# **VETO 2015 McMaster Packet**

# (written by Peter Cordeiro, Adam Swift, Leslie Newcombe, and Brian Luong)

# **Tossups**

# 1. The Zealand Life Regiment is the oldest unit that is still operational to consist of these soldiers, and a French regiment of these soldiers began the tradition of opening Champagne bottles with sabres. The name for this type of soldier may come from the Serbian for “pirate” or the Hungarian for “twenty”, due to the requirement that Hungarian nobles provide one mounted soldier for every twenty serfs. A heavier group of these soldiers used a tactic involving a slow, loose charge until the first musket salvo, then tightening formation and increasing speed to break infantry lines in the process of reloading. That group of these soldiers famously wore wooden structures with feathers on their backs. For 10 points, Prussian “Death’s head” and Polish “Winged” are varieties of what light cavalry units?

# Answer: **hussars** [prompt on **light cavalry** before mentioned]

2. Hamilton Castner and Karl Kellner give their names to a method of this process that is used to produce an aqueous alkali chloride solution. The high-pressure type of this process has hydrogen compressed to between 12 and 20 megapascals. Martin Fleischmann and Stanley Pons incorrectly stated that this process within palladium metal lead to nuclear fusion. A solution of alumina and molten cryolite undergoes this process when smelting aluminum. The first law that governs this process states that the masses of the substances altered are equivalent to the quanity of electricity transferred; those laws are named for Michael Faraday. For ten points, name this process that involves an ion-conducting polymer and two electrodes, whereby the passage of an electric current drives non-spontaneous reactions.

Answer: **electrolysis**

3. This man's first introduction to politics was as a member of the anti-war Liberty Union Party, where he ran as their candidate for senator and governor for his state at various points in the 1970's, although he wouldn't see an electoral win until he ran for the position of mayor of Burlington in 1981. In 1990, he became the first independent to be elected to the U.S. House of Representatives in 40 years, running on a largely progressive platform, and would become the longest-serving independent in the history of Congress. A self-proclaimed democratic socialist, he would officially announce his candidacy for the Democratic presidential nomination in May of 2015 after much speculation, with some of his positions including the support of public funding for higher education, Wall Street reform, and universal healthcare. For 10 points, identify this current junior senator from Vermont and darling of progressive American Redditors, who is behind Hillary Clinton in most Democratic presidential nomination polls for 2016.

Answer: Bernard "Bernie" **Sanders**

4. Matty Mouron purchased one of these structures when shares of it were publicly traded on the NYSE in 1979. After an ice jam collapsed one of these structures, Richard Lee designed a replacement that was also used for another one of these structures built downriver. A proposed one of these structures named for Gordie Howe is opposed by a plan to build a privately owned one of these structures. One of these structures named for Franklin Roosevelt makes Campobello Island a practical exclave. The first EZ-Pass facility outside the United States collects tolls for one of these structures. Al-Qaeda plotted to bomb one of these structures that is only open to NEXUS members, and other examples of these structures include one named “Ambassador” and one named “Rainbow”. For 10 points, name these structures, which cross rivers forming part of the longest international border in the world.

Answer: **bridges between the US and Canada** [prompt on **international bridges**; anti-prompt on bridges between **Ontario and Michigan**, **Ontario and New York**, or **Maine and New Brunswick**]

5. In one work by this author, the narrator has discussions about early twentieth-century American writer, Derek Heartfield. In another work, a freelance commercial writer returns to a hotel he once stayed in, only to see it has tranformed into a 'Star Wars high-tech hotel-a-thon' complete with 'smile-trained' receptionists. One protagonist of a story written by this author leaves his father's home to find his mother and sister before arriving at a small secluded library, where he befriends the androgynous assistant Oshima. This author of *Hard-Boiled Wonderland and the End of the World* wrote a work that follows an unemployed man named Toru Okada. For ten points name this Japanese author of Norwegian Wood and Kafka on the Shore.

Answer: Haruki **Murakami**

6. Before one attempt of this military action, one leader declared he would only reply by “the mouth of [his] cannons and muskets” upon receiving the terms of surrender. Benedict Arnold’s attempt at this military action was stopped by rumors of a force of 800 men. David Kirke successfully did this action in 1629 without facing any resistance, and in another attempt, a fleet attempting this action wrecked at a place now called Pointe-aux-Anglais. Another attempt at this action involved climbing a cliff to reach L’Anse-au-Foulon. An American attempt at this military action ended in the capture of Daniel Morgan and the death of Richard Montgomery. For 10 points, name this military action which was accomplished as a result of the Battle of the Plains of Abraham.

