# The 2018 Scottie



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## Packet Ten

#### **TOSSUPS**

1. One notable commander in this battle was Ariabignes, who died during it. In this battle, the Greek commander lured the large and slow enemy ships into the straits in the Saronic Gulf, nullifying their large numbers. King (\*) Xerxes was so confident in his victory that he watched this battle from a nearby mountain, but he fled after realizing that his navy was losing. For 10 points, name this 480 BC naval battle in which the Greeks were victorious over the Persians.(PB)

ANSWER: Battle of **Salamis** 

2. In Born-Haber cycles, using this law with known electron affinities allows one to find lattice energies of ionic crystals. The Bordwell thermodynamic cycle is an extension of this law to Gibbs free energy, and this law was a precursor to the (\*) first law of thermodynamics. This law established enthalpy as a state function, and is also known as the "Law of Heat Summation". For 10 points, name this law stating that the total enthalpy change in a reaction is the same regardless of its path. (GP)

ANSWER: <u>Hess</u>'s Law [accept <u>law of heat summation</u> before mentioned]

3. This man's Octet in E-flat major is comprised of four movements, and its scherzo may have been inspired by Goethe's *Faust*. A solo flute in G Major opens the finale of this composer's Symphony No. 5, which was written in honor of the Augsburg Confession. This composer's visit to (\*) Fingal's Cave inspired both his *Hebrides Overture* and his *Scottish* symphony. For 10 points, name this German composer of the *Reformation* symphony and *Incidental Music to a Midsummer Night's Dream*. (TG)

ANSWER: Felix Mendelssohn

4. One work of this man, unfinished at his death, tells the story of Hannibal in Latin verse, while this poet's *Trionfi* personifies figures like Love, Chastity, Death, and Fame. His better-known works are written in Italian, and include the *Canzionere*, or *Songbook*, which contains many poems dedicated to Laura. For ten points, name this Italian Renaissance poet of Africa, who is credited with introducing the sonnet to European poetry. (OK)

ANSWER: Petrarch

5. One character in this work admits to being a pimp since he takes money from Margie and Pearl, while another jumps to his death after confessing guilt over turning in his anarchist mother. In order to "free" her, one character in this play shoots his wife, (\*) Evelyn. That man, Hickey, is arrested after telling his drunkard friends to give up their "pipe dreams." For 10 points, name this play set in Harry Hope's saloon, written by Eugene O'Neill. (GP)

ANSWER: The Iceman Cometh

- 6. This person wrote five books of fiction, including the crime novel *Bone in the Throat*, and he co-wrote the graphic novels *Get Jiro!* and *Hungry Ghosts* for DC Comics. This man appeared as the character "Dr. Tony" on *Yo Gabba Gabba* because his daughter Ariane was a fan of the show. This man's breakthrough came with his book (\*) *Kitchen Confidential* and he was known for feuding with Guy Fieri. For 10 points, name this chef and travel documentarian who hosted his namesake *Parts Unknown* and *No Reservations*.(TG) ANSWER: Anthony <u>Bourdain</u>
- 7. One of these processes has rabbits and turtles that lead to variance in performance. Exchange based types of this algorithm have a worst case runtime of Big O of n squared. One type of this algorithm is named because it "rises" elements to the top, and is called (\*) bubble. This algorithm also comes in quick, merge, and heap varieties. For 10 points, name this type of algorithm that orders the elements of a list. (MR)

ANSWER: **Sort**ing algorithm

8. In one of this man's films, Joker is horrified when he witnesses a murder/suicide in which Private Pyle shoots his drill instructor. In another film directed by this man, Major T. J. "King" Kong receives Attack Plan R from an insane General Ripper. Jack Nicholson yells "Here's Johnny" in a scene from one of this director's movies that was based on a book by Stephen King. For 10 points, *Full Metal Jacket, Dr. Strangelove*, and *The Shining* were all directed by this influential director. (TG)

ANSWER: Stanley **Kubrick** 

- 9. This man was hidden in Wartburg Castle for a year after he was called to a meeting in 1521. In the year prior to that meeting, this man publicly burned a document sent to him from Rome that stated he had sixty days to recant his views. This man was enraged when the Friar Johann (\*) Tetzel came through Wittenburg selling indulgences. For 10 points, name this German monk who wrote the 95 Theses and began the Protestant reformation.(PB) Answer: Martin Luther
- 10. This mountain range shares its name with an "Australian" one, while a "Southern" one contains the tallest point in New Zealand. One region of this range is the Bernese Highlands, and its Gotthard Base Tunnel is the longest railway tunnel in the world. On a clear day, the neighboring (\*) Black Forest can be seen from this range's tallest peak, Mont Blanc. For 10 points, name this European mountain range that runs through eleven countries. (PB/TR)

