

OOT 2017
Packet 12 - Editors 6

Edited by Oliver Clarke, George Corfield, Charlie Clegg, Daoud Jackson, Chris Stern and Spencer Weinreich.
Questions also written by Eric Mukherjee, Thomas De Bock, Isaac Brown.

The last tossup in the last packet should have been: Orpheus

Tossups

1. **Leonard Bernstein pissed off the BBC symphony orchestra on a 1982 by insisting on playing this piece's most noted movement at half its usual speed. The version of this work that is most commonly played is 96 bars longer than the original version due to the addition of a part for organ. Another movement of this work depicts a bulldog named Dan rejoicing upon exiting a (*) river four bars after falling into it, and a movement of this work hints at Beethoven's *Pathétique Sonata*. That movement is named on a pun on the composer's publisher's name, Augustus Jaeger. *Nimrod* is, for 10 points, part of which orchestral work with an unknown theme by Edward Elgar**

ANSWER: Enigma Variations [accept Variations on an Original Theme]

2. **This scientist names an exchange hamiltonian which is not restricted to nearest neighbours, used in the study of Ferromagnets. One flawed thought experiment devised by this physicist used a gamma ray microscope and classical optics to demonstrate his most well known statement. One statement by this scientist was generalised by Robertson as one half of the magnitude of the (*) commutator of two operators. Max Born and Pascal Jordan developed the Matrix formulation of Quantum Mechanics along with this physicist. Position and momentum cannot be known simultaneously, for 10 points, according to which physicist's namesake uncertainty principle?**

ANSWER: Werner Heisenberg

3. **This work is set where "those that lifted eyes could count / Five mountain ranges one behind the other," where a girl stands "in her apron / to tell them "Supper." One character in this poem "lay and puffed his lips out with his breath" before "Little—less—nothing!" "Call it a day, I wish they might have said," says this poem's speaker, foreshadowing when "they, since they / Were not the (*) one dead, turned to their affairs." This poem opens with a saw that "snarled and rattled in the yard," which mangles a boy's hand and kills him. For 10 points, name this Robert Frost poem, taking its title from the words preceding "brief candle" in the "Tomorrow and Tomorrow and Tomorrow" soliloquy of *Macbeth*.**

ANSWER: "Out, Out—"

4. *Description acceptable.* **During this event, Henry Adrian tricked passengers into walking in the Thames Estuary near the Isle of Sheppey, only to abandon them to drown when the tide came in. This action followed a similar decision by the same person in Gascony three years earlier, and he performed it to secure parliament's consent for a new tax. This event was largely non-violent, however, and only affected around 2,000 people, previously targeted by the (*) 1218 Edict of the Badge and a 1275 law banning lending at interest. This action was only reversed in 1657, by Oliver Cromwell. For 10 points, name this 1290 action, in which Edward I banished practitioners of a certain religion from his realm.**

ANSWER: expelling the Jews from England [accept the Edict of Expulsion, accept word variants]

5. **Upper woodwinds represent nymphs tittering whilst the bassoons and horns play a *Danse Grottesque* in which Dorcon attempts to woo the female lead in a *symphonie chorégraphique* by this composer. That ballet by this composer opens with a 5/4 *Danse Generale*, the pirate Bryaxis kidnaps the female lead from a nymph's grotto. As thanks for a divine rescue of that female lead, the bard (*) Lammon narrates the tale of Syrinx and Pan at the end of that ballet. Another ballet by this composer opens with a 3 4 snare drum rhythmic ostinato played throughout the work. For 10 points, name this composer of *Daphnis et Chloé* and *Bolero*.**

ANSWER: Maurice Ravel

6. A 10 mile gorge on this river has been formed by a waterfall called “place of big noises” by the Khoikhoi, now known as the Augrabies Falls. Africa’s largest canyon carries an intermittent tributary of this river called the Fish River.. This river rises in Lesotho, where water has been diverted by dams to (*) Gauteng. The wealth of the Namibian Sperrgebiet to the north of this river is due to the erosion of kimberlite pipes over thousands of years. Unlike its major tributary, the Vaal, this river is not named for the colour of the silt it carries. Delineating the border with Namibia, for 10 points, name this longest river in South Africa.

