

MKULTRA II: A Fucking Didactic Educational .docx File

The Milton Keynes Ultimate Liaison of Trash and Academia

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Round 10 - Packet by Editors

Tossups

1. The first holder of this office was co-umpire when a pitch invasion led to a riot. The longest-serving holder of this office was attacked by his predecessor Earle Page for not fighting abroad during the First World War. A recent holder of this office knocked out his first Cambridge opponent in a boxing match after 45 seconds. Another is remembered for decimalisation and a fateful (*) swim on Cheviot Beach. In 1992 the holder of this office was photographed putting his arm around Queen Elizabeth II. Yet another was dismissed by John Kerr and replaced by Malcolm Fraser. For 10 points, Julia Gillard is the only woman to hold which office previously held by Paul Keating and Gough Whitlam?

ANSWER: Prime Minister of Australia [accept PM of Australia]

2. **Samuel Brown and John Smith designed this city's Wellington Suspension Bridge. This city's Duthie Park is home to the David Welch Winter Gardens and the first BrewDog bar was opened in this city. This city's council is housed in Marischal College and the Union Terrace Gardens are located across this city's Rosemount Viaduct from His Majesty's Theatre. Ferries to the (*) Shetland Islands depart from this city's port, while this city's motto is said to have been derived from a secret password used in the Wars of Scottish Independence; that motto is *Bon Accord*. This city is home to Robert Gordon University and, since the 1970s, this city has been the centre of the North Sea oil and gas industry in the UK. The *Granite City* is, for 10 points, the nickname of which city of northeast Scotland?**

ANSWER: Aberdeen (accept Aiberdeen or Obar Dheathain)

3. **One of these is performed to remember the position of a set of knobs and levers in a time machine and involves sticking a head in a bucket to almost the point of drowning. Another of these actions involves doing nothing until the two protagonists' heads have actually been cut off by a guillotine before springing into action. One of these actions involves carving a name on a (*) bullet, as it is unlikely for two bullets to have the same name on them. Getting stuck on 'aardvark' whilst attempting to rewrite Samuel Johnson's dictionary in a single night and saving King Charles by pretending a pumpkin is his head are, for 10 points, examples of what actions that Baldrick often suggests to Blackadder?**

ANSWER: Cunning plans

4. A Maths paper is titled after this fictional character and the 59th row of Pascal's triangle, due to a method derived from how this figure superimposed two images with a green filter to find a cauterised section of their brain. Due to exiting a room through a window instead of the door, he survives and then destroys the Total Perspective Vortex by eating a piece of fairy cake. This person uses a speed boat to get from Easter Island to France, where he steals the (*) *Heart of Gold*. This inventor of the Pan Galactic Gargle Blaster grows a third arm shortly after meeting Tricia McMillan at a party in Islington. He saves his semi-cousin, Ford Prefect from asphyxiating whilst using the infinite improbability drive. For 10 points, name this ex galactic president from Betelgeuse.

ANSWER: Zaphod Beeblebrox (accept either underlined section)

5. **A fundraiser for victims of Hurricane Katrina by VH1 saw this track's video played on repeat for a whole hour. A cover of this song by Goldfinger appeared in the soundtrack to the film *EuroTrip*. This song was kept off the top of the Billboard Hot 100 by Van Halen's "Jump" and this song's video features scenes where the vocalist walks past trenches as blue and red smoke drifts behind. This song claims that "bugs in the software / (*) Flash the message "something's out there!" and, according to this song, "Everyone's a superhero / Everyone's a Captain Kirk". The band that released this song refuse to play its**

English version, and this song's title objects were set "free at the break of dawn / 'til one by one they were gone". Originally released in German, for 10 points, name this anti-war song by Nena.

ANSWER: '99 Luftballons' or '99 Red Balloons'

6. One work of this number opens with a background of tremolo strings over which a horn call sounds and another features a contrabassoon which plays exactly one note at the start of its final movement. One work of this number in F minor opens with bassoons and horns in octaves playing an *andante sostenuto* fanfare representing (*) fate and another features a third movement '*Hunting Scherzo*'. One of these works features a battle between timpani and the fourth movement of another of these works is an E minor passacaglia based on a Bach chaconne. For 10 points, give these works exemplified by Nielsen's '*Inextinguishable*,' Bruckner's 'Romantic' and the last of Brahms' symphonies.