ANSWER: Alps

11. In Joule Heating, this value times current squared gives the power of thermal energy in a system. The proximity effect increases this value more for conductors in AC circuits than in DC ones. This value is added to the product of reactance and the imaginary number to find the strength of (\*) impedance, which is this quantity for AC circuits. Voltage divided by current gives, for 10 points, what quantity measured in ohms which is the opposition to current flow? (GP)

ANSWER: electrical resistance

12. In one poem by this author, "nine and fifty" of the title creatures "scatter, wheeling in great broken rings, upon their clamoring wings." Another poem of his begins "I will arise and go now, and go to Innisfree..." This author of (\*) "Wild Swans at Coole" stated "I will write it out in a verse, —MacDonagh and MacBride, Connolly and Pearse" in another poem. For 10 points, name this Irish poet of "Easter, 1916" who says "that is no country for old men" in "Sailing to Byzantium". (TG)

ANSWER: William Butler **Yeats** 

13. One man in this field of study developed an idea called the cooperative principle that outlined four maxims. That man, Paul Grice, also contributed to a sub-field of this domain called pragmatics that highlights the importance of context. Ferdinand de Saussure suggested that (\*) words are comprised of a signifier and a signified component in this discipline. For 10 points, Noam Chomsky is a well-known social scientist in this field which studies the structure of language. (TG)

ANSWER: linguistics

14. This painting features a round table with intricately carved legs as the only furnishing. The subject of this painting wears a crescent tiara, and it was altered to raise a shoulder strap after its controversial appearance at the Paris Salon of (\*) 1884. A plunging black dress accentuates the pale skin of the subject, who was easily identified as Virginie Gautreau despite an attempt at anonymity. For 10 points, name this scandalous portrait by John Singer Sargent. (TR)

ANSWER: Portrait of <u>Madame X</u> [accept Portrait of Madame Pierre <u>Gautreau</u> before mention; accept Portrait of Virginie Amelie <u>Avegno</u> before "Gautreau"]

- 15. This campaign was called for by the issuing of Directive 13 by one leader and the Dowding system greatly helped one side. The failure of this campaign prevented the carrying out of Operation Sea Lion, and the invention of (\*) RADAR allowed for the early detection of forces in this battle. This battle featured an offensive known as the Blitz, and was given its name during one leader's speech to the House of Commons. For 10 points, name this 1940 battle which saw the RAF successfully defended its country from the Luftwaffe. (RN) ANSWER: Battle of <u>Britain</u> [prompt on "the blitz" before read]
- 16. One text from this philosophical school claims that judgments have no value because they are based on arbitrary prejudices. That text presented a form of the dream argument by asking if the author dreamt of a (\*) butterfly or if a butterfly dreamt of him. According to this philosophy, the highest virtue is a state of "action without action," wu wei. For 10 points, name this Chinese school of thought founded by Laozi whose name means "the way." (TR) ANSWER: Taoism [or Daoism]
- 17. In Hawaii, laukini were designed as areas for this activity. According to the "Bibliotheca historica", a statue of Cronus was designed specifically to perform this action. In the Benin Empire, hundreds or even thousands of prisoners were subject to this ritual when a (\*) ruler died. In order to provide the storm god Tlaloc with water, children were subject to this practice. For 10 points, identify this practice of ritualistically killing people. (MR) ANSWER: <a href="https://doi.org/10.1001/journal.org/10.1001/journa
- 18. This person marries a poet to prevent an execution in the Court of Miracles. While a man is set in a pillory, this character brings him water, and her goat Djali can tell time and spell the name "Phoebus." This girl is detested by (\*) Paquette until it's revealed that she is her daughter. This character is rescued by Quasimodo, and is the object of Claude Frollo's affection. For 10 points, name this gypsy girl from Victor Hugo's *The Hunchback of Notre Dame*. (GP)

ANSWER: **Esmeralda** [accept **Agnès**]

