DRAGOON 2013
Round 6

Questions by the University of Illinois at Urbana-Champaign

Tossups

1. **The main probabilistic algorithm to generate these constructs builds a ring structure and then randomly assigns a connection between any two points on the ring. The Watts-Strogatz model is used to generate these items, which are used to model the neurology of** *C. Elegans*. **Due to their properties, they appropriately model situations in which triadic closure and homophily exist. They are characterized by a high degree of clustering and have a relatively short average (*)** path length. An experiment that had people in the Midwest give packages to those they knew personally gave the first evidence for the existence of them and was conducted by Stanley Milgram. For 10 points, name this type of social network often described by the phrase "six degrees of separation."
ANSWER: **small world** networks [Prompt on "social networks" at any point.]

2. **In his book** *The Statesman's Manual*, **this writer stated that Nimrod and Napoleon represented the "Satanic Hero." A different book by this literary critic introduced the ideas of Schelling's Romanticism to the English public, coining the term "suspension of disbelief." The title object of one of his poems is "placed length-ways in the clasping casement" and is caressed by a "desultory breeze." That poem, which also describes "vain Philosophy's aye-babbling spring" is addressed to (*)** "My pensive Sara." This author of *Biographia Literaria* wrote about how "they are gone, and here must I remain" in a poem that describes how "this lime-tree bower" is the author's prison. For 10 points, name this author of "Conversation Poems," such as "The Aeolian Harp," who also wrote *The Rime of the Ancient Mariner*.
ANSWER: Samuel Taylor **Coleridge**

3. **A 2003 paper by Moreland and Angel showed how to efficiently implement the Fast Fourier Transform using these components. The language Cg, like the identical HLSL and similar GLSL, is only used with programming paradigms that make use of them. Frameworks for making use of these devices include Microsoft's DirectCompute, OpenCL, and CUDA. A recent trend in computer information processing is to solve easily (*)** parallelizable problems using these electronic circuits for a general purpose. These devices typically output to a frame buffer. These circuits are sold as part of the GeForce and Radeon product lines. For 10 points, name these electronic circuits that are found in "cards" made by AMD and NVIDIA.
ANSWER: **G**raphics **P**rocessing **U**nits [accept "**graphics card**s" UNTIL "electronic circuits."]

4. **A game for this platform that has incompetent voice acting is set in the land of Fulheim and stars L'Arc Bright Lagoon. In addition to** *Arc Rise Fantasia*, **a sequel for this system centers on Emil and Marta, who travel with a Centurion named Tenebrae across the newly-fused worlds of Sylvarant and Tethe'alla. Bionis and Mechonis fought each other in the backstory for another game on this console, in which the player controls (*)** Shulk. Its games include one subtitled "Dawn of the New World" as well as *Xenoblade Chronicles*. This non-handheld console came with the shitty web browser Opera and was originally known as the "Revolution." Like its predecessor, this console's catalog includes *Twilight Princess*. For 10 points, name this Nintendo console, the successor to the Gamecube.
ANSWER: Nintendo **Wii** [do not accept "Wii U"]

5. **The first commander of the organization rooted here was John Winder. The four volume account of this location by John McElroy describes infighting at this location that pitted the Raiders against the Regulators. Dorence Atwater documented the members of this locality. Counterparts of this establishment include Rock Island and Point Lookout. The 1956 Pulitzer Prize for fiction was awarded to (*)** MacKinley Kantor for his novel about this place. Also called Camp Sumter, its final administrator, Henry Wirz, was the only Confederate official to be convicted of war crimes. For 10 points, name this Georgia-based Confederate prison camp.
ANSWER: **Andersonville** Prison [or **Camp Sumter** before mention]

6. **This faith practices a funeral ritual in which the spine is broken and the body is chopped up with knives, and one of its sacred texts was first translated by Walter Evans-Wentz. One school within this sect has a name meaning "Gray Earth." This sect, which practices 'sky burial,' inspired Timothy Leary to write *The Psychedelic Experience*. A text from this faith is designed to guide the soul through the *bardo*. Another ritual in this sect is the construction and (*)** destruction of a pattern of colored sand. It is not from Egypt but it conducts funerals using *The Book of the Dead*. The *de facto* leader of this faith has insisted that he will be reincarnated in exile, away from areas under Chinese control. For 10 points, name this religion practiced by Tenzin Gyatso, the 14th Dalai Lama.
ANSWER: **Tibetan Buddhism** [prompt on "Buddhism," "Mahayana Buddhism," or "Vajrayana Buddhism"]

