### Oxford Open 2014: Do You Want to Get with Women?

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# **Tossups**

1. Spirals recur in this film's cinematography, notably in its animated opening sequence. One of its characters attempts suicide in San Francisco Bay but is saved by private investigator Scottie. This film's repeated use of dolly zoom includes a shot straight down a bell tower's spiralling stairs.. This film's climax occurs at the Mission San Juan Bautista's bell tower, where a nun startles Judy Barton and Scottie overcomes his fear of heights. For 10 points, name this 1958 film starring Kim Novak and James Stewart, which in 2012 topped Sight & Sound's list of greatest films ever and which was directed by Alfred Hitchcock.

ANSWER: *Vertigo* 

2. This painter had an aquarium in his house, and depicted fish in paintings such as *They're Biting*. He portrayed a sex scene with a floating robotic head of multiple colours in his *Remembrance Sheet of a Conception*, and he developed his method of gradient while at the Bauhaus. A painting of a pyramid made up primarily of gold and blue dots is his *Ad Parnassum*, and Hitler declared a picture of birds shackled to wire on a blue background degenerate. For 10 points name this artisty of *Twittering Machine*.

ANSWER: Paul Klee

3. This thinker presents culture as "personality writ large" in a work that argues in favor of cultural relativism, and makes the

Another work by this thinker became a bestseller in China following the deterioration of relations between China and the country that was the book's subject. In that work, this thinker contrasted emphasis on outward and inward moral conduct in what she called shame and guilt cultures, respectively. For 10 points, name this American anthropologist who wrote *Patterns of Culture* and a 1946 book about Japan, *The Chrysanthemum and the Sword*.

ANSWER: Ruth Benedict

4. These objects are often underlain by Röthlisberger or Nye channels. In one form, their movement is almost entirely controlled by Glen's Flow Law. Warm ones can also move by enhanced creep, ploughing, and regelation, and both types can experience hydraulic jacking. Many of these objects experience quasi-regular surge cycles, where their movement speed can increase a thousand-fold. These objects create a range of characteristic landforms, including kames, eskers and drumlins. For 10 points, name this class of objects found in mountainous and polar regions around the world, made entirely of ice.

ANSWER: <u>Glacier</u>s (accept <u>Ice Streams</u>; do not accept "Ice Sheets")

5. A cadet branch of this house claimed the throne but was defeated in a series of rebellions. This house came into its throne via a conquest which started with a landing at the mouth of the Blackwater, later the site of their capital. One battle in that conquest saw the destruction of Harrenhal by Balerion the Black Dread. For 10 points, name this house which lived through the Doom of Valyria, the Dance of the Dragons, the Blackfyre Rebellions, and Aegon's War of Conquest, and saw the birth of Danaerys Stormborn.

ANSWER: House **Targaryen** 

6. This leader established the International African Association with the stated purpose of suppressing the slave trade. He attempted to purchase the Philippines from Spain, but succeeded in controlling land he described as a "magnificent cake" when the Berlin Conference awarded it to him as a personal colony. He hired Henry Stanley to explore that territory, where his Force Publique routinely cut off the hands of indigenous laborers who were not productive enough. For 10 points, name this ruler of the Congo Free State who was the King of the Belgians.

ANSWER: **Leopold II** [prompt on "Leopold"]

7. One senator from this state, Paul Wellstone, died in a plane crash and was replaced on the ticket by a former vice president. Eugene McCarthy, a senator from this state, earned 42% in the 1968 New Hampshire primary to force Lyndon Johnson out of the race. Aside from DC, it was the only state to give electoral votes to Walter Mondale in 1984. Its Democrats are known as the "Democratic-Farmer-Labor Party." This home state of Hubert Humphrey and Walter Mondale is, for 10 points, what Midwestern state whose capital is St. Paul?