ANSWER: Orange River (accept Gariiep, Groote or Senqu)

7. A doom painting from this country depicts a trio of ale-wives holding flagons and wearing nothing but horned headdresses. A work from this country that depicts two knights fighting a griffin is the first known map to depict the Faroe Islands. In one work from this country, a white castle on an island is seen within an orb at the top of a standard held by one of many blue-cloaked angels attending the Virgin Mary. Those angels in this work all wear the (*) white hart badges of a king of this country depicted on the opposite panel. For 10 points, name this country, home of the Wilton Diptych, the Coventry Doom, and the Hereford Mappa Mundi.

ANSWER: Kingdom of England (prompt on “Britain”, “United Kingdom”, or “U.K.”)

8. The extent of this event was investigated by H.J.G. Ferzenaar, then more accurately by Rogier Verbeek, while modern scholars reject any connection to the absence of an El Niño in California the same year. Pressure waves caused by this event rounded the Earth three times. A notable consequence of this event was the first description of the jet stream by meteorologists, and this natural event may have affected paintings by (*) William Ashcroft and Edvard Munch. For 10 points, name this natural disaster of 1883, which killed over 35 thousand people through a combination of earthquakes, pyroclastic flows, and tsunamis originating from Indonesia.

ANSWER: 1883 eruption of Krakatoa

9. A character in this play complains that his whole house smells of corpses, to which another replies that “the whole universe” does. A woman looking for oil to light a lamp is said to have died “of darkness” in this play, which also includes a character who insists on being placed in the very centre of a room. Props in this play include a (*) telescope used to check the weather, a stepladder, and a toy dog which cannot stand up. This play features the wheelchair-bound Hamm and his servant Clov in a post-apocalyptic world. For 10 points, this is what play, in which the legless couple Nagg and Nell live in dustbins, a work by Samuel Beckett?

ANSWER: Endgame [accept Fin de partie]

10. In one short story by this author a Jesuit scientist discovers the remnants of a civilisation destroyed by the Star of Bethlehem’s supernova. A novel by this author is based on the world of Thalassia, a colony lost to the rest of mankind for centuries. The solar neutrino problem is a plot device in that novel, *the Songs of Distant Earth*. The third novel in this author’s most famous series sees a landings on (*) Halley’s Comet and Mount Zeus on Europa. That landing goes against a message in the previous book that humanity should “ATTEMPT NO LANDINGS THERE”. For 10 points, *2010: Odyssey Two* is by what British science fiction author and Kubrick collaborator?

ANSWER: Arthur C. Clarke

11. Sent on many domestic missions, this man’s first foreign posting was as envoy to the Ilkhan Arghun. Stephen G. Haw argues that this man was a *keshig*, an honorary member of the royal guard, rather than a *darughachi*, high official. It has been suggested that a position in the imperial salt monopoly—about which he wrote with great accuracy—gave rise to this man’s claims of having served as governor of (*) Yangzhou, and he returned to his homeland after going to Persia in the bridal party of Koekecin [koh-eh-ke-sin], the daughter of Kublai Khan. For 10 points, name this Venetian merchant, author of a travel account of his time in Mongol China.

ANSWER: Marco Polo

12. **The difficulty in estimating the timing of these events is explained by the Signor-Lipps effect. Extensive adaptations for interspecies conflict are disadvantageous in these events according to the Escalation hypothesis, as they prevent species from adapting to newly formed ecological niches. Occurring at the Frasnian-Famennian boundary, one of these events is named the (*) Late-Devonian.** Since the Cambrian explosion there have been five major examples of these events, the largest of which occurred between the Permian and Triassic. For 10 points name these events where the number and diversity of species on earth drastically decreases.

ANSWER: Extinction events [or Biotic crises or other equivalents]

13. **Dr. Dick Miller attracted controversy for suggesting that Ethan Couch suffered from this condition as part of his defence in an intoxicated manslaughter trial in 2013. One book about this condition argues one cure is to “be beautiful [not attractive]” and the author diagnoses (*) billionaire heroin addict Sam as suffering from this condition.** This term titles a 2007 book by Oliver James which argued “selfish capitalist” societies with high income inequality increased the likelihood of emotional distress as a result of the title condition characterized by high demand for material possessions. For 10 points, name this portmanteau term, the disease of consumerism.