Answer: **capturing Quebec City** [accept anything indicating an **attack on Quebec City**]

7. These structures can be used to find the rate constant from a chevron plot. These structures are important in solving the belt problem, in which the length of certain segments of these structures must be found. One of these structures is constructed in order to find the market portfolio in the Markowitz model and is called the capital allocation line. The x-intercepts of these structures can be used to find the roots of a function in Newton’s method. Pierre de Fermat's method of adequality uses the expression f(x+h) minus f(x) divided by h to find this structure at a curve. Apollonius defined this structure as a line such that no other straight line could fall between it and the curve. For 10 points, name this structure whose slope can be found using the derivative.

Answer: **tangent line**

8. In 2013, a painting by this artist called *The Crazy Stair (The Crooked Staircase)* sold for $2.9 million. Early in life, this painter studied at the San Francisco Art Institute for two years, and later travelled to London to study at the Westminster School of Art. This painter of *Scorned as Timber, Beloved of the Sky* was visited by Mark Tobey in 1928, where he taught an advanced course in her studio. She was first brought to a wider audience when her work was exhibited in Canadian West Coast Art, Nativ*e and Modern*. This Canadian painter was commemorated in a 6¢ stamp that was based on her painting *Big Raven*. For ten points, name this Canadian artist of *Indian Church,* whose work was heavily inspired by the lives of indigenous people in the Pacific Northwest.

Answer: **Emily Carr**

9. One member of what would become this dynasty forged five deeds, some purported to be issued by Julius Caesar and Nero, to have rights similar to Prince-electors; these were called the Privilegium Maius. This dynasty takes its name from a structure on the Aar River. That structure was built by Radbot, who was Count of Klettgau. A member of this dynasty defeated Ottokar II of Bohemia at the Battle on the Marchfield, and ended the Great Interregnum with his election. This dynasty included the Albertian and Leopoldian lines, who divided this dynasty’s lands in the treaty of Neuberg. Another member of this dynasty married Mary of Burgundy, eventually leading to this dynasty controlling the Low Countries. A member of this dynasty issued the Pragmatic Sanction, allowing his daughter to inherit his possessions. The last ruler of the Spanish line of this dynasty was noted for being inbred. For 10 points, name this dynasty of Philip the Handsome and Maria Theresia.

Answer: von **Habsburg** [or von **Hapsburg**]

10. In one song by gypsy-punk band Gogol Bordello, the singer Eugene Hütz urges the listener to start wearing clothing with this characteristic, and promises that their sanity and wits will all vanish. In an A$AP Rocky track titled for this type of "Swag", he also mentions this kind of smoke up in his clothes, and in a D12 song about recreational drug use, Eminem mentions pills that come in blue, yellow, and this colour. More famously, a song titled after a "Haze" of this colour was released on the album *Are You Experienced* in 1967. For 10 points, give the name of this colour from the title of the aforementioned Jimi Hendrix song, as well as another famous track by Prince.

Answer: **purple**

11. An argument in this work claims that it would be shameful to seem to value money above friends. Earlier in the work, it is mentioned that a ship will soon arrive from Delos. One character in this work has a dream where he is told he will arrive in Phthia on the third day. One character in this work claims injustice may not be answered with injustice, since it is always wrong to act unjustly. A section of this work seems to conflict with the *Apology*, since in that work Socrates threatens to disobey the court. This work is considered a predecessor to social contract theory, since Socrates claims he entered into a contract with Athens by remaining in the city. For 10 points, name this Platonic dialogue in which the title character attempts to break Socrates out of prison.

Answer: **Crito**

12. Varroa mites are known to transmit the Israel Acute Paralysis Virus, which can harm these organisms. While the earliest of these organisms appear in the fossil record in Europe, many suspect they originated from South Asia. This genus of animals contains seven recognized species and many subspecies, and accidental cross-breeding of two subspecies within the *mellifera* species has resulted in an "Africanized" variety. Their social behaviour has been the subject of extensive research, particularly their ability to perform a figure-eight waggle dance in order to communicate. For ten points, identify this genus of insects that pollinates flowers, lives in hives, and can produce a sweet, sticky substance, which has been affected by colony collapse disorder.

