

PARFAIT II Round 7

Princeton and University of Miami
Jay Sridhar and Irene Ying

October 14, 2006

1 Princeton and University of Miami Tossups, Round 7

1. This book is divided into three parts whose names come from Galatians 6:7, “For whatsoever a man soweth, that shall he also reap”. Minor characters include Bitzer, who serves as the guard over the town’s new bank, and Mrs. Sparsit, who spends her time spying on her employer’s wife and the young, dashing James Harthouse. Meanwhile, a robbery within the bank is pinned on the poor, unemployed factory worker Stephen Blackpool instead of on the real thief, whose sister Louisa is married to the bank’s owner, Josiah Bounderby. Louisa’s father is Thomas Gradgrind, whose favorite phrase is “immensely practical”, and runs the school in Coketown. For ten points, name this criticism of utilitarianism and the British factory system, a novel by Charles Dickens.

Answer: Hard Times

2. Emily Hobhouse revealed the brutality of British concentration camps employed during this conflict, causing an uproar in England and bringing about the Fawcett Commission. New Zealand immediately offered the British support, and it marked the first war that involved the Commonwealth of Australia. Canada hoped to stay neutral, but Canadian Troops eventually fought abroad for only the second time at the battle of Paardeburg. Foreshadowed by conflicts such as the 1895 Jameson Raid, it was finally ended in 1902 by the Treaty of Vereeniging. For ten points, name this conflict that pitted the British Empire against the combined forces of the Orange Free State and the South African Republic.

Answer: The Second Boer War or Anglo-Boereoorlog or Tweede Vryheidsoorlog

3. Containing most of its country’s vineyards, this region was originally a Slavic settlement in the 600s. Its highest mountain is the Praded, at an elevation of 1,490 meters, and on its southern end one can find the Jesinky highlands. To the east, its border is formed by the White Carpathian mountains, separating this region from an area of Poland now associated with it. Birthplace of Sigmund Freud, its major cities include Ostrava and Brno, where citizens often joke about the neighboring Bohemians. For ten points, name this Czech region which is now combined with Silesia into one province.

Answer: Moravia

4. He originally was named for a rock, because he lived in a rocky cave. He ended up on quests involving eating heavenly peaches, taking a piss in a god’s enormous palm, carving his name into the god’s thumb, and wearing a crown that grew roots into his head, so he can never take it off. He has a very hard body, thanks to his experience in an eight-trigram furnace. In battle, he can clone himself by blowing the hairs off his body, he wears a suit of gold armor, and he wields a 13,600 pound quarterstaff that can also transform into useful items. Thus, he was able to defeat the armies of the heavens and force the Jade Emperor to beg the Buddha for help. For ten points, name this dangerous character who the Buddha trapped under a mountain for 500 years until he was released to go on a “Journey to the West”.

Answer: The Monkey King or Sun Wukong

5. It can be combined with the Doppler effect to lead to a kind of spectroscopy, but generally the source and the material being studied need to be of the same elements, so as to have the proper energy levels. Iron, iodine, tin, and antimony are more or less the only elements that can be used for the spectroscopy, with iron being the most commonly used. Zero-phonon optical transitions are analogous to this effect. It is not found in gases, but is found in solids with negligible recoil. For ten points name this physical effect dealing with the resonant emission and absorption by solids of gamma rays.

Answer: Mössbauer Effect

6. Thomas of Marlborough created two fake ones which were challenged by the bishop of Worcester according to an account by Clanchy. One in 1139 recognized the Knights Templars, and another in 1452 authorized the West African slave trade. Named after the distinctive lead seals depicting Paul and Peter on one side and the issuer on the other, they became unwieldy for daily business and were more sparingly used after 1500. Famous ones include the 1302 *Unam Sanctam* declaring the supremacy of the church over the state and the 1582 *Inter Gravissimas* initiating calendar reform. For ten points, what documents which also include convocations, excommunications, and canonizations, are issued by the head of the Vatican?

Answer: Papal bulls or Bulla or Bullae

7. Its namesake was shaken by two assassination attempts targeted at him. Followed by the lynching of IWW member Wesley Everest in Centralia, Washington, it involved the construction of a database of over 150,000 names, obtained via informers and wiretaps. In one part of these events, the *Buford* became mockingly known as the *Soviet Ark*, as that ship was used to deport influential radical leaders such as Emma Goldman to Communist Russia. For the most part it involved the Bureau of Investigation prosecuting known radicals and leftists under the terms of Espionage Act of 1917. For ten points, name these series of Red Scare raids named for the Attorney General at the time.

