

**MKULTRA II: A Fucking Didactic Educational .docx File**

**The Milton Keynes Ultimate Liaison of Trash and Academia**

**Edited by Emma Laslett, Ian Bayley, Hugh Bennett, Tristram Cole, Edmund Dickinson, Jonathan Elliott, David Knapp, David Stainer and Christopher Stern**

**Round 6 - Packet by Andy Shaw and the Three People You Meet at Quiz Tournaments (George Charlson, Sasha Mottaghi Taromsari, Chris Savory and Andy Shaw)**

Tossups

**1. This author wrote a novel in which the sadistic child Cordelia almost causes Elaine to freeze to death. In another novel by this author a couple go from living in their car and selling their blood to manufacturing animatronic sex dolls in prison. This author of a novel about the imprisonment of housemaid Grace Marks, created the Edenic sect ‘God’s (\*) Gardeners’ and their messiah ‘Adam One’. In one novel by this author of *The Heart Goes Last*, Aimee’s mother has an affair with the communist author Alex Thomas and later causes her own estranged husband Richard to commit suicide. The protagonist of that novel by this author publishes a story that is believed to be by her dead sister Lucy. For 10 points name this author of a novel about Iris Chase, *The Blind Assassin*.**

ANSWER: Margaret Eleanor Atwood

**2. One experiment purporting to show this phenomenon was created by Jack Brehm and involved female students ranking appliances, while another experiment showing this phenomenon is Elliot Aronson's and Merrill Carlsmith's "forbidden toy experiment". Another study into this effect illustrated the forced compliance paradigm by asking subjects to pretend a (\*) boring task was interesting in return for either \$1 or \$20. A cult's response to its incorrect prediction that a UFO would land was cited as an example of this phenomenon in *When Prophecy Fails* by Leon Festinger. For 10 points, what mental conflict arises when a person tries to reconcile contradictory beliefs?**

ANSWER: Cognitive dissonance

**3. This man described his work *Innocent Millions Dead or Dying* as “fucking terrible”. In one TV series, this man portrays a geology lecturer who cannot deal with the fact that Kinsley decides to take Drama. This actor responded to a comedian making political statements by suggesting that he “read some fucking Orwell”. In an eponymous series, this man portrayed a bicycle-riding superhero constantly upstaged by his more powerful partner. This man plays a naturist in a wedding competition in (\*) *Confetti*. One character played by this actor attempts to seduce Zahra, whose boyfriend is in a coma. That character played by this actor had to leave “the Love Shack” after his relationship with Big Suze came to an end, and moves in with his best friend, Mark. For 10 points, name this comic actor, who often teams up with David Mitchell.**

ANSWER: Robert Webb

**4. One short story by this author describes the rotting of a chair by anobium, which causes it to collapse when sat on by a military dictator. In one novel by this author, a potter who owns a stray dog called Found discovers six ancient corpses chained underneath an industrial complex. In another novel by this author of *The Cave*, the protagonist dies in a graveyard where he has followed the spirit of a dead (\*) writer. This author of *The Lives of Things* wrote about “the dog of tears” comforting a woman who closed a door in order to hide an underground food store. In that novel by this author, the doctor’s wife is the only character not afflicted by the title ailment. *The Year of the Death of Ricardo Reis* is by for 10 points which author of *Blindness*.**

ANSWER: José de Sousa Saramago

**5. One town in this historical county is home to St Botolph’s Church, the tall tower of which is known as “the Stump” and Samantha Cameron grew up at Normanby Hall in this county. The village of Ingoldmells in this county is home to the first Butlins holiday camp. Landmarks in one town in this county include the Ice Factory and the Dock Tower, which are remnants of its former importance in the**

(\*) fishing industry. This county's "Industrial Garden Town" is home to a major steelworks and the Humber Bridge connects East Yorkshire with this county. For 10 points, the towns of Scunthorpe, Grimsby and Boston are situated in which English county?