7. **A medieval polity of this name was divided between the Albertine and Ernestine branches of its ruling family in 1485. That family first gained control over this polity when it was bestowed to Frederick the Warlike. This polity's leader John George I represented the Protestant states at the Treaty of Prague during the Thirty Year's War. One elector of this polity fought against Stanislaw (*)** Leszczynski for the right to succeed Augustus the Strong in the War of the Polish Succession. It's not Bavaria, but Henry the Lion also served as Duke of this polity which, like Thuringia, was later ruled by the House of Wettin. The capital of this present-day state was razed in February, 1945 by allied firebombing. For 10 points, name this German state which contains the city of Leipzig and has its capital at Dresden.
ANSWER: **Saxony** [or **Sachsen**, do not accept Saxony-Anhalt or Lower Saxony or Niedersachsen]

8. **One of this man's overtures is normally performed in an arrangement made by Carl Bier for the Vienna premiere of the opera that it precedes. In that opera, one character is annoyed by her lover's hour-and-a-quarter-long violin concerto. In another of his operas, a soprano sings "Les oiseaux dans la charmille." Various pieces by this composer were arranged by Manuel Rosenthal for the ballet (*)** 'Gaite Parisienne.' An unfinished opera by him is partially set in Luther's tavern and contains the barcarolle "Belle nuit, o nuit d'amour," which is sung by Giulietta and Nicklausse. That opera's title character recounts how he fell in love with Spalanzani's mechanical maiden Olympia in a segment inspired by "The Sandman." For 10 points, name this composer of *Orpheus in the Underworld* and *The Tales of Hoffmann*.
ANSWER: Jacques **Offenbach**

9. **One character in this novel is a Vaudeville strongman who is crushed to death by a tractor. That character's son is forced to give sexual favors to a policeman and falls in love with a radio voice-over actor. Another character in this book saves Salvador Dali from suffocating and sets out to kill a German geologist while serving in the military in (*)** Antarctica. That character works for Sheldon Anapol and studied magic under Bernard Kornblum, who helped him escape from Prague with that city's Golem in tow. In this novel, one of the title characters is inspired by Rosa Saks to create Luna Moth, after creating the Escapist with his cousin. For 10 points, name this novel about the comic book creators Sam and Joe, written by Michael Chabon.
ANSWER: The *__Amazing Adventures of Kavalier and Clay__*

10. **For a charged particle gyrating around a guiding center, this quantity is the third adiabatic invariant. It is quantized in units of Planck's constant over twice the electron charge. In a perfectly conducting fluid, the time derivative of this quantity is zero according to Alfven's theorem. This quantity's namesake linkage is related to the electric charge in a memristor. A superconductor can be made to levitate via (*)** "pinning" of this quantity. The time derivative of this quantity through a closed loop is equal to the induced emf by Faraday's Law. This quantity is zero in the absence of monopoles by Gauss's Law of magnetism. For 10 points, the SI unit Weber is used to measure what quantity, the surface integral of the magnetic field?
ANSWER: **magnetic flux** [prompt on "flux," prompt on "phi" or "phi-sub-b," do NOT accept or prompt on "magnetic flux density" or "magnetic field"]

11. **One artist born in this country produced posters for the company *Tropon* and was the teacher of Victor Bourgeois. A different artist born here painted *The Village of the Mermaids*, but is better known for *Entrance to the City,* which depicts his characteristic nude women in metaphysical landscapes. This home country of Henry van de Velde and (*)** Paul Delvaux is also the home of an artist who included a cloudscape in an eyeball in his painting *The False Mirror*. That artist from here showed an easel in front of a window in *The Human Condition*, an egg in a cage in *Elective Affinities*, and men falling from the sky in *Golconda*; he also included a train emerging from a fireplace in *Time Transfixed*. For 10 points, name this country that was the birthplace of Rene Magritte.
ANSWER: Kingdom of **Belgium**

12. **While travelling to this city, the warlord Zhang Zuolin was assassinated via bomb at a train station named Huanggutun. A palace in this city was constructed by Nurhaci in 1625 and was the center of power for the Manchus until the fall of the Ming Dynasty. A battle fought here saw nearly 90,000 Russian casualties under Kuropatkin, and was the final land battle of the (*)** Russo-Japanese War. This city names an event that led to Japan withdrawing from the League of Nations, and was followed by the establishment of a puppet state led by Puyi. That incident saw the Kwantung army detonate explosives by a railroad which did little actual damage. For 10 points, name this city that names a 1931 incident used by Japan as an excuse to invade Manchuria.
ANSWER: **Mukden** [Accept **Mukden** Incident or Battle of **Mukden** or **Mukden** Palace or **Shěnyáng**]