ANSWER: Minnesota

8. This work begins with a pedal A from the celli in an irregular dotted crotchet, quaver rhythm. The F# A B A motif of this work's first movement is introduced by the harp. This work's second movement is a Ländler which begins with an ascending staccato C major scale from the bassoons. The third movement opens with a motif similar to the composer's own fifth symphony, and the chaos towards the end of that movement is interrupted by a solo trumpet. This symphony, the last the composer wrote, reflects his ill health by depicting his irregular heart beat, while the fourth movement, in the new

key of Db major, finishes with a quiet coda, which Bernstein interprets as representing death. FTP, name this symphony in D major, the final symphony by Gustav Mahler.

ANSWER: Symphony No. 9

9. The gene SLC24A5 was found to affect pigmentation in this species and was subsequently shown to be active in humans as well. A 2013 study using the Casper line of this species was able to visualise real-time brain activity using a calcium indicator dye. George Streisinger was the first to clone this species which is used as a vertebrate model organism because of the ease of observation afforded by its relatively large and transparent eggs. For 10 points, give the common name of *Danio rerio*, a popular aquarium fish named for a striped equine animal.

ANSWER: **zebrafish** (accept **D**anio **rerio** before it is read)

10. One character in this novel pronounces every word so that it has at least three syllables. Another character, the third-best javelin thrower in New Jersey, is wrestled to the floor by his father Hymie for refusing to stop dating an Anglo-Saxon girl. In this novel, the protagonist masturbates with his family's dinner that night, a piece of liver. That protagonist's father suffers from severe constipation. For 10 points, name this novel, where Alexander dates Mary Jane Reed, who is known as "The Monkey", and talks to Dr. Spielvogel, a work by Philip Roth.

ANSWER: **Portnoy's Complaint** 

11. One of these substances was formerly used to detect the presence of nitrates in solids and is named for Devarda. These substances are usually classified as substitutional or interstitial, and they are called fusible if they have a low melting point. One of these substances, Nitinol, displays shape memory and superelasticity, and they are known as amalgams if they contain mercury. Tumbaga, Wood's metal, electrum and

bronze are examples of, for 10 points, which type of substance, a mixture containing a metal?

ANSWER: Alloys

12. In his best-known work, this man incorrectly titled Luigi Pirandello's play *Six Personalities in Search of Actors*. He died soon after agreeing to the Rogers Plan to end the War of Attrition, which he had launched in 1968. He replaced Muhammad Naguib as president, in which capacity he authored *The Philosophy of the Revolution*, intervened in Yemen, patronized the Arab Socialist Union, and founded the United Arab Republic. For 10 points, name this leader of the Free Officers who was succeeded by Anwar Sadat as president of Egypt.

ANSWER: Gamal Abdel Nasser

13. One of the names of this man's son is Pyrrhus, who was fathered while this man was disguised in the court of King Lycomedes. This man fights the river god Scamander after the latter was angered because this man was choking his stream with bodies. This man wins the wife of Mynes as a battle prize, but is then forced to give her up to his commander. This man's mother is the sea nymph, Thetis, and his armour, forged by Hephaestus, is fought over by Ajax the Greater and Odysseus after this man's death. For 10 points, name this Greek hero, the chief subject of the Iliad and killer of Hector, who is slain by the Trojan prince Paris.

ANSWER: Achilles

14. One character in this novel owns a car named Deux Chevaux, and later gives the same name to a cart pulled by Grizzly and Chess. A room is filled with the yarn resultant from unraveling a sock by Maria Guavaira in this novel, in which another character is followed around by a flock of starlings until he meets Joana Carda. Several characters travel

to the south coast of Spain to watch Gibraltar float past in, for 10 points, this novel by José Saramago in which the Iberian Peninsula detaches from Europe.

ANSWER: *The Stone Raft* (accept *A Jangada de Pedra*)

15. This effect's superposition with an opposite effect caused by gravity was investigated in the Pound-Rebka experiment. This effect is used to create a net radiation pressure on atoms in the most common type of laser cooling.. Buys-Ballot confirmed this effect by arranging for a group of musicians to pass him on a train while holding a constant note. For 10 points, name this effect whereby an observer moving relative to a wave source experiences a change in its apparent frequency.