Answer: Palmer Raids

8. An apprentice of Peterzano, he later worked for Giuseppe Cesari in Rome, painting such images as “Boy Peeling a Fruit” and “Young Sick Bacchus”. He is better known for the style he demonstrates in images such as “Penitent Magdalene” and “Rest on the Flight to Egypt”. A controversial figure, his “Madonna of Loreto” was thought to have been modeled from a dead prostitute. He also painted morbid scenes such as his “Beheading of St. John the Baptist” and “David with the Head of Goliath,” both of which feature his characteristic dramatic contrast in lighting. For ten points, name this Mannerist notorious for his personal escapades and praised for his chiaroscuro techniques, best demonstrated in “The Calling of St. Matthew”.

Answer: Michelangelo Merisi da Caravaggio

9. The colliers of Kingswood Chase would didn't have any meeting place, and so the founders of this movement had to preach in the open Bristol air, quite different from the Oxford Students who met together and collectively fasted and abstained in the 1720s, but their adventuring had begun earlier when two brothers accepted an invitation from Oglethorpe to preach in the nascent colony of Georgia. A small group of people under this denomination tend towards Calvinistic views but the majority reject the concept of predestination,

embrace the doctrine of Arminius, and accept only the sacraments of baptism and the Eucharist. Richard Allen created the African Episcopal version of it, an offshoot of the American offshoot led Francis Asbury. For ten points, name this Protestant sect founded by John and Charles Wesley, associated with meticulous worship practices.

Answer: Methodism or Methodists

10. It is mildly toxic to the kidneys, and it can be introduced to the body by consuming rhubarb leaves or ethylene glycol. This compound can be produced by oxidizing sucrose with nitric acid. Alternatively one could produce its sodium salt by forcing carbon monoxide into sodium hydroxide. Used industrially to make household cleaners, wood restorers, and dyes, it is the simplest dicarboxylic acid. For ten points, identify this strong organic acid with formula $\text{H}_2\text{C}_2\text{O}_4$.

Answer: Oxalic acid

11. He described how the quail-hunting Mr. Elderson encounters and later learns the titular "Secret of Macarger's Gulch". This author also created a murderous chess-playing robot in "Moxon's Master" and a deadly watch which kills off John Bartine. He is more famous, however, for getting wounded in the head at Kennesaw Mountain during the Civil War and vanishing in Mexico in December 1914. Because he had once claimed that being shot in Mexico was a good death, Carlos Fuentes fictionalized his disappearance in "The Old Gringo". For ten points, name this American creator of Peyton Farquhar, the protagonist of "An Occurrence at Owl Creek Bridge", and "The Devil's Dictionary."

Answer: Ambrose Bierce

12. The 2003 ITF Junior World Champion, he turned professional in 2004, performing modestly before taking a set off of eventual champion Roger Federer at the U.S. Open. The following year, he upset two top twenty players at the Australian Open before again losing to Federer in the fourth round. After an injury-riddled 2005 season, he opened up 2006 in spectacular fashion, upsetting Ivan Ljubicic, David Nalbandian, and Andy Roddick en route to the Australian Open final, receiving great support from the Greek population of Melbourne. For ten points, name this exuberant and exciting Cypriot youngster who more recently lost a thrilling five-setter in the 2nd round of the US Open, giving Andre Agassi his final ATP tour win.

Answer: Marcos Baghdatis

13. He developed the Emotional Tone Scale to help predict and analyze behavior, and offered his assistance in helping rebuild Rhodesia, then under UN sanctions before becoming a "commodore" in Sea Org. He developed a purification program to remove traces of drugs from fatty tissue and a device similar to psychologist William Marston's polygraph, which he called the E-Meter. Claiming disease to be mostly psychosomatic, building on Freud's conversion disorders, once one became an "Operating Thetan," one would be free of energies circling the Earth. For ten points, name this founder of the system of *Dianetics* that serves as the foundation of *The Church of Scientology*.