ANSWER: Lincolnshire

6. One character created by this author states that BSE and AIDS have tainted two of his pleasures in life: "prime beef and wild pussy". That character successfully seduces the widowed Helen Reed, and is the cognitive scientist Ralph Messenger. One novel by this author is about a sitcom writer with a painful knee who is nicknamed Tubby and discovers parallels between his life and (\*) Kierkegaard's. In addition to *Therapy?* and *Thinks...* this author created the character Robyn Penrose who shadows the managing director of the engineering firm J. Pringle & Sons, Vic Wilcox. This author set several novels in the fictional University town of Rummidge where Philip Swallow is chair of the English department; those novels by this author include *Changing Places* and *Nice Work*. For 10 points, name this author who wrote about Morris Zapp in *Small World*.

ANSWER: David John Lodge

7. The Weizsäcker–Williams approximation can be used to model emissions of virtual versions of these particles. An accelerating charged particle emitting one of these particles feels a force on itself proportional to the square of the charge multiplied by the jerk; that is the Abraham–Lorentz force. The differential cross section of one of these particles undergoing an inelastic interaction with a charged particle can be calculated using the (\*) Klein–Nishina formula; that process causes these particles to lose energy due to the Compton effect. These particles were shown to exhibit wave-like properties when they formed an interference pattern after being fired towards a double slit in an experiment performed by Thomas Young. For 10 points, name these massless particles that represent quanta of electromagnetic radiation such as light.

ANSWER: photons

8. One leader of this country believed that an African slave he would later rename was covered from head to toe in ink. Twenty-six members of one religion, including Gonsalo Garcia, were killed in this country as a warning to potential converts. One leader from this country fought successfully against a group of fanatical followers of the (\*) True Pure Land school of Buddhism called the Ikko sect. That leader of this country was later forced to commit suicide by a treacherous general in the Honno-Ji incident of 1582, which eventually led to the rise of the second "unifier" of this country, Toyotomi Hideyoshi. For 10 points, name this Asian country, which was ruled for many years by the Tokugawa shogunate.

ANSWER: Japan [or Nihon]

9. One song by this band opens 'You made a fool of me, but them broken dreams have got to end'. That track appears on the album *Face the Music*. In another track by this band, from the concept album *Eldorado*, the singer states 'Now my old world is gone for dead, 'Cause I can't get it out of my head'. This group had hits such as (\*) 'I'm Alive', 'All Over the World' and the title track, from the soundtrack to *Xanadu*. This band's 1979 album *Discovery* was criticised for its disco sound, but spawned the hits *Last Train To London* and *Don't Bring Me Down*. In a track from their 1977 album, *Out of The Blue*, the singer asks why the titular figure 'had to hide away for so long'. For 10 points, name this band, led by Jeff Lynne, whose hits include *Shine a Little Love* and *Mr. Blue Sky*.

ANSWER: Electric Light Orchestra [accept ELO]

10. The first of this composer's piano trios is scored in B Flat and opens with an ascending triplet-based melody in the violin and cello over repeated quaver D minor chords in the piano's right hand, this is then repeated in C Minor. The second movement of another of this composer's chamber works is in ternary form with tranquil outer E major sections surrounding a turbulent inner section in F minor. That work, scored for a string quartet with an additional (\*) cello, is his *String Quintet in C*. This composer wrote a piano quintet in A Major in which a double bass takes the place of the usual second violin. That quintet's 4<sup>th</sup> movement is a set of variations on one of his songs, *Die Forelle*. For 10 points, name this composer of the *Trout Quintet* and an Unfinished 8<sup>th</sup> Symphony.

