
17. What is absolute threshold?
- 10 to 15 db
 - 5 to -10 db
 - 10 to 0 db
 - 0 db
18. Several sounds in close succession are the direct sound and its echoes called:
- Localization
 - Pinna effect
 - Precedence effect
 - All of these
19. The central focus of the profession of audiology is concerned with:
- All auditory impairment and their relationship to disorder of communication
 - All auditory impairment and their relationship to disorders of speech
 - All auditory impairment and their relationship to disorders of vestibule
 - None of the above
20. A sound measuring 40 db on the decibels sound scale would be:
- 10 the power 4 times greater than the threshold of hearing
 - 10 the power 2 times greater than the threshold of hearing
 - 10 the power 5 times greater than the threshold of hearing
 - 10 the power 0 times greater than the threshold of hearing

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY - 2020****ANATOMY & PHYSIOLOGY OF SPEECH & HEARING****PAPER - II****[Time allotted: Three hours]****[Max Marks: 75]****Note:** Attempt all questions. Draw suitable diagrams wherever necessary.**(ANATOMY)****'A' : Long Question.** Answer any one question.**(1 x 15 = 15 marks)****Q. 1.** Write development of the internal ear.**OR**

Write development of tongue.

'B' : Short Notes. Attempt all questions.**(2 x 5 = 10 marks)****Q. 2.** Draw a well labeled diagram showing arterial supply of nasal septum.**Q. 3.** Draw a well labeled diagram of lateral wall of nose showing openings of paranasal air sinuses.**'C' : Answer in Brief.** Attempt all questions.**(2 x 5 = 10 marks)****Q. 4.** Write the systemic circulation.**Q. 5.** Write the anatomy of central auditory pathway.**(PHYSIOLOGY)****'A' : Long Question.** Answer any one question.**(1 x 15 = 15 marks)****Q. 6.** How are sound waves transmitted in ear? Explain the process of sensory transduction of auditory stimuli in cochlea. Explain the mechanisms by which frequency and direction of auditory stimuli is perceived.**(3+4+8)****OR**

What are the phases of normal speech production? Discuss the mechanisms by which frequency and amplitude of voice is controlled. Add a note on the source-filter theory. (2+8+5)

'B' : Short Notes. Attempt all questions.**(2 x 5 = 10 marks)****Q. 7.** Neuromuscular junction**Q. 8.** Clavicular breathing**'C' : Answer in Brief.** Attempt all questions.**(1 x 5 = 5 marks)****Q. 9.** Explain the function of Wernicke's area and Broca's area.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY, 2020****ANATOMY & PHYSIOLOGY OF SPEECH & HEARING****PAPER - II (MCQ)****Time allotted for MCQs : 20 minutes****'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it. (20 x 0.5 = 10 marks)****ANATOMY**

1. Largest air sinus is:
 - a. Frontal air sinus
 - b. Maxillary air sinus
 - c. Ethmoid air sinus
 - d. Sphenoid air sinus
2. Sensory organ for hearing is:
 - a. Ear
 - b. Skin
 - c. Nose
 - d. Tongue
3. Epiglottis is part of:
 - a. Tongue
 - b. Larynx
 - c. Ear
 - d. Nose
4. Vertebral level of cricoid cartilage is:
 - a. Fourth cervical vertebra
 - b. Fifth cervical vertebra
 - c. Sixth cervical vertebra
 - d. Seventh cervical vertebra
5. Ellipsoid variety of synovial joint is:
 - a. Wrist joint
 - b. Elbow joint
 - c. Hip joint
 - d. Ankle joint
6. Peripheral nervous system includes:
 - a. 12 pairs of cranial nerves
 - b. 31 pairs of spinal nerves
 - c. 31 pairs of cranial nerves & 12 pairs of spinal nerves
 - d. 12 pairs of cranial nerves & 31 pairs of spinal nerves
7. Vestibulocochlear nerve is:
 - a. 7th cranial nerve
 - b. 8th cranial nerve
 - c. 6th cranial nerve
 - d. 10th cranial nerve
8. 10th cranial nerve is:
 - a. Vagus
 - b. Hypoglossal
 - c. Trigeminal
 - d. Facial
9. Lower jaw is formed by:
 - a. Temporal bone
 - b. Mandible
 - c. Frontal bone
 - d. Maxilla
10. Ear ossicles lies in:
 - a. Internal ear
 - b. Middle ear
 - c. External ear
 - d. Eustachian tube

