1. How big is the average brain? (Size/weight)

Review Packet: The Brain

3lbs – 1200cc

1. Identify the sections of the brain stem.

Medulla, Pons, Midbrain

1. Identify the sections of the higher brain.

Diencephalon, Limbic System, Cerebrum, Cerebellum

1. Identify the structures of the limbic system.

Amygdala, Hippocampus, Mammillary Bodies, Fornix

1. Identify the structures of the ventricles

Lateral Ventricles, Intraventricular Foramen, Third Ventricle, Cerebral Aqueduct, Fourth Ventricle

1. What are the larger regions of the brain? What are the smaller regions of the brain?

Cerebrum – Largest Region

Cerebellum – Most Neurons

10. What is the two basic “relay” centers of the brain? Where do they relay information from and to?

Medulla, Pons – To higher levels of the brain

11. What are the basic jobs and responsibilities of the medulla?

Automatic control of visceral activities

Nuclei for cranial nerves

Transmit major information to the rest of the brain

12. What are the basic jobs and responsibilities of the pons?

Sensory and motor nuclei of cranial nerves

Control of respiration

Relay information from the cerebellum

Ascending and descending tracts

13. What are the basic jobs and responsibilities of the midbrain?

Control of consciousness

Control of audio and visual reflexes

Unconscious control of the upper limbs

14. What are the basic jobs and responsibilities of the thalamus?

Filter information to the cerebrum

Unconscious control of motor functions

15. What are the basic jobs and responsibilities of the hypothalamus?

Regulate emotions

Coordinate with the endocrine system

Basic drives

16. What are the basic jobs and responsibilities of the cerebellum?

Coordinate balance and motor movement

17. What are the basic jobs and responsibilities of the cerebrum?

Coordinate consciousness with action

Interpret sensory information

18. What are the basic jobs and responsibilities of the limbic system?

Memory, emotion and primal drives

19. Why do we have ventricles? What do they contain?

Creation and circulation of CSF

20. What are the cranial meninges?

Meninges around the brain

23. Do the hemispheres of the cerebrum communicate? How?

Yes, corpus callosum

24. What are the three types of fibers that are within the **cerebrum**? What do they do?

Association –Communication inside of a hemisphere

Commissarial – Communication between hemispheres

Projection – Communication to other parts of the brain

25. What are the 5 major sensory and motor areas in the brain?

Primary Sensory Cortex, Primary Motor Cortex, Visual Cortex, Auditory Cortex and olfactory cortex

26. What are the major integrative areas of the brain?

Prefrontal Cortex, Wernicke’s Area, Broca’s Area

27. The cerebellum has folds. Why? What are they called?

Folia, to increase surface area

28. What section of the brain has a very close relationship with the master gland?

Hypothallamus

29. Is the thalamus one structure? If not, what does it look like?

No, It has a right and left thalamus

30. If a bear started rampaging in the classroom some people might run away, while some people might try to fend it off. What is this called? What is this instinct controlled by?

Fight or Flight reflex. Hypothalamus and amygdala

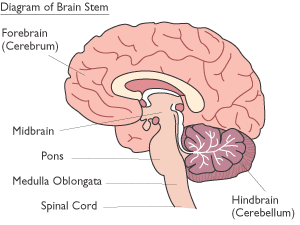
31. Where are memories started, linked, formed and then passed on to be stored?

Hippocampus and Fornix

32. Where would I look to find the reticular formation?

All three sections of the brain stem

33. Draw a picture of a brainstem below. Label it.



34. What is the corpora quadrigemina? What does it control?

Areas of the midbrain associated with visual and auditory reflexes.

35. Use the space below to give basic information on the following cranial nerves.

Refer to your nerve chart!

|  |  |
| --- | --- |
| Nerve | Information |
| N I |  |
| N II |  |
| N iV |  |
| N V |  |
| N VII |  |
| N IX |  |
| N X |  |
| N XI |  |
| N XII |  |