13. **This work's characters include a count who arrogantly refuses to remove a white plume during combat, as well as Ragueneau, a baker who compares his trifling poetry to his lower quality food. Its title figure was a student of the Epicurean philosopher Pierre Gassendi and pioneered science fiction by writing *Comical History of the States and Empires of the Moon*. After being wounded by a (*)** falling log, the protagonist dies fighting imaginary foes when reciting his friend's farewell letter. It begins with production of *La Clorise*, which is ruined when the title character duels Valvert. The protagonist is a member of the Cadets of Gascoyne who writes letters to Roxane while pretending to be her lover Christian. For 10 points, name this play about a large nosed character, written by Edmond Rostand.
ANSWER: *Cyrano de Bergerac*

14. **The innermost of these entities are assumed to be completely filled in the frozen core approximation. The changes in their energies due to changes in geometry are depicted in Walsh diagrams. In certain cases, their energies can be approximated in terms of exchange, Coulomb, and overlap integrals. The conservation of their symmetry is the basis of the Woodward-Hoffman rules. According to (*)** Fukui, who developed their namesake "frontier" theory, chemical reactivity only depends on the highest occupied and lowest unoccupied examples of them. They always come in pairs, with the higher-energy one marked with a star and designated as "antibonding." For 10 points, name these functions that can be calculated as linear combinations of atomic orbitals.
ANSWER: **molecular orbital**s [or **MO**s, prompt on "orbitals," I guess prompt on "wavefunctions" until "frontier"]

15. **This thinker argued that appetitive power is the basis for reason and enthusiasm in *Anthropology from a Pragmatic Point of View*. He argued that all statements have a form, a matter and a complete determination that is derived from both the unity of the Will and the plurality of matter. A tract by Benjamin Constant challenged one of his ideas, which this philosopher argued could lead men away from heteronomy, a state that leads to (*)** spurious morality. This thinker argued for a "systematic union of different rational beings under common laws," which he termed a Kingdom of Ends. His concept of duty lead him to argue one must not lie to an inquiring murderer. For 10 points, name this philosopher who formulated the categorical imperative in *Grounding for the Metaphysics of Morals*.
ANSWER: Immanuel **Kant**

16. **The last of Callimachus's hymns praises this figure for thrice-crossing the silver eddies of the river Achelous and sitting near the well of Callichorus. Apollodorus claims that she was the mother of a horse named Arion that was endowed with the gift of speech. In another venture, she, along with Hecate, asks for information from Helios. A group of sacred (*)** trees dedicated to this goddess was cut down by Erysichthon, who sold his own daughter Mestra into slavery. This goddess was responsible for empowering Triptolemus. More notably, this mother of Core visited King Celeus and tried to burn away the mortal parts of Demophon. She went to Eleusis and taught agriculture to mankind. For 10 points, name this mother of Persephone, an ancient Greek goddess of agriculture.
ANSWER: **Demeter** or **Ceres**

17. **This compound is combined with methanol and Tris in a common transfer buffer used in Western blots. A mutation in the alpha subunit of this compound's receptor is the cause of hyperekplexia. This compound combines with cysteine and glutamate to form the antioxidant tripeptide glutathione. This amino acid's receptors can be blocked by picrotoxin and strychnine. It's not serine, but this amino acid acts as a co-agonist along with glutamate for (*)** NMDA receptors, and in the brain stem and spinal cord, it serves as the chief inhibitory neurotransmitter. This amino acid is found on approximately every third residue of collagen. For 10 points, name this only achiral amino acid, which is characterized by a hydrogen side chain.
ANSWER: **glycine** [prompt on **Gly** and **G**,, accept the pretentious answers of **aminoacetic acid** and **aminoethanoic acid**]

18. **Regarding one reform which he spearheaded, this ruler opined that "it is better if this takes place from above than from below." The Black Repartition and Land and Liberty societies both formed in opposition to this ruler, as did the *narodniki* among the middle class. This ruler's military put down the January Uprising in (*)** Poland, and his war minister Dmitry Milyutin introduced conscription to the army. The Church of the Savior on Spilled Blood was built in honor of this ruler at the site of his death. This ruler ascended to the throne shortly after his country lost the Crimean War. Assassinated by the People's Will in 1881, for 10 points, name this Russian Tsar, the son of Nicholas I, who emancipated the serfs.
ANSWER: **Alexander II**