PHYSIOLOGY

11. The power house of cell is:
 - a. Nucleus
 - b. Mitochondria
 - c. Lysosome
 - d. Ribosome
12. The number of sodium channels in a myelinated mammalian neuron is maximum at:
 - a. Cell body
 - b. Nodes of Ranvier
 - c. Initial segment
 - d. Dendritic zone
13. Depolarization phase in a nerve action potential occurs due to:
 - a. Sodium influx
 - b. Calcium efflux
 - c. Chloride influx
 - d. Potassium efflux
14. Wallerian degeneration occurs following nerve injury in:
 - a. Proximal stump
 - b. Distal cut-end
 - c. Cell body of the neuron (Soma)
 - d. Dendrites
15. Highest conduction velocity is found in which nerve fibre?
 - a. C
 - b. A α
 - c. B
 - d. A δ
16. Thick filaments in muscle are composed of:
 - a. Myosin
 - b. Actin
 - c. Troponin
 - d. Titin
17. In isometric contraction of muscle:
 - a. Tension in the muscle remains constant
 - b. Length of the muscle remains constant
 - c. Length of the muscle changes
 - d. Tone of the muscle remains constant
18. Utricle in the inner ear responds to:
 - a. Horizontal acceleration
 - b. Vertical acceleration
 - c. Rotational acceleration
 - d. Angular acceleration
19. Deglutition apnoea occurs during:
 - a. Normal expiration
 - b. Pharyngeal phase of swallowing
 - c. Oral phase of swallowing
 - d. Forced breathing
20. The number of inner hair cells in one ear is:
 - a. 12000
 - b. 3500
 - c. 50
 - d. 1

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY - 2020****CLINICAL PSYCHOLOGY****PAPER - III****[Time allotted: Three hours]****[Max Marks: 75]****Note:** Attempt all questions. Draw suitable diagrams wherever necessary.**'A' : Long Question.** Attempt any two questions.**(2 x 15 = 30 marks)**

- Q. 1.** How does Freud explain the personality?
- Q. 2.** Define 'Psychology' and discuss its scope.
- Q. 3.** How would you characterize and define intelligence?

'B': Write Short Notes. Attempt any four of the following.**(4 x 5 = 20 marks)**

- Q. 4.** Meaning of growth and development
- Q. 5.** Motor development
- Q. 6.** Skill behavior techniques
- Q. 7.** Problem behavior techniques
- Q. 8.** Models of mental disorders

'C' : Answer in Brief. Attempt any three questions.**(3 x 5 = 15 marks)**

- Q. 9.** Classification of abnormal behavior
- Q. 10.** Adoptive functions
- Q. 11.** Characteristics of a good counsellor
- Q. 12.** Gross motor development

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY, 2020****CLINICAL PSYCHOLOGY****PAPER – III (MCQ)****Time allotted for MCQs : 20 minutes****'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it. (20 x 0.5 = 10 marks)**

1. Which of these is a benefit of early childhood development?
 - a. Improved reading skills
 - b. Increased comfort and confidence at school
 - c. Higher IQs
 - d. All of the above
2. When should you start reading to your child?
 - a. At birth
 - b. At age 1
 - c. At age 4
 - d. At age 6
3. In a child's speech development, which stage comes directly after gurgling?
 - a. Babbling
 - b. Cooin
 - c. Single word labels for familiar objects
 - d. Projective speech to describe present and past happenings
4. According to E. Gibson, the hallmarks of psychological development are:
 - a. Seeing, hearing and tasting
 - b. Smiling, imitating and forming attachments
 - c. Agency, prospectively, flexibility, & means/ends problem solving
 - d. Cooin, babbling and talking
5. Developmental psychology studies _____.
 - a. Personality
 - b. Motivation
 - c. Intelligence
 - d. Various stages of development of man
6. Mental age (MA) reaches its maximum limit by about the age of:
 - a. 16
 - b. 17
 - c. 14
 - d. 20
7. The motor reflex lies in the _____ lobe.
 - a. Frontal
 - b. Parietal
 - c. Temporal
 - d. Occipital
8. The right hemisphere of the cerebral cortex is usually relatively more involved with:
 - a. Understanding syntax
 - b. Face recognition
 - c. Problem solving
 - d. Associating written words with their sounds
9. Research on cerebral lateralization suggests that the right hemisphere plays a vital role in:
 - a. Visual-spatial tasks
 - b. Music
 - c. Face recognition
 - d. All of the above
10. "Delusion" refer to:
 - a. Thoughts or beliefs that have no basis in reality
 - b. Feelings that have no basis in reality
 - c. Behaviors that have no basis in reality
 - d. None of these
11. When behaviors lack a sense of thought and logic and gradually move from acting upon inherited reflexes to interacting with the environment with a goal in mind and being able to represent the external world at the end, this is called:
 - a. Sensorimotor stage
 - b. Pre-operational stage
 - c. Concrete operational stage
 - d. None of these
12. Behavior directed towards gaining a reward or avoiding a punishment are, is called:
 - a. Associative learning
 - b. Instrumental learning
 - c. Reinforcement
 - d. None of the above
13. Toddlers are skilled at using single words to name objects, to let others know what they want, and to express emotions. One word, in essence, does the work of a whole sentence. These single-word sentences are called:
 - a. Referential speech
 - b. Holo-phrases
 - c. Grammatical morphemes
 - d. Telegraphic speech
14. Two significant developmental events occur at about age two. What are the two significant events?
 - a. Symbolic representation and mental symbols
 - b. Vocabulary development and motor development
 - c. Symbolic representation and vocabulary development
 - d. Walking and talking