ANSWER: Franz Schubert

11. **A character in this television show forgets the words to ‘Buttons and Bows’ on live television after advising others that “it’s a leap year, take a leap”. At the beginning of one episode of this show, a character sets fire to his trousers with an iron while classical music plays in the background. The central character of this series decides to go to Chicago to chase love interest (\*) Charlotte in its last episode.**

Running jokes in this show include the main character’s hatred of his father’s chair, a feature of his otherwise well decorated department, and the antics of a Jack Russell named Eddie, as well as episodes ending with dialogue-free sketches to its theme song, ‘Tossed Salad and Scrambled Eggs’ For 10 points, name this long running US sitcom, starring Kelsey Grammer as the titular psychiatrist.

ANSWER: Frasier

12. **This thinker defined power as "the multiplicity of force relations immanent in the sphere in which they operate". In one work this thinker asserts that in the classical age there was "no epistemological consciousness of man as such", and that literature came with a "return of language"; that work begins with an analysis of Diego Velazquez's (\*) *Las Meninas*. Another work by this thinker begins with an analysis of the mediaeval Ship of Fools allegory while in another work this philosopher used Bentham's Panopticon to illustrate the role of observation in the penal system. For 10 points name this French philosopher, the author of *The Order of Things*, *Madness and Civilisation* and *Discipline and Punish*.**

ANSWER: (Paul)-Michel Foucault

13. **One work from this artistic movement uses a satin pillow underneath the canvas to depict a tongue with a nail through it. Another work in this movement shows a woman with her hands behind her head in a zip-up white suit next to a white space helmet; that work is *Valentine* by Evelyn Axell. Jurry Zieľiński was inspired by this movement, which included one painting in which the genitals of a muscular man are covered by a sign (\*) printed with the name of this movement printed on it; that collage is a work on *today’s homes* by Richard Hamilton. Ben-Day dots were used by another artist in this movement who created the work *Whaam!* A crying woman would rather sink than call Brad for help in a work in, for 10 points, what artistic movement that included Roy Lichtenstein?**

ANSWER: pop art

14. **This man sang the theme tune to *Neighbours* in Parliament to mock the strained relationship between two members of the Government. This politician claimed that one man had a “non-Midas touch” and his “one more heave” policy was criticised by some more radical members of his party. This man called a Prime Minister and his Chancellor the “Laurel and Hardy of British politics”. That Prime Minister was (\*) John Major, whom he also referred to as the “devalued Prime Minister of a devalued Government” after Black Wednesday. For 10 points, name this Argyll-born politician, who introduced “one member, one vote” at his party’s 1993 conference, Tony’s Blair’s predecessor as Labour leader, who died of a heart attack in 1994.**

ANSWER: John Smith

15. **One character in this novel talks of an England "where every man is surrounded by a neighbourhood of voluntary spies, and where roads and newspapers lay everything open". A General in this novel stays up late because he has "many pamphlets to finish" and must pore over "the affairs of the nation". A male character in this novel criticizes the 'unnatural stuff' and horrid nonsense in Fanny (\*) Burney's "Camilla" The protagonist of this novel was a tomboy who preferred cricket to dolls until she was 15 and began menstruating. The protagonist's brother James is a student at Oxford where he became friends with a man who wants to propose to her, called John Thorpe. John's sister Isabella discusses gothic novels with the protagonist before encouraging her to pursue Henry Tilney. For 10 points names this novel about Catherine Morland by Jane Austen.**

ANSWER: Northanger Abbey

16. **One character played by this actress receives acting lessons from Robert Hedges, who is played by cricketer Sir Charles Aubrey Smith. This actress's first film role was as the daughter of a woman who is able to divorce her mentally ill husband due to changes in British divorce laws: that film was *A Bill of Divorcement*. This actress played a liberal who is upset by her daughter marrying black doctor (\*) John Prentice, and who is married to a character played by Spencer Tracy, with whom this actress had a successful partnership. That film starring this actress was *Guess Who's Coming To Dinner*, for which she won her second of four Best Actress Academy Awards. For 10 points, name this American actress, who also starred in *Morning Glory* and *The African Queen*.**

ANSWER: Katherine Hepburn [prompt on partial answer]

