Frontal Lobe Lesions - exact character depends on location of lesion; posterior lesions (in the motor areas) result in movement disorders; anterior lesions (in the prefrontal cortex) result in much more complex changes

1) disturbances of motor function and movement programming up to and including hemiplegia (upper motor neuron disease)
2) disturbances of voluntary gaze (patients don't "look at the right places" to answer questions)
3) speech production - Broca's aphasia (Broca's area and supplementary speech area in left hemisphere)
4) disturbance in intelligence
   a) but not in IQ test taking ability - convergent thinking (just one answer)
   b) divergent thinking impaired - ability to come up with multiple answers
   c) failure of abstract thinking - concrete thinking
5-7) removed
8) distractibility and poor attention
9-10) removed
11) impaired social and sexual behavior - personality changes
    a) pseudodepression - apathy, indifference, loss of initiative, reduced sexual interest, reduced verbal output (more common w/left hemis. damage)
    b) pseudopsychopathy - immature behavior, lack of tact and restraint, profanity, promiscuity, lack of social grace (often said to be more common with right hemis. damage, but may be due to damage in the orbitofrontal cortex)

Temporal Lobe Lesions
1) disturbances in auditory sensation and perception
   a) difficulty discriminating speech sounds and "tone of voice" (prosody)
   b) difficulty with music perception
   c) auditory hallucinations - due to spontaneous activity in auditory cx.
2) Wernicke's aphasia - inability to produce or comprehend meaningful speech (damage to left posterior superior temporal gyrus)
3) disturbances in visual perception - visual agnosia, prosopagnosia
4) anterograde amnesia (due to ventral temporal and hippocampal damage)
5) affective changes - perhaps due to involvement of amygdala and limbic cx.
6) removed

Occipital Lobe Lesions
1) blindness for part or all of the visual field - cortical blindness
2) visual agnosia - failure of object recognition (occipitotemporal)
3) visuospatial agnosia - topographical disorientation (occipitoparietal)
4) prosopagnosia - facial agnosia (including for their own faces)
5-6) removed

Parietal Lobe Lesions
1) somatoperceptual disorders - e.g., loss of tactile sensation, astereognosia (inability to recognize objects by touch), asomatognosia (loss of body sense and condition)
2) contralateral neglect (esp. after right hemisphere damage)
3) removed
4) apraxia - a peculiar loss of skilled movements in response to directions (esp. after left hemisphere damage, but some forms after right as well; a "disconnection syndrome")
5) failure of spatial cognition - e.g., mental rotation
6) impaired IQ testing ability - failure of convergent thinking
7-8) removed
9) right-left confusion (esp. after left hemisphere damage)
10) removed