

MKULTRA 2015: Gohyakunijyuu no Omoide

The Milton Keynes Ultimate Liaison of Trash and Academia

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Round 9 - Packet by Editors

Tossups

1. In one novel by this author, a man is found leaning on an elm tree after an explosion blows him off an outdoor chemical toilet. In another novel by this author, a man explains that he left Sweden after murdering his grandfather with a chopper while drunk on absinthe. In that novel, Erik Olafsen and Kätchen frequent Popotakis' Ping-Pong Parlour, and a group of (*) journalists go on expedition to Laku from Jacksonburg. Brigadier Ritchie-Hook of the Halberdiers is wounded during a beach skirmish in the first of a series of novels following Guy Crouchback by this author, who also wrote about William Boot's travels in Ishmaelia. For 10 points, name this author of *Men at Arms* and *Scoop*.

ANSWER: (Arthur) Evelyn (St John) Waugh

2. Like Burt Bacharach, this musician studied at Mills College under the tutelage of French composer Darius Milhaud. A trip to Japan inspired this musician to write songs such as *Zen is When* and *Osaka Blues*. This musician's tour of American college campuses is documented in his album *Jazz goes to College* while (*) 'Kathy's Waltz' and 'Pick Up Sticks' feature on his most famous album. One piece by this musician accents the 2nd, 4th, 6th and 7th beats in each bar with hand claps and is called *Unsquare Dance*. For 10 points, name this jazz pianist whose fondness for unusual time signatures can be seen in pieces like 'Take Five' from his album *Time Out*.

ANSWER: (David Warren) "Dave" Brubeck

3. A character in this show is casually revealed to be the "Muffin Man" who was responsible for a spate of poisonings in the 1970's. One character in this show was inspired by his role in *The Trial of Captain Hook* as a young boy to create an alias as a maritime lawyer named Chareth Cutestory. The *Balboa Bay Window* magazine and the fact that no-one seems to know what noise a (*) chicken makes are recurring jokes in this TV show. One character in this TV show ventures into the sea against his mother's advice where he is attacked by a "loose seal" which bites his hand off. Netflix commissioned a fourth season of, for 10 points, what sitcom about the dysfunctional Bluth family?

ANSWER: Arrested Development

4. Atoms of this element occupy both catalytic and structural sites in human alcohol dehydrogenases. Three histidine residues bind an atom of this element in the active site of an enzyme of carbonic anhydrase. Cobalt and cadmium often replace this element in EPR and NMR studies of metalloenzymes. This element is often coordinated to (*) cysteine and histidine in structural motifs which stabilise the folds of transcription factors, this metal's namesake "fingers". Its ores include sphalerite and wurtzite, and this metal is used to protect steel from corrosion in galvanisation. For 10 points, name this metal which is alloyed with copper to make brass.

ANSWER: zinc (accept Zn)

5. In a statement found after his death, this man claimed that nobody who had not been a shepherd could understand Virgil's *Bucolics*. At one assembly, this man argued his stance by writing 'This is my body' on a table, and he had earlier married a woman fifteen years his junior, whom he had smuggled out of a Cistercian convent in a herring barrel. Controversial later works by this man include *On the Holy Name and the Lineage of Christ* and *On the (*) Jews and their Lies*. This man was censured, and would later be excommunicated, by the Papal bull *Exsurge domine*. This man's most famous work was originally titled *On the Power and Efficacy of Indulgences*, although it is now better known by another name. For 10 points, name this 16th-century German priest, who split with the Catholic Church over his *95 Theses*.

ANSWER: Martin Luther

6. One man known by this first name played drums on tracks such as 'Ballad of the Beaconsfield Miners', 'My Hero', and 'Everlong'. As well as the drummer from Foo Fighters, another man with this name played leading roles in films based on both a 1967 board game and a 1917 novel by Edgar Rice Burroughs, while another man with this name plays central roles in both (*) *Abduction* and *Cuckoo*, though his most famous role is that of a shapeshifting Quileute Native American. One singer with this first name of the actor portraying Jacob Black had hit singles with 'Style', 'Bad Blood' and 'Shake it Off'. For 10 points, give this first name shared by drummer Hawkins, actors Kitsch and Lautner, and singer Swift.