ANSWER: affluenza

14. **One character in this novel gets dysentery after eating mackerel on a date with a boy with whom she had previously eloped, although newspapers mistakenly reported her older sister’s name. That sister is said to have diarrhoea at the end of this book, in which she scuppers a romance by not showing enthusiasm when a potential suitor calls. One character in this novel wants to go to (*) France to study fashion, having honed her skills designing dolls photographed by her admirer, Itakura. Koi-san is sent to the mountains to have her baby to avoid shaming the family near the end of, for 10 points, which Junichiro Tanizaki novel about the titular siblings from Osaka?**

ANSWER: *The Makioka Sisters* [accept Light Snow or sasameyuki]

15. **Anacharsis was a philosopher and forerunner of the Cynics who came to Athens from these people. Mnesilochus in Euripides’ *Thesmophoriazusae* is arrested by a policeman who is one of these people. Matching the victory of his father Philip over a western king of this people, Ateas, Alexander the Great defeated these people at the Jaxartes River. Cyrus the Great founded an eponymous city to defend his borders against these people and according to Herodotus, died in battle fighting a subgroup of these people, led by queen (*) Tomyris. Inhabiting an area from the Danube to northern China, for 10 points, name this Iranian nomadic people.**

ANSWER: Scythians (accept Saka or Sai Do not accept Sarmatians)

16. **This man wrote a historical drama about a sixteenth-century Genoese revolt, *Fiesco*, and collaborated with a friend on a series of distichs making fun of their critics, the *Xenien* [Zen-ee-ehn]. Lady Milford falls in love with the nobleman Ferdinand, who loves the middle-class musician’s daughter Louise Miller, a romance both their parents scheme to stop, in this man’s play (*) *Love and Intrigue*. Another of this author’s characters swears allegiance to the men he leads after Roller and Schweizer die for him, but this conflicts with his love for Amalia. For 10 points, name this German author who created the brothers Karl and Franz Moor in *The Robbers*, as well as the poem, “Ode to Joy.”**

ANSWER: Johann Christoph Friedrich von Schiller

17. **One man who was decapitated by Afghan troops in this city, carried on fighting carrying his head in one hand until he reached the site where he promised his head would fall. Hazarat Mian Mir laid the foundation for this city’s holiest building and it is home to the Jallianwallah Bagh. The nectar which gives this town its name is stored in the Sarovar and this city is home to the Akal Takht, the seat of the (*) Jathedar and earthly centre of the Khalsa. This city was founded by Guru Ram Das and its most famous**

structure was embellished by Ranjit Singh. For 10 points, name this Punjabi city, home to the Harmandir Sahib [Saab], the holiest city in Sikhism.

ANSWER: Amritsar

18. An enzyme which add this molecule to acetyl CoA can be deactivated by phosphorylation, but partially reactivated by citrate. Biotin is a cofactor used by many enzymes which add this compound to molecules. This is the smaller of two substrates of an enzyme whose activity is regulated by CA1P and requires another molecule of this compound to be activated. This compound is stored as malate (*) overnight in crassulacean acid metabolism. This compound is added to ribulose-1,5-bisphosphate by RuBisCO in the Calvin cycle, a reaction that takes place in the chloroplast. For 10 points, name this gas that is used by plants in photosynthesis to make organic matter.

ANSWER: Carbon Dioxide [or CO₂, accept carboxyl group because of the early clues about biotin]

19. The Eyrarland statue is normally said to depict this figure. This figure owns an object forged by a dwarf who was bitten in the eye in the process of creating it. This figure is mocked for spending a night in the glove of Skrymir by Harbard who refuses to ferry this deity, who retorts that he smashed in the head of (*) Hrungnir. This figure tears off the head of one of Hymir's bulls to use as bait for a creature that once disguised itself as a cat, a serpent that would eventually kill him. This deity rode a chariot pulled by two he-goats, which he would eat if hungry and then revive with his hammer, Mjollnir [myol-nir]. For 10 points, name this Norse god of thunder.