-P.T.O.-

15. Which of the following is an essential element of an enriched environment for young children?

- a. Enables children to learn the basic language and cognitive skills necessary for future school success
- b. Enables children to be actively involved
- c. Provides for children's nutritional and health needs
- d. All of the above

16. Which of the following concepts should be included in curriculum planning for infants and toddlers?

- a. Autonomy and independence
- b. Self-help skills
- c. Problem solving
- d. All of the above

17. Which of the following statements is **not** true about appropriate environments for infants?

- a. Infants need adults who can tolerate and allow for their emerging autonomy and independence
- b. Infants need adults who can respond to their particular needs and developmental characteristics
- c. Infants need especially nurturing professionals
- d. Infants need stimulating interactions and conversations

18. Which of these is **not** an important aspect of development?

- a. What abilities do children develop?
- b. How do children develop?
- c. When do children develop an ability?
- d. All of the above are important aspects of development.

19. Which of these is **not** an enduring theme in child development?

- a. The active child
- b. Individual differences in development
- c. Parenting
- d. Nature and nurture

20. A child's genotype is most influenced by:

- a. Parent's genotype
- b. Child's phenotype
- c. Parent's phenotype
- d. Child's environment

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY - 2020****LINGUISTICS & PHONETICS****PAPER - IV****[Time allotted: Three hours]****[Max Marks: 75]****Note:** Attempt all questions. Draw suitable diagrams wherever necessary.**'A' : Long Question.** Attempt any two questions.**(2 x 15 = 30 marks)****Q. 1.** How does Freud explain the personality?**Q. 2.** What is distinctive feature theory? Discuss its application to speech pathology.**OR**

Discuss the different methods of syntactic analysis. Write about semantic feature theory.

Q. 3. Discuss the models of language acquisition.**OR**

How does first language acquisition differ from second language acquisition?

'B' : Short Notes. Attempt all questions.**(4 x 5 = 20 marks)****Q. 4.** What is the difference between animal communication system and human language?**Q. 5.** Define allomorph with suitable example.**Q. 6.** Write about Bilingualism.**Q. 7.** What is the importance of syntactic analysis in planning speech and language therapy?**'C' : Answer in Brief.** Attempt all questions.**(3 x 5 = 15 marks)****Q. 8.** Draw a neat diagram of cardinal vowel.**Q. 9.** "The child found the puppy" draw the syntactic structure tree.**Q. 10.** Draw a neat diagram explaining language acquisition device.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY, 2020****LINGUISTICS & PHONETICS****PAPER - IV (MCQ)****Time allotted for MCQs: 20 minutes****'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it. (20 x 0.5 = 10 marks)**