ANSWER: Taylor [accept Taylor Hawkins, Taylor Kitsch, Taylor Lautner or Taylor Swift]

7. This man's father had his foot struck by lightning after bragging about how this man was conceived. According to the Pearl Poet, this man's grandson was the first king of Britain, but this man is more well-known for the city he founded in the land known as Hesperia. This man's followers later find out that the gods have forgiven them after fulfilling a prophecy that they would (*) eat their tables. His son also fulfilled a prophecy when his head caught fire, leading to this man fleeing his doomed hometown without his wife Creusa, but with his son Ascanius and his father, who had to be carried. For 10 points, name this Trojan hero and founder of Alba Longa, the son of Anchises and Venus.

ANSWER: Aeneas

8. Processes involving this substance's discontinuous variety may result in the formation of palsas and pingos. Histels and turbels, which contain this substance, are types of gelisol which may be formed by cryoturbation. Gravity-driven mass wasting of water-saturated sediment, a process known as solifluction, is common above regions where this substance is found. Rises in global temperature may result in the release of (*) methane from undersea regions containing this substance, which was able to preserve a mammoth carcass for 40,000 years. Often found below the surface of the tundra, for 10 points, name this continuously frozen soil.

ANSWER: permafrost (accept cryotic soil)

9. An attack on this leader was preceded by a demand made by Vicente de Valverde, a Dominican friar, and this leader's later conversion led to his method of execution being commuted from burning to strangulation. Generals such as Quizquiz [keez-keez] aided this leader in one conflict in which he aimed to recover the northern part of his father's empire. This leader was captured after getting drunk at a hot spring and then voluntarily (*) disarming his army, who were ambushed by arquebusiers. This leader's victory in a civil war over his half-brother Huáscar preceded his capture at Cajamarca by the *conquistador* Francisco Pizarro. For 10 points, name this last emperor of the Inca.

ANSWER: Atahualpa [accept Atabalipa]

10. This man was originally given the nickname of ‘The Blue Chipper’, and debuted in a memorable blue headdress. One character played by this man is tattooed with symbols of every major religion, and has frequent schizophrenic breaks. As well as Boxer Santaros, this man portrays a king who trades his soul to Anubis for an army. Other notable acts by this man include confronting the Authority alongside Ronda Rousey, and setting the world record for the most selfies taken in three minutes at the premiere of (*) *San Andreas*. This man’s most famous role is that of a Diplomatic Security Service agent, and he has held 10 WWE World Championship reigns. F, name this professional wrestler and actor, known for playing the Scorpion King, as well as DSS agent Luke Hobbs in the *Fast & Furious* franchise.

ANSWER: Dwayne Johnson [or The Rock or Rocky Maivia; prompt on ‘Johnson’ or ‘Maivia’]

11. This activity's namesake "pressure" is believed to be modulated by adenosine accumulation in the forebrain. Kleine-Levin syndrome is characterised by both excessive eating and excessive amounts of this activity which may be assessed by an actigraph worn on the wrist. The Epworth scale measures one's propensity to perform this activity in various situations and this phenomenon's stages 3 & 4 are together known as its (*) slow wave kind. The absence of blue light causes melatonin levels to rise before and peak during this activity during which airway closure causes a namesake apnea. REM is a stage of, for 10 points, what activity during which one might dream.

ANSWER: sleep

12. In the *Bones* episode ‘Double Trouble in the Panhandle’, Brennan and Booth go undercover in one of these establishments. In the Barry B. Longyear book of the same name, the ship *City of Baraboo* houses a spacefaring one of these establishments. An advert for one of these establishments inspired John Lennon to write (*) ‘Being for the Benefit of Mr. Kite!’. In one TV series about one of these establishments, Nick Stahl plays Ben Hawkins, who joins one of these establishments as a roustabout. A 1952 Cecil B. DeMille film about one of these establishments features Charlton Heston as Brad Braden, its general manager. For 10 points, name these establishments, portrayed in *The Greatest Show on Earth*.