ANSWER: Thor [accept Donar]

20. For a mode to be active in this technique, it must transform as one of the cartesian axes, corresponding to a change in the dipole moment of the molecule during the motion. In centrosymmetric molecules, normal modes cannot be simultaneously active in (*) Raman spectroscopy and this technique, samples for which can be prepared by placing them in a nujol mull between KBr plates. Alkynes have a characteristic peak at 2200 wavenumbers in this technique, in which every molecule has a different low energy fingerprint spectrum. For 10 points, identify this spectroscopic technique that probes samples with light at wavelengths longer than the visible spectrum.

ANSWER: Infrared Spectroscopy (accept IR)

Tiebreaker

21. Taking a distance limited sample may help to avoid overestimating this quantity; that tendency for this quantity to appear greater for more distant objects is the Malmquist bias. One can estimate this quantity for a galaxy by measuring its velocity profile as this quantity is proportional to angular velocity by the Tully-Fisher relation. This quantity is plotted on a logarithmic scale on the y-axis of a Hertzsprung-Russell diagram against temperature on the x-axis. Henrietta Leavitt demonstrated the relationship between this quantity and period for Cepheid variables. For 10 points, give this quantity which is a measure of brightness for astronomical objects

ANSWER: Luminosity [or "absolute magnitude", prompt on brightness before mention]

Bonuses

1. After a patchy American career and numerous stints in prison, this musician successfully re-established himself in France after the Second World War. For 10 points each:

[10] Name this New Orleans-born jazz pioneer, who composed "Petite Fleur" and "Dans Les Rues d'Antibes", which he recorded with collaborator Claude Luter.

ANSWER: Sidney Bechet

[10] Bechet was a notable player of this instrument, whose other jazz players include Jimmie Noone and Peter Fountain. It was also the instrument of Benny Goodman and Acker Bilk.

ANSWER: clarinet

[10] One of Bechet's hits with Luter was this song popularised by Humphrey Lyttelton, who encouraged his audiences to shout the name of the titular vegetable during the rests.

ANSWER: "Les **Oignons**" [or "The **Onions**"]

2. This work intersperses traditional Latin texts with poems by Wilfred Owen sung by the tenor and baritone soloists. For 10 points each:

[10] Unified by the interval of a tritone between C and F sharp, name this work premiered for the consecration of the current Coventry Cathedral.

ANSWER: **War Requiem**

[10] War Requiem is a work of this Suffolk-born composer of *The Young Person's Guide to the Orchestra*, *The Simple Symphonic* and the operas *Peter Grimes* and *The Turn of the Screw*.

ANSWER: (Edward) Benjamin **Britten**

[10] The second movement of Britten's *Simple Symphony* is this piece for strings that uses the same long-short-long-short-long-short-long rhythmic pattern as the *The Archers* theme tune.

ANSWER: "**Playful Pizzicato**" [prompt on **Pizzicato**]

3. In the 10th Century, ibn Sayyār al-Warrāq wrote the earliest known Arabic cookbook the *Kitab al-Tabikh* or *Book of Dishes*. For 10 points each:

[10] Ibn Sayyar was based in this city, the capital of the Abbasid Empire and what was then one of the largest cities in the world.

ANSWER: **Baghdad**

[10] Ibn Sayyar says vegetarian or *muzaw-waraat*, literally "counterfeit" dishes, were to be prepared for people of this religious denomination when they were fasting. This denomination, popular in Sassanid Persia argued that Christ consisted of two persons, one human and one divine.

ANSWER: **Nestorianism**

[10] Charles Perry has described the condiment Ibn Sayyar calls *murri* as tasting "just like soy sauce". It was prepared by extracting the juice from mouldy lumps of dough made from this crop used to make the Sunnah cure-all *talbina*. It is the staple crop of Tibet.

ANSWER: **barley** [or *Hordeum vulgare* L.]

4. These two states once had over 7,000 exclaves in each other including the world's only counter-counter-enclave, Dahala Khagrabari. For ten points each:

[10] Name these two populous Asian countries that, in 2015 exchanged their numerous exclaves.

ANSWER: **India AND Bangladesh**

[10] This town in Spain's province of Girona is surrounded by France due to its exemption as a city from Spain's cession of villages to France by the 1659 Treaty of the Pyrenees.

ANSWER: **Llívia**

[10] Although surrounded on land by the U.A.E., this territory, whose tip marks the narrowest point of the Strait of Hormuz, is an exclave of Oman.