Answer: **honeybees** [also accept **Apis**; prompt on **bees**]

13. This polity was founded when its settlers received no reply from its territory's actual head of state. An initial source of embarrassment for this polity was a treason trial that eventually erupted into a full brawl, which followed the attempted arrest of the accused by two drunken constables. While it was entirely within the borders of British North American territory, prior to its founding, it fell outside of any governmental jurisdiction, and lacked any form of law enforcement, government, or taxation. Its collapse came within the year of its founding by Thomas Spence in 1868, when the Colonial Office in London informed its council that it held no power. For 10 points, give the name of this former unrecognized state within Rupert's Land that existed in present-day Portage la Prairie, approximately 75km west of present-day Winnipeg, and was initially called Caledonia.

Answer: **Republic of Manitobah** [prompt on **Manitobah**]

14. After this event, *The Hollywood Reporter* claimed that most attendees were paid actors, which was denied by the organizers. This event took longer than any similar event, clocking in at over 45 minutes. The speaker at this event commented on ISIS building a hotel and claimed “they don’t have to pay interest”. This event featured an implication that the Obamacare website could have been done for $3, and the suggestion that Mexico would pay for a wall along the US border. This event featured excerpts from “Rockin’ in the Free World” by Neil Young, who later claimed he was not asked permission and was more of a Bernie Sanders guy. Speculation that this event would happen heightened when *The Apprentice* was not renewed. For 10 points, name this event which occurred on June 16, 2015, featuring the slogan “Make America Great Again”.

Answer: Donald **Trump announcing his 2016 presidential campaign** [accept equivalents; prompt on partial answer]

15. One of these locations was home to a trade festival in honor of the goddess Anahita, and another was home to the first paper mill in the Islamic world. One of these locations near the Yumen pass has a name meaning “Tranquil West”. The Sogdians lived in a number of these locations, which included Suyab and Talas. One of the westernmost of these locations had dead bodies launched into it, which some say sparked the Black Death in Europe. Visitors to one of these locations used bamboo canes to smuggle the eggs of a certain insect into the Byzantine Empire. At its height, the Mongol Empire controlled all of these locations, which proved beneficial for trade. For 10 points, name these locations, including Almaty, Bukhara, and Samarkand, which were located along a trade route between Asia and Europe.

Answer: **cities** on the **Silk Road** [also accept **Silk Route**]

16. A character in this work, who has spent much of his time sick staring at the red brick wall outside his window, bemoans that he will die without leaving anyone a memory. A young man named Burdovsky receives 10,000 rubles after frauduently claiming to be the illegitimate child of Pavlishtchev. After an agitated speech about religion and the future of the aristocracy, the protagonist accidently breaks a Chinese vase. The aristocrat Totsky promises a character in this work 75,000 rubles if he agrees to marry a “fallen” woman; he does this though he is really in love with Aglaya. The protagonist of this novel follows Rogozhin through dark rooms before seeing the body of Nastassya Filippovna, who had been stabbed the previous night. For ten points, name this novel about the epileptic Prince Myshkin, written by Fyodor Dostoyevsky.

Answer: **The Idiot**

17. Bill Reid was inspired by Haida artwork when he illustrated one series of these works dedicated to "Arts and Culture," and another work in that series depicts a veteran and two children observing a cenotaph with two soldiers in the background, and was meant to illustrate the themes of "Remembrance and Peacekeeping,". In 2012, one of these works came under fire for the perceived ethnic stereotyping of a female scientist depicted. Another series of these works depicts an osprey and a snowy owl and is named for the “Birds of Canada”. For ten points, identify these works of art, now designed on a polymer medium, that are typically displayed opposite images of past heads of government, and the current head of state of the True North.