Answer: Lafayette Ronald Hubbard

14. The titular figure marries her husband for economic security, but he turns out to be a real bore, as he is writing a book on medieval handicrafts in the Brabant region. Meanwhile,

Thea, a former governess who married her widowed employer, comes to town looking for her lover, a former alcoholic genius who has focused his efforts and written a masterpiece about the history and future of mankind. Incidentally, that genius used to be the title character's lover, and out of jealousy she ruins him by burning the manuscript of his masterpiece and asking him to commit suicide, giving him one of her pistols. However, when Eilert Lovborg is found dead, Judge Brack recognizes the pistol and tries to blackmail the female protagonist into giving him sexual favors. For ten points, name this play where the title lady famously shoots her brains out, a work by Henrik Ibsen.

Answer: Hedda Gabler (accept either name)

15. This battle was cited by John Stuart Mill's *Dissertations and Discussions* as important for British culture because its dramatic consequences ensured the development of a unique western culture. Prior to this engagement General Artaphernes captured the city of Carystus on the island of Euboea, alarming the eventual victors. Supposedly because of the Carneian festival, the Spartans were delayed in their arrival, and the outnumbered defenders took the offensive on September 9th, creating a double envelope around the forces of Darius I. Herodotus details that only 192 Greeks died compared to 6,400 Persians, giving Athens a decisive victory. For ten points, name this 490 BC battle that gives its name to a 26.2-mile race.

Answer: Marathon

16. This disease is usually caused by a mutated gene on chromosome 4, producing a large cytoplasmic protein. That protein accumulates in neuronal cells, leading to cell death in the basal ganglia. Symptoms evolve from changes in personality and jerking movements into dementia, and this disease is ultimately lethal, usually after the afflicted person has had progeny. For ten points, name this autosomal dominant disease that involves trinucleotide repeat expansion and that is often cited when envisioning ethical dilemmas involving genetics.

Answer: Huntington's disease or Huntington's chorea

17. Often used as an alarm signal, in most organisms this compound rises in concentration when energy is low. In many bacteria, its presence is needed to bind the CAP protein and induce the production of Beta-galactosidase, allowing the bacteria to use lactose as an energy source. In humans, it can be elevated due to coffee consumption, as caffeine inhibits a crucial phosphodiesterase, causing more energy to be released from stored glycogen. The cholera toxin induces its production in intestinal epithelial cells, causing water and ions to be lost through this compound's associated gated channels. For ten points, name this cyclic nucleotide produced by adenylate cyclase from ATP.

Answer: cyclic AMP or cyclic adenosine monophosphate

18. At the time it was composed, it called for a percussion section larger than any previous ballet score. It drew extensively from folksongs, which the composer learned through his friend Nikolai Roerich. Its score was used by Disney as the music for the genesis of the universe in *Fantasia*, although it originally utilized dissonance and bitonality to depict "pictures from pagan Russia". A major example of primitivism, this musical composition premiered at the opening of the Théâtre des Champs-Élysées in Paris. For ten points, identify this ballet made notorious by the famous riot at its first performance, a work

choreographed by Vaslav Nijinsky and composed by Igor Stravinsky.

Answer: The Rite of Spring or Le Sacre du printemps (it premiered in France)
or Vesna Sviashchennaia

19. Robert Campbell financed his 1848 expedition to explore a railroad route along the 38th parallel from St. Louis to San Francisco, and this illegitimate son of a poor French refugee and a wealthy Virginian, he became more socially acceptable by marrying the daughter of senator Thomas Hart Benton. Often cited as the first Caucasian to see Lake Tahoe, he ordered the execution of three popular Spaniards, ruining his chances of being California's first governor. He resuscitated his political career by capturing El Presido and accepting the surrender of General Pico, earning him a place in Congress as one of the first two Senators from California. For ten points, name this "Pathfinder" who lost the 1856 election to James Buchanan as the first Republican Presidential candidate.

Answer: John Charles Fremont

20. Gottfried Haberler showed in the 1930s that this could be expressed in neoclassical terms of opportunity cost. When it applies, all the parties involved are able to consume outside their production possibility frontiers. It was first conceived, but not so named, by Robert Torrens in 1815 using corn as an example. Stanislaw Ulam once challenged Paul Samuelson to name one theory in all of the social sciences which is both true and nontrivial; Samuelson produced this. For ten points name the theory stating that if different parties have differences in how efficiently, not cheaply, they can produce something, they should trade to mutual benefit, famously stated by Ricardo.