ANSWER: circuses [prompt on ‘carnivals’, ‘(fun)fairs’, or other clear alternatives]

13. A relief force in this conflict was led by one member of the Muhammad Ali dynasty of Egypt, the general Ibrahim Pasha; that force was opposed by the French in the Morea expedition. This conflict was provoked by the rebellion of the Friendly Brotherhood, also known as the Etairists in their local language. After its siege ended, the inhabitants of (*) Missolonghi were massacred in this conflict, whose decisive battle saw an allied navy of the British, French, and Russians defeat the Ottomans and their allies at Navarino. For 10 points, name this war that ended with the 1829 London Protocol turning part of the Ottoman Empire into a new state with its capital at Athens.

ANSWER: Greek War of Independence (or the Greek Revolution or Greek Uprising; accept Elliniki Epanastasi)

14. Rapid deforestation on this island has resulted in the Betsiboka River turning red due to the large amount of silt it now carries. A manmade waterway linking natural lagoons and rivers runs between Farafangana and Mahavelona on this island’s east coast and is called the Canal des Pangalanes. This island’s highest point, Maromokotro, is located in the Tsaratanana Massif and the city of Toliara is situated in this island’s semi-desert southeast. The (*) Merina Kingdom dominated this island prior to being colonised by the French, and this island’s largest city is Antananarivo. For 10 points, name this fourth-largest island in the world, an island off the southeast coast of Africa.

ANSWER: Madagascar

15. One character created by this author creates a human being who cannot be harmed by fire, only to discover that he was created the same way. Villainous characters described by this author include a teacher who murders another man in order to inform the Germans of an artillery position, and a criminal mastermind who uses an implied kabbalistic ritual in order to trap and kill his nemesis. Other characters by this creator of Yu Tsun and (*) Red Scharlach include a boy who gives a different, arbitrary name to every number and cannot forget anything, as well as a writer who attempts to rewrite *Don Quixote* by reliving the experiences of its author. For 10 points, name the creator of all these characters, the Argentinian author of 'Funes the Memorious' and 'Pierre Menard, Author of the *Quixote*'.

ANSWER: Jorge Luis Borges

16. This group originally formed as The North London Invaders, with vocals by Dikron Tulane. Tulane was replaced by this group's current vocalist, who was temporarily fired for choosing to go to Chelsea matches rather than rehearsals. For the 25th anniversary of their formation, this group performed a series of cover-based concerts as The Dangermen, followed by the release of their first new album in seven years, *The (*) Liberty of Norton Folgate*. This group's first film appearance saw them playing themselves and recreating their early years in the docudrama *Take It or Leave It*, and Rolling Stone magazine dismissed this group as "simply the Blues Brothers with English accents". This group's most famous singles were released in the early 80's, though albums like *7* and *Keep Moving* had mixed critical reaction. For 10 points, name this British ska band of *Wings of a Dove*, *Our House*, and *House of Fun*.

ANSWER: Madness [prompt on 'Morris and the Minors']

17. Four men defecate themselves in succession in this play upon being asked to seize the title character. In this play, one character demands another to "Have mercy on the eels" when she suggests eliminating the Boeotians. In this play, a group of women debate whether to swear an oath on a shield or the entrails of white horse, eventually swearing over a (*) bowl of Thasian wine. Kinesias becomes increasingly frustrated while Myrrhine fetches a mattress, a pillow and perfumes in this play, which also sees the body of the girl Peace being used as a map of Greece. For 10 points, name this play by Aristophanes where Athenian women withhold sex to end the Peloponnesian War.