19. This politician was asked by both major parties to be their candidate for President since he had not claimed an affiliation. This president authorized Kermit Roosevelt to execute Operation Ajax and also mobilized the 101st Airborne to protect the (\*) Little Rock Nine. This president's Chance for Peace speech and farewell address warning of the military-industrial complex were considered "bookends" to his presidency. For 10 points, name this 34th President of the United States. (RN)

Answer: Dwight D. Eisenhower

20. Researchers are investigating how this thing could make cancer cells more susceptible to lysis. Mammoth Biosciences recently raised 32 million dollars to help fund further research into this technology. The leading developer of this technology, (\*) Jennifer Doudna, is an investigator with the Howard Hughes Medical Institute. The enzyme associated with this technology works as a pair of genetic "scissors." For 10 points, name this technology that uses knockout to edit gene sequences. (MR)

ANSWER: <u>CRISPR</u>-CAS9 [or <u>Clustered Regularly Interspaced Short Palindromic Repeats</u>]

#### BONUSES

1. These objects are created when the mass of accreted gas and dust is not enough to form a red dwarf. For 10 points each: (OK)

[10] Name these objects, which are defined to have a mass at least 13 times that of Jupiter.

### ANSWER: brown dwarfs

[10] On the other end of the star spectrum is this type of star, which is larger than a supergiant. Examples include S Doradus and Rho Cassiopeiae.

# ANSWER: **hypergiant**

[10] The Sun is classified as a main sequence star. At the end point of its life cycle, however, it will become this type of star after expanding to a red giant.

ANSWER: white dwarf

- 2. Answer some questions about Catholic saints, for 10 points each: (TG)
- [10] This saint was abducted by pirates and enslaved in Ireland, where legend says that he got rid of all the snakes. He supposedly explained the Trinity to an Irish king using a shamrock.

ANSWER: Saint Patrick

[10] Many artists created works featuring this saint, who survived being shot full of arrows at Diocletian's command. He was clubbed to death instead.

**ANSWER: Saint Sebastian** 

[10] This namesake of a well known order is the patron saint of Italy and animals.

ANSWER: Saint Francis of Assisi

3. One of this man's first major poems, *Sordello*, was widely panned, with Alfred, Lord Tennyson claiming he only understood the first and last lines. For 10 points each: (OK) [10] Name this poet, who is more famous for works like "My Last Duchess" and "Fra Lippo Lippi."

### ANSWER: Robert Browning

[10] Browning's best poems are generally considered to have been written while he was married to this woman, who was also an extremely accomplished poet.

## ANSWER: Elizabeth **Barrett Browning**

[10] Barrett Browning's most famous work is probably *Sonnets from the Portuguese*, out of which No. 43 is likely the most famous. It begins with this 5-word question, continuing, "Let me count the ways."

ANSWER: "How do I love thee?"

- 4. A re-edited version of this film alters the flashing lights in scenes such as the fight with the Screenslaver. For 10 points each: (TR)
- [10] Name this 2018 Pixar film. Most of the characters from the 2004 original return, including Elastigirl and Violet.

ANSWER: *Incredibles 2* 

[10] In *Incredibles 2*, this man reprises his role as Frozone. His likeness was used to create the Ultimate version of Marvel's Nick Fury, a character this man also portrays.

ANSWER: Samuel L. Jackson

[10] *Incredibles 2* grossed over 180 million dollars in its opening weekend, shattering the animated film record previously set by this film. The title character of this film, which is also a Pixar sequel, is voiced by Ellen DeGeneres.

ANSWER: *Finding Dory* 

- 5. For 10 points each, answer the following about a movement that began in Nottingham and was named after a person of folklore. (TG)
- [10] No, it's not Robin. Ned was the alleged namesake of this group that protested deceitful labor practices by destroying weaving machinery.

**ANSWER: Luddites** 

[10] One response from Parliament to the Luddite movement was the passage of this Act in 1812 that made the sabotage of mechanized looms a capital crime.

ANSWER: **Frame Breaking** Act (of 1812)

[10] This literary member of the House of Lords supported the Luddites and wrote the poem *Song for the Luddites*. He may be better known for *Don Juan* [ $\underline{JOO}$ - $\underline{\partial n}$ ].

ANSWER: Lord George Gordon **Byron** 

6. Over 70 percent of all mammal species fall into one of three orders, for 10 points each: (MR) [10] This order of mammals is the largest. Members have constantly growing incisors, and it includes rats and mice.

