

ACADEMIC READING PRACTICE TEST 9 Part 1

READING PASSAGE 1

Questions 1 - 14

You should spend about 20 minutes on **Questions 1 – 14** which are based on Reading Passage 1 below.

PHRENOLOGY – INTERPRETING THE MIND

Phrenology is the doctrine that proposes that psychological traits of personality, intellect, temperament, and character are ascertainable from analysis of the protrusions and depressions in the skull. It was an idea created by Franz Joseph Gall in 1796. Gall referred to his new idea in English as cranioscopy. It was only later that Johanne Spurzheim, one of Gall's students, labeled the idea phrenology after Gall's death. Gall's idea was spurred when he noticed that university classmates who could memorize great amounts of information with relative ease seemed to have prominent eyes and large foreheads. He speculated that other internal qualities, besides memory, might be indicated by an external feature also. Gall theorised that traits were located in particular regions of the brain. Enlargements or depressions in the brain in particular areas meant a greater than normal or less than normal quantity of the given trait. It was assumed that the external contour of the skull accurately reflected the external contour of the brain where traits were localized.

Carl Cooter, another advocate of phrenology asserted that there were five major parts to phrenology theory. The first was simply that the brain was the organ of the mind. The second was that the brain was not a homogeneous unity, but a compilation of mental organs with specific functions. The third was that the organs were topographically localised. The fourth was that the relative size of any one of the organs could be taken as a measure of that organ's power over the person's behaviour. The fifth and final part of Cooter's theory was that external craniological features could be used to diagnose the internal state of the mental faculties. All of these parts were based on observations Cooter made.

Sebastian Leibl, a student of Cooter's, theorized that there could be anywhere from 27 to 38 regions on the skull indicative of the organs of the brain, each of which stood for a different personality characteristic. Leibl further theorised that the different regions of the brain would grow or shrink with usage, just as muscles will grow larger when exercised. If a certain part of the brain grew from increased use, the skull covering that part of the brain would bulge out to make room for the expanded brain tissue. With these assumptions, the bumps on one's skull could be felt and the abilities and personality traits of a person could be assessed.

Spurzheim put a more metaphysical and philosophical spin on Gall's concept when he named it phrenology, meaning "science of the mind". To Spurzheim phrenology was the science that could tell people what they are and why exactly they are who they are. Spurzheim wrote that the premise of phrenology was to use the methods to identify individuals who stood out at both poles of society: those with a propensity for making important social contributions and those with a greater than normal tendency for evil. The former were to be encouraged, nurtured, and developed in order to maximize their potential for good. The latter needed to be curbed and segregated to protect society from their predisposition to be harmful to others.

Phrenology has met up with a good deal of criticism since it was proposed, but over time

it has also been credited for certain things. John Fancher, a critic of phrenology, states that it was a curious mixture, combining some keen observations and insights with an inappropriate scientific procedure. Most criticism is aimed at the poor methods used by phrenologists and the tangent from standard scientific procedure in investigating.

Pierre Flourens was also appalled by the shoddy methods of phrenologists and was determined to study the functions of the brain strictly by experiment. The specific technique that Flourens used was ablation, the surgical removal of certain small parts of the brain. Flourens was a very skilled surgeon and used ablation to cleanly excise certain slices from the brain. He ablated precisely determined portions of bird, rabbit, and dog brains. Flourens then observed the behavior of his subject. Since, for obvious ethical reasons, he was only able to use animals, he could not test uniquely human faculties. He never tested or measured any behaviour until he nursed his subjects back to health after their operations. Flourens's subjects did show a lowering of all functions but not just one function as Gall's theory would have predicted. Gall asserted that he wiped out many organs all at once when he ablated part of the brain. This explained the general lowering of all functions in many of his subjects. Despite attacks from Flourens and others, phrenology held its appeal to scientists in Europe who would bring the idea across to America where it would flourish.

Questions 1 – 8

Answer **questions 1 - 8** below by writing the initials of the phrenology scientist to which the questions refer in **boxes 1- 8** on your answer sheet. The initials of the phrenology scientists are in the table on the following page.

NB In one question you must write the initials of **TWO** phrenology scientists.

- 1 Which phrenology scientist did not use the term phrenology?
- 2 Which phrenology scientist theorised that you could identify people's morality using phrenology?
- 3 Which phrenology scientist theorised that the size of certain parts of human brains would increase if they were used a lot?
- 4 Which **TWO** phrenology scientists did not agree with the way phrenologists came to their conclusions?
- 5 Which phrenology scientist theorised that the size of a certain part of the brain corresponds to that part of the brain's influence over a person's actions?
- 6 Which phrenology scientist theorised that the human brain was a collection of cerebral organs?
- 7 Which phrenology scientist was an expert at performing operations?
- 8 Which phrenology scientist proposed theories based on his observations of colleagues?

The Phrenology Scientists

FG	Franz Joseph Gall
CC	Carl Cooter
SL	Sebastian Leibl
JS	Johanne Spurzheim
JF	John Fancher
PF	Pierre Flourens

Questions 9 - 14

Read the passage *Phrenology - Interpreting the Mind* again and look at the statements below.

In boxes **9 - 14** on your answer sheet write:

- TRUE** *if the statement is true*
- FALSE** *if the statement is false*
- NOT GIVEN** *if the information is not given in the text*

- 9 Flourens conducted brain experiments on human patients.
- 10 The theories of phrenology thrived in America.
- 11 Gall theorised that phrenology could only indicate memory ability.
- 12 Flourens worked with Fancher to investigate phrenology using standard scientific experiments.
- 13 Gall also conducted experiments on live subjects.
- 14 Spurzheim's theories were used by governments as a rationale to segregate certain undesirable parts of society.