Answer: **illustrations** on the **back** of **Canadian banknotes** [accept equivalents]

18. One ruler of this dynasty defeated Argos Sevenstar at the Battle of the Weeping Water, then attached Sevenstar’s corpse to his boat during a punitive raid. This dynasty fought with its southern neighbor in the War Across the Water. After one ruler of this dynasty got lost at sea, his son burnt the rest of the fleet. Another member of this dynasty won a wrestling match over Bear Island. An opponent noted that one member of this dynasty “won the war on the battlefield and lost it in a bedchamber”. Lyanna Mormont claimed she would only serve a king of this dynasty. A member of this dynasty was executed for treason by King Joffrey, prompting another member of this dynasty to claim the ancestral title “King in the North”. For 10 points, name this dynasty with a sigil featuring a dire wolf, whose words are “Winter is Coming”.

Answer: **Stark**

19. Ben Harris published an article in 1979 stating that accounts of this experiment featured “as much fabrication and distortion as they do fact”. Psychologists Beck, Levinson, and Iron wrote a paper about finding the identity of the subject used in this experiment. That subject was exposed to cotton, wool, masks, a dog, and other things as an initial emotional baseline. The results of this case study were published in the February 1920 issue of the *Journal of Experimental Psychology*. A suspended steel bar was struck with a hammer behind the subject's back to create a loud sound that was used to induce fear. For ten points, name this classical conditioning experiment carried out by John B. Watson, in which a nine month old boy was made to fear a white rat.

Answer: **Little Albert** Experiment

20. A subtype of this security can be made through a process called stripping. The Merrill Lynch Domestic Master is an index for these securities. A quantity relating to these securities named for Macaulay can be found by differentiating their price with regards to their yield. The redemption yield for these securities is the internal rate of return earned when holding the security to maturity. The difference between the dirty price and the clean price of these securities is the accrued interest since the last coupon payment. These securities are rated by agencies such as Moody’s and S&P, providing a basis for whether these securities are investment-grade or junk. For 10 points, name these debt instruments that can come in corporate and municipal forms, and often move opposite to stocks.

Answer: **bonds**

21. The British Medical Journal stated that suicides increased 35.7% following this event, and the Indignant Citizens Movement led a series of protests against measures put in place following this event. Former United States Secretary of Labor Robert Reich stated that this event grew out of a deal with Goldman Sachs. Though critics stated that a referendum in response to this event would be unconstitutional, that assertion was denied by a federal court since it was a 'crucial national matter'. This event is believed to have begun after the rise of the PASOK party. Between 2010 and 2013, there were seven sets of austerity packages to deal with this event. For ten points, name this event that involves a certain European country's proliferation of mass public debt.

Answer: **Greek debt crisis** [accept equivalents; anti-prompt on **Greek anti-austerity measures** until measures is read]

22. A theologian claimed this action would be made difficult by one side’s use of theoria. In order for this action to happen, a compromise between positions of primus inter pares and supremacy with regard to a certain bishop would need to occur. An embrace on the Mount of Olives was considered to be the start of this action, and the participants later withdrew centuries-old excommunications. Attempting to complete this action was one of Urban II’s goals for the First Crusade, but the sack of Constantinople in the Fourth Crusade made this event nearly impossible. One step toward this action came when Bartholomew I and John Paul II jointly recited the Nicene Creed without the filioque clause. For 10 points, name this action which would reunite the Catholic and Orthodox churches.

Answer: **reconciliation of the Great Schism** [accept equivalents]

23. A trail in this park was named after a visit in 1976 by James Callaghan, in recognition of his conservation efforts. This park has regions of barren desert between the towns of Trout River and Woody Point. Some of the highest waterfalls in the region, including Tablelands Brook Falls and Pissing Mare Falls, can be found in this park. Western Brook Pond is actually a fjord that runs through this park. Around this park, one can view whales at Bonne Bay or harbour seals at St. Paul's Inlet. Stretching over 1800 km squared, this world heritage site is home to the Long Range Mountains, the most northern range of the Appalachians. For ten points, name this national park that is located on the western shore of the Great Northern Peninsula of Newfoundland.

Answer: **Gros Morne** National Park

24. Henry Irving played this character as morally superior to others around him, and Jacob Adler developed pride as the motivation for this character’s actions. Edwin Booth’s portrayal of this character contrasted with that of his father, who followed Edmund Kean’s trend of portraying this character sympathetically. That character was portrayed as a tragic hero in a film adaptation directed by Michael Radford. Audiences in the time the play was written would have considered this character’s conversion to Christianity as a happy ending. In one speech, this character asks “Hath not a Jew eyes?” after telling Salerio and Salanio of his plan for revenge. For 10 points, name this Jewish moneylender who demands a pound of Antonio’s flesh in Shakespeare’s *The Merchant of Venice*.