ANSWER: Symphony No. Four [accept clear equivalents]

7. This man has spoken out against the potential dangers of artificial intelligence, despite investing in AI companies such as Vicarious. One company founded by this man owns drone ships named for General Contact Units that appear in Iain M. Banks's *The Player of Games*; *Just Read the Instructions* and *Of Course I Still Love You*. In 2006, this man founded a company that produces and installs photovoltaic panels; that company is (*) SolarCity. In August 2013, this man unveiled a concept where linear induction motors and a vacuum tube are used to transport people and goods at high speed. This inventor of the Hyperloop concept is also CEO of a company that, in April 2016, succeeding in landing a rocket on a barge at sea. For 10 points, name this Canadian-American entrepreneur, former CEO of PayPal and current CEO of SpaceX.

ANSWER: Elon (Reeve) Musk

8. Taking a Fourier transform of this equation with respect to time reduces it to the Helmholtz equation, which can be thought of as a time-independent form of this equation. Solutions to this hyperbolic differential equation have fixed finite propagation speed, unlike those of the (*) heat equation. This equation was first described in one dimension by Jean d'Alembert, extended to three dimensions by Leonhard Euler, and later adapted for quantum mechanics by Erwin Schrödinger. This equation sets the second partial derivative of a function with respect to time to be proportional to its own Laplacian. For 10 points, which second-order partial differential equation is used to model periodic oscillations like those in a vibrating string?

ANSWER: wave equation

9. This actress portrayed the title terminally ill chorister in the 2012 film *Song for Marion*. Members of the Jewish Defense League burned effigies of this actress after she produced the documentary *The Palestinian*. This actress appeared in *Nip/Tuck* as the mother of Julia McNamara, who was acted by her real-life daughter Joely Richardson. This actress portrayed transgender tennis player (*) Renée Richards in the 1986 biopic *Second Serve* and she appeared as the elderly Briony Tallis in *Atonement*. This actress was nominated for the Oscar for Best Supporting Actress for playing Ruth Wilcox in *Howards End*, and she starred opposite Glenda Jackson's Elizabeth I in *Mary, Queen of Scots*. For 10 points, name this English actress who won an Oscar for her portrayal of the titular friend of Lillian Hellman in *Julia*.

ANSWER: Vanessa Redgrave

10. This religion's system of ethics is defined by values such as integrity and knowledge, known as the "Five Constants". This religion distinguishes the ideal 'sage' from the achievable 'gentleman', and teaches that failing to give things the proper names will lead to social disorder. One holy book of this religion promotes the virtues of self-watchfulness, leniency and sincerity. As well as the (*) *Doctrine of the Mean*, another holy book of this religion teaches that "filial piety and brotherly love are...the roots of benevolence". For 10 points, name this religion, whose holy books are known as the "Four Books and Five Classics", founded in the Spring and Autumn Period by an eponymous Chinese philosopher, whose teachings are recorded in the *Analects*.

ANSWER: Confucianism [accept Ruism]

11. Despite having been overthrown in a *coup d'état*, this leader selected General Eurico Dutra as his replacement. This leader's fall from power followed the implication of his personal guard in the attempted assassination of the journalist Carlos Lacerda [lah-SAIR-dah]. This leader's protégé João Goulart [zhuh-owng goo-LAR] was sacked as Minister of Labor for doubling the minimum wage. This leader wrote that "I leave life to enter history" in his Carta Testamento. After suppressing a Constitutionalist Revolution by the (*) Paulistas, this leader provided his country with universal suffrage and a secret ballot. Juscelino Kubitschek was the long-term successor of this leader after his 1954 suicide. For 10 points, name this leader of Brazil's Estado Novo, a centrist president during the Second World War.

ANSWER: Getúlio (Dornelles) Vargas

12. A goat sacrificed by Theseus to this deity changed sex, leading to the epithet Epitragia. This deity fed the herb *hippomanes* to Glaucus' mares, and used a wryneck attached to a wheel to bewitch Medea. After Smyrna slept with her father Cinyras, this goddess transformed her into a myrrh tree. In order to excite Zeus, Hera occasionally borrowed this goddess' (*) girdle. This goddess slept with the Argonaut Butes. Zeus threw a thunderbolt at another man who boasted about sleeping with this goddess. This goddess' offer of Helen of Sparta led to her being awarded the Golden Apple of Discord by Paris. This lover of Anchises was trapped in bed with Ares with a net made by her husband Hephaestus. For 10 points, name this Greek goddess of love.