1. The 'Use theory of meaning' was proposed by:
 - a. Saussure
 - b. Bloomfield
 - c. Dr. Johnson
 - d. Wittgenstein
2. The way in which air passes through an oral constriction to produce a particular sound is known as:
 - a. Manner of articulation
 - b. Place of articulation
 - c. Voicing
 - d. Tongue height
3. Sound made with the tongue and soft palate would be a:
 - a. Lingua-alveolar
 - b. Lingua-palata
 - c. Labio-palatal
 - d. Lingua-velar
4. On what characteristics do vowels and consonants primarily differ?
 - a. Tongue placement
 - b. Air constriction
 - c. Voicing
 - d. Amount of air flow
5. Who would most likely administer a comprehensive phonological assessment?
 - a. Parent
 - b. Teacher
 - c. Reading specialist
 - d. Speech-language pathologist
6. Duration of vowels is influenced by which factor?
 - a. Nature of vowel itself
 - b. Position of vowel in a syllable/ word
 - c. Influence of neighboring sound
 - d. All of above
7. Which of the following is **not** passive articulator?
 - a. Teeth
 - b. Alveolar ridge
 - c. Lips
 - d. Palate
8. Communicative competence requires that speaker be aware of which two aspects of their language?
 - a. Linguistic & syntactic
 - b. Linguistic & pragmatic
 - c. Semantic & syntactic
 - d. Pragmatic & semantic
9. Which of these is **not** a linguistic aspect of communicative competence?
 - a. Phonological
 - b. Lexical
 - c. Discourse
 - d. Interactional
10. Normal phonological deviation that children make when producing sounds and words are referred to as:
 - a. Phonological processes
 - b. Speech errors
 - c. Jargon
 - d. Phonotactics
11. The suffix /ing/ is an example of a (an):
 - a. Phoneme
 - b. Auxillary verb
 - c. Morpheme
 - d. Pronoun
12. Which of the following is **not** a rule of language?
 - a. Morphology
 - b. Pragmatic
 - c. Syntax
 - d. Lexicalization
13. At which point does hearing develop?
 - a. Three weeks after birth
 - b. 6 months after conception
 - c. At 1 week after birth
 - d. At 9 weeks after conception
14. Which of the following point reflect child-directed speech?
 - a. It is demonstrated by parents, non-parents and even other children
 - b. It has a higher pitch than other conversation
 - c. It simplify language
 - d. All of the above

-P.T.O.-

15. What do infants start to use between 8-12 months after birth?
- Gestures
 - Pragmatics
 - Semantics
 - Conjunctions
16. When does language production begin to develop?
- After telegraphic speech
 - After 2 years
 - After 3 years
 - After comprehension
17. What do children begin to use around their second year of life?
- Two-word phrases
 - Sentence
 - Single word for object name
 - None of the above
18. Child use prosodic and phonotactic cues to.....:
- Maintain joint attention
 - Pronounce difficult words
 - Articulate speech sounds
 - Parse speech streams
19.allow the grammatical inflection of words and are used to change the syntactic class of words.
- Phonemes
 - Morphemes
 - Graphemes
 - Allophones
20. On what characteristics do vowel and consonants primarily differ?
- Tongue placement
 - Air construction
 - Voicing
 - Amount of air flow

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY - 2020****ELECTRONICS & ACOUSTICS****PAPER - V****[Time allotted: Three hours]****[Max Marks: 75]****Note:** Attempt all questions. Draw suitable diagrams wherever necessary.**(ELECTRONICS)****'A' : Long Question.** Answer any one question.**(1 x 15 = 15 marks)****Q. 1.** Explain the working principle of PN junction diode and its characteristics.**OR**

Explain the automatic speech recognition and speech synthesis.

'B' : Short Notes. Attempt all questions.**(2 x 5 = 10 marks)****Q. 2.** Operational amplifier**Q. 3.** Linear predictive analysis of speech signals**'C' : Answer in Brief.** Attempt all questions.**(2 x 5 = 10 marks)****Q. 4.** Time domain methods of speech processing**Q. 5.** Zener diode as a voltage regulator**(ACOUSTICS)****'A' : Long Question.** Answer any one question.**(1 x 15 = 15 marks)****Q. 6.** Explain reflection, absorption & reverberation in detail.**OR**

Describe electrodes, filters and preamplifiers.

'B' : Short Notes. Attempt all questions.**(2 x 5 = 10 marks)****Q. 7.** Explain evaluation of efficiency of sound proofing in the audiometric rooms.**Q. 8.** What are fundamentals of digital electronics?**'C' : Answer in Brief.** Attempt all questions.**(1 x 5 = 5 marks)****Q. 9.** Draw a neat well labelled diagram of microphone.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY - 2020****ELECTRONICS & ACOUSTICS****PAPER – V (MCQs)****Time allotted for MCQs: 20 minutes****'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it. (20 x 0.5 = 10 marks)****ELECTRONICS**

