

1. (NGC) In “Time Enough At Last” a book-loving bank clerk is the only survivor of a nuclear attack; in “Nightmare at 20,000 Feet” a passenger sees a gremlin on the airplane wing; in “To Serve Man” aliens solve war, plague and famine for humanity, but at a price. For ten points these describe episodes from what 1959-1964 series hosted by Rod Serling?

Answer: The Twilight Zone

2. (UNC/CS) He joined his most famous army as an engineer officer, but rose to command after the death of Frederick Townshend Ward. He refused to fight during a long dispute over the execution of leaders of the Taiping rebellion, but his army kept the nickname of “Ever Victorious.” He is more famous for his actions in Africa, especially fighting the Mahdi, which led to his death in Khartoum. FTP, name this Victorian general whose early career gave him the nickname “Chinese.”

Answer: Charles “Chinese” Gordon

3. (UNC/CS) The second-most-distant object observed in the universe, found by Dan Reichart and Joshua Haislip at UNC, was one of these. Most, but not all, are formed by the collapse of supergiant stars, their component substance shooting out in rays perpendicular to the resulting black hole. It has recently been discovered that some, instead, come from binary neutron stars. Considered to be a possible cause for future human extinction, FTP name these massive stellar explosions, comprised of bursts of energy from the highest frequencies of the electromagnetic spectrum.

Answer: gamma ray bursts (accept ‘GRB’s)

4. (UNC/CS) A county in Michigan’s Upper Peninsula is widely but erroneously presumed to be named for this man. Born in Massachusetts in 1832, this man became a minister after touring Europe, but was dismissed for having relations with several teenage boys, and as a result the New York chapter of NAMBLA is named in his honor. He became an author, writing over 130 dime novels. For ten points, name this man who extolled the virtues of hard work and moral behavior in such rags-to-riches tales as Ragged Dick, Luck and Pluck, and Tattered Tom.

Answer: Horatio Alger

5. (UNC/CS) Unlike its better-known orchestral equivalent, it uses a parabolic or “cup” mouthpiece rather than the conical or “funnel” type. This instrument has been the cause of controversy in drum and bugle corps. Because of rules requiring all wind instruments to be of a certain key, many corps were forced to use the less popular G versions of this instrument or go without this alto voice. Due to recent rule changes, corps are now allowed to use the popular F version of, for ten points, this brass instrument that often replaces French horns in marching bands.

Answer: Mellophone or Mellophonium

6. (NGC/CS) While on faculty at Benedict College, this psychologist studied his mentors Ruth Benedict and Max Wertheimer, as well as historical figures such as Albert Einstein and Thomas Jefferson. His resultant theory suggested that before humans reach self-actualization, they must satisfy physiological, safety, and status needs. For ten points, name this psychologist who proposed the hierarchy of needs.

Answer: Abraham Maslow

7. (MM/SK) Though he was employed by the state as an attorney and magistrate for thirty years, this Frenchman is best known for his mathematical work which occasionally included an error, such as his conjecture that all numbers of the form  $2^n + 1$  were always prime if  $n$  is a power of 2 is divisible by were shown to be a mistake by Euler, who showed that 2 to the 32<sup>nd</sup> power plus one was divisible by 641. On the other hand, more valid is one of his theora which established a primality test by its assertion that a number raised to a power that is a prime number minus that initial number equals a number which can be divided by the prime number power as in four cubed minus four equals sixty which is divisible by 3, which to avoid confusion with his most famous theorem is given a slightly diminutive name. For 10 points name this mathematician famous for his “Little Theorem” as well as for his “Last” Theorem.

Answer: Pierre de Fermat

8. (TV/CS) Pieter Brueghel's *Landscape with the Fall of Icarus* was put to verse by this man, whose own poems became the inspiration for other artists, as seen in Charles Demuth's *I Saw the Figure 5 in Gold* based on the poem *The Great Figure*. The frozen plums in *This Is Just To Say* and the searching goat in *The Desolate Field* are examples of his notable images, much like the white chickens in a more famous work. FTP, who is this American poet, best known for his 8-line masterpiece, *The Red Wheelbarrow*?

Answer: William Carlos Williams

9. (DU/JV) He is currently writing a book chronicling his favorite hockey team, the Calgary Flames. It seems fitting as he graduated from the University of Calgary and since one of his professors introduced him to Preston Manning. Later, the two of them helped to found Canada's Reform Party. FTP; name this man, still active in the Party since he is the new Prime Minister of Canada.