ANSWER: Aphrodite

13. One building of this type consists of one hundred identical steel tetrahedra forming seventeen prismatically oriented triangular segments; that building was designed by Walter Netsch for the use of the US Air Force. One wall on a building of this type tapers to a point under a greyish-brown roof and is studded with irregularly sized and angled rectangular windows. Sixteen radially oriented concrete columns with (*) hyperboloid curves are joined by a glass ceiling in one of these buildings designed by Oscar Niemeyer. Donato Bramante first proposed the layout of a Greek cross for one of these buildings in Rome. Ronchamp is the location of Le Corbusier's Notre Dame du Haut, an example of, for 10 points, what type of building for Christian worship?

ANSWER: church(es) (accept chapel; accept cathedral after "sixteen"; accept basilica after "Bramante")

14. A cyclic reactant containing a ring with this number of atoms undergoes a rearrangement to become a dihydropyran in the Achmatowicz reaction. The Paal-Knorr synthesis of heteroaromatic rings of this size starts from a 1,4-diketone. A haloketone reacts with a thioamide in one synthesis for thiazole, a functional group with a ring of this size. Heterocyclic aromatic rings of this size are active to electrophilic aromatic substitution, and according to Baldwin's rules, tet reactions favour (*) exo ring closure for this ring size. The nitrogen atom in indole is contained in a ring of this size, which is also found in pyrrole and furan. Anionic hydrocarbon ligands with this ring size can be aromatic, as in the ligands in ferrocene. For 10 points, give the number of carbon atoms in pentane.

ANSWER: 5 (atoms)

15. Although this man has no monuments in his own country, a short-lived statue of him commissioned by Lenin was erected in Moscow's Alexander Garden one year after the October Revolution. To escape arrest, this man and his brother Augustin both tried and failed to commit suicide, by gunshot and defenestration respectively. After becoming President of the Convention, this man's first public appearance was at the (*) Festival of the Supreme Being. This man whom Thomas Carlyle described as "the sea-green incorruptible" was the spokesman for the Committee of Public Safety and was executed during the Thermidorian Reaction. For 10 points, name this leader of the "Reign of Terror" during the French Revolution.

ANSWER: Maximilien François Marie Isidore de Robespierre

16. Mark Girouard has argued that the works of this author were responsible for reviving the pseudo-medieval cult of chivalry, and Mark Twain thought that this author bore a primary responsibility for the American Civil War. In a poem by this author, Roderick burns a "Fiery Cross" to summon his followers to war. In a novel by this author a pregnant woman is sentenced to hang for refusing to name her baby's

father and is saved by a royal pardon obtained by her sister (*) Jennie Deans. In another novel by this author of *The Lady of the Lake*, the jester Wamba recounts a Saxon proverb about the Norman yoke, and the Lady Rowena marries the title character. This author of *The Heart of Midlothian* and *Ivanhoe* wrote a novel about an English soldier who fights in Scotland during the Jacobite rising of 1745. For 10 points name this author of *Waverley*.

ANSWER: Sir Walter Scott

17. ‘Justice’, ‘Police’, ‘Revenue’ and ‘Arms’ are sections of this thinker's *Lectures on Jurisprudence*, and he described his thoughts on astronomy in *Essays on Philosophical Subjects*. In a section of another of this thinker's works headed "custom and fashion" he observed how the French value politeness more than the Russians, going on to posit the idea that when judging our own actions, we behave as an (*) "impartial spectator". In addition to *The Theory of Moral Sentiments*, in another work, this thinker attacked the mercantilist system in favour of a laissez-faire approach and used a pin factory to illustrate the division of labour. For 10 points, identify this Scottish economist who introduced the "invisible hand" in his masterwork *The Wealth of Nations*.

ANSWER: Adam Smith

18. One character in this work repeatedly makes sardonic asides while the protagonist examines his trousers, which the protagonist keeps overhearing and asking him about what he said. Another character in this work attempts to secure an illegal loan to help his lover and her mother, only to discover the lender is his own father. The protagonist of this work has a name based on the Latin for ‘grappling hook’, and at one point asks a magistrate to arrest everybody in town when his (*) cash-box is stolen. It turns out that the money was taken by his limping servant, La Flèche. At the end of this play, it is revealed that one character is actually Neapolitan nobleman Don Thomas d’Alburcy, and two other characters are his long-lost children. For 10 points, name this play by Molière, focused on the attempts to woo Mariane by both Cléante and his stingy father, Harpagon.