1. Zener breakdown occurs when?
 - a. $V_f < V_{BD}$
 - b. $V_r < V_{BD}$
 - c. $V_f > V_{BD}$
 - d. $V_r > V_{BD}$
2. Which of the following has the least ripple factor?
 - a. HWR
 - b. FWR
 - c. Bridge rectifier
 - d. HWR with capacitor filter
3. Typical range of Intrinsic Stand-Off ratio is:
 - a. 1 - 10
 - b. 10 - 100
 - c. 0.5 - 0.8
 - d. None of the above
4. Full form of FIR filter is _____ response filter.
 - a. First impulse
 - b. Finite immediate
 - c. Finite impulse
 - d. First immediate
5. Recombination of electrons and holes emits no light in:
 - a. Red-LED
 - b. Infrared LED
 - c. PN diode
 - d. All of the above
6. In digital filter the word recursive means:
 - a. Running fast
 - b. Running slow
 - c. Running back
 - d. None of the above
7. The process of generating spoken language by machine on the basis of written input is:
 - a. ASR
 - b. Speech synthesis
 - c. ADC
 - d. None of the above
8. Linguist is a person who studies:
 - a. Digital filters
 - b. Analog filters
 - c. Languages
 - d. None of the above

9. Diode current equation is directly proportional to:
 - a. V_T
 - b. I_o
 - c. Both a & b
 - d. None
10. Pass band is where the _____ is maximum.
 - a. Gain
 - b. Attenuation
 - c. Ripples
 - d. None of the above

ACOUSTICS

1. Which microphone pickup from 110 to 120 degree sound?
 - a. Hyper cardioid
 - b. Super and hyper cardioid
 - c. Super cardioid
 - d. Both a & c above
2. Electrode word is coined by:
 - a. William
 - b. William Whewell
 - c. Sivian
 - d. None of the above
3. If any energy is lost in this way, however, it is called:
 - a. Damped vibration
 - b. Forced vibration
 - c. Power
 - d. None of the above
4. When any filter passes frequencies a certain range and rejects frequencies outside range called?
 - a. High pass filter
 - b. Low pass filter
 - c. Band pass filter
 - d. All of the above
5. Musical instruments can produce:
 - a. Periodic waves
 - b. Cluster waves
 - c. Sine waves
 - d. Aperiodic waves

6. The relationship between frequency and time is as follows:

- a. $F=1/p$
- b. $F=1/t$
- c. $F=1/h$
- d. None of the above

7. The persistence or prolongation of sound in a hall even though the sound source is stopped is:

- a. Echo
- b. Damping
- c. Feedback
- d. Reverberation

8. The incident ray comes in an angle, which is called:

- a. Incidence ray
- b. Reflected ray
- c. Angle of incidence
- d. All of the above

9. Which are input devices of computer?

- a. Monitor
- b. Keyboard
- c. Printer
- d. All of the above

10. Amplitude is the objective measurement of the degree of change:

- a. Positive
- b. Negative
- c. Positive & negative
- d. None of the above

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY - 2020****RESEARCH METHODS & STATISTICS****PAPER - VI****[Time allotted: Three hours]****[Max Marks: 75]****Note:** Attempt all questions. Draw suitable diagrams wherever necessary.**'A' : Long Question.** Attempt any two questions.**(2 x 15 = 30 marks)****Q. 1. (i)** What are the components of research design?**(ii)** Intelligence quotients (IQ) values of 8 malnourished children of 4 years of ages, before and after giving some nutritious diet for three months are given below:

Before	40	60	55	65	43	70	80	60
After	50	80	50	70	40	60	90	85

Find the nutritious diet is effective or not? (Given: the tabulated value at 5% level of significance with 7 degree of freedom is 2.365)

OR**(i)** What do you understand by Research Methodology? How does it differ from Research Methods?**(ii)** The following table given the classification of 100 workers according to sex and nature of works.

Test whether the nature of work is independent of the sex of the work.

	Male	Female
Skilled	40	20
Unskilled	10	30

(Test value at 5% level of significance is 3.84)

Q. 2. Ten students got the following percentage of marks in anatomy and physiology:

Marks in Anatomy	78	45	36	78	62	90	65	75	39	41
Marks in Physiology	84	55	50	60	82	86	58	60	47	51

Calculate Pearson correlation & spearman rank correlation coefficients both.