ANSWER: The **Doppler** effect

16. This man's creation as Earl of Chester and Duke of Cornwall marked the first creation of an English duke. He won the Battle of Nájera after intervening to support Pedro of Castile. He practice chevauchée, the practice of pillaging towns, and massacred the inhabitants of Limoges and Caen. This consort of Joan of Kent became the first member of the Order of the Garter, and he was the first Prince of Wales not to be crowned king. For 10 points, name this prince who defeated the French at Crécy and Poitiers and was the eldest son of Edward III.

ANSWER: <u>Edward of Woodstock</u> [or <u>Edward the Black</u> <u>Prince</u>; prompt on "Edward"]

17. The Iwembere Steppe is found in the northern part of this country. A mineral-rich hot springs feeds its salty Lake Natron. The Mtera Dam in this country powers such central cities as Iringa. Islands off its shore include Pemba and Mafia, which were defended by the *Königsberg* cruiser during World War I. This country's national assembly moved inland in 1996 to the

purpose-built capital of Dodoma, which replaced a much larger city on the Indian Ocean. For 10 points, name this African country home to Mt. Kilimanjaro and Dar-es-Salaam.

ANSWER: Tanzania

18. One character in "If on a winter's night a traveller" fills his house with these objects. Borges wrote in "Tlön, Uqbar, Orbis Tertius" that these objects, like copulation, are abominable, for they multiply the numbers of man. Christian Gulbrandsen and Heather Badcock are murder victims in novels titled for these objects, one of which takes its name from a line in The Lady of Shalott in which one of these objects 'crack'd from side to side'. For 10 points, name these objects, including one which Alice falls through and a magic one of which the Wicked Queen asks questions.

ANSWER: Mirrors (accept looking-glasses)

19. This phenomenon may be demand-pull or cost-push and indexation is a method used to mitigate its costs. Menu costs and shoe-leather costs are negative consequences of this phenomenon. The. The Phillips curve posits a tradeoff between unemployment and this phenomenon, and it is more likely to occur at higher levels during positive output gaps. The monetary transmission mechanism is claimed to explain how phenomenon is caused by increases in the money supply. For 10 points, name this phenomenon in which average prices in an economy rise.

**ANSWER: Inflation** 

20. A poem by this man describes "how love fled ... and hid his face amid a crowd of stars". The narrator of another poem by this man bemoans that "those ... I guard I do not love" and speaks of the "lonely impulse of delight" that "drove to this tumult in the skies". Cormac McCarthy used the first line of another poem as the title of his *No Country for Old Men*. In

another poem, this man describes the "rough beast" that "slouches towards Bethlehem to be born". For 10 points, name this Irish poet of "An Irish Airman Foresees His Death", "When You Are Old", "Sailing to Byzantium", and "The Second Coming."

ANSWER: William Butler **Yeats** 

### **Bonuses**

- 1. Answer these questions on animals in the works of Monty Python, for 10 points each.
- [10] In one *Flying Circus* sketch, it is claimed that it can take four hours to bury this type of animal if it won't hold still.

ANSWER: cat

[10] In *Monty Python and the Holy Grail*, the heroes build a giant wooden version of this kind of animal in order to assault a castle.

**ANSWER:** rabbit

[10] In possibly their most famous sketch, a specimen of the Norwegian Blue variety of this bird is conclusively proven to be dead.

ANSWER: parrot

- 2. This island is separated from Celebes by the Makassar Strait. For 10 points each:
- [10] Name this third largest island in the world, which is shared by Indonesia, Malaysia, and Brunei.

ANSWER: Borneo

[10] This word, the Indonesian name for the entire island of Borneo, usually applies to the Indonesian portion of the island, in contrast to the Malaysian portions known as Sabah and Sarawak.