ANSWER: **Musandam** Governorate

5. One character in this novel suffers through an unhappy marriage to Monsieur Tessiere. For 10 points each:

[10] Name this epistolary novel focusing on Jerome's love for his highly religious cousin, Alissa. It takes its title from Luke 13:24.

ANSWER: **Strait is the Gate** [accept *La Porte étroite*]

[10] As well as penning *Strait is the Gate*, this Nobel Prize-winning French author wrote about Michel's attraction to Arab boys in *The Immoralist*.

ANSWER: André **Gide**

[10] Gide published a *Journal* to elucidate the writing process of this novel, in which Bernard runs away from home after finding an old love letter addressed to his mother. This novel's final chapter sees Boris commit suicide with a gun that was supposed to contain a blank cartridge.

ANSWER: *The Counterfeiters* [accept *Les Faux-Monnayeurs*]

6. This book argues that “The Indian prince, who refused to believe the first relations concerning the effects of frost, reasoned justly”. For 10 point each:

[10] Identify this work which argues that “Morals and criticism are not so properly objects of the understanding as of taste and sentiment.”

ANSWER: *An Enquiry Concerning Human Understanding*

[10] Section 2 of that *Enquiry* includes a frequently debated thought experiment about a man’s hypothetical reaction to this potential phenomenon, which Hume concludes shows “simple ideas are not always, in every instance, derived from the correspondent impressions”.

ANSWER: Missing shade of **blue** [prompt on **shade** or **colour**]

[10] The tenth section of *An Enquiry Concerning Human Understanding* is about these occurrences, which Hume defines “as a transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent.”

ANSWER: **miracles** [prompt on “acts of God” and similar]

7. The most common causes of megaloblastic anaemia are deficiencies in vitamin B12 or deficiencies in this compound. For 10 points each:

[10] Name this vitamin that is routinely given to women before, and during early stages of pregnancy

ANSWER: **Folic Acid** [or **folate** or **vitamin B9** do not accept “vitamin B”]

[10] A lack of folate in the diet of pregnant women can increase the risk of this type of birth abnormality. Examples of the “open” type of these defects include anencephaly and spina bifida.

ANSWER: **Neural tube** defects

[10] This immune suppressant and chemotherapy agent exerts part of its action through the inhibition of folic acid metabolism. It is the first line DMARD treatment of rheumatoid arthritis.

ANSWER: **Methotrexate** [or **amethopterin**]

8. For 10 points each, answer the following on people playing games in literature:

[10] In this novel, Glenn plays the trivia game Extinctathon where players take the names of extinct animals. Later in this novel, players of Extinctathon form a bio-engineering group.

ANSWER: ***Oryx and Crake***

[10] Yasunari Kawabata wrote the book *Meijin* about two people playing this board game, partly based on his own newspaper reports of the retirement match of Honinbo Shusai.

ANSWER: **Go** (accept **weiqi** or **baduk**)

[10] This Roberto Bolaño novel is titled for the board game which Udo Berger plays against El Quemado while on holiday. It shares its name with the empire in which Jonathan Littell’s *The Kindly Ones* is set.

ANSWER: The **Third Reich** (accept *El Tercer Reich*)

9. People usually drown in water, but sometime they drown in other substances. For ten points each,

[10] George Plantagenet, first duke of Clarence, condemned for treason against Edward IV, was supposedly drowned in a butt of this variety of wine, its name derived from the Italian name for the Byzantine town of Monemvasia.

ANSWER: **Malmsey** [or **Malvasia**]

[10] In 1919, Boston’s North End was devastated by a flood of this substance from a burst storage tank, killing 21 and injuring 150.

ANSWER: **molasses**

[10] More than a century before the Great Molasses Flood, this city was struck by a beer flood when several vats ruptured at the Meux and Company Brewery in the parish of St Giles, killing 8 people.

ANSWER: **London**

10. The Epigoni were the sons of the members of this group. For 10 points each:

[10] Name this group led by Polynices, son of Oedipus, against his brother Eteocles, who sought the kingship of a Boeotian city. This group titles a tragedy by Aeschylus.

ANSWER: **Seven Against Thebes** [or **Hepta epi Thebas**]

[10] This member of the Seven was the father of Diomedes, and his exploits at Thebes are used by Agamemnon to exhort Diomedes on in Book IV of the *Iliad*.