OR**(i)** Two independent groups of 10 children were tested to find how many digits they could repeat from memory after hearing them. The results are as follows:

Group A	8	6	5	7	5	7	7	4	5	6
Group B	9	6	6	8	6	8	7	6	7	7

Is the difference between the mean scores of the two groups significant? (At 5% level of significance with 9 degree of freedom the value is 2.262)

(ii) What do you understand by sampling methods? Also writes its use in medical science field?**'B': Short Notes.** Attempt all questions.**(4 x 5 = 20 marks)****Q. 3.** Graphical representation of qualitative data.**Q. 4.** Quantitative data**Q. 5.** Skewness & kurtosis**Q. 6.** Hypothesis and its types**'C' : Answer in Brief.** Attempt all questions.**(3 x 5 = 15 marks)****Q. 7.** What do you understand by dispersion of set of values? Name of different measures of dispersion and its uses?**Q. 8.** What do you understand by chi-square test? Write down its assumptions.**Q. 9.** Briefly discuss the steps involved in research process.

BACHELOR IN AUDIOLOGY & SPEECH LANGUAGE PATHOLOGY (B.A.S.L.P.)**FIRST SEMESTER EXAMINATION, FEBRUARY - 2020****RESEARCH METHODS & STATISTICS****PAPER – VI (MCQs)****Time allotted for MCQs: 20 minutes****'D' : MCQs : Select the most appropriate answer and encircle the alphabet against it. (20 x 0.5 = 10 marks)**

1. The data collection from already published material is called:
 - a. Secondary data
 - b. Primary data
 - c. Population data
 - d. Sample data
2. The process of drawing a sample from a population is known as:
 - a. Sampling
 - b. Census
 - c. Survey research
 - d. None of the above
3. The selection of cricket team for the world cup is called:
 - a. Random sampling
 - b. Purposive sampling
 - c. Systematic sampling
 - d. Cluster sampling
4. A researcher studies the factors that determine the number of children future couples decide to have. The variable 'number of children' is a:
 - a. Discrete variable
 - b. Continuous variable
 - c. Categorical variable
 - d. Ordinal variable
5. What is the variance for the following set of scores: 2, 2, 2, 2, 2. ?
 - a. 0
 - b. 2
 - c. 4
 - d. 25
6. Normally distributed data are normally referred to as:
 - a. Bell-shaped
 - b. Asymmetrical
 - c. Skewed
 - d. Peaked
7. What does ANOVA stand for?
 - a. Analysis of values and averages
 - b. Analysis of variance
 - c. Analysis of variability
 - d. Analysis of non-ordinal values
8. Which statistical test is used to identify whether there is a relationship between two categorical variables?
 - a. Student's t-test
 - b. Spearman's correlation test
 - c. Mann-Whitney test
 - d. Pearson's Chi-square test
9. Which of the following correlation values indicates the strongest linear relationship between two quantitative variables?
 - a. $R = -0.65$
 - b. $R = 0.00$
 - c. $R = 0.11$
 - d. $R = 0.85$
10. Which of the following is NOT a measure of location?
 - a. Mean
 - b. Median
 - c. Variance
 - d. Mode
11. The alternative hypothesis is also known as the:
 - a. Research hypothesis
 - b. Optional hypothesis
 - c. Elective hypothesis
 - d. Null hypothesis
12. The value set for α is known as:
 - a. The rejection level
 - b. The significance level
 - c. The acceptance level
 - d. The error in the hypothesis test
13. Of type I and type II error, which is traditionally regarded as more serious?
 - a. Type I
 - b. They are equally serious
 - c. Type II
 - d. Neither is serious
14. What is the median of the following numbers?
10, 39, 71, 42, 39, 76, 38, 25
 - a. 42.5
 - b. 39
 - c. 42
 - d. 35.5
15. Lack of symmetry is called:
 - a. Kurtosis
 - b. Normal
 - c. Quartile
 - d. Skewness
16. The calculation of mean and variance is based on:
 - a. Small values only
 - b. Large values only
 - c. Extreme values only
 - d. All values above

17. When data is given in form of pre & post, what should be used?

- a. Paired t-test
- b. t-Test for different mean
- c. t-Test for single mean
- d. None of the above

18. Which of the following is true of the null and alternative hypotheses?

- a. Exactly one hypothesis must be true
- b. Both hypotheses must be true
- c. It is possible for both hypotheses to be true
- d. It is possible for neither hypothesis to be true

19. Which of the following is a qualitative variable?

- a. Annual salary
- b. Weight
- c. Eye color
- d. Number of siblings

20. What is the mean for the scores shown in the frequency distribution?

X	1	2	3	4	5
F	1	3	3	2	1

- a. 1.5
- b. 3.0
- c. 2.9
- d. 5.8