Answer: Stephen Harper

10. (Sh/CS) Chloramphenicol is considered the most effective drug in combating it, and cortisone derivatives are also used in extreme cases. Thanks to vaccination efforts, less than 500 cases a year are reported in the United States, but this disease with a mortality rate of 7% to 14% remains common worldwide due to poor sanitation and the fact that symptoms do not appear for 10 to 14 days after exposure. Sometimes causing small rashes known as *rose spots*, FTP, give the common name for this disease which can be spread by healthy carriers such as turn-of-the-century New York's infamous Mary Mallon.

Answer: typhoid fever

11. (UNC/CS) Born in the Basque Province of Guipúscoa in Spain on December 21, 1491, he was a main character in the 1934 opera *Four Saints in Three Acts*. He started out life as a soldier, but while recovering from leg wounds read many religious books and decided to model his life on St. Francis of Assisi. During several month spent alone in a cave, he wrote his *Spiritual Exercises* about Christian meditation. FTP, name this saint and founder of the "intellectual" order the Society of Jesus, or the Jesuits.

Answer: St. Ignacio or Ignatius of Loyola [accept any one underlined name as sufficient]

12. (DU/JV) Though its heyday had long past, it still saw service in other nations until the 1980's. It first saw action in a preliminary version in 1940, but to little success. It wasn't until it was given 6 .50 caliber machine guns, a British Rolls-Royce engine, and drop tanks that the Americans truly took over the skies of Europe. FTP; name this top-of-the-line American fighter of WWII.

Answer: P51 and/or Mustang

13. (CS) It is evident in chemical systems in the common-ion effect, in the properties of buffer solutions, and in such industrial processes as the Haber process. It had been anticipated in part by the work of J.W. Gibbs, whose work was popularized in France by the same industrial chemist who proposed this principle in 1884. FTP name this principle which states that a chemical system in equilibrium will tend to shift its equilibrium position to counteract a disturbance.

Answer: Le Chatelier's Principle

14. (UTK/SK) The first section focuses on a college girl who has become very interested in the "Jesus Prayer" that she read about which was said to cleanse the speaker's soul, whose boyfriend Lane brushes her off until she faints in a restaurant at the end of the first section. The next picks up where the first left off but the focus switched to the girl's brother, who has a long fight with their mother while his sister is sleeping on the couch and later has a long talk with his sister about personal philosophy, by which they arrive at the conclusion that they are products of a mix of different religious backgrounds taught to them by their older brothers, Buddy and Seymour. Such are the brief events from the life of the Glass siblings, the title characters of what work by J.D. Salinger?

Answer: Franny and Zooey

15. (Sh/CS) He is traditionally depicted with a noose in his left hand and a goad in his right. His head symbolizes the *atman*, or soul, while his body represents *maya* or earthly human existence. While stories within Hindu tradition differ on his origins, one version holds that Shiva beheaded him but was ordered by an angry Parvati to retrieve his head, which Shiva was unable to find and had to replace with a substitute. One of the five prime Hindu deities, FTP name this god who reputedly broke a tusk for use in writing the *Mahabharata*.

Answer: Ganesha, Ganesh, Ganapati, or any of those with the prefix Shree

16. (NGC/CS) This term is now considered offensive by related ethnic groups who are not included within it, as it clearly denotes a value judgment based on their relative degrees of assimilation into Western way. Their adoption of slavery in particular created some tension with their distant relatives and led to their divided stance during the Civil War, though the Choctaw and Chickasaw predominantly supported the south. The Indian Intercourse Act of 1834 forced them to move to an unorganized territory that gradually shrank and then was opened up for white settlers, becoming the state of Oklahoma. FTP give the collective name used in the 19<sup>th</sup> century for a select group of Southern tribes including the Creek and Cherokee.

Answer: **Five Civilized Tribes** (accept the term currently in vogue, **Five Tribes**)

17. (AR/JV) The principles of this concept as compiled by Henri Grissino-Mayer include the principles of uniformity, limiting factors, ecological amplitude, site-selection, cross-dating, replication and aggregate tree growth. First developed in the mid-20<sup>th</sup> century by A. E. Douglass of the University of Arizona, it has been used to judge effects on the environment from pollution, track precipitation and climatic changes, as well as recalibrate Carbon-14 dating techniques. FTP name this method of dating based on the analysis of tree-ring growth patterns.

