

M503 – Answers to Overnight Questions Answers Day 3

Question 1:

When an earmuff is used with an earplug, what is the attenuation assumed to be?

- a. The sum of the two NRRs
- b. The average of the two NRRs
- c. 5 dB more than the better NRR
- d. 10 dB more than the better NRR
- e. none of the above

Question 2:

The best hearing protection device for an employee is:

- a. a set of custom ear plugs
- b. earmuffs
- c. canal caps on a headband
- d. hearing protection the employee will wear consistently and correctly

Question 3:

During earplug FITTING procedures, what is the MOST important step in choosing the appropriate type?

Correct Fit

Question 4:

The purpose of hearing protection devices is to:

- Relieve the employer from having to do noise control
- Protect the worker from acquiring hearing loss due to noise exposure
- Keep foreign bodies out of the ear canal
- Prevent wax impaction and associated possible hearing loss
- Allow the employer to increase production noise for better throughput

Question 5:

A foam earplug has the following advantage compared to other types of earplugs:

- It provides a good seal because it expands to fill the ear canal
- It comes in bright colours and is not easily lost
- It is easy to insert quickly
- It can be used even if a person has an outer ear infection
- It doesn't need to be replaced.

Question 6:

One advantage of earmuffs is:

- They are easy for most people to put on correctly the first time
- They never need to be replaced
- They can be used in all environments
- They are expensive so employees take better care of them
- They never need to be checked by the employee

Question 7:

When selecting appropriate hearing protection for the employee, one should consider:

- The work environment
- The noise levels on the job
- The size and shape of the ear canal
- The other safety equipment the employee must wear
- All of the above

Question 8:

When should employees be trained on the proper use of hearing protection?

When they start, whenever HP styles change or workplace hazard or jobs change and during Annual Audiometric assessment.

Question 9:

How long can a worker be exposed to 92 dB(A) without exceeding an L_{Aeq8h} of 85 dB(A)?

About 1.5 hours

Question 10:

The noise levels for a range of tasks for a worker have been measured as below. Determine the daily noise exposure. Identify which task provides the greatest contribution for the noise dose. List the options for an effective noise management plan for this worker.

Task	L_{Aeq}	Pa^2	Time, hr	E_{AT} Pa^2h
Grinder	105	11	1.0	11
Welding	86	0.16	2.0	0.32
Sanding	95	1.3	1.0	1.3
Air blower	98	2.5	0.5	1.25
Lunch/Tea	70	0	1.5	0
General	82	0.063	2	1.13
			total	15
			Divide by 8	1.88
			$L_{Aeq,8h}$	96.5

So the daily noise exposure is 97dBA.

The greatest contribution is from grinder at E_{AT} 11 from 105 dBA for 1 hour.

First reduce the noise exposure from the grinder – is there alternative method?

Investigate noise reduction for grinder – but may not be possible.

Provide hearing protection for the worker when using the grinder.

If the grinding is removed from this worker the exposure from the remaining tasks is still greater than 85 dBA so there is a need to look at each task in turn for replacement or noise control. Also need to have hearing protector program while this is being investigated.