ANSWER: *The Miser* [accept *L’Avare*]

19. *Yersinia pestis*, the causative agent of plague, expresses the antigen fraction 1, which inhibits this process, as does the streptococcal M protein. Rho GTPases control the reorganization of actin filaments during this process. In ciliates and excavates, the cytostome is an organelle specialized for this process. Phosphatidylserine can trigger this process during (*) apoptosis, and antigens are marked for this process by opsonins. Amoebas use pseudopods to perform this process as a means of ingestion. Cells that perform this process as an immune response include neutrophils, dendritic cells, monocytes, and macrophages. For 10 points, name this process in which the cell engulfs foreign bodies whose name means “cell eating”.

ANSWER: phagocytosis [prompt on “endocytosis”]

20. In one novel by this author a farmer is hung by his thumbs and interrogated about where he buried his mother by having a thorn branch thrust up his rectum. In another novel this author wrote about an investigator who meets a flirtatious Lady Trucker, a scaly demon boy and a professor who was taught a secret alcoholic recipe by white apes. That novel by this author features cannibalism and is set in (*) Liquorland. This author created the character Tadpole who wrote letters describing his aunt’s work as a state-sponsored abortionist. This author of *Frog* wrote a novel about former distillery workers covering three generations in the life of the Shandong family. *Garlic Ballads* and *The Republic of Wine* are for 10 points, by which author of *Red Sorghum*?

ANSWER: Mo Yan [Prompt on Yan, accept Guan Moye]

Bonuses

1. This functional group is commonly generated by elimination reactions, and these functional groups can interchange fragments in a namesake metathesis. For 10 points each:

[10] Name this unsaturated functional group which undergoes electrophilic addition of hydrobromic acid to form an alkyl halide.

ANSWER: alkene(s) (or olefin(s))

[10] This type of catalyst for alkene metathesis can be compared with a Schrock catalyst. In the second generation of these ruthenium-based catalysts, a phosphine ligand is replaced with an *N*-heterocyclic carbene.

ANSWER: Grubbs' catalyst

[10] Alkene fragments can be moved intramolecularly through this concerted 3,3-sigmatropic rearrangement of 1,5-dienes, in which the more substituted alkene product is produced, since it is thermodynamically favoured.

ANSWER: Cope rearrangement

2. As an experiment, let's think about some bonuses. For 10 points each:

[10] Could you intend to answer this question if you knew rationally you would not? This is the question posed by in *The Toxin Puzzle*, a 1983 thought experiment by this American philosopher.

ANSWER: Gregory S. Kavka

[10] Is the content of these questions meaningful, or are we just using the language we have public access to? This argument is posed by Wittgenstein, who used the example of a beetle in a box to argue that pain was a special subjectively-defined class of these instances of subjective experience.

ANSWER: Qualia [accept quale]

[10] Do you have the right to stop answering questions and leave, even though this tournament would die? Judith Thompson suggests so in her *A Defense of Abortion*, in which she posits a person of this profession connected to your kidneys, who would take nine months to recover.

ANSWER: Violinist [prompt on "musician"]

3. More concepts and theorems in mathematics have been named for Cauchy than for probably any other mathematician. Answer some questions about them, for 10 points each.

[10] This inequality, named for Cauchy and another mathematician, is often used to prove the triangle inequality for the standard Euclidean metric. It can be generalised by Hölder's inequality.

ANSWER: Cauchy-Schwarz inequality

[10] Cauchy's "integral theorem" states that the closed line integral of a holomorphic function defined on a simply connected region of the complex plane is equal to this value, since there are no poles.

ANSWER: 0

[10] Cauchy also names a theorem in group theory which states that if a prime number p divides the order of a finite group, then that group must contain an element of order p . That result was generalised to prime powers by this Norwegian mathematician.

ANSWER: (Peter) Ludwig (Mejdell) Sylow ["SOO-lov"]

4. In the Scramble for Africa, Germany ended up with four possessions, three of which were South-West Africa, East Africa and Kamerun. For 10 points each:

[10] This protectorate, the westernmost of the four, was invaded unopposed in the first few days of the First World War.

ANSWER: Togoland [prompt on 'Togo']

[10] In the decade before the First World War, German East Africa was rocked by the Maji Maji rebellion, and German South West Africa likewise faced a major rebellion by the Nama people and these people.