Answer: **Dendrochronology**

18. (AR/JV) The screenplay was based on a story called "A Can of Beans," co-written by the director himself. The mansion in which the film was shot was owned by J. Paul Getty, and the movie *Rebel Without a Cause* used the same pool in one of its final scenes. Featuring cameos by Cecil B. DeMille and Buster Keaton, the movie revolves around an aging and deluded silent movie star who laments the rise of the talkies. In the movie, Norma Desmond is seeking a comeback, though she would call it a return, with the help of hack writer Joe Gillis who in the opening scene is face down in a pool. FTP name this 1950 Billy Wilder directed film-noir about the "inside-the-scenes" Hollywood named after a famous street in LA.

Answer: **Sunset Boulevard**

19. (NGC) Once known as the Trucial States, this country employs so many foreign workers that only 20% of its residents are citizens. Politically, it is a federation of seven independent states including Dubai (doo-by) and Abu Dhabi (a-boo dah-bee). Becoming a point of controversy when a corporation based there made a bid to control many major U.S. ports, for ten points, name this country whose president is chosen from among the seven emirs.

Answer: **United Arab Emirates**

20. (NGC) After eight years at the Lowood Institution, as both student and teacher, she gains a job as a governess for Adele Fairfax. She nearly marries her employer, but flees and takes shelter with the Rivers family, only to return the next year to a blinded and widowed Mr. Rochester. For ten points, name this heroine of a Charlotte Brontë novel.

Answer: **Jane Eyre**

21. (NGC/CS) With a name shared by a genus of electric ray, early versions were used by David Bushnell and by Robert Fulton who towed charges behind his Nautilus. The first real ones were developed by Robert Whitehead for the Austrian Imperial Navy and by 1870 they could reach 7 knots and hit a target 700 yards away. For 10 points, name this self-propelled projectile that operates underwater.

Answer: **Torpedo**

22. (UNC/CS) He defeated his brother in the Battle of Chimborazo. That brother, Huascar, had demanded he swear allegiance as he was a legitimate son of Huayna Capac, but this man refused. He won the war, and became emperor, but was soon captured by Pizarro, who collected a stiff ransom and then killed him anyway. Name, FTP, this last Incan emperor.

Answer: **Atahualpa**

1. (AR/JV) Name these ancient Roman poets given a description of their works FTPE.

(10) He wrote the *Georgics* and the *Eclogues*, both a series of poems that deal with rural and pastoral themes, but you may know him better as the author of *The Aeneid*.

Answer: **Virgil**

(10) This poet, who served under Brutus at Philippi, is famous for works like *Ars Poetica* and his *Odes*.

Answer: **Horace**

(10) This Roman poet is most famous for his only extant works which are a series of rather angry *Satires*. He also coined the phrase "who shall watch the watchers?"

Answer: **Juvenal**

2. (NGC) Identify the somewhat similar sounding terms from music, for ten points each.

a) From the Italian for "sung" this Baroque sacred or secular work is written for voice and instrument. J.S. Bach wrote over 200 of them.

Answer: **cantata**

b) This work – from the Italian for "sounded" – is meant to be played rather than sung and consists of three or four movements. Beethoven's "Pathetique" and "Moonlight" are among the more famous.

Answer: **sonata**

c) Italian for "touched" this is a piece for keyboard, generally emphasizing the dexterity of the performer. Ones by Bach for the organ were often followed by a fugue movement.

Answer: **toccata**

3. (TV/CS) Answer some things about certain astronomical bodies, FTPE:

[10] Thought to be powered by supermassive black holes, these objects output enough electromagnetic energy to rival that of small active galaxies.

Answer: **quasars**

[10] As a result of Hubble's law, quasars generally have a very high one of these as they travel away from Earth.

Answer: **redshift**

[10] 3C 273, currently the brightest known quasar, can be found within this 2<sup>nd</sup>-largest constellation of the zodiac, whose alpha star is Spica.

Answer: **Virgo**

4. (UNC/CS) Answer these questions on colonial India FTPE:

10) This Portuguese explorer headed the first European naval expedition to India.

Answer: Vasco **da Gama**

10) This English company virtually ran most of India from the 17<sup>th</sup> century to its dissolution in 1858.

Answer: **British East India** Company

10) This rebellion was a partial reason for the end of the British East India Company's reign. It arose from the rumor that the bullets used by a certain group of soldiers were greased with pork fat.

Answer: the **Sepoy** Mutiny (or Rebellion, Revolt, etc.)