Answer: **Shylock**

**Bonuses**

1. If you can’t clique spearly, don’t speak at all. Identify these verbal accidents, for ten points each:

[10] They are named for an Oxford reverend who was infamous for these mistakes; another apocryphal example from its namesake is “three cheers for our queer old dean!”

Answer: **spoonerism**

[10] A French term meaning ‘inappropriate’ was incorporated into the name of a character in *The Rivals* by Richard Sheridan, who then lent her name to this misuse of words, as seen in her “derangement of epitaphs”.

Answer: **malapropism**

[10] An accident of hearing rather than speaking, these occur when a listener misinterprets lyrics from a poem or song. Its name comes from the ballad *The Bonnie Earl O’ Moray*, who was laid down to die alone, not alongside the namesake Lady.

Answer: **mondegreens**

2. It was titled after the author’s death by her brother. For ten points each:

[10] Originally referred to by Jane Austen as *The Elliots*, this was Austen’s last completed novel; the central family lives at Kellynch Hall, until they are forced to let it by the father’s vanity and financial imprudence.

Answer: **Persuasion**

[10] Prior to the events of the novel, Anne Elliot had accepted a proposal from this naval officer, but was convinced to break the engagement by a concerned friend; his sister and brother-in-law take up residence in Kellynch Hall, bringing him back into Anne’s life.

Answer: Frederick **Wentworth**

[10] Published at the same time as *Persuasion*, this Austen novel also features a protagonist who is first exposed to the world and social scene in the setting of Bath, though she also spends much time at the Tilneys’ title estate.

Answer: **Northanger Abbey**

3. Eduard Toll and Alexander Bunge carried out an expedition in 1885 in the delta of this river and the surrounding islands. For ten points each:

[10] Identify this river, the 3rd largest river in Asia and most eastern of the great Siberian rivers that flow into the Arctic Ocean.

Answer: **Lena** River

[10] Though the Lena River never flows into it, this lake is just seven kilometres east of its source. It holds the distinction of being the largest freshwater lake in the world.

Answer: Lake **Baikal**

[10] This is the largest city that passes through the Lena River. This city, which is one of the coldest major cities in the world, is the capital of Russia's Sakha Republic.

Answer: **Yakutsk**

4. They were created as an alternative to years of life lost as a measure of the impact of disease on health. For ten points each:

[10] This measure incorporates years lived with disability to account for effects of disease that do not result in premature death, and was created for use in the 1990 Global Burden of Disease study.

Answer: **disability-adjusted life years** or **DALY**s

[10] One result of using DALYs in burden of disease studies is the increased prominence of neuropsychiatric disease. In the 2004 GBD update, this umbrella of disorders was the largest contributor of DALYs in middle- and high-income countries, and the 3rd-largest worldwide.

Answer: unipolar **depressive** disorders or **depression**

[10] Health impact assessment requires accurate cause of death data, which may not be captured by official registers. This method uses structured interviews with persons close to the deceased; the data is then analyzed by a health professional or computer algorithm (such as InterVA-4) to determine cause of death.

Answer: **verbal autopsy**

5. Its exterior decoration was decided upon in the absence of the fair’s director of color, much to his chagrin. For ten points each:

[10] Give this nickname for the central buildings at the World’s Columbian Exposition, which inspired a line in *America the Beautiful* about structures that “gleam undimmed by human tears”.

Answer: the **White City**

[10] As chief of construction and director of works this man was largely responsible for the fair’s architecture. With his partner John Root, he also designed the “Montauk Block”, the first building to be called a skyscraper.

Answer: Daniel **Burnham**

[10] Frederick Law Olmsted clashed with Burnham over the use of steamboats in the fair’s sculpted lagoons, which he felt would ruin his intended “poetic object”; Olmsted is often called the father of this form of architecture in America, which he also implemented in New York’s Central Park.

Answer: **landscape** architecture

6. This quantity under certain circumstances may exceed the speed of light in a vacuum. For ten points each:

[10] Name this quantity which describes the rate at which a phase of a wave propagates through space. It can be calculated by dividing the wavelength by the period.

Answer: **phase velocity**

[10] This quantity is equal to phase velocity at linear dispersion relations. It is the rate at which the envelope of a pulse propagates in a medium.