ANSWER: Kalimantan

[10] Kalimantan is home to this indigenous Indonesian ethnic group, a former headhunting people whose families usually reside in longhouses.

ANSWER: **<u>Dayak</u>** peoples [accept **<u>Dyak</u>** or **<u>Dayuh</u>**]

- 3. Answer some questions about classical sculpture, For 10 points each:
- [10] This sculpture was created by an unknown Greek artist to commemorate a sea battle. It is displayed on the Daru staircase in the Louvre.

# ANSWER: <u>Winged Victory of Samothrace</u> (or <u>Nike of Samothrace</u>)

[10] This Greek sculpture Hermes and the infant Dionysus, in which Hermes leans upon a structure draped with cloth, as well as the Aphrodite of Knidos, in which the title figure covers her genticals while leaving her breasts bare.

# **ANSWER: Praxiteles**

[10] Praxiteles was trained by this man, who is either his father or uncle. The statue of Eirene on the Areopagus is attributed to him.

ANSWER: <u>Cephisodotus</u> the Elder (don't accepted the Younger)

- 4. Umberto Eco and Roland Barthes are associated with this field. For ten points each:
- [10] Name this science, the study of signs.

ANSWER: <u>semiotics</u> (accept <u>semiology</u>)

[10] This early semiotician theorised that linguistic signs consisted of two inseparable parts, signifier and signified, both of which were purely mental and not physical.

ANSWER: Ferdinand de Saussure

[10] The groundwork for this theory that posits the existence of at least of this variety of consonant was set by de Saussure.

ANSWER: Laryngeal theory

- 5. Answer some questions about paradoxes in the philosophy of science, for 10 points each.
- [10] In its original formulation by Carl Hempel, this paradox asks whether white shoes provide evidence that the eponymous animals are black.

ANSWER: **Raven** paradox

[10] These two terms were introduced by Nelson Goodman in his book *Fact*, *Fiction*, *and Forecast* to illustrate what he called the "new riddle of induction".

ANSWER: grue AND bleen

[10] Goodman's "new riddle" was a response to the problem of induction, introduced by this 18th century Scottish philosopher.

ANSWER: David Hume

- 6. The Romans jokingly divided this region into the more civilized "Trousered" part and the less civilized "Hairy" part. For 10 points each:
- [10] Name this region, where Julius Caesar defeated the local tribes at Alesia.

ANSWER: Gaul

[10] This Gallic leader was the loser of the Battle of Alesia.

ANSWER: **Vercingetorix** 

[10] Postumus founded an empire in Gaul amidst the chaos brought on by the capture of this Roman emperor by Persian King Shapur I at the Battle of Edessa.

ANSWER: Valerian

- 7. Answer these questions on properties of quarks, for 10 points each:
- [10] The strong nuclear force can be explained by giving quarks this variety of charge, which has three different fundamental values and is also possessed by gluons.

ANSWER: colour charge

[10] This property has magnitude ½ for all quarks; since it is

half of an integer, this means all quarks are fermions.

ANSWER: spin

[10] This property is 0 for all flavours of quark except one, for which it has value -1. Its name derives from the slower than expected decay of kaons with this property.

ANSWER: strangeness

8. For 10 points, answer some questions about Arthurian myth: [10] This man is usually depicted as Arthur's son by Morgause, and deals Arthur the blow that eventually kills him.

ANSWER: **Mordred** [or **Modred**]

[10] This is the battle which Mordred and Arthur are often depicted fighting, resulting in both their deaths and almost all of Arthur's knights.

ANSWER: Battle of **Camlann** 

[10] Arthur asks this knight to return Excalibur to the Lady of the Lake. Initially, he thinks it too valuable to discard, but eventually does so before Arthur dies.

ANSWER: Sir Bedivere

- 9. The first half of this opera revolves around attempts to make its main character laugh, which he finally does after seeing a witch's underwear. For 10 points each:
- [10] Name this Prokofiev opera in which two of the title characters die of thirst almost immediately after first appearing. Fortunately, the third survives and ends up marrying the Prince.