5. (DF/SK) It is one of the *hamesh megillot* (kha-mesh meg-ee-lote) and while it is allegorically taken by many to signify the love of God for Israel, its literal meaning is clear: it is a celebration of sexual passion. For 10 points each:

1. Name this very brief book of the Bible referred to by Catholics as the *Canticum Canticorum*, which is essentially a dual-part love poem between a pair of lovers.

Answer: **Song of Songs** or **Song of Solomon** or **Shir ha-Shirim**

2. Among Ashkenazic Jews the reading of the Song of Songs often occurs during the Sabbath of what leavened bread-less week-long observance?

Answer: **Pesach** or **Passover**

3. The Song of Songs is one of two Biblical books that never mentions God. The other is this one, also one of the Megillot, which describes the rescue of the Israelites from Haman by the namesake girl and which is read during the feast of Purim which commemorates her story.

Answer: **Esther**

6. (UNC/CS) Answer these questions about amino acids for ten points each.



This is the amino acid with the simplest structure; its R group consists of a single hydrogen.

Answer: glycine

This amino acid is important in the formation of disulfide bonds.

Answer: cysteine

This amino acid, found in turkey and warm milk, is capable of causing drowsiness.

Answer: tryptophan

7. (UNC/CS) FTPE, name these Arthur Miller plays from characters.

10: Biff, Happy, and Willy Loman

Answer: Death of a Salesman

10: John Proctor, Giles Corey

Answer: The Crucible

10: Joe and Chris Keller

Answer: All My Sons

8. (Sh/SK) Given a Clue about a signer of the Declaration of Independence, name him, 10 points each.

1. In addition to John and Samuel Adams and John Hancock, the colony of Massachusetts was represented by the jurist Robert Paine as well as this man, now more famous for his redistricting maneuvers and the "creature" named after him.

Answer: Elbridge Gerry

2. The colony of Delaware was represented in part by this man, a robust army officer who was summoned from his camp dealing with Loyalist rebels to break a deadlock in Delaware, a ride commemorated on Delaware's quarter.

Answer: Caesar Rodney

3. New Hampshire was represented in part by this man, later the state's governor, whose namesake fictional lineal descendant was president for most of the run of the *West Wing*.

Answer: Josiah Bartlett

9. (UNC/CS) FTPE, given a state, name its highest point.

10: Colorado

Answer: Mount Elbert

10: Maine

Answer: Mount Katahdin

10: California

Answer: Mount Whitney

10. (NGC) Among the many things that happened on September 30<sup>th</sup> are the following. FTPE:

A) On September 30, 1927, this man became the first major league baseball player to hit 60 home runs in one season.

Answer: George Herman Ruth or Babe Ruth

B) On September 30, 1955, this actor who starred in the film Rebel Without a Cause, died in an automobile accident.

Answer: James Dean

C) On September 30, 1957, this actress who starred in the sitcom The Nanny was born.

Answer: Fran Drescher

11. (SG/SK) Identify the artist from some well-known paintings, 10 points each.

1. *The Cornfield*, *The Haywain*

Answer: John Constable

2. *Ship of Fools*, *The Garden of Earthly Delights*

Answer: Hieronymus Bosch

3. *The Portrait of Maria de Medici*, *Raising of the Cross* altarpiece, *Descent from the Cross* altarpiece

Answer: Peter Paul Rubens

12. (UNC/CS) F5PE, name the poem from lines, and for 5 more the poet.  
5/5: "Though we cannot make the Sun / Stand still, yet we will make him run."

Answer: "**To His Coy Mistress**" by Andrew **Marvell**

5/5: "Slave to fate, chance, kings and desperate men."

Answer: "**Death Be Not Proud**" by John **Donne**

5/5: "Stone walls do not a prison make, / Nor iron bars a cage."

Answer: "**To Althea, From Prison**" by Richard **Lovelace**

13. (NGC/CS) Identify these terms associated with European feudalism, for ten points each.

A) The term used for land grants.

Answer: **fief**

B) Name for the members of the lowest feudal class indentured to the lord; the workers of the land.

Answer: **serf**

C) Name for members of the lesser nobility, often with military experience, to whom nobles divided land in exchange for services such as protection.

Answer: **vassal**

14. (MSU/SK) Give the Roman names for these Greek gods and goddesses on a 5-5-10-10 basis:

1. (5 points) Demeter

Answer: **Ceres**

2. (5 points) Hestia

Answer: **Vesta**

3. (10 points) Tyche

Answer: **Fortuna**

4. (10 points) Hypnos

Answer: **Somnus**

15. (DU/JV) You have a chemical equation in which there are equal amounts of products and reactants (equal number of moles.) The reaction is exothermic. FTPE; given the following change in environment or reaction component, predict whether equilibrium will shift to the right, to the left, or stay the same.