ANSWER: **Tydeus**

[10] Another of the Seven, Amphiaraus participated in this event, in which Atalanta drew first blood but which was completed by Meleager.

ANSWER: **hunt for the Caledonian Boar** [accept word variants]

11. Before telescopes, astronomy was somewhat more difficult. For 10 points each:

[10] Newgrange in Ireland's Inner Chamber is illuminated at this astronomical moment. Much of Stonehenge is aligned with the sunset on this day.

ANSWER: **Winter Solstice**

[10] This observatory in Samarkand is named after its Timurid-era astronomer. A Fakhri sextant with a radius of 40 metres was built as the centrepiece of this observatory.

ANSWER: **Ulugh Beg** Observatory

[10] Discovered in 1901, this object was most likely produced at Rhodes. This object's complexity was such that it not only kept track of the Olympian cycle, but also could predict lunar and solar eclipses.

ANSWER: **Antikythera Mechanism**

12. This quantity is low for metals due to the large number of electrons near to the Fermi level, which are thus easily excited. For 10 points each:

[10] Name this quantity, which is equal to the resistance of a material multiplied by its cross-sectional area divided by its length.

ANSWER: **Resistivity**

[10] More generally, resistivity can be defined as this quantity divided by the current density. This quantity's divergence is equal to charge density divided by the vacuum permittivity according to Gauss's law.

ANSWER: **Electric Field**

[10] At low temperatures, this effect caused by the presence of magnetic impurities causes a change in the scattering rate of conduction electrons leading to a log T contribution to the resistivity.

ANSWER: **Kondo** effect

13. The "little" version of this text covers only Norfolk, Suffolk, and Essex, while the "Great" version surveys much of the rest of southern England and Wales, except for tax-exempted cities like London and Winchester. For 10 points each:

[10] Name this massive tax survey, commissioned by William the Conqueror to assess what was owed during the reign of Edward the Confessor.

ANSWER: **Domesday Book** [accept **Liber de Wintonia** or **Book of Winchester**]

[10] The Domesday Book only describes a portion of Wales because the region's kingdoms, like this one—founded by Cunedda and based at Rhuddlan—remained independent. Gruffydd ap Llywelyn and Llywelyn the Great both dominated Wales as rulers of this kingdom.

ANSWER: **Gwynedd** [accept **Venedotia** or **Norwallia**]

[10] One reason for undertaking the Domesday Book was the need to rein in Norman land-grabbing, such as the acquisitions of this bishop, William's half-brother, who was tried and convicted at Penenden Heath.

ANSWER: **Odo** of Bayeux

14. The work of one artist of this surname was the subject of a major retrospective entitled *The Last Harvest*. For 10 points each:

[10] Give this surname shared by an uncle and two nephews, the younger of whom created the "Indian School of Oriental Art" and painted a series based on the Arabian Nights that showed the cosmopolitanism of Calcutta.

ANSWER: **Tagore** (accept Abanindranth **Tagore**)

[10] That painter Abanindranath Tagore depicted one of these animals dying in his painting *Journey's End*. Two of these animals with neatly brushed hair on the left of Giotto's *Adoration of the Magi*.

ANSWER: camels (accept Uta)

[10] Tagore was influenced by this artist in his depiction of his mother sitting in profile. While Tagore's mother is in a small box decorated with a floral motif, this artist depicted his mother in front of a black and grey background.

ANSWER: James McNeill Whistler

15. This character visits Gaius's Inn while on a journey with his wife and family, guided by the servant Great-Heart and accompanied by a woman called Mercy. For 10 points each:

[10] Name this character, who had earlier been abandoned in a swamp by Pliable and saved from diabolical archers near the Wicket Gate by a doorkeeper who is revealed to be Jesus Christ.

ANSWER: Christian

[10] Christian is the protagonist of this allegory by John Bunyan, featuring such enticing destinations as Vanity Fair and the Slough of Despond.

ANSWER: *The Pilgrim's Progress from This World to That Which Is to Come; Delivered under the Similitude of a Dream*

[10] Christian is tricked by this character into heading to Mount Sinai to be saved through the Law with the help of Legality and Civility. Evangelist later disproves the arguments of this "secular ethicist."