ANSWER: Herero

[10] The establishment of the German East Africa colony was opposed by a local ruler with this title, a cadet branch of the Al Said Dynasty of Oman, until Bismarck sent five warships to train their guns on his palace.

ANSWER: Sultan of Zanzibar

5. In the opening of this novel, the narrator picks “a beautiful thistle plant of the crimson variety” with great difficulty. For 10 points each:

[10] Name this novel about a man who fights for the Imam Shamil against the Russians, and then for the Russians in order to rescue his family from Shamil.

ANSWER: Hadji Murad

[10] This author of *Hadji Murad* criticised almost everything, especially Shakespeare in *What is Art?* and wrote the novella *The Kreutzer Sonata*.

ANSWER: Count Lev Nikolayevich Tolstoy

[10] In this other Tolstoy novel the protagonist hints to Dolly that they have been using contraception, becomes a morphine addict and commits suicide under a train.

ANSWER: Anna Karenina

6. This composer’s second symphony was composed for the 400th anniversary of the invention of the printing press. For 10 points each:

[10] Identify this composer of works such as the *Scottish* and *Lobgesang* symphonies and *Fingal’s Cave*.

ANSWER: Felix Bartholdy Mendelssohn

[10] This Mendelssohn work contains the song *Ye Spotted snakes* and also contains a well known intermezzo Wedding March.

ANSWER: Midsummer Night’s Dream

[10] Mendelssohn spent three days writing an overture to this Victor Hugo novel. The overture opens with a *lento* series of 6 wind chords which recurs frequently throughout the work.

ANSWER: Ruy Blas

7. This character states that one mistake in the 13 billion calculations in the creation of their namesake Hop Drive will result in disaster. They then promptly miss the 7 in their countdown. For 10 points each:

[10] Name this AI with an IQ of 6,000 who, in a later episode, attempts to decimalise rock music by adding the notes ‘Woh’ and ‘Boh’.

ANSWER: Holly

[10] Holly is the AI that runs this mining ship, whose crew includes Dave Lister and a hologram of Arnold Rimmer.

ANSWER: Red Dwarf

[10] During the episode “Ouroboros”, Lister discovers that he has this unusual parentage, following a meeting with an alternate version of himself which leads to an alternate Kochanski joining the crew.

ANSWER: He is his own father (accept clear-knowledge equivalents)

8. According to one myth, this god extended the year from 360 to 365 days by gambling with the moon god Khonshu. For 10 points each:

[10] Name this god of wisdom, who taught writing to mankind.

ANSWER: Thoth [accept Djehuty]

[10] Thoth was considered the heart and tongue (or possibly the secretary) of this god, who is swallowed every night by his granddaughter Nut.

ANSWER: Ra [accept Re]

[10] This city in ancient Egypt, now located in the Cairo suburb of Ayn Shams, was the chief cult centre of Ra.

ANSWER: Heliopolis [accept Iunu or Āwanu]

9. 2016 was not a good year for print media. For 10 points each, answer these questions on newspapers that have recently ceased paper publication.

[10] In February 2016, it was announced that this daily newspaper would stop producing a print edition, with the last hitting newsagents on the 26th March. This newspaper was the newest of the national daily papers, first being printed in October 1986.

ANSWER: *The* Independent (accept *The* Indy)

[10] Lasting barely three months, this compact daily newspaper published by Trinity Mirror was launched in February 2016 aimed at middle-aged women. Unfortunately, circulation was well below the 200 000 target and printed stopped with the 6th May edition.

ANSWER: *The New Day*

[10] This Sunday tabloid newspaper only ran for one edition - that of 16th June 1996. It was supposed to focus on environmental issues, which founder Clifford Hands felt strongly about, but instead published rather odd stories including one about a violent, jilted gorilla.

ANSWER: *The Planet on Sunday*

10. Despite replacing Steve McClaren with Rafael Benítez as manager, this club were still relegated from the Premier League at the conclusion of the 2015-16 season. For 10 points each:

[10] Name this Tyneside club owned by Sports Direct founder Mike Ashley.

ANSWER: Newcastle United Football Club

[10] Newcastle United didn't just have a bad season on the pitch. In April 2016, they were successfully sued by this former Argentine international winger for disability discrimination on the grounds that he was not selected following his recovery from testicular cancer to avoid triggering an extension to his contract.