(10) Increase in temperature?

Answer: To the **left**

(10) More reactant is added to the reaction?

Answer: To the **right**

(10) Addition of a catalyst?

Answer: **Stay the same** (or equivalent)

16. (UNC/CS) FTPE, answer these questions about a writer.

[10] This Colombian, author of *One Hundred Years of Solitude*, won the Nobel Prize in Literature in 1982

Answer: Gabriel **García Márquez** [prompt on just Garcia or Marquez]

[10] Name this 1985 Gabriel García Márquez novel loosely based on the story of how Marquez' wooed his mother with violin serenades, love letters and poems, eventually marrying her despite her family's efforts to drive him away.

Answer: **Love in the Time of Cholera**

[10] Name the poet, telegraph operator and boat company president who suffers with love for Fermina for almost 50 years and is based on Márquez' father in *Love in the Time of Cholera*.

Answer: **Florentino Ariza**

17. (MM/SK) Given a statement of an unproven conjecture in mathematics, give its name, 10 points each.

1. There are an infinite number of primes  $P$  such that  $P - 2$  is also prime.

Answer: **Twin Prime** Conjecture

2. Every even integer greater than two can be written as the sum of exactly two prime numbers.

Answer: **Goldbach** Conjecture

3. Every simply connected closed 3-manifold is homeomorphic to a 3-sphere.

Answer: **Poincaré** Conjecture

18. (NGC/CS) Once again, we are in the middle of hurricane season. From a description, name these famous hurricanes for ten points each.

a) After making landfall in Florida on August 25, 2005, and strengthening to a Category 5 hurricane over the Gulf of Mexico, this hurricane made landfall again in Louisiana as a Category 3, leading to major destruction in New Orleans.

Answer: Hurricane **Katrina**

b) The last major devastating hurricane to hit the South Carolina coast, this Category 4 hurricane made landfall in Charleston on September 21, 1989.

Answer: Hurricane **Hugo**

c) On August 24, 1992, this Category 4 hurricane battered the southern Florida peninsula, killing 41 people, before moving out into the Gulf of Mexico, weakening, and making landfall again in Louisiana.

Answer: Hurricane **Andrew**

19. (UNC/CS) Assuming you were awake over the summer, you probably saw the World Cup. Recount the details of the lasting image of the tournament, FTSNOP.

a) First, for five points each, what were the two nations competing in this year's World Cup final? (Style points for their nicknames.)

Answer: **France** and **Italy** (Les Bleus and Azzurri)

b) Nearly as good a headbutter as a soccer player, name the captain of the French squad, who was excused for headbutting an opponent late in the match.

Answer: Zinedine **Zidane**

c) To make it interesting, name the foul-mouthed Italian who received Zidane's well-aimed planting, and who was later suspended for the commentary we assume preceded Zidane's action.

Answer: Marco **Materazzi**

20. (OU/DM) Stars and planets aren't the only things in the universe. F10PE, identify each of the following kinds of nebulae from a brief description.

A. These are large molecular clouds in star-poor regions. They are only detectable when they obscure other nebulae or stars as they pass between those bodies and the Earth. Examples include the Horsehead and Coalsack Nebulae.

Answer: **Dark Nebula**

B. These large clouds of dust and gas are stellar nurseries in which the newly forming stars ionize the nebular gas, creating a class of emission nebulae. They are among the brightest objects in the night sky and are named for the appearance of ionized hydrogen. Examples include the Orion, Eagle, and Tarantula Nebulae.

Answer: **H II Region**

C. Resulting from processes associated with helium fusion, these nebulae are clouds of gas and plasma surrounding a white dwarf and are a specific class of emission nebulae. Examples include the Ant, Hourglass, and Cat's Eye Nebulae.

Answer: **Planetary Nebula**

21. (TV/CS) Identify the following about a hero and his adventures, FTPE:

[10] Sent by Iobates, King of Lycia, on what was supposed to be a suicide mission to slay the Chimera, this hero was instead unexpectedly successful.

Answer: **Bellerophon**

[10] Part of Bellerophon's success was due to his unorthodox method for slaying the beast, which involved using a spear mounted with this element, number 82 on the periodic table.

Answer: **lead**

[10] During his quest, Bellerophon rode this creature. He would later fall off of it while attempting to reach the top of Mount Olympus.

Answer: **Pegasus**