17. **Theobald IV of Champagne rejected a policy directed at these people because he had an agreement to protect their safety in exchange for increased taxation income. They were often the subject of retention treaties, however, which prevented their movement. Four representatives of these people lost a debate called the Disputation of Paris and as a result works of literature of importance to these people were (\*) burned on the order of Louis IX. Louis X allowed these people to return to France after his predecessor, Philip IV, had earlier expelled them. Prejudice against these people led to the conviction of Alfred Dreyfus. For 10 points, name these people who were rounded up and sent to concentration camps during the Nazi occupation of France.**

ANSWER: French Jews or French Jewish people

18. **Henri Brocard names a problem relating factorials to numbers of this type; the only three known solutions to that problem are called Brown numbers. The Chinese Remainder Theorem can be used to show that a finite abelian group is cyclic if its order has no non-trivial divisors of this type. The Möbius function evaluates to zero if and only if one of these numbers is a non-trivial divisor of the input. A special case of the Hardy–(\*)Waring theorem due to Lagrange states that every positive integer can be written as the sum of at most four of these numbers. According to a theorem of Fermat, an odd prime is expressible as the sum of two of these numbers if and only if it is one more than a multiple of four, in which case it is called “Pythagorean”. The sum of consecutive triangular numbers is always, for 10 points, what type of number obtained by multiplying an integer by itself?**

ANSWER: square numbers [accept perfect squares or obvious equivalents]

19. **In this people's mythology, an aged woman with feline ears is presumed to be a deity of medicine and childbirth. The resurrection of the deity of this culture's primary crop from a turtle's carapace is witnessed by a deity whose whereabouts are documented in a key source from this people, the Dresden Codex. Later myths of this people state that they received fire and language from the god (\*) Tohil, and tell of Zipacna's killing of the Four Hundred Boys and his demise via mountain collapse, courtesy of two figures who survived successive nights in the Houses of Darkness, Knives, Jaguars, Fire, and Bats - they were Hunahpú and Xbalanqué. For 10 points, name this Mesoamerican people whose myths are collected in the Popol Vuh.**

ANSWER: Maya (accept more specific answers such as K'iche or Yucatan Maya)

20. **Mechanisms such as BIR and DSBR characterise one step of this process in which the MRX complex binds to DNA. Most plants skip the interkinesis step of this process, in which Rec8 is expressed to form a cohesin complex. The similarity of Dmc1 to RecA is involved in one attempt to explain the origin of this process, in which the synaptonemal complex forms during the leptotene phase to hold (\*) bivalents together. Whilst chiasmata forms in the pachytene phase during this process, homologous recombination of chromosomal material occurs during “crossing over.” For 10 points, name this process of cell division that produces four haploid gametes, contrasted with mitosis.**

ANSWER: Meiosis (accept Homologous recombination before interkinesis, after which prompt instead)

## Bonuses

1. This thinker argued that his subject could not remain objective in the face of social ills and global inequality in his first major work, *Social Justice and the City*. For 10 points each:

[10] Name this thinker, who carried out a critical examination of the title concept in *The Condition of Postmodernity*.

ANSWER: David **Harvey**

[10] Harvey is a leading scholar in the political subfield of which academic discipline, the physical form of which involves the study of the spatial characteristics of natural phenomena such as rivers and mountains?

ANSWER: **Geography**

[10] Harvey argued for the creation of revolutionary theory in an essay on this concept, which has nowadays come to refer to an urban area exclusively settled by members of a minority group.

ANSWER: **Ghetto**

2. Answer some questions about the 'Empress of Blues' Bessie Smith. For 10 points each:

[10] Smith's first single was this song composed by Alberta Hunter and Lovie Austin. Its first line says "Gee, it's hard to love someone when that someone don't love you."

ANSWER: **'Downhearted Blues'**

[10] Smith only known film appearance was in *St. Louis Blues*, named after one of her hits. It was set in one of these establishments brought into existence by the prohibition.