ANSWER: Lysistrata

18. One single-panel painting of this scene is named for Recanati and unusually places one figure at the far bottom-left in a rich red robe, raising her hands while the action takes place behind her. A setting of this scene on the Cortona Altarpiece follows the convention of including the Expulsion of Adam and Eve as a small detail in one corner, taking place outside this scene's conventional *loggia* [LOH-jah] and enclosed (*) garden. In a setting of this scene by Simone [see-MOH-nay] Martini, one figure recoils in her seat, and a botanically detailed setting of this scene was created by Leonardo da Vinci. Fra Angelico painted colourful wings on one participant in, for 10 points, what religious scene that depicts the Angel Gabriel informing the Virgin Mary of her pregnancy?

ANSWER: annunciation

19. Prohibition of this practice was found to be unconstitutional in the case of *Epperson v. Arkansas*, and state laws obliging the provision of a specific alternative to this practice were also found unconstitutional in *Edwards v. Aguillard*. In one trial concerning this practice, the defence called the prosecution counsel as a witness to cross-examine the latter's knowledge of the (*) Bible. In that trial, William Jennings Bryan represented the prosecution against a violator of the Butler Act, while Clarence Darrow represented the defence. The Scopes "Monkey Trial" concerned the legality of, for 10 points, what act of explaining to others a theory attributed to Charles Darwin?

ANSWER: teaching the (Darwinian) theory of evolution [accept clear-knowledge equivalents to both underlined parts]

20. Bertil Ohlin's report preceding this treaty concluded that exchange rates could offset differences in labour cost between its signatories. The contents of this treaty were guided by the report of the Spaak Committee, which was read at a congress in the castle of Val-Duchesse. The congress that created this treaty also signed a treaty establishing an Atomic Energy (*) Community between the same group of signatories. This treaty furthered the outcomes of the Treaty of Paris in implementing Robert Schuman's call for a supranational community. The six members of an existing Coal and Steel Community signed in 1957, for 10 points, what treaty that created the European Economic Community?

ANSWER: Treaty of Rome (accept Treaties of Rome; accept Treaty Establishing the European Economic Community until mentioned)

Bonuses

1. This group massacred 69 villagers in the town of Lucanamarca in 1983 in retaliation for the murder of one of its commanders. For 10 points each:

[10] Name this Maoist guerilla organisation that has fought against the Peruvian government since 1980.

ANSWER: Shining Path or Communist Party of Peru

[10] This president of Peru from 1990 to 2000 took much of the credit for suppressing Shining Path through his counter-insurgency policies. In 2009, this man was convicted of human rights abuses, including the La Cantuta and Barrios Altos massacres by the Grupo Colina death squad.

ANSWER: Alberto Fujimori

[10] One of Fujimori's major successes against Shining Path was the capture of this leader of Maoist insurgents in 1992. He adopted the *nom de guerre* "Presidente Gonzalo".

ANSWER: (Manuel Rubén) Abimael Guzmán (Reynoso)

2. For 10 points each, answer some questions about restoration comedy:

[10] The bandits Gibbet, Hounslow and Bageshot appear in this play by George Farquhar, which sees Archer and Aimwell conspire to extract Kate from her unhappy marriage to Squire Sullen.

ANSWER: The Beaux' Stratagem

[10] Mirabell and Millamant seek Lady Wishfort's permission to marry in this playwright's work *The Way of the World*.

ANSWER: William Congreve

[10] This author who drew upon her experiences as a spy in Suriname to write the play *Oroonoko*. In *A Room of One's Own*, Virginia Woolf wrote "All women ought to let flowers fall upon" the tomb of this author, one of the first women to earn an income as a playwright.

ANSWER: Aphra Behn

3. An excess of this anion is commonly added to remove a template cation after the formation of a macrocyclic ligand, and a process named for it is used to solubilize gold for easier extraction from minerals. For 10 points each:

[10] Name this anion which is isoelectronic to carbon monoxide.

ANSWER: cyanide (accept CN⁻)

[10] Cyanide ions are added to aldehydes in the first step of the Strecker synthesis of these compounds. These "building blocks of life" include examples like alanine and glycine.

ANSWER: amino acids

[10] Cyanide ions displace halides in a nitrile synthesis named for this chemist. This chemist and Rudolf Schmitt name a base-catalysed reaction between phenol and carbon dioxide to give salicylic acid.