ANSWER: Mr. Worldly Wiseman [accept either underlined part]

16. Welcome to the bizarre and almost certainly heretical world of syncretic yoga. For 10 points each:

[10] Torah Yoga ® claims as its inspiration the teachings of the *Sefat Emet*, a rebbe of this Haredi revivalist sect founded by the Baal Shem Tov and known for wearing the shtreimel, a round fur hat.

ANSWER: Hasidism or Hasidic Judaism [anti-prompt on "Haredi" or "Ultra-Orthodox"]

[10] Some Christians created PraiseMoves to counter yoga, which they see as a plot to convert practitioners to Hinduism. They suggest the plot was launched by this disciple of Ramakrishna, who introduced yoga to the West in the late 19th century.

ANSWER: Swami Vivekananda (accept Narendranath Datta)

[10] Some Muslim bloggers have claimed that the movements of *salat* are equivalent to yoga, including comparing the *balasana* pose to this action of prostrating oneself before Allah.

ANSWER: sujud (accept sajda)

17. One character with this ability uses it in a clearing in the wood outside her uncle's country house in Essex, after which she is sent away. For 10 points each:

[10] Name this ability, which the unnamed governess becomes convinced is shared by Flora and Miles in *The Turn of the Screw*.

ANSWER: they see dead people [accept obvious equivalents]

[10] The restless dead also play a large role in this author's *Tales of Men and Ghosts*. This close friend of Henry James is better known for novels like *The Age of Innocence* and *Ethan Frome*.

ANSWER: Edith Wharton [or Edith Newbold Jones]

[10] One of the greatest-ever ghost stories is this novel by Shirley Jackson, in which Dr. John Montague rents a house to try to prove the existence of the supernatural, with the assistance of guests like Theodora and Eleanor.

ANSWER: *The Haunting of Hill House*

18. The Lee and Kennedy nursery in Hammersmith, described as "the finest in the world" was the first in the UK to sell a number of plant varieties. For 10 points each:

[10] Lee and Kennedy first sold the pink and purple *magellanica* species of this genus of flower for one guinea each. Charles Plumier discovered this genus on Hispaniola naming it in honour of Leonhart Fuchs.

ANSWER: Fuschia

[10] They also introduced the cultivation of this genus of flowers with vastly differing flower shapes, varieties of which include “Bishop of Llandaff”, “Twynning's After Eight” and “Moonfire”. It is the national flower of Mexico.

ANSWER: **Dahlia**

[10] Bizarrely, Lee and Kennedy also provided a number of flowers, especially roses, even during times of war, to the Empress Josephine and her enormous garden at this stately home, 10 miles west of Paris.

ANSWER: Chateau de **Malmaison**

19. The Marangoni effect is a mass transfer along an interface caused by a gradient in this property, For 10 points each:

[10] Name this phenomenon that water striders use to walk on ponds, caused by small interactions between the liquid and air compared to the bulk liquid leading to a tendency to minimise surface area.

ANSWER: **Surface Tension**

[10] This doubly eponymous equation relates the pressure difference across an interface to the surface tension multiplied by 1 over each of the principal radii of curvature, leading to a large surface tension for small radii.

ANSWER: **Young-Laplace** equation [accept in either order, prompt on partial answer]

[10] Young also names a relation, which for a drop on a surface, states that the surface tension between the solid and gas is equal to the surface tension between the solid and liquid plus the surface tension between the liquid and the gas multiplied by the cosine of this quantity.

ANSWER: **Contact Angle** [accept word forms such as the **angle between the drop's surface and the solid**]

20. The death of Matilda di Canossa led to the breakup of the March of Tuscany and the growth of the powerful and fractious city states of Northern Italy. For 10 points each:

[10] This city-state's Noveschi ruling oligarchy was overthrown when Charles IV arrived in the city in 1355, in the aftermath of the Black Death which killed perhaps 50% of the population.

ANSWER: **Siena**

[10] Siena was part of the conflict between the Guelphs and the Ghibellines, and belonging to the latter, frequently fought against this Tuscan city-state, which eventually conquered Siena in the 16th century.

ANSWER: **Florence**

[10] Even today, Sienese fans will cry “Remember” this battle in matches against Florence, the bloodiest in Mediaeval Italy, which saw the Florentine army wiped out

ANSWER: Battle of **Montaperti**