19. **In one of his compositions, the soprano soloist describes a virgin wandering the skies who tires of her loneliness and descends to the sea, which impregnates her. This composer's second symphony grows out of a rising three-note motif first introduced in 6/4 time, and the second movement of that symphony was originally meant to depict Death meeting Don Juan. His last major work was a tone poem depicting a (*)** forest spirit. This composer of *En Saga, Luonnotar*, and *Tapiola* wrote his seventh and last symphony in only one movement. Another work by this composer uses the English horn to depict a bird sailing across a river in the underworld in the movement "The Swan of Tuonela." For 10 points, name this composer of the *Lemminkainen Suite*, who hails from Finland.
ANSWER: Jean **Sibelius**

20. **At one point in this work, the narrator speculates on a creation of Alain de Lille, whose center is everywhere and whose circumference is nowhere. At another pause in this work, the narrator states that he has only once read Michael Drayton's** *Poly-Olbion,* **which he notes is less tedious than a work produced by a writer who is distressed that Zunino and Zungri are trying to expand their salon-bar. However, that writer wins second place at a (*)** poetry contest. This story's postscript describes a pillar in Cairo that emits a strange humming sound that might house the title entity, which Carlos Daneri uses to write his masterpiece, which describes every place on the earth. For 10 points, name this story by Borges about a point in space that contains the entire universe, which is named for a Hebrew letter.
ANSWER: The **Aleph** [or El **Aleph**]

21. **In a short story by this author, Gavrila throws a rock at the titular thief after he realizes he had been duped into assisting him on his heist. Another of this author's short stories sees Tanya's daily visits to a set of kringle makers end after she is seduced by a soldier. A poem by this writer compares seagulls, loons, and penguins to a certain bird which flies unafraid of a storm. This author of (*)** *Chelkash* and *The Song of the Stormy Petrel* wrote a novel where Pelagea Nilovna brings revolutionary literature into a factory after her son is arrested on May Day. Pepel accidentally shoots a man who runs a boarding house, Kostilyoff, in a play by this author of *Mother*. For 10 points name this Russian Social Realist who penned *The Lower Depths*.
ANSWER: Maxim **Gorky** [Accept Alexei Maximovich **Peshkov**]

1. One type of this piece of lab equipment named for Dewar contains two chambers separated by a vacuum and is designed to minimize heat transfer. For 10 points each:
[10] Name this piece of lab equipment. Another type named for Erlenmeyer contains a flat bottom and tapered neck and is used to hold chemicals.
ANSWER: **flask**
[10] The "separatory" variety of this other piece of lab equipment is used to perform liquid-liquid extraction. Vacuum filtration uses one of these objects named for Büchner.
ANSWER: **funnel**s
[10] This device is often used in the organic chemistry laboratory to remove solvents from a mixture using an apparatus which contains a heat bath, a partial vacuum, and a motor to rotate the flask.
ANSWER: **rot**ary **evap**orator [or **rotovap** or **rotavap**]

2. In this play, the lawyer Charlie Bentham knocks up Mary and drafts a worthless will for members of its central family, who hopelessly believe that they will inherit a considerable sum of money. For 10 points each:
[10] Name this work set during the Civil Wars of 1922 and 1923 of a certain country. It centers on a man who styles himself a Captain and who spends much of his time drinking with Joxer Daly.
ANSWER: ***Juno and the Paycock**
[10] *Juno and the Paycock* was written by this Irish playwright also known for *The Silver Tassie.*
ANSWER: Sean **O'Casey**
[10] This other Irish playwright wrote a *noh*-inspired play, *Purgatory*, which depicts an Old Man drunkenly beating his Boy. He also wrote poems, such as "The Second Coming."
ANSWER: William Butler **Yeats**

3. Answer the following about the social history of Victorian England, for 10 points each:
[10] Prince Albert organized this event to display the wonders of industry and culture from around the world. It was held in the glamorous Crystal Palace.
ANSWER: the **Great Exhibition** of the Works of Industry of All Nations of 1851 [this is the specific name it was billed under, so they need that. However, you may also accept Expo **London 1851**]
[10] If Victorian novelists are to be believed, London also had many 'dens' where people would partake of this drug, which later provoked some namesake wars between Britain and China.
ANSWER: **opium**
[10] This satirical magazine, beloved by the Victorian middle class, offered articles on life and leisure which were accompanied by illustrations that formed the basis for modern cartoons. Its name comes from a traditional puppet character.
ANSWER: ***Punch**, or the London Charivari*