ANSWER: Jonás (Manuel) Gutiérrez

[10] Newcastle's season was also in no part helped by a serious knee injury to this Dutch goalkeeper sustained while on international duty in October 2015. Louis van Gaal's decision to replace Jasper Cillessen with this man for the penalty shootout against Costa Rica in the 2014 World Cup quarter-final was vindicated after he saved two penalties to put the Netherlands through.

ANSWER: (Timothy Michael) "Tim" Krul

11. Pietro Lombardo designed a façade in repeated Roman arches and statue-filled niches for one of these organisations named for St Mark. For 10 points each:

[10] Name these uniquely Venetian charitable institutions, named for saints such as San Rocco, whose meeting halls provided a canvas for architects and painters.

ANSWER: scuole grandi (accept scuola; or Great Schools; accept confraternities)

[10] Three halls of the Scuola Grande di San Rocco was decorated with a series of Biblical paintings by this Mannerist Venetian artist, who also created *The Miracle of the Slave* for the Scuola Grande di San Marco.

ANSWER: Tintoretto (or Jacopo Robusti or Jacopo Comin)

[10] Canaletto's enormous Venetian crowd scenes were pre-empted by narrative cycles for the *scuole* painted by Gentile [jen-TEEL-ay], the elder brother of this surname. The two brothers collaborated on *St Mark Preaching in Alexandria*.

ANSWER: Bellini (accept Gentile Bellini)

12. In 1974, the Jain community selected an official emblem for their religion, to commemorate the 2500th anniversary of Mahavira attaining nirvana. For 10 points each:

[10] The three dots at the top of the design symbolise these attributes, which the Tattvartha sutra says are essential for achieving liberation from karma.

ANSWER: Right faith, right knowledge and right conduct [prompt on partial answers, accept in any order, accept clear-knowledge alternative translations, Ratnatraya, Three Gems or Three Jewels]

[10] Below the dots is this symbol, symbolising the four states of being and characteristics of the soul, and widely used as an auspicious sign throughout the Indian subcontinent.

ANSWER: Swastika [accept svastika]

[10] The lower half of the emblem is taken up by a hand containing a 24-spoked wheel and the name of this core Jain principle of non-violence, which it symbolises.

ANSWER: Ahimsa [accept avihimsa]

13. Since chess is a boring game, people have had to come up with variants of it to keep themselves interested. Name some of them, for 10 points each.

[10] This American player came up with a form of chess with 960 possible starting positions based around shuffling the back row of pieces. He may be better known for beating Boris Spassky to become World Champion.

ANSWER: Bobby **Fischer**

[10] This former chess world champion suggested a 10 by 8 variant with two new pieces, the chancellor and the archbishop, which move as knights combined with a rook and a bishop respectively.

ANSWER: José Raúl **Capablanca**

[10] This more energetic chess variant alternates chess with another sport, leading to the ability to win by technical knockout.

ANSWER: **Chessboxing**

14. The Twante Canal connects this river to the city of Rangoon. For 10 points each:

[10] Name this major river of southeast Asia, that flows through Myanmar on its way to the Andaman Sea.

ANSWER: **Irrawaddy** River or **Ayeyarwady** River

[10] The Irrawaddy is sometimes known as the “road” to this city, Myanmar’s second largest and the last royal capital of the Burmese Empire.

ANSWER: **Mandalay**

[10] The Irrawaddy is formed by the confluence of the N’mai and Mali rivers in this northernmost state of Myanmar. On-off fighting between this state’s Independence Army and government forces has occurred since a ceasefire broke down in 2011.

ANSWER: **Kachin** State

15. The protagonist of this novel masturbates copiously and eventually manages to sleep with his older sister Julie. For 10 points each:

[10] Name this novel in which four children bury their dead mother in the cellar in order to avoid being taken into foster care.

ANSWER: **The Cement Garden**

[10] *The Cement Garden* is the first novel by this author of *Enduring Love*, *Amsterdam* and *Atonement*.

ANSWER: Ian **McEwan**

[10] In this McEwan novel, Mary and Colin are on holiday when they are befriended by a local named Robert who turns out to be a violent murderous sadist.

ANSWER: **The Comfort of Strangers**

16. Indirect confirmation of these entities existing came from a pair of pulsars moving into tighter orbits more rapidly than previously expected due to their radiating these entities. For 10 points each:

[10] Identify these distortions in spacetime generated by the motion of massive bodies such as black holes. Their existence was first observed in February 2016, a hundred years after Einstein had predicted their existence.