**ANSWER:** The Love for Three Oranges

[10] At the end of the first act of this Rimsky-Korsakov opera, the title character orders that his wife and newborn child be sealed in a barrel and thrown into the sea. This has little effect other than making the son age rapidly, and he ends up marrying a swan.

**ANSWER:** The Tale of Tsar Saltan

[10] This Borodin opera is occasionally performed with the

third act omitted, because much of it was composed by Glazunov. Individual pieces like *Dance of the Polovtsian Maidens* are quite popular, though it is rarely performed in full.

**ANSWER:** Prince Igor

- 10. Answer these questions on a type of reaction, for 10 points each.
- [10] This name is given to reactions in which the oxidation state of constituent atoms changes.

ANSWER: <u>redox</u> reactions (accept <u>reduction-oxidation</u> reactions, prompt on either part)

[10] This name is given to ions in an ionic equation whose oxidation state does not change as they do not participate in the reaction.

ANSWER: spectator ions

[10] An extremely oxidising hexafluro compound of this transition metal was used to oxidise xenon, forming the first ever example of a compound containing a noble gas.

ANSWER: **Platinum** (accept **Pt**)

- 11. Babur, who claimed descent from both Genghis Khan and Tamerlane, founded this empire after the First Battle of Panipat. For 10 points each:
- [10] Name this Muslim empire that ruled India.

ANSWER: Mughal Empire

[10] This second Mughal Emperor completely lost control of the empire, though he later re-conquered it with Persian help. He then promptly fell down some stairs and died.

ANSWER: **Humayun** 

[10] This founder of the Sur dynasty was the man who conquered India from Humayun. The fifteen years he spent ruling the empire laid the basis for Akbar's reforms once the Mughal Empire was re-established.

ANSWER: **Sher Shah** Suri [accept **Farid Khan** or **Sher Khan**]

- 12. This novel reflects concerns about anarchism in the early 20<sup>th</sup> century. For ten points each:
- [10] Name this novel in which Scotland Yard recruits Gabriel Syme to go undercover as one of the seven members of the Central Anarchist Council.

ANSWER: The Man Who Was Thursday

[10] *The Man Who Was Thursday* was written by this English author and Christian apologist who was friends with Hilaire Belloc and George Bernard Shaw.

ANSWER: Gilbert Keith **Chesterton** 

[10] G. K. Chesterton also created this priest and detective who first appeared in the 1910 short story "The Blue Cross".

**ANSWER: Father Brown** 

- 13. Answer these questions on a play by Shakespeare, for 10 points each:
- [10] This play concerns the monarch who faced down the Peasants' Revolt.

ANSWER: The Tragedy of King Richard II

[10] The death of this character and subsequent seizure of his possessions by Richard causes Bolingbroke to return from exile and dooms Richard's reign.

ANSWER: John of Gaunt

[10] This character murders Richard, causing a guilt-laden Bolingbroke, now Henry IV, to promise to go on pilgrimage to the Holy Land.

**ANSWER:** Piers Exton

- 14. This Pope recorded the longest reign on record, at 32 years. For 10 points each:
- [10] Name this Pope, who convened the First Vatican Council and defined the doctrine of the Immaculate Conception.

ANSWER: **Pius IX** [prompt on "Pius"]

[10] In a document called the Allocution of 29 April 1848,

Pius IX stated his opposition to this idea, which was promoted by such nationalists as Giuseppe Garibaldi.

ANSWER: <u>Italian unification</u> [accept equivalent answers referring to the idea that <u>Italy</u> should be one country] [10] After the disarming of the Swiss Guards in 1848, Pius IX fled to this city in the Kingdom of the Two Sicilies, where he spent two years in exile. This fortress city was the site of the last stand of the Kingdom of the Two Sicilies against Piedmontese forces in 1860.

