

S.Y. B.A.S.L.P. (2013 course): SUMMER-2019
SUBJECT : TECHNOLOGY & AMPLIFICATION DEVICES FOR PERSONS WITH
HEARING IMPAIRMENT

Day : Thursday
Date : 23/05/2019

Time : --
Max. Marks : 10

S-2019-3940

N.B.

- 1) Put a√ in the appropriate box below the question number once only.
- 2) Use blue ball point pen only.
- 3) Each question carries **ONE** mark.
- 4) MCQ sheet will be taken back after half an hour.

Seat No. _____
(Seat No. in words)

Signature of the Invigilator _____

Marks Obtained _____

Signature of the Examiner _____

SECTION – A

Q.1 M.C.Q.

- 1) How many diodes are used in full wave rectifier?
 - a) 1
 - b) 2
 - c) 3
 - d) 4

- 2) In optical recoding _____ is used.
 - a) needle
 - b) Pen
 - c) Laser
 - d) Magnet

- 3) In n-p-n transistor, _____ are majority carriers.
 - a) holes
 - b) capacitors
 - c) electors
 - d) all the above

- 4) Which of the following is not an input device?
 - a) keyboard
 - b) mouse
 - c) printer
 - d) scanner

P.T.O.

- 5) An n-p-n transistor is in saturation region when BE junction is _____ biased, CB junction is _____ biased.
- a) forward, reverse
 - b) reverse, forward
 - c) forward , forward
 - d) reverse, reverse
- 6) _____ of following is not the function of nonlinear amplification.
- a) minimize saturation
 - b) reduce gain
 - c) increase dynamic range
 - d) Reduce the dynamic range
- 7) _____ of following is not true with respect to insertion gain.
- a) It is more accurate
 - b) Can be measured in less time
 - c) Give result at only one frequency
 - d) Both a and b
- 8) No audible sound from the hearing aid could due to _____.
- a) dead battery
 - b) bent battery control
 - c) clogged microphone inlet port
 - d) both a and b
- 9) _____ of following hearing aid is insensitive to wind noise.
- a) CIC
 - b) BTE
 - c) ITC
 - d) all of the above
- 10) Natural amplification is also called as _____.
- a) REUG
 - b) REAG
 - c) REIG
 - d) RECD

* * *

S.Y.B.A.S.L.P. (2013 Course) : SUMMER - 2019
SUBJECT : TECHNOLOGY & AMPLIFICATION DEVICES FOR PERSONS WITH
HEARING IMPAIRMENT

Day : Thursday
Date : 23/05/2019

Time : 10.00 AM TO 01.00 PM
Max. Marks : 70

S-2019-3940

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw diagrams wherever necessary.
- 4) Answer each section in the respective answer sheet only.
- 5) Answers written in the inappropriate answer sheet will not be assessed in any case.

SECTION – B

- Q.2** Attempt any **FIVE** out of **SIX**: **(15)**
- a) Draw and explain the operation of a diode in forward bias condition.
 - b) Define sampling theorem. Explain process of sampling with an example.
 - c) What is the difference between AC and DC current? Write the applications of both.
 - d) What are the different types of microphones? Mention the applications for each.
 - e) Explain disk recording with neat diagram.
 - f) Draw and explain the operation of any one type of loud speaker.
- Q.3** Attempt any **ONE** out of **TWO**: **(10)**
- a) Draw and explain the operation of p-n-p transistor.
 - b) Explain the operation of Cathode Ray Tube with neat diagram.

SECTION – C

- Q.4** Write short notes on any **FOUR** out of **FIVE**: **(20)**
- a) DSL i/o
 - b) Directional microphone
 - c) WDRC
 - d) REIG
 - e) CIC hearing aids
- Q.5** Attempt any **ONE** out of **TWO**: **(10)**
- a) Explain the steps of hearing aid fitting in children with hearing impairment.
 - b) Discuss the functioning of digital hearing aids with its block diagram.
- Q.6** Attempt any **ONE** out of **TWO**: **(15)**
- a) Explain the importance of EAC measurement of hearing aids. Describe the following terms with the ANSI specification of it: OSPL 90, FOG 60, Reference test gain (RTG) and total harmonic distortion.
 - b) Discuss the subjective and objective tests of hearing aid fitting in detail used for hearing aid fitting.

* * *