ANSWER: **Rodentia** [accept **Rodents**]

[10] This order includes the only mammalian parasite, the vampire bat. It also includes the other bats.

ANSWER: Chiroptera

[10] This order of mammals includes apes, monkeys, and humans.

ANSWER: **Primates** 

- 7. For 10 points each, answer these questions about Gothic Cathedrals. (PB)
- [10] A common feature of Gothic cathedrals is this exterior support to counteract the thrust of a vault or arch.

## ANSWER: **flying buttress**

[10] Construction on this Gothic cathedral began in 1194 CE after a fire destroyed an earlier cathedral. It was completed in 1220 CE and sits on an island in the Seine River in Paris.

ANSWER: Cathedral of **Notre-Dame** de Paris

[10] Gothic cathedrals were often lavishly decorated with many of these installations. They contain vibrant colors and often depict scenes from the Bible.

ANSWER: **stained-glass** windows

- 8. For 10 points each, answer some questions about French Polynesia. (PB)
- [10] French Polynesia is often referred to as "[this island] and her islands." This windward Society Island member is the largest island in French Polynesia.

ANSWER: Tahiti

[10] These organic objects are French Polynesia's greatest export. The so called "black" ones of these ocean-farmed gems are the most valuable.

ANSWER: **pearl** 

[10] This popular honeymoon destination is part of the Leeward islands of the Society Islands of French Polynesia and has many luxury resorts.

ANSWER: Bora Bora

- 9. This character is the 1002nd wife of Shahryar, and on her first night of marriage she asked her husband if she could tell a story to her sister Dunyazade. For 10 points each: (OK)
- [10] Name this character, the narrator of *One Thousand and One Nights*.

**ANSWER: Scheherazade** 

[10] Many of the stories within *One Thousand and One Nights* involve this man, who was the fifth Abbasid caliph. He presented Charlemagne with the gift of a white elephant named Abul-Abbas.

**ANSWER: Harun Al-Rashid** 

[10] Many stories that were added to 1001 Nights at a later date revolve around this man, who is a sailor said to have ridden a roc to the Valley of Diamonds.

ANSWER: Sinbad

- 10. For 10 points each, answer these questions about Thomas Cole.
- [10] Cole is considered the founder of this art movement that created landscape paintings in the state of New York.

ANSWER: **Hudson River** School

[10] This painting by Cole has been called a "landscape within a landscape" or a "picture within a picture." This is because the title drinking glass, which is covered with vegetation, contains an entire civilization of its own.

ANSWER: *The Titan's Goblet* 

[10] This Thomas Cole painting depicts a bend in the Connecticut river and contains a self-portrait of the artist.

ANSWER: <u>The Oxbow</u> (Accept: <u>A view from Mount Holyoke, Northampton, Massachusetts, after a thunderstorm</u>)

- 11. For 10 points each, names these battles that took place in South Carolina during the southern theater of the Revolutionary War. (RN)
- [10] This battle saw Cornwallis rout the revolutionaries under Horatio Gates. As a result of this Battle, Gates was no longer allowed to lead troops in the field.

ANSWER: Battle of **Camden** 

[10] This battle helped turn the tide of the War in the South. In this battle Patriots under Colonel William Campbell defeated Tories led by Major Patrick Ferguson

ANSWER: Battle of **Kings Mountain** 

[10] This battle saw Daniel Morgan defeat a British force led by Banastre Tarleton.

ANSWER: Battle of **Cowpens** 

- 12. This theory was proposed in the paper "On the Electrodynamics of Moving Bodies." For 10 points each: (MR)
- [10] Name this theory in physics which says that the laws of physics are the same in all inertial reference frames.

ANSWER: **Special Relativity** 

[10] In special relativity, as objects approach the speed of light, they appear to have a different size. That phenomenon is known as this.

ANSWER: length contraction

[10] The length of an object undergoing contraction can be determined using one of this Dutch Scientist's namesake transformations.

ANSWER: Hendrik Lorentz

- 13. For 10 points each, name these creatures from Norse mythology. (PB)
- [10] This creature was born after Loki shapeshifted into a mare and became pregnant by the stallion of a giant. It is the eight-legged horse of Odin.

ANSWER: Sleipnir

[10] This squirrel carries messages up and down Yggdrasil from the eagle at the top of the tree to Nidhogg at the roots.