ANSWER: **Speakeasy** (accept **blind pig** or **blind tiger**)

[10] Smith's mentor was John Hammond, who also mentored this jazz singer, nicknamed 'Lady Day' who is known for her recordings of *Strange Fruit* and *What a Little Moonlight can do*.

ANSWER: **Billie Holiday** (accept **Eleanora Fagan**, prompt on partial answer)

3. This author discredited his government's account of the sinking of the Caldas in his newspaper articles about the shipwrecked sailor Luis Velasco. For 10 points each:

[10] Name this author of *No One Writes to the Colonel* as well as a novella about a 90 year old man who wants to sleep with an adolescent virgin, *Memories of my Melancholy Whores*.

ANSWER: Gabriel José de la Concordia **García Márquez**

[10] Garcia Marquez's novella *Chronicle of a Death Foretold* tells the story of the murder of this man by the Vicario brothers.

ANSWER: **Santiago Nassar** (accept either).

[10] Garcia Marquez wrote this magical realist novel about seven generations of the Buendia family in Macondo.

ANSWER: ***One Hundred Years of Solitude*** (Accept ***Cien años de soledad***)

4. This man's attempt to escape captivity were thwarted by a law he implemented, which did not allow guests without proper identification to rent a room at an inn. For 10 points each:

[10] This man's political agenda involved increased centralisation of the Qin state and reduction of the power of the feudal lords. His reformist philosophy was called Fa-Jia by Sima Tan.

ANSWER: **Shang** Yang [accept **Wei** Yang]

[10] Fa-Jia is normally rendered in English as this term. This term is also used in Christianity as an alternative term to describe nomism, which refers to the putting excessive focus on law rather than the gospel.

ANSWER: **Legalism**

[10] As part of his legalist reforms, and to break up large clans, Shang imposed an increased tax on households with multiple sons, and partly abolished this succession law, wherein only the first-born son had the right to inherit.

ANSWER: **Primogeniture**

5. Military history Lynn Macdonald recently attacked the proposal to put a statue of this woman alongside that of Florence Nightingale outside a London hospital. For 10 points each:

[10] This nurse's efforts in the Crimean War were overlooked for many years, which led Salman Rushdie to claim she was an example of hidden black history but Sean Long to claim she was not a "mainstream figure in the history of nursing".

ANSWER: Mary Seacole

[10] In the end, the statue of Seacole was placed outside this hospital despite objections.

ANSWER: St. Thomas' Hospital

[10] Mary Seacole wrote this memoir about her experience in the Crimea. It details how Seacole built a hotel out of pieces of salvaged driftwood, and was one of the first autobiographies of a mixed race woman.

ANSWER: Wonderful Adventures of Mrs. Seacole in Many Lands [prompt on partial answers]

6. In a poem about her decision to stay in Russia after the October Revolution, this poet wrote of a voice telling her to leave her "deaf and sinful land". For 10 points each:

[10] This poet wrote about her experience in Stalin's gulags in her lyrical cycle 'Requiem'. Her ex-husband was earlier shot on the orders of Lenin, an event which led her to claim "Terror fingers all things in the dark".

ANSWER: Anna Akhmatova

[10] Akhmatova's husband Nikolay Gumilev was one of the 98 intellectuals executed on accusations of being part of this non-existent monarchist conspiracy, named for the geography professor tortured into giving their names.

ANSWER: The Tagantsev conspiracy [accept Petrograd Military Organisation]

[10] This Russian author asked Lenin to be lenient to Akhmatova's husband, without much success. He wrote about the abortive 1905 Revolution in *Children of the Sun* and about the improvised underclass in *The Lower Depths*, as well as biographies of Tolstoy and Chekhov.

ANSWER: Maxim Gorky

7. In one self-portrait, this artist wrote "The Line of Beauty and Grace" on his palette. For 10 points each:

[10] Name that artist who placed his pet pug in that self-portrait next to an oval canvas that holds his own image.