ANSWER: **gravitational waves** [do not accept “gravity waves”, which are something different]

[10] Gravitational waves were first detected by this Caltech–MIT collaboration which used strain generated by the changes in curvature of spacetime to measure the change in the distance between distant sensors.

ANSWER: **L**aser **I**nterferometer **G**ravitational-Wave **O**bservatory

[10] The possibility of gravitational waves was discussed in an 1893 paper by this scientist, in which he made formal analogies between the inverse-square laws of gravity and electromagnetism. He is also known for his reformulation of Maxwell’s equations in terms of vector calculus, which he pioneered.

ANSWER: Oliver **Heaviside**

17. One of MKULTRA’s unwritten ambitions is to expand quizzers’ knowledge of memes. For 10 points each, answer these questions on video games that spawned them.

[10] The phrase “the cake is a lie”, now sometimes used to denote when a promised reward does not materialise, appears as graffiti in this Valve puzzle game, which sees Chell challenged to complete puzzles by an artificial intelligence named GLaDOS.

ANSWER: **Portal**

[10] This 1989 side-scrolling shoot 'em up arcade game featured some spectacularly bad translations, most notably "All your base are belong to us". In this game, you play as the captain of the ZIG spacecraft trying to free Earth from the alien cyborg CATS.

ANSWER: Zero Wing

[10] Sony were left red-faced at E3 2006 when producer Bill Ritch claimed the story of this Playstation 3 game was based on "famous battles which actually took place in ancient Japan" only later to battle a "giant enemy crab" boss character, spawning a namesake meme.

ANSWER: Genji: Days of the Blade or Genji: Kamui Sōran

18. Between 12 and 14 million these people were subject to forced migration and ethnic cleansing between 1944 and 1950, of whom about half a million died. For 10 points each:

[10] Name this prewar majority 'ethnicity' or language group of the Sudetenland, who were expelled from countries such as Czechoslovakia and Poland after the defeat of the Nazis.

ANSWER: German(s) (or German-speaking people; accept Deutsch)

[10] A series of decrees named for this postwar president of Czechoslovakia were used in 1946 to implement a policy of 'homogenisation', in which ethnic Germans and Hungarians were denied property and citizenship.

ANSWER: Edvard Beneš [BEH-nesh] (accept Beneš decrees)

[10] During the Second World War, ethnic Germans living in the Volga region were also subject to internment in the Soviet Gulag system; that deportation was managed by this Stalin-era law enforcement and intelligence agency.

ANSWER: NKVD (or Narodnyi Komissariat Vnutrennikh Del; accept People's Commissariat for Internal Affairs)

19. This man is addressed as "American eye that pierceth dark", and attributes a number of incidences of unexplained knowledge to the "threshold of revelation". For 10 points each:

[10] Name this man, who meets his ancestors of the same name in a dream, and ascends a burning ladder from his hospital room to address the Continental Principalities.

ANSWER: Prior Walter [accept either underlined part]

[10] Prior is one of the main protagonists of this multiple-Tony-award-winning play by Tony Kushner, subtitled *A Gay Fantasia on National Themes*.

ANSWER: Angels in America [prompt on 'Millennium Approaches' or 'Perestroika']

[10] Throughout *Angels in America*, Prior suffers from this disease, which he survives. Roy Cohn, however, insists this disease is 'liver cancer', and dies from it shortly after being disbarred.

ANSWER: AIDS [or Acquired Immunodeficiency Syndrome; do not accept 'HIV']

20. Flanders and Swann responded to the Profumo Affair with the words "Nil combustibus profumo, there's no smoke without fire." For 10 points each:

[10] Name this judge who became widely known due to his best selling report on the Profumo Affair.

ANSWER: Alfred Thompson "Tom" Denning, Baron Denning [accept Lord Denning]

[10] This British historian and biographer of Auden wrote "An English Affair: Sex, Class and Power in the Age of Profumo".

ANSWER: Richard Davenport-Hines

[10] Everyone remembers Christine Keeler, Mandy Rice-Davies and Stephen Ward, but what was the name of the Soviet naval attaché involved in the scandal?

ANSWER: Captain Yevgeny Mikhailovich Ivanov [Accept Eugene Ivanov]