ANSWER: Ratatoskr

[10] This dragon of Norse mythology killed his father, Hreidmar, in order to obtain a vast amount of gold. It was slain by Sigurd.

ANSWER: Fafnir

- 14. Relative vapor pressure, osmotic pressure, and boiling point elevation are examples of this type of property. For 10 points each: (MR)
- [10] Name these properties that are dependent on solute concentration.

ANSWER: Colligative

[10] Much like boiling point elevation, this is also a colligative property. It is accomplished by addition of a nonvolatile solute.

ANSWER: <u>Freezing point depression</u> [accept answers that indicate decreasing the freezing point]

[10] Along with pioneering a process to produce nitric acid, this German scientist also coined the term colligative.

ANSWER: Wilhelm Ostwald

- 15. One character in this work decides to stop growing at the age of three. For 10 points each:
- [10] Name this work, which sees Oskar Matzerath receive the title object for his third birthday.

ANSWER: The Tin Drum

[10] *The Tin Drum* was written by this German author, whose other works include *Crabwalk* and *Dog Years*.

ANSWER: Gunter Grass

[10] The Tin Drum, Dog Years, and Cat and Mouse are all part of this trilogy written by Grass.

ANSWER: **Danzig** trilogy

16. For 10 points each, answer the following about the longest river in Southeast Asia. (PB) [10] This river is the third longest in Asia. It runs through several countries including Vietnam, Thailand, and Cambodia.

ANSWER: Mekong River

[10] This place is known as the Third Pole of the World because of its freshwater reserves from snowfields and glaciers. The Mekong is one of many rivers that originates in this autonomous region that shares Mount Everest with Nepal.

ANSWER: Tibet

[10] A UNESCO World Heritage Site in Yunnan, China is named describing this mathematical relationship that exists between the Mekong, Yangtze, and Salween rivers. The rivers are described by this adjective because they flow in the same direction and remain equidistant.

ANSWER: Three **Parallel** Rivers

17. One major event in this novel is the suicide of Mr. Shimerda. For 10 points each: (DD)

[10] Name this novel which focuses on the Burden family and their titular Bohemian-immigrant neighbor.

ANSWER: My Antonia

[10] This fiance to Antonia leaves her pregnant and heads to Mexico after losing his job.

ANSWER: <u>Larry</u> <u>Donovan</u> [accept either underlined answer]

[10] My Antonia was written by this author, whose other works include O Pioneers! and Death Comes for the Archbishop.

ANSWER: Willa Cather

18. Be careful. The first two economic terms of this bonus are often confused with one another. For 10 points each: (TG)

[10] This economic measurement includes the value of all goods and services provided by the citizens of a country over a period of time regardless of whether those goods and services are produced inside or outside of the country.

ANSWER: **GNP** [or **Gross National Product**]

[10] This similar economic term only includes the value of goods and services produced within a nation's geographic boundaries.

ANSWER: **GDP** [or **Gross Domestic Product**]

[10] This Asian country actually has a higher GDP than GNP because it has so many foreign companies operating within its borders.

ANSWER: China

19. During this period, the battles of Calatafimi and Volturno were fought. For 10 points each: (AP)

[10] Name this movement which led to the formation of a nation ruled from Rome.

ANSWER: the **Risorgimento** [accept answers with **Italian Reunification**]

[10] The aforementioned battles took place during the Expedition of the Thousand, which was led by this "Hero of Two Worlds."

ANSWER: Giuseppe Garibaldi

[10] This ruler of Piedmont-Sardinia became the first King of Italy after his forces along with the Expedition defeated Naples.

ANSWER: <u>Victor Emmanuel II</u> [prompt on partial answer]

20. This man composed his *American String Quartet* while on vacation in Spillville, Iowa. For 10 points each: (RN)

[10] Name this Czech composer of Slavonic Dances.

ANSWER: Antonin **Dvorak** 

[10] This popular Dvorak piece was commissioned by the New York Philharmonic and was inspired in part by Native American melodies.

ANSWER: <u>New World Symphony</u> [or <u>Symphony</u> No. <u>9</u> in E minor; or Symphony "<u>From the New World</u>"]

[10] This other Czech composer wrote the opera *The Bartered Bride* and the tone poem *Ma Vlast*.

ANSWER: Bedrich **Smetana**