ANSWER: Hermann Kolbe

4. For 10 points each, name some American sculptors:

[10] The sculptures of four presidents at Mount Rushmore were designed by this Danish-American.

ANSWER: (John) Gutzon (de la Mothe) Borglum

[10] This sculptor created outdoor installations such as *La Grande vitesse* and *Flamingo* using sheets of metal, sometimes combining wires to allow movement.

ANSWER: Alexander "Sandy" Calder

[10] This Neoclassicist depicted a Native American woman turning to her right as she runs alarmed in *The Last of the Tribes*. He is best known for another nude, *The Greek Slave*.

ANSWER: Hiram Powers

5. Now for that old familiar subject - songs in films of musicals that weren't in the musicals on which the films are based. Sound good? For 10 points each:

[10] This song was added to and subsequently cut from the 2004 film adaptation of *Phantom of the Opera*, although Minnie Driver sings it over the closing credits and it was later nominated for a Best Original Song Oscar.

ANSWER: **'Learn to be Lonely'** [prompt on 'No One Would Listen']

[10] The song 'Suddenly' was also nominated for Best Original Song, and appeared in the 2012 adaptation of *Les Misérables*. It was sung by Hugh Jackman in this role.

ANSWER: Jean **Valjean** [accept Prisoner **24601**]

[10] It wasn't nominated for anything, but 'Ladies' Choice' was sung by Zac Efron in the 2007 film adaptation of this Broadway musical, itself based on a film by John Waters.

ANSWER: **Hairspray**

6. These fossils were discovered by chance due to two palaeoanthropologists having a fight with elephant dung. For 10 points each:

[10] Name these fossil footprints, investigated by Mary Leakey and Andrew Hill, that provided evidence for bipedalism in early hominids.

ANSWER: **Laetoli** footprints

[10] The Laetoli site is within thirty miles of this ravine, a fossil-rich section of the Great Rift Valley in Tanzania, where Mary and Louis Leakey studied species such as *Homo habilis*.

ANSWER: **Olduvai** Gorge (or **Oldupai** Gorge)

[10] Based on their date and location, it has been inconclusively argued that this species left the Laetoli footprints. The Laetoli site also contributed the type specimen for this species; another example of it is the specimen "Lucy".

ANSWER: **Australopithecus afarensis** (prompt on "Australopithecus"; do not accept or prompt on "Australopithecus africanus")

7. In this novel, a housekeeper shoots Werner Tötges after he makes advances at her. For 10 points each:

[10] Name this novel in which the title lady becomes the subject of sensationalist media coverage after spending a night with Ludwig Götten.

ANSWER: *The **Lost Honour of Katharina Blum**, Or: how violence develops and where it can lead* (accept **Die verlorne Ehre der Katharina Blum** oder: *Wie Gewalt entstehen und wohin sie führen kann*)

[10] *The Lost Honour of Katharine Blum* was written by this German author of *Group Portrait with Lady* and *Billiards at Half-Past Nine*.

ANSWER: Heinrich **Böll**

[10] Another German author called Heinrich was Heinrich Heine, who wrote about the title man-luring Rhine maiden in this poem.

ANSWER: *Die **Lorelei*** (accept *The **Lorelei***)

8. Why should pop culture and mythology have separate distributions? For 10 points each, here are some questions on mythological creatures as seen in *Welcome to Night Vale*:

[10] The Sheriff's Secret Police would like to remind you that you should not know anything about the Tiered Heaven or the Hierarchy of these religious beings, and that they only tell lies and do not exist.

ANSWER: **angels**

[10] Former mayoral candidate Hiram McDaniels is repeatedly referred to as literally a five-headed example of one of these creatures, also found in *Journey to the West* and Wagner's *Ring Cycle*.

ANSWER: **dragons**

[10] A less typical supernatural figure found in Night Vale is the Faceless Old Woman Who Secretly Lives In Your Home, voiced by this former child actress of *Matilda* and *Miracle on 34th Street*.