ANSWER: William Hogarth

[10] In spite of his high views on art, Hogarth has been better remembered for satirical works such as this series, in which the beneficiary of a large inheritance squanders his wealth and ends in debtor's prison, and then Bedlam.

ANSWER: A Rake's Progress

[10] Hogarth also addressed social problems outside the middle classes, as in a work that contrasts the industrious *Beer Street* with a *Lane* named for this drink, under whose influence a syphilitic woman drops her baby to its death in a cellar.

ANSWER: gin (accept Gin Lane)

8. Don't blame it on Henry ["on-REE"], don't blame it on the injuries, don't blame it on the referees, blame it on Eboué. For ten points each, here are some bonuses on football chants and anthems.

[10] One of the most well known football anthems is this song, originally a show tune from *Carousel*, which was adopted by Liverpool Football Club following the chart success of the cover by Gerry & the Pacemakers.

ANSWER: 'You'll Never Walk Alone'

[10] As well as being the basis for many club chants, many Irish sports teams use this folk ballad as an anthem, including the Republic of Ireland national football team. This song, written in the 1970s by Pete St. John, concerns a man who steals food for his starving family during the Irish Potato Famine.

ANSWER: 'The Fields of Athenry' (pron. 'athen-RYE')

[10] Perhaps one of the weirdest football chants is "Bill Oddie, Bill Oddie, rub your beard all over my body" sung to the tune of Madonna's "Erotica", which is performed by fans of this Championship club.

ANSWER: Reading F.C.

9. The Bellman–Ford algorithm can be used to solve this problem for graphs that may have negative edge weights. For 10 points each:

[10] Dijkstra's algorithm may be used to solve this problem if all edges have non-negative weights.

ANSWER: single-source **shortest path** problem

[10] The simplest version of Dijkstra's algorithm takes quadratic time in the size of the input as does bubble sort. In other words, in "big O" notation it has this complexity.

ANSWER:  **$O(n^2)$**  ["big O of n squared"]

[10] This dynamic programming algorithm will solve the stochastic shortest path problem if the graph also has probabilistic weights on its nodes. It is commonly used in the context of hidden Markov models.

ANSWER: **Viterbi** algorithm

10. During the American Civil War, this socialite married Rhode Island Governor William Sprague but divorced him soon after, partly due to rumours that she had slept with Roscoe Conkling. For 10 points each:

[10] This woman attempted to aid her father win the Republican nomination of 1864 at the expense of Abraham Lincoln.

ANSWER: Kate **Chase**

[10] Kate Chase's father, Salmon, served this role in Lincoln's cabinet until his resignation from the position was accepted by Lincoln, much to his surprise. The role was earlier occupied by Alexander Hamilton, who was the first person to hold this role.

ANSWER: US **Treasury Secretary** [accept **Secretary of the Treasury**]

[10] Salmon Chase often feuded with this less radical member of Lincoln's "Team of Rivals" cabinet. This Senator from New York was favourite to win the 1860 Presidential nomination for the Republican Party, but ended up losing to Lincoln, serving as Lincoln's Secretary of State for the duration of his term.

ANSWER: William **Seward**

11. For 10 points each, answer the following about conformational analysis in organic chemistry:

[10] Strain and steric hindrance in organic conformations arise from repulsions due to this general class of through-space forces between the electron clouds surrounding atoms. London dispersion force is one type of these intermolecular forces named for a Dutch physicist.

ANSWER: **van der Waals**' forces (or **van der Waals** interaction)

[10] Cyclohexane has its minimum energy in this conformation, in which each carbon atom is bonded to an axial and an equatorial hydrogen atom.

ANSWER: **chair** conformation (do not accept or prompt on "twist-chair")

[10] Methylcyclohexane is lower in energy with the methyl group in the equatorial position, due to this type of nonbonded conformational strain. The "A" value of a substituent measures the energetic advantage for it to eliminate this strain.