Answer: **group velocity**

[10] This type of electromagnetic radiation is caused when charged particles are moving through a medium at speeds greater than the phase velocity of light in the same medium.

Answer: Vavilov–**Cherenkov** radiation

7. It is thought to be a self-portrait of the artist, albeit without showing his face. For ten points each:

[10] This 1818 painting depicts a man looking over a landscape composed of the namesake phenomenon and rearranged segments of the Elbe Sandstone Mountains.

Answer: **Wanderer above the Sea of Fog** or **Wanderer above the Mist** or Der **Wanderer über dem Nebelmeer**

[10] This artist often used the Rückenfigur, a subject viewed from behind, as seen in *Wanderer above the Sea of Fog* and *Man and Woman Contemplating the Moon*.

Answer: Caspar David **Friedrich**

[10] This Friedrich painting depicts the fictitious shipwreck of the HMS *Griper*, one of William Parry’s ships on his expeditions to the North Pole.

Answer: The **Sea of Ice** or Das **Eismeer** or The **Wreck of Hope** or Die **gescheiterte Hoffnung**

8. Between 735 and 737, this man invaded Georgia and besieged the fortress of Anakopia. For ten points each:

[10] Identify this man who ruled from 744 until he was defeated in the Battle of the Zab in 750. He then fled Damascus before being caught and killed in Egypt.

Answer: **Marwan II** [accept **Marwan ibn Muhammad** ibn Marwan]

[10] This man appointed Marwan II as governor of an area making up modern-day Armenia and Azerbaijan. During his reign, he led forces against the Khazars, and despite several setbacks, retook the area south of the Caucasus Mountains.

Answer: **Hisham** ibn Abd al-Malik

[10] Both Marwan II and Hisham were from this early Muslim caliphate that was overthrown by the Abbasids in 750.

Answer: **Umayyad Caliphate**

9. Everyone knows Toronto is the only place that matters in Canada. For ten points each, identify these features that can be found in the Greater Toronto Area.

[10] This nature park is the largest of its kind entirely within a metropolitan area in North America, and straddles the border between Scarborough and Pickering. It is named after the river that forms part of the border between Toronto and Pickering, and it may become Canada's first urban national park.

Answer: **Rouge** Park

[10] This feature of the Niagara Escarpment found in Milton is a popular destination among hikers and climbers, and its roads are also popular for recreational driving and motorcycling. Its name is derived from its serpentine paths formed by glaciers, rather than an animal native to the region.

Answer: **Rattlesnake Point**

[10] This escarpment, sharing a name with a district of Toronto, follows the eastern waterfront of Toronto along Lake Ontario, and was named after similar limestone cliffs found in North Yorkshire, England.

Answer: **Scarborough Bluffs**

10. It was shortlisted for the 2011 Man Booker and Giller prizes. For ten points each:

[10] This book’s titular characters kill a giant red-skinned bear and perform the “counting to three” trick on a gang of trappers. On the book's cover, the moon behind their heads forms the image of a skull on a red background.

Answer: The **Sisters Brothers**

[10] The namesake brothers are Charlie Sisters and this man, who narrates the story and develops fruitless attachments to two hotel employees and his mostly-useless horse, Tub.

Answer: **Eli** Sisters

[10] The brothers travel from Oregon to this city on a mission to assassinate a prospector. Upon arrival, they are told of a man who leaped “from the roof of the Orient Hotel, laughing all the way to the ground”, and Eli describes the ships in its harbour as “a vast, limbless forest rolling on the tides”.

Answer: **San Francisco**

11. He was one of Canada's most famous sociologists from the early 1950s until his death in 1979. For ten points each:

[10] Identify this man who worked in the field of social stratification and challenged the concept that Canada was a society with "no barriers to opportunity."

Answer: John **Porter**

[10] Porter's most famous work, *The Vertical Mosaic*, is subtitled “An Analysis of” thisconcept “and Power in Canada”. This concept can be defined as a division in society based on status, commonly divided into upper, middle, and lower sections.

Answer: **Social Class** [accept **Social Hierarchy**; prompt on partial answer]

[10] Porter's method of sociology would mainly fall into this framework. This perspective, whose origins may have begun with Herbert Spencer and Emile Durkheim, describes each part of society in terms of how it contributes to the stability of the whole society.