Answer: Comparative advantage

21. Mooney, Kostyuchenko, and Egorkin used peaceful nuclear explosions to create a map of where it is. Ophiolites derive from this general region, which was discovered while checking up on the Zagreb earthquake, and the realization that seismic primary waves sped up when they passed about 10-12 kilometers below the oceans and about 33-35 kilometers below the continents. Since P waves behave differently depending on whether they travel through solid or liquid, that allowed the Croatian scientist to determine the location of, for ten points, this boundary between the Earth's crust and mantle.

Answer: Mohorovicic Discontinuity

2 Princeton and University of Miami Bonuses, Round 7

1. Life sucks? At least you're not being shot at by imperialists. For ten points each ...

10 This was fought in 1879 against some namesake natives.

Answer: The Anglo-Zulu war

10 This was the capital of Zululand, and where the decisive final battle against Cetshwayo was fought.

Answer: Ulundi

10 The British under Lord Chelmsford got their asses kicked at this early battle by a bunch of geriatric Zulus here on January 22 but redeemed themselves at Roarke's drift shortly thereafter.

Answer: Isandlwana

2. His first opera *Le Villi* failed to win him a music contest but earned him recognition and future commissions. For ten points each ...

10 Name this composer who worked primarily out of Tuscany, producing such melodies as "Musetta's Waltz"

Answer: Giacomo Puccini

10 "Musetta's Waltz" appears in this famous work which features such characters as the musician Schaunard and the toy vendor Parpignol, as well as (obviously) the singer Musetta.

Answer: La Boheme

10 Puccini died of throat cancer in 1924, two years before the premiere of this work he left unfinished. It featured characters like Calaf.

Answer: Turandot

3. It serves to counter the effects of free radicals, thus protecting cells from oxidation. For ten points each ...

10 Name this tripeptide which reduces disulfide bonds in cytoplasmic proteins.

**Answer: Glutathione or γ -glutamylcysteinylglycine
or 2-amino-5-{[2-[(carboxymethyl)amino]-1-(mercaptomethyl)-2-oxoethyl]amino}-5-**

10 By convention the third amino acid in glutathione is this only achiral one.

Answer: Glycine (prompt on "aminoethanoic acid")

10 Ironically, this amino acid can prevent glutathione's production by collecting in excess at nerve synapse.

**Answer: Glutamic Acid or (better answer) Glutamate (prompt on "(2S)-2-aminopentanedioic acid")
its ironic because Glutathione is glutamate-cysteine-glycine**

4. Name these expressionists, for ten points each.

10 His *Frieze of Life* series includes a painting inspired by the death of his sister Sophie and a more famous depiction of a vivid memory.

Answer: Edvard Munch

10 One of the founders of *Die Brucke*, he famously drew a self-portrait of himself in which he is missing a hand, although he actually was discharged from the army with nary a scratch on him.

Answer: Ernst Kirchner

10 Munch, like many others, had his work classified as this by the Nazis.

Answer: Degenerate art or entartete kunst

5. In August 1937 he apparently committed suicide by wrapping an electrical cord around his neck and asphyxiating. For ten points each . . .

10 Name this editor of *Mein Kampf* .

Answer: Walter Richard Rudolf Hess

10 This German jail that housed Hess till his death was immediately demolished to prevent it from becoming a Neo-Nazi shrine.

Answer: Spandau Gefängnis

10 Hess was initially captured and incarcerated in this famous prison guarded by beefeaters.

Answer: Tower of London

6. Name these great poets of India , for ten points each. . .

10 This Tamil poet was a leader of the Indian independence movement and wrote such works as *Kannan Paattu* and *Acham Illai Acham Illai*.

Answer: Mahakavi Subramanya Bharathy

10 We have it on record that Bharathy as well known in India than this Bengali poet best known for *Gitanjali*.

Answer: Rabindranath Tagore

10 This Shiva devotee, “servant of Kali”, and “Preceptor of All Poets” is best-known for his “Recognition of Shakuntala”

Answer: Kalidasa

7. Answer some questions about a city whose current name means “red hero” and the surrounding area for ten points each.

10 What is this city on the Tuul River that used to be known for the Russian words for “palace yurt” and the Chinese K’ulun?

