1. If lesioned, what destroys the functional integrity of the whole reticular formation?
   a. subcommissural organ
   b. thalamic tegmentum reticular core
   c. midbrain tegmentum reticular core
   d. medullary tegmentum reticular core

2. Weber’s syndrome is manifest by a lesion in the
   a. superior colliculus
   b. inferior colliculus
   c. oculomotor nerve and cortical spinal tract
   d. trochlear nerve and the frontopontine tract

3. Rostral to the superior colliculus is the _____ which integrates visual reflex functions.
   a. posterior ventral lateral thalamic nucleus
   b. optic tract
   c. subcommissural organ
   d. pretectal area

4. Which answer is correct regarding relationships to the thalamus?
   a. the body of the lateral ventricle is medial
   b. the stria medullaris is inferior
   c. internal capsule is lateral
   d. interventricular foramen is posterior

5. The anterior nucleus of the thalamus receives input from hypothalamic mamillary bodies and projects to the cingulate gyrus influencing what functions?
   a. unconscious proprioception
   b. memory and emotions
   c. visual reflexes
   d. reduction in pain

6. A lesion in the dorsomedial nucleus of the thalamus might not manifest this symptom?
   a. reduced anxiety
   b. emotional experiences
   c. personality changes
   d. contralateral hemiplegia
7. Heschl’s gyrus (area 41) receives fibers predominately from the
   a. ventral lateral nucleus of the thalamus
   b. red nucleus
   c. substantia nigra
   d. medial geniculate body

8. The cerebellar input to the cerebral cortex comes from the ___ nucleus of the thalamus.
   a. dorsal medial
   b. ventral anterior
   c. ventral lateral
   d. lateral geniculate body

9. The basal ganglia input to the cerebral cortex comes from the ___ nucleus of the thalamus.
   a. ventral anterior
   b. dorsal medial
   c. ventral lateral
   d. posterior ventral lateral

10. A test for protopathic touch sensations uses
    a. two pin pricks spaced at various distances apart
    b. a cold object
    c. a wisp of cotton
    d. pressure from a finger

11. Sharp localization for touch is carried in which pathway in the spinal cord?
    a. lateral funiculus
    b. anterior funiculus
    c. posterior funiculus/ dorsal columns
    d. lateral spinothalamic tract

12. Which sensation is not found in the anterior spinothalamic tract?
    a. tickling
    b. unconscious proprioception
    c. itching
    d. lustful feelings

13. Which thalamic nucleus receives the greatest variety of sensory input?
    a. lateral geniculate body
    b. medial geniculate body
    c. posterior ventral lateral nucleus
    d. posterior ventral medial nucleus
14. Which is not correct for the posterior spinocerebellar tract?
   a. coordinates muscles to maintain posture
   b. carries input to the cerebellum from the upper extremity
   c. carries unconscious proprioception for fine movement
   d. deals with individual muscle movement

15. Which is not correct for the posterior spinocerebellar tract?
   a. secondary neurons arise from Clarke’s column
   b. secondary neurons end as mossy fibers on cerebellar granular cells
   c. synapses in the external accessory cuneate nucleus
   d. arises from cells in the base of the posterior horn

16. ______ fibers provide excitatory input to Purkinje cells in the cerebellar cortex.
   a. spino olivary
   b. spino reticular
   c. spinothalamic
   d. spino rubro

17. A Brown Sequard syndrome would not include which of the following:
   a. ipsilateral hemiplegia
   b. contralateral reduced pain and temperature
   c. contralateral conscious proprioception
   d. ipsilateral epicritic touch

18. Which is not correct for Brodmann’s Area 4?
   a. primary sensory area
   b. contains large pyramidal Betz cells which serve as antigravity inhibitory neurons to the posterior thigh muscles
   c. produces highly skilled movements
   d. lacks identifiable layer IV creating an agranular cortex

19. The cortico bulbar tract provides motor input to the
   a. superior colliculus
   b. oculomotor nucleus
   c. lateral geniculate body
   d. pulvinar

20. Which combination of areas of Brodmann do not take part in the cortical spinal tract?
   a. 1, 3, 4, 5
   b. 3, 17, 41, 39
   c. 3, 4, 6, 5
   d. 1, 2, 5, 6
21. The corticopinal tract travels in the ____ region of the internal capsule.
   a. anterior
   b. posterior
   c. genu
   d. lateral

22. Which is not a descending tract in the upper medulla?
   a. pyramids
   b. tectobulbospinal
   c. MLF
   d. medial lemniscus

23. Which nucleus is not found in the upper medulla?
   a. red nucleus
   b. nucleus solitarius
   c. dorsal motor X
   d. nucleus ambiguus

24. The taste of a fresh mango stimulates what cells in the upper medulla?
   a. nucleus ambiguus
   b. lateral reticular nucleus
   c. nucleus solitarius
   d. dorsal motor nucleus of X

25. A lesion to the hypoglossal nerve would cause
   a. atrophy of the tongue muscles
   b. spasticity to the tongue muscles
   c. loss of taste
   d. upper motor neuron lesion symptoms

26. What percent of fibers cross in the lateral corticospinal tract?
   a. 75-90%
   b. 45-60%
   c. 30-49%
   d. none of the above

27. What sensations are not carried in the middle medulla?
   a. pain and temperature on contralateral side of the body
   b. conscious proprioception on contralateral side of the body
   c. protopathic touch on the contralateral side of the body
   d. epicritic touch on the ipsilateral side of the body
28. What is a characteristic feature of the lower midbrain?
   a. the oculomotor nucleus
   b. the abducens nucleus
   c. main sensory V nucleus
   d. the decussation of the brachium conjunctivum

29. Which structure might not be affected when the posterior inferior cerebellar artery is blocked?
   a. substantial nigra
   b. nucleus ambiguus
   c. nucleus solitarius
   d. part of VII, IX and X nuclei

30. What is the function of the medial longitudinal fasciculus?
   a. visual tracking through coordinated movement of eyes, head, neck and trunk.
   b. affects basal ganglia tremors
   c. alters inferior collicular activity
   d. influences nucleus solitarius

31. Which of the following does not have a direct effect on motor functions?
   a. nucleus ambiguus
   b. abducens nucleus
   c. spinal V or spinal trigeminal
   d. IX cranial nerve

32. Which is not found in the tegmentum of the pons?
   a. abducens nucleus and facial nucleus
   b. main sensory V and motor V
   c. superior olivary nucleus
   d. trochlear nucleus

33. Which pair is not correct?
   a. medial lemniscus - conscious proprioception
   b. lateral lemniscus - hearing
   c. trigeminal lemniscus - pain and temperature
   d. superior lemniscus - vision
34. The connection between the hypothalamic ANS center and the sympathetic cells in the lateral horn of the thoracic cord is called the 
   a. ventral longitudinal fasciculus  
   b. dorsal longitudinal fasciculus  
   c. medial longitudinal fasciculus  
   d. lateral longitudinal fasciculus

35. An alternate corticospinal tract is called the 
   a. vestibulo spinal tract  
   b. reticulospinal tract  
   c. bulbospinal tract  
   d. rubrospinal tract

EACH DAY HAVE SELF RESPECT, SELF CRITICISM AND DO SOMETHING FOR SOMEONE ELSE.