Answer: **structural functionalism**

12. It predicts the proportion of heterozygous and homozygous genotypes. For ten points each:

[10] This doubly-eponymous equation states that p2 + 2pq + q2 = 1, where p and q are the allele frequencies.
Answer: **Hardy-Weinberg** equilibrium equation
[10] One condition of Hardy-Weinberg equilibrium is that this is not occurring, the change in allele frequencies due to random sampling.
Answer: **genetic drift** or **allelic drift**
[10] Another factor that would disrupt the equilibrium is this process; Darwin expressed difficulty in believing that the eye could be formed by it.
Answer: **natural selection**

13. This object was created by Johns Hopkins University's Applied Physics Laboratory and the Southwest Research Institute. For ten points each:

[10] Name this interplanetary space probe that was launched on January 19, 2006 as part of NASA's New Frontiers program.

Answer: **New Horizons**

[10] While New Horizons became the first spacecraft to do a flyby of Pluto, it also flew within 28,000 km of this largest moon of Pluto.

Answer: **Charon** (accept **Pluto I**)

[10] The principal investigator of the New Horizons project was this member of the Southwest Research Institute. He earlier lobbied for the exploration of Pluto as a member of a group of scientists called *Pluto Underground*.

Answer: Alan **Stern**

14. It was the second of the author’s Theban plays to be written, and the first within the larger story’s timeline. For ten points each:

[10] Aristotle cited this work as an example of the best form of anagnorisis in tragedy, accompanied by a reversal of fortunes and arising in a plausible way - in this case, a messenger tries to ease the titular character’s worries by revealing that Merope is not, in fact, his mother.

Answer: **Oedipus the King** or **Oedipus Rex** or **Oedipus Tyrannos**

[10] This tragedian wrote *Antigone*, *Oedipus the King*, and *Oedipus at Colonus* as members of separate tetralogies for the art festivals at Dionysia, resulting in some inconsistencies.

Answer: **Sophocles**

[10] At the end of *Oedipus the King*, Oedipus cedes full authority of Thebes to this man; however, in *Antigone*, Oedipus’ sons fight over the rulership until both are dead, after which this man resumes control.

Answer: **Creon**

15. He published only one novel and twenty short stories in his lifetime. For ten points each:

[10] This author, who passed away in April 2014, spent much of his childhood on Cape Breton Island, and published his sole novel, *No Great Mischief*, at the age of 63.

Answer: Alistair **MacLeod**

[10] Alex, the narrator of *No Great Mischief*, has this surname, and can trace his family history back to Scotland in 1745; thirty-eight men from this clan were killed in the massacre of Glencoe.

Answer: Clan **MacDonald**

[10] Giving the novel its name, this man said of the Scottish Highlanders, “They are hardy, intrepid, accustomed to a rough country, and no great mischief if they fall”. Alex recalls this man’s two-sided relationship with the Highlanders, fighting them in the Jacobite Rising, but using them to achieve victory at the Battle of the Plains of Abraham.

Answer: James **Wolfe**

16. John Sentamu, the current Archbishop of York, stated that this man was “the worst kind of racist dictator," for having "targeted the whites for their apparent riches". For ten points each:

[10] Name this man, who has been the head of Zimbabwe since 1980. His many controversial election victories have had some calling him a dictator.

Answer: Robert **Mugabe**

[10] This head of the ZAPU party initially teamed up with Mugabe following the end of white-minority rule, though the two had irreconcilable differences. These differences eventually caused him to flee to London, though he did later return.

Answer: Joshua **Nkomo**

[10] Nkomo fled after this massacre, in which Zimbabwe's Fifth Brigade killed 20,000 Ndebele people, mostly supporters of Nkomo. Its name literally means “the early rain which washes away the chaff before the spring rains”.

Answer: **Gukurahundi**

17. They practice a system of resource management called 'Aha Moku. For ten points each:

[10] Sometimes referring to themselves as kanaka maoli, this people’s deities include Wakea and Pele.

Answer: native **Hawaiian** people

[10] This is the sacred oral tradition and origin story of the native Hawaiians, which inventories all natural resources and describes their kuleana, or responsibility.

Answer: **Kumulipo**

[10] One specific kuleana discipline is this role of spiritual advisor, though the word can be used to mean an expert in other contexts, including surfing.