ANSWER: Gaeta

- 15. This conflict was fought over access to minerals in the Atacama Desert. For 10 points each:
- [10] Name this conflict, fought between 1879 and 1883, in which Bolivia and Peru were defeated by Chile.

ANSWER: (Second) War of the **Pacific** 

[10] Chile especially wanted access to this particular class of materials, which was found in both guano and saltpeter deposits in the Atacama Desert.

ANSWER: nitrates

[10] In 1880, the United States attempted an unsuccessful peace conference to resolve the War of the Pacific. Name either the American ship on which that conference took place or the city Chile received as a result of the war in which that ship was docked.

ANSWER: *USS <u>Lackawanna</u>* or <u>Arica</u> [accept either underlined answer]

- 16. Answer some questions about women who have won the Man Booker Prize, for 10 points each:
- [10] This only woman to have won this award twice, for *Wolf Hall* and *Bring Up the Bodies*. She stirred up controversy with a London Review of Books article about Kate Middleton

ANSWER: Hilary Mantel

[10] Another Booker winner was this prolific Irish-born

author, who won in 1978 with The Sea, the Sea.

ANSWER: Iris Murdoch

[10] Give the author and work that received the 2013 prize.

ANSWER: Eleanor <u>Catton</u> for *The <u>Luminaries</u>* 

- 17. Answer these questions about data structures, for 10 points each.
- [10] This type of data structure is often used to store a list of called subroutines during a program's education, as it its Last In First Out structure is suited to this task.

ANSWER: <u>stack</u> (accept <u>call stack</u>, <u>execution stack</u> or similar answers that contain the word 'stack')

[10] This type of heap consists of a collection of trees, of which no two may have the same order. It is particularly suited to fast merging.

ANSWER: binomial heap

[10] A linked list may end with this type of node, in order to ensure it always has a last item.

ANSWER: **sentinel** node (accept **dummy** node)

- 18. In this work, al-Sayyid's demands that his song Fahmi reduce his engagement in politics go unheeded. For 10 points each:
- [10] Identify this novel in which Fahmi falls in love with his family's neighbor, Maryam.

ANSWER: Palace Walk

[10] *Palace Walk* is a novel by this Egyptian author of the Cairo Trilogy

ANSWER: Naguib Mahfouz

[10] In *Palace Walk*, this older brother of Fahmi is pleased to discover that he shares many similar deboucherous hobbies with his dictatorial father, al-Sayyid.

ANSWER: Yasin Abd al-Jawad

19. Identify some things that happen at the replication fork, for 10

points each.

[10] When helicase unwinds the double helix at the replication fork, the double-stranded DNA on the other side of the fork undergoes this phenomenon. It increases the strain on the strand by over-winding of the double helix.

ANSWER: positive supercoiling

[10] During replication, supercoiling is relieved by this general class of enzymes. They function by cutting and re-sealing the phosphate backbone of DNA, and the most important example is gyrase.

ANSWER: **topoisomerase**s

[10] Because replication can only proceed in the 5-prime to 3-prime direction, one strand of DNA is replicated in short segments given this name. These segments are later joined together by DNA ligase.

ANSWER: Okazaki fragments

20. Answer some questions about an extinct language, for 10 points each.

[10] This is the oldest attested Slavic language. It is chiefly known from a number of Bulgarian texts dating to the 10th and 11th centuries.

ANSWER: <u>Old Church Slavonic</u> (or <u>Old Church Slavic</u>; prompt on <u>OCS</u>)

[10] Old Church Slavonic was originally written in this alphabet. Its name derives from the Old Church Slavonic for "to speak" and it was developed by Saints Cyril and Methodius.

ANSWER: Glagolitic alphabet

[10] Later texts in Old Church Slavonic were written in an early version of this alphabet, developed by disciples of Cyril and Methodius. A modern version is used today in many Slavic languages.

ANSWER: **Cyrillic** alphabet