ANSWER: **1,3-diaxial** interaction (or **1,3-diaxial** strain; prompt on "diaxial")

12. This architect's early work included the Villa Maurelle at Nancy [nohn-see]. For 10 points each:

[10] Name this architect who in the 1930s developed an art deco design to build on the work of Frantz Jourdain for the La Samaritaine department store in Paris.

ANSWER: (Frédéric-)Henri **Sauvage**

[10] Sauvage developed La Samaritaine from this earlier style that made significant use of ornamental, curved features. Hector Guimard made ironwork entrances for stations on the Paris métro in this style.

ANSWER: **Art Nouveau**

[10] Henri Sauvage designed a theatre for the Art Nouveau-dominated Exposition Universelle in Paris in 1900. That exposition also included the display of two large artworks with swan decorations, produced by the Sèvres factory in this material.

ANSWER: **porcelain**

13. To escape a siege of Oxford castle, this ruler supposedly crossed the icy Isis on foot and made it to Wallingford. For 10 points each:

[10] King Stephen fought against this heir to the English throne after the death of her brother William Adelín in the White Ship disaster. Her marriage to the Holy Roman Emperor Henry V gave her the title “Empress”.

ANSWER: Empress **Matilda** [or Empress **Maude**]

[10] The war between Stephen and Matilda is often given this name. This period of English history began as a result of Henry I’s wish for Matilda to be his heir, at a time when the rights of females to inherit was uncertain.

ANSWER: the **Anarchy**

[10] Henry I’s attempts to replace William Adelín with a second son led him to marry this woman on the death of his first wife, Matilda of Scotland.

ANSWER: **Adeliza of Louvain** [accept **Adela** of **Louvain**]

14. In Wales, this phenomenon consists of the Cwn Annwn, a pack of baying hounds, lead by Gwyn Ap Nudd who bring souls to the underworld. For 10 points each:

[10] Name this event, common to many folklores of Northern Europe, that consists of a pack of spectral horse riders that pass overhead, documented by Jacob Grimm.

ANSWER: The **Wild Hunt**

[10] In the UK, Herne the Hunter is one of the figures believed to take part in the Wild Hunt. As a horned god, he is often assumed to be syncretised with this Celtic fertility god depicted on the Pillar of the Boatmen, who is often associated with the ‘Horned God’ in Wicca.

ANSWER: **Cernunnos**

[10] This Anglo or Norse deity, also sometimes depicted with horns, is depicted as the leader of the Wild Hunt in many traditions. He is also a god of wisdom, magic and death, and is known as the ‘All-Father’.

ANSWER: **Woden** [also accept **Odin**, **Wodan**, **Wuotan** etc]

15. This character makes the mistake of shooting himself with a low-velocity pistol ‘above the right eye’, which means that the ball’s impact is absorbed by the boniest part of the skull and he takes 12 hours to die. For 10 points each:

[10] Name this character who commits suicide because Charlotte marries Albert, and is then buried under a Linden tree.

ANSWER: **Werther**

[10] *The Sorrows of Young Werther* inspired a craze for wearing this item of clothing, also worn by Mr Bingley in *Pride and Prejudice*.

ANSWER: A **blue coat** (accept logical equivalents for ‘coat’, prompt on ‘coat’ alone)

[10] This other novel by Goethe features a double displacement reaction between Eduard and Charlotte, and their friends the Captain and Otilie.

ANSWER: **Elective Affinities**. (accept **Die Wahlverwandtschaften** or **Kindred by Choice**)

16. Tiger Woods turned forty this year. For ten points each, answer some questions about the courses on which some of his most impressive golf records took place:

[10] Tiger Woods has won a record-tying eight PGA tournaments at the south course at this golf club in Akron, Ohio, which currently hosts the WGC-Bridgestone Invitational.