Answer: **kahuna**

18. Toronto politics is all fun and games until you have to go to rehab. For ten points each:

[10] Give the name of this brother of crack-smoking former mayor Rob Ford who ran for mayor in 2014, and was mocked by John Oliver on *Last Week Tonight* for his comments about Jews, his claims that his wife was of Jewish descent, and allegations that he referred to a journalist as a "little bitch".

Answer: Douglas Bruce "**Doug**" Ford, Jr.

[10] Former mayor Rob Ford was often criticized for refusing to attend this annual Toronto event, which was seen as a snub for the minorities it represented. John Tory's attendance at this event in 2015, wearing a rainbow-coloured tie, was seen as a welcomed change by many.

Answer: **Pride Week** [also accept "**Pride Parade**" or any other indication of LGBT pride celebrations]

[10] Long before any of these escapades, in 1999 Rob Ford was charged with a DUI and marijuana possession in this city. He apparently served the community hours by coaching football.

Answer: **Miami**

19. Something about legless reptiles has made them frequent figures in various world mythologies. For ten points each:

[10] This creator deity of Aboriginal Australia is said to produce its namesake phenomenon as it travels from one waterhole to another.

Answer: **rainbow serpent** or **rainbow snake**

[10] Jormungandr, the sea-serpent child of Loki and Angrbotha, grew so large that he surrounded all Midgard and bit his own tail; as a result, he became an example of one of these symbols, from the Greek for ‘tail-devouring’.

Answer: **ouroboros** or **uroboros** [be lenient with pronunciation]

[10] This mother of monsters in Greek mythology was half-woman, half-snake, and among her children were Cerberus and the Lernaean Hydra.

Answer: **Echidna** [prompt on **She-Viper**]

20. Meiosis is a process that leads to the production of four haploid cells. For ten points each:

[10] Identify this step that occurs during prophase I, where homologous chromosomes exchange genetic information, resulting in recombinant chromosomes.

Answer: **crossing-over** [accept **crossover**]

[10] During crossing-over, this four-armed DNA structure is formed as an intermediate prior to the separation of the resultant recombinant chromosomes.

Answer: **Holliday junctions**

[10] In the process of crossing-over, this point exists where the two homologous, non-sister chromatids from separate chromosomes temporarily join to exchange genetic information. It is also known to occur between sister chromatids in the same chromosome.

Answer: **chiasma** [also accept **chiasmata**]

21. While many US Presidents have been largely unpopular during their terms, one in recent history has particularly been able to come across as a relatively likeable ex-President. For ten points each:

[10] Identify this 39th President of the United States, who was criticized for his perceived weak foreign policy, particularly with regards to returning the Panama Canal Zone to Panama, and was sometimes mocked for his habit of wearing a sweater to offset the lowered heat in the White House.

Answer: James Earl "Jimmy" **Carter** Jr.

[10] One major source of dislike for Carter during his presidency was this speech which, while intended to be a call for a renewal of spirit, was perceived by many to be a criticism of American lifestyles. While it is sometimes referred to as his "malaise" speech, he did not use the word "malaise" once in the speech.

Answer: "**crisis of confidence**" speech

[10] While Carter is a Democrat, he endorsed this candidate for the Republican Presidential primary in 2012 because he felt this candidate would be an easier opponent for Barack Obama to defeat in the presidential election.

Answer: Willard Mitt **Romney**

22. The internet is all fun and games until it takes a turn for the nasty. For ten points, identify these memes and internet references that originate from porn:

[10] This meme originates from a series of pornographic films where women are supposedly fooled into sexual acts to be filmed on camera in order to get a modeling job, and the meme itself depicts a very familiar piece of seating furniture set within an office-like environment.

Answer: Backroom **Casting Couch**

[10] This phrase originates from a hilariously bizarre intro for a pornographic film in which James Deen and his partner discuss their prized fruit trees until they catch a certain type of unsavoury character pilfering their fruits.

Answer: **Lemon Stealing Whore**(s)

[10] This phrase that was once popularly repeated on internet forums began from a film in which a male porn actor, speaking in broken English, attempts to assuage his female partner's concerns about engaging in fellatio when there is evidently still fecal matter on his penis.

Answer: **"It's only smellz"** [do not accept "It's just smellz"]