4. His book *Marriage and Morals* argues that marriage should only be allowed after the first time a woman is pregnant. For 10 points each:
[10] Name this philosopher who also included his moral philosophy in his book "Why I am Not a Christian." He co-authored *Principia Mathematica* with Whitehead.
ANSWER: Bertrand **Russell**
[10] An easy introduction to the rigorous thought of Russell can be found in this short work of his, which includes discussions of the title issues, such as "On Intuitive Knowledge" and "The Value of Philosophy."
ANSWER: ***Problems of Philosophy**
[10] This tract by Russell attacks the theories of non-existent objects posited by Austrian philosopher Alexius Meinong. P.F. Strawson responded to it with his work "On Referring."
ANSWER: "**On Denoting**"

5. Tired of your questions on American folklore? Let's answer some questions on British folklore instead. For 10 points each:

[10] One legend suggests that this dance got its name from John of Gaunt's capture of Moors, who often performed it to ward off evil. More traditionally held to be derived from an ancient Celtic fertility rite, this dance often features people dressed in white with bells on their legs.

ANSWER: **morris** dance

[10] The leader of a morris dance would often hold one of these items to ward a town from spirits. King Arthur's Excalibur is another such example.

ANSWER: **sword**

[10] In some traditions, this sort of consumable is put onto the sword as well, to indicate the jolly nature of the activity. The medieval land of Cockaygne was a place where this consumable was endless.

ANSWER: **cake**s

6. This artist is renowned for a portrait of Goethe as well as a portrait of Winckelmann. For 10 points each:

[10] Name this Swiss artist who showed a Roman paragon of virtue in *Cornelia Pointing to Her Children as Treasures*.

ANSWER: Angelica **Kauffmann**

[10] Angelica Kauffmann was a member of this general trend in painting, which celebrates an idealized version of antiquity. Other artists who supported it include Nicholas Poussin.

ANSWER: **neoclassicism**

[10] This other neoclassicist often depicted seaports, such as *Seaport with the Embarkation of St. Ursula*. Atmospheric perspective and a diverting water source are two elements of his namesake formula, which was followed for decades after his death.

ANSWER: **Claude** **Lorraine** **Gellee** [Accept any underlined part name]

7. The last poem in this set states that we can never quench our thirst with this world's waters, and the speaker describes a downtrodden man who thinks only of the past. For 10 points each:

[10] Name this set of six poems and prose pieces written by Novalis that was inspired by the death of the author's fiancée Sophie von Kuhn, the last of which is sometimes called "Longing for Death."

ANSWER: *Hymns to the Night* [or *Hymnen an die Nacht*]

[10] Novalis was a student of this German writer, who penned "Ode to Joy" and wrote the plays *The Robbers* and *Don Carlos*.

ANSWER: Friedrich **Schiller**

[10] Novalis and his friend Holderlin were members of the German branch of this movement, whose quest for desire is symbolized by a blue flower.

ANSWER: **Romanticism** [accept word forms.]

8. Charles Leclerc offered to make peace with this leader, only to capture him and ship him off to France. For 10 points each:

[10] Name this patriot, a Haitian Revolutionary who led the slave revolt which took control of what was then Saint-Dominigue and laid the foundation for modern Haiti.

ANSWER: **Toussaint** **L'Ouverture** [accept either, or Francois Dominigue **Toussaint**]

[10] After L'Ouverture's capture, this colleague of his kicked the French out of Saint-Dominigue with British help, and declared Hispaniola an independent state under its native name of Haiti, with himself as Emperor.

ANSWER: Jean-Jacques **Dessalines** [or **Jacques I**]

[10] Although Haiti split into two countries after Dessalines' death, this president re-unified the island in 1821. He was overthrown in 1843, foreshadowing the birth of the Dominican Republic the next year.

ANSWER: Jean-Pierre **Boyer**

9. When this technique is combined with paired-end tags, and high-throughput sequencing technology, a new technique with the wonderful name of ChIA-PET is obtained. For 10 points each:

[10] Identify this technique where proteins and DNA are bound, and precipitated with antibodies, which is used to determine association between proteins and sequences of DNA.

ANSWER: **chromatin immunoprecipitation** [Accept **ChIP** Prompt on **immunoprecipitation**]

[10] ChIP can be used to find regions associated with these proteins, which bind to promoter regions and influence the activity of RNA