ANSWER: **Firestone** Country Club South Course

[10] Woods captured the final major of the Tiger Slam at this Georgia venue in 2001, while in 1997 Woods won his first major at this venue by twelve shots. This club hosts the Masters Tournament in the first full week of April.

ANSWER: **Augusta** National Golf Club

[10] That twelve shot win at Augusta was made to look small by Woods’s fifteen shot US Open win at this Californian golf course in 2000. Tom Watson holed a chip on the 17th of this course to win the 1982 US Open against Jack Nicklaus.

ANSWER: **Pebble Beach** Golf Links

17. This mountain range’s Southern Hills are home to Mount Rushmore National Memorial and the Crazy Horse Memorial. For 10 points each:



[10] Name this mountain range of northeast Wyoming and west South Dakota.

ANSWER: **Black Hills**

[10] In the Bear Lodge Mountains subrange of the Black Hills in Wyoming is this laccolithic butte or small, isolated, steep-sided hill. This distinctive mass of igneous rock was made the first National Monument in the United States by Theodore Roosevelt in 1906.

ANSWER: **Devil's Tower**

[10] This now decommissioned mine in the city of Lead ["leed"] near Deadwood in the Black Hills was the site of a namesake experiment set up in the 1960s by Raymond Davis Jr., which first observed solar neutrinos. This mine was, at the time of its operation, the largest and deepest in North America and it now houses the Deep Underground Science and Engineering Laboratory.

ANSWER: **Homestake** Mine

18. A regular trope in this sitcom involved the central matriarch answering a cordless phone with the phrase 'hello yes?' and the use of illicitly-acquired traffic cones to reserve parking spaces. For 10 points each:

[10] This 1980s British sitcom focuses on the Boswell family, and follows the exploits of Nellie and her estranged husband, Freddie.

ANSWER: **Bread**

[10] *Bread* was written by this television writer and animal rights activist. Her other works include *The Liver Birds* and *Butterflies*, both of which also contain strong female characters similar to *Bread*'s Nellie.

ANSWER: Carla **Lane**

[10] *Bread* and *The Liver Birds* were both set in this British city, also the home of *The Onedin Line* and *Boys from the Blackstuff*.

ANSWER: **Liverpool**

19. One of the first rigorous formulations of this statement is due to E. H. Kennard. For 10 points each:

[10] According to this well-known quantum mechanical result, the product of the standard deviations of position and momentum is always greater than or equal to  $\hbar/2$ , hence position and momentum cannot both be known simultaneously.

ANSWER: Heisenberg's **uncertainty principle** [or **indeterminacy principle**]

[10] It can be shown that uncertainty relationships exist whenever these operators that represent observables do not commute, such as for the  $x$  and  $y$  components of total angular momentum. An operator  $A$  is defined to have this property if the inner product of  $Ax$  and  $y$  is equal to the inner product of  $x$  and  $Ay$ .

ANSWER: **Hermitian** operators [or **self-adjoint** operators]

[10] The uncertainty relationship that exists between energy and time means that spectral lines will always possess the "natural" type of this phenomenon, in addition to the possible thermal and Doppler types.

ANSWER: spectral line **broadening** [accept any answers that suggest a **non-zero linewidth**]

20. This story ends with the line "Romance at short notice was her speciality." For 10 points each:

[10] Name this short story in which the lies of Mrs Sappleton's niece convince Framton Nuttall that the people he sees through the title structure are ghosts.

ANSWER: **The Open Window**

[10] *The Open Window* is by this author who also wrote about the talking cat *Tobermory* and the murderous polecat-ferret *Sredni Vashtar*.

ANSWER: **Saki** [accept Hector Hugh **Munro**]

[10] Saki wrote two short novels, *The Unbearable Brassington*, and this one which correctly predicted the First World War, but incorrectly assumed Germany would win.

ANSWER: **When William Came**: *A Story of London under the Hohenzollerns*