Answer: Ulaanbaatar

10 Ulaanbaatar, the capital of Mongolia, lies to the north of this arid desert.

Answer: Gobi Desert

10 This part of the Gobi desert, within Mongolian borders, apparently has lots of dinosaur bones.

Answer: Nemegt Basin

8. Name these Aztec gods, for ten points each.

10 The twin brother of Quetzalcoatl, he previously brought fire from the underworld and helps the dead journey to the afterlife.

Answer: Xolotl (prompt on “The Animal”, “Lord of the Evening Star”, “Lord of the Underworld”)

10 After Coatlicue was impregnated by a ball of feathers she bore this son who killed his sister and threw her head up into the sky, where it became the moon.

Answer: Huitzilopochtli

10 The ruler of the third of the five worlds, he was probably the most feared Aztec deity, as he controlled the rains and the harvests.

Answer: Tlaloc or Nuhalpilli

9. Pull out your yarmulke, it's time to identify these Jewish holidays, for ten points each.

10 This seven-day feast that starts on the 15th day of Tishri features the construction of booths similar to the ones used by the ancient Hebrews while dwelling in the desert.

Answer: Sukkot

10 This day of remembrance has its story told in Esther, and celebrates not being killed.

Answer: Purim

10 On the 15 of Shevat Jews eat pomegranates, grapes, dates, and other specific fruits to celebrate this “New Year of the Trees”

Answer: Tu Bishvat (accept “Rosh Hashanah La'llanot”)

10. Given lines, identify the Langston Hughes poem , for ten points each. . .

10 “Maybe it just sags / like a heavy load / Or does it explode?”

Answer: Harlem (do not accept “A Dream Deferred”)

10 The steps from the hill lead down into Harlem/ through a park, then I cross St. Nicholas/ Eighth Avenue, Seventh, and I come to the Y,/the Harlem Branch Y, where I take the elevator/up to my room, sit down, and write this page

Answer: Theme for English B

10 Droning a drowsy syncopated tune/ Rocking back and forth to a mellow croon/ I heard a Negro play

Answer: The Weary Blues

11. This man's son Absalom is executed after killing a white man, Arthur Jarvis. , for ten points each. . .

10 Name this brother of John and Gertrude who is a black pastor in the village of Ndotsheni.

Answer: Stephen Kumalo (accept either name)

10 Stephen Kumalo is the protagonist of this Alan Paton work.

Answer: Cry, The Beloved Country

10 Stephen's neighbor and Arthur's father, this man begins working for the black people of South Africa, organizing the building of a dam and introducing new agricultural techniques to Ndotsheni.

Answer: James Jarvis

12. It hurt the U.S. Government's credibility by revealing that the Johnson administration had increased US involvement in Vietnam while publicly denying expansion of military activities. For ten points each . . .

10 Name this 47 volume, 7,000-page study leaked in 1971.

Answer: The Pentagon Papers or United States-Vietnam Relations, 1945-1967: A Study Prepared by the Department of Defense

10 The papers were "leaked" to the New York Times by this man.

Answer: Daniel Ellsberg

10 The *Pentagon Papers* were originally commissioned by this man who served as Secretary of Defense from 1961-68, and president of the World Bank from 1968-81.

Answer: Robert McNamara

13. So I hear this French fellow named Moliere might have written some plays. Lets see if you recall a few for ten points each.

10 Elmire struggles to resist the title characters advances, and Orgon is saved from being taken in him only be the intervention of the King. This play caused a scandal at court in 1664 when premiered.

Answer: Tartuffe

10 Alceste and Philinte serve as foils to each other in a demonstration of the importance of manners and politeness in allowing society to function smoothly.

Answer: The Misanthrope

10 Borrowing from Terences Adelphi, Signarelle uses bolts and bars to retrain his spouse while the older Ariste, serving as a model for Moliere himself, uses moral force in relationships

Answer: The School for Husbands or L'École des Maris

14. Even though (or perhaps because) Berkeley mathematicians don't often bathe, they do some pretty freaky shit. Answer some questions about the work of Alfred Tarski for ten points each.

