For the following questions, indicate the letter that corresponds to the SINGLE MOST APPROPRIATE ANSWER.

1. During delicate surgery of the middle ear, the surgeon accidentally severed a nerve as it passed between the malleus and incus bones. After the surgery, the noble physician solemnly informed his patient that he likely has lost
   A. sensation in the skin over the ramus of the mandible.
   B. secretion of saliva from the parotid gland.
   C. taste sensation from the anterior 2/3 of the tongue.
   D. sensation of the inner lining of the tympanic membrane.
   E. special sensation from the semicircular canals.

2. The plexus of nerves that lies underneath the mucus membrane lining the medial wall of the middle ear contains fibers from which of the following cranial nerves?
   A. Trigeminal
   B. Facial
   C. Glossopharyngeal
   D. Vagus
   E. Accessory

3. Damage to the trigeminal nerve would result in
   A. a reduced ability to dampen loud sounds.
   B. a loss of general sensation in the auditory tube.
   C. a reduction in taste sensation.
   D. a decreased volume of salivary secretions.
   E. leakage of cerebrospinal fluid into the nasal cavities.

4. The facial nerve, or its branches, pass through all of the following EXCEPT the
   A. internal acoustic meatus.
   B. petrotympanic fissure.
   C. stylomastoid foramen.
   D. hiatus for the greater petrosal nerve.
   E. auditus ad antrum.
5. In a futuristic setting, a 34-year-old female arrives at your clinic, complaining that she may be pregnant. After consulting with the database containing the genomes of your patient and her husband, you conclude that it is highly likely that the developing fetus will be born deaf. Since the fetus is only three weeks old, you use a highly sophisticated technology to introduce a therapeutic (transgenic) gene into cells of the otic vesicle of the fetus. When the fetus is born, the transgenic gene hopefully will be expressed in cells of the

A. ear ossicles.
B. auditory tube.
C. mastoid air cells.
D. cochlear duct.
E. external auditory meatus.

6. Which of the following is derived from endoderm?

A. Mastoid air cells
B. Ear ossicles
C. Bony labyrinth
D. External auditory meatus
E. Vestibulocochlear nerve

7. The tip of the tongue of a teenage gang member was pierced as part of the initiation ceremony into the gang. A ring, bought at the local discount store, was inserted into the hole. After a few days the tongue was sore and swollen. Which of the following groups of lymph nodes would be the first to enlarge?

A. Lower deep cervical nodes
B. Submandibular nodes
C. Submental nodes
D. Preauricular nodes
E. Posterior auricular nodes

8. A young, 20-year-old man had a large, palpable lymph node medial to the sternocleidomastoid muscle at the level of the hyoid bone. A MR scan at this level of the neck would reveal all of the following structures except

A. internal jugular vein.
B. carotid sinus.
C. posterior belly of the digastric.
D. superior thyroid artery.
E. third cervical vertebra.
9. A 50-year-old patient has stenosis (narrowing) of the internal carotid artery due to an atherosclerotic plaque found about an inch superior to the bifurcation of the right common carotid artery. A carotid endarterectomy, a procedure to strip off the plaque, is scheduled to hopefully prevent future transient ischemic attacks or strokes. Which of the following nerves will the surgeon first encounter in his approach to the internal carotid artery?

A. Superior laryngeal nerve.
B. Glossopharyngeal nerve.
C. Spinal accessory nerve.
D. Hypoglossal nerve.
E. Recurrent laryngeal nerve.

10. A patient had been complaining of tingling and painful sensations of the skin over the region of the left shoulder (deltoid muscle). An X-ray shows that the cervical spinal nerve carrying pain sensation from the shoulder was being compressed by small bony outgrowths of the anterior and posterior tubercles of the

A. 3rd cervical vertebra.
B. 4th cervical vertebra.
C. 5th cervical vertebra.
D. 6th cervical vertebra.
E. 7th cervical vertebra.

11. The pus from an abscess of the sternohyoid muscle

A. will be confined to the region of the manubrium.
B. could spread into the posterior triangle of the neck.
C. may spread into the thoracic cavity anterior to the pericardium.
D. may spread into the retropharyngeal space.
E. may spread into the pretracheal space.

12. In a drunken stupor a man crashed through a glass door and received numerous cuts of the skin over the masseter and parotid gland. After the cuts healed he noticed that there was no feeling in those same regions. Most likely the glass cut his

A. transverse cervical nerve.
B. lesser occipital nerve.
C. greater auricular nerve.
D. supraclavicular nerves.
E. ventral rami of C1.
13. A young man with Hodgkin’s lymphoma had an enlarged lymph node, which compressed the left internal jugular vein close to, where it empties into the brachiocephalic vein. He could possibly present with edema (accumulation of tissue fluid) in the following parts of his body except

A. right ankle.
B. left ankle.
C. right upper limb.
D. left upper limb.
E. left side of the face.

14. An opera singer is suing her surgeon claiming that she could no longer sing following surgery to remove a cancerous thyroid gland. She claimed that she had a beautiful voice before but now it was hoarse. The surgeon may have inadvertently ligated and sectioned the

A. external laryngeal nerve.
B. internal laryngeal nerve.
C. superior laryngeal nerve.
D. recurrent laryngeal nerve.

15. At a family picnic one of the participants choked on a piece of food. All attempts to dislodge the food and to re-establish an adequate airway were futile. A first year medical student rushed in to perform an emergency cricothyrotomy or tracheotomy. To his horror, blood started spurting out. He knew he must have cut through the isthmus of the thyroid gland and the superior thyroid artery which is found anterior to the

A. cricoid cartilage.
B. cricothyroid muscle.
C. roid cartilage.
D. first tracheal cartilage.
E. second tracheal cartilage.

16. The surgeon wished to immobilize the diaphragm of a patient in order to repair a big tear sustained from an automobile accident. He knew that the phrenic nerve is enclosed within/by the

A. investing fascia
B. carotid sheath
C. prevertebral fascia
D. pretracheal fascia
E. buccopharyngeal fascia

Answers: 1c2c3a4e5d6a7c8e9d10c11a12c13c14d15e16c