ANSWER: Mara **Wilson**

9. We call them the Three Sovereigns, but there are really more like eleven. Close enough. For 10 points each:

[10] This occasional member of the Three Sovereigns is best known for her MacGyver-esque feats of creating humanity out of clay and rope and repairing the pillars of heaven with five coloured stones and the legs of a tortoise.

ANSWER: **Nüwa** [accept **Nügua**]

[10] The most common member of the Three Sovereigns is Nüwa's brother Fuxi, who created this common social practice; in a slightly unorthodox move, however, he did it with his sister.

ANSWER: **marriage** [accept clear equivalents]

[10] The Three Sovereigns are believed to be the progenitors and first rulers of this Asian country.

ANSWER: China

10. The clepsydra is an ancient one of these devices which relies on the flow of water. For 10 points each:

[10] Name these devices, examples of which were made by John Harrison to try and solve the longitude problem.

ANSWER: clocks (accept chronometers or watches)

[10] This Astronomer Royal originally rejected Harrison's H4 watch, claiming that its inaccuracies cancelled each other out, and hence that it did not fulfil the criteria of the Longitude prize.

ANSWER: Nevil Maskelyne

[10] Modern atomic clocks measure time by observing the oscillations of atoms of this element's 133 isotope. This is the most electropositive stable element in Pauling's original table of electronegativities.

ANSWER: caesium (accept Cs)

11. Such bonus. Ten points. Wow.

[10] Grammatical constructions such as these, usually written in multicoloured Comic Sans, are typical of this memetic animal of Internet fame.

ANSWER: Doge [accept almost any conceivable pronunciation, including rhyming with 'rogue', 'doggie', or like the rulers of Venice, begrudgingly prompt on 'dog']

[10] While many figures have been used in Doge memes, the original and most popular dog is a female member of this Japanese dog breed.

ANSWER: Shiba Inu [prompt on 'spitz']

[10] In 2013, Dogecoin was released as a humorous alternative to this cryptocurrency, although it reached a less-humorous \$60 million capitalisation within two months.

ANSWER: Bitcoin

12. For 10 points each, answer some questions about Chinese beer:

[10] This beer is the best selling brand by volume in the world, despite being sold almost exclusively in China. You can tell it's the cool thing to drink because it has a rock climber on the can.

ANSWER: Snow Beer

[10] This is probably the best-known Chinese beer outside of China. It is named after a city which hosted the sailing for the 2008 Olympics.

ANSWER: Tsingtao Beer

[10] This beer, noted for its almost total lack of flavour, is supposedly China's oldest beer brand. It is named for a city in Northern China which hosts an annual ice festival.

ANSWER: Harbin Beer

13. A new wave of university education took hold of Europe in the 19th century: research! Name some of the people involved, for 10 points each:

[10] The German educational ideal focused on the union of teaching and research grew out of the reforms of this minister of education to the Prussian King Friedrich Wilhelm III.

ANSWER: (Friedrich) Wilhelm (Christian Karl Ferdinand) von Humboldt

[10] This American Quaker philanthropist was inspired by the research-led German system to leave a bequest that founded a private research university and a revolutionary teaching hospital in Baltimore.

ANSWER: Johns Hopkins

[10] This thinker rejected research as a primary goal in his text on *The Idea of a University*, written after he became the first Rector of the Catholic University of Ireland. This leader in the Oxford Movement later wrote *Apologia Pro Vita Sua*.

ANSWER: Cardinal John Henry Newman

14. This poem asks "How can I face such slaughter and be cool?" For 10 points each:

[10] Name this poem, which begins with the line "A wind is ruffling the tawny pelt" of the title location.

ANSWER: A Far Cry from Africa

[10] This St. Lucian poet of *A Far Cry from Africa* transposed themes from the *Iliad* to the Caribbean in *Omeros*.

ANSWER: Derek **Walcott**

[10] This character in *Omeros* competes with Hector over the housemaid Helen.