- 10 Tarski showed that, using the axiom of choice, a sphere can be broken up and reassembled into two spheres of the original size with this Soviet-Polish mathematician.
Answer: Stefan Banach
- 10 Tarski showed that the first-order theory of the real numbers was decidable, while Church showed that these second-order arithmetic axioms named after the Italian mathematician who wrote *Arithmetices principia, nova methodo exposita* were not.
Answer: Peano axioms
- 10 Tarski embarked on a theory of logical notions based on the Erlangen program of this German mathematician whose name is also applied to a non-orientable bottle.
Answer: Felix Klein
15. After her husband dies and her son Grisha drowns, she leaves her ancestral home and moves to Paris. , for ten points each. . .
- 10 Name this Chekhov character who tries in vain to convince the businessman Lopakhin to marry her foster-daughter Varya
Answer: Lyubov Andreevna Ranevskaya (accept either)
- 10 Lyubov Ranevskaya loses this titular estate to Lopakhin
Answer: The Cherry Orchard
- 10 Chekhov's wife, she originally played Lyubov when the play premiered at the Moscow Art Theatre. Chekhov actually made Lyubov younger to compensate for this woman's beauty.
Answer: Olga Knipper
16. Answer the following about identifying aromatic compounds using Huckel's Rule, for ten points each. . .
- 10 Huckel's Rule for estimating the aromaticity of a planar ring compound states that such a compound will be aromatic when the number of its pi electrons equals this mathematical expression in terms of a non-negative integer "n".
Answer: $4n + 2$ (accept equivalents, read "Four N Plus Two")
- 10 Unfortunately Huckel's Rule is not applicable for most compounds consisting of more than three fused rings, such as this yellow solid with 16 pi electrons and four fused benzene rings
Answer: Pyrene or Benzo(d,e,f)phenanthrene (do not accept "C16H10")
- 10 However, this 60-carbon allotrope with 60 pi electrons is correctly identified as being nonaromatic by Huckel's Rule
Answer: Buckminsterfullerene
17. Everyone knows who Dwyane Wade, LeBron James, and the immortal "Human Victory Cigar" Darko are. But can you identify these other studs of the 2003 NBA Draft? , for ten points each. . .

- 10 This speedy Brazilian was a steal at the 28th slot by the Phoenix Suns, as he has become a fan favorite and Steve Nash's backup.
Answer: Leandrinho Barbosa
- 10 Taken 21st by the Atlanta Hawks, this lanky Frenchman struggled for two years before being traded to Phoenix, where he blossomed and earned Most Improved Player honors
Answer: Boris Diaw-Riffod
- 10 Also a key reserve for the Phoenix Suns, this former University of Miami star and 49th pick shares his name with the voice actor for Mufasa in "The Lion King"
Answer: James Jones
18. He was killed in the Battle of Mactan on the island of Homonhon. For ten points each ...
- 10 Name this explorer
Answer: Ferdinand Magellan
- 10 This man completed Magellan's intended circumnavigation of the world by leading 18 survivors back to Spain
Answer: Juan Sebastian Elcano
- 10 Instead of Lisbon, Magellan's expedition left from this Iberian port in August 1519. It's probably better known for being the setting of *Fidelio* and *The Marriage of Figaro*.
Answer: Seville
19. The title character, his best friend, and a former slave fly on a hot-air balloon. For ten points each ...
- 10 Name this lesser-known Mark Twain work
Answer: Tom Sawyer Abroad
- 10 Name the continent that served as their destination.
Answer: Africa
- 10 In "Tom Sawyer Abroad" Twain appears to be mocking the outlandish style of this French creator of deep-sea explorer Dr. Pierre Aronaix and high-flying scholar Samuel Ferguson
Answer: Jules Gabriel Verne
20. Answer the following about Ruth Benedict and her colleagues, for ten points each.
- 10 Benedict studied at Columbia University under this author of "Race, Language, and Culture"
Answer: Franz Boas

10 Although Benedict is best known for “The Chrysanthemum and the Sword”, her cultural relativism is best demonstrated in this 1934 work, which describes the titular trends.

***Answer:* Patterns in Culture**

10 Benedict probably had an intimate relationship with this author of “Male and Female”, her former pupil

***Answer:* Margaret Mead**

21. Using it one can calculate the electrode potential of battery half cells. For ten points each ...

10 Name this equation derived by a German chemist

***Answer:* Nernst equation**

10 Using either of two major ions which cross the cell membrane freely one can use the Nernst equation to accurately calculate the resting potential of a cell membrane. Name both of those ions, for five points each.

***Answer:* Potassium (or K^+) and Chloride (or Cl^-)**

10 When calculating the resting potential of a cell membrane it is often more useful to use this equation which expands on Nernst’s work by taking into account the relative permeability of ions across the cell membrane

***Answer:* Goldman equation**