ANSWER: **Achille** (do not prompt or accept on 'Achilles')

15. This principality is unusual as its monarchy consists of two Co-Princes. For ten points each:

[10] Name this principality situated between France and Spain in the Pyrenees.

ANSWER: Principality of **Andorra** or Principat d'**Andorra** (accept Principality of the Valleys of **Andorra** or Principat de les Valls d'**Andorra**)

[10] The Co-Princes of Andorra are the President of France and the Bishop of this diocese of Catalonia.

ANSWER: **Urgell**

[10] Approximately 15 km west of Andorra is this Spanish exclave in the French Pyrenees-Orientales department. It is home to the medieval Esteve Pharmacy.

ANSWER: **Llivia**

16. Aria names are complicated, so here are some bonuses about what we think they're called. For 10 points each:

[10] This aria from Bizet's *Carmen* is generally known as 'Habanera', after the style of Cuban dance upon which it is based.

ANSWER: '**L'amour est un oiseau rebelle**' [accept **Love is a rebellious bird**]

[10] Also from *Carmen*, Escamillo's aria 'Votre toast, je peux vous le rendre' is more commonly known by this title, after the profession of its singer.

ANSWER: The **Toreador** Song [prompt on 'bullfighter', I guess]

[10] 'Sous le dôme épais', more usually known as the Flower Duet, is sung by Mallika and the title character in this 1883 opera by Léo Delibes.

ANSWER: **Lakmé**

17. The projects LIGO and LISA aim to detect entities which are predicted to exist by this theory. For 10 points each:

[10] Name this theory which predicts the existence of gravitational waves, as well as the curvature of space-time by masses.

ANSWER: **general relativity** (do not prompt or accept "Special Relativity")

[10] One early successful test of general relativity was its ability to predict the precession in the perihelion of this smallest and fastest planet without "fudge factors".

ANSWER: **Mercury**

[10] This scalar-tensor theory is an alternative to general relativity. In this theory, which was based on the work of Pascual Jordan, the gravitational constant is not constant but is instead modified by a variable scalar field.

ANSWER: Jordan-**Brans-Dicke** Theory (accept names in any order)

18. Name some British swimmers, for 10 points each:

[10] This Mansfield-born swimmer retired after the London Olympics, just in time to see Katie Ledecky obliterate her 800 metre freestyle world record.

ANSWER: Rebecca **Adlington**

[10] This breaststroke specialist was Britain's stand-out performer at the 2015 World Championships in Kazan, winning gold medals in the 100 metres and 200 metres.

ANSWER: Adam **Peaty**

[10] This veteran backstroker competed in his sixth World championships in Kazan, but did not come close to matching the gold he won in Rome in 2009.

ANSWER: Liam **Tancock**

19. This system adapted previous systems for the same purpose by including turnip and undersown clover in its growth. For 10 points each:

[10] Name this system that increased agricultural output by providing high quality feed for livestock and, hence, manure for future fertilisation.

ANSWER: Norfolk **four-course** crop rotation

[10] The four-course system was one of the innovations that massively increased British agricultural output in the 18th century. It was allied with increased employment of this practice of fencing land for livestock grazing, so breaking up formerly common land into fields.

ANSWER: **enclosure**

[10] As part of the Agricultural Revolution, Jethro Tull espoused the seed drill, and a horse-drawn version of this agricultural implement that sets a blade transverse to the handle and the ground in order to level soil and clear weeds.

ANSWER: **hoe** [accept **What's a hoe?**]

20. While popular in many religions, this practice is prohibited in Zoroastrianism and modern Judaism. FTPE:

[10] Name this religious practice, often characterised by fasting, abstinence, and withdrawal from society.

ANSWER: **asceticism**

[10] These Muslim ascetics are particularly associated with the *sama* ritual, in which religious ecstasy is achieved through physical exertion.

ANSWER: **dervishes** [accept **darvesh**]

[10] Asceticism is mostly practiced in religions of the Indian subcontinent in order to achieve this goal of liberation from *samsara*.

ANSWER: **moksha** [accept **vimoksha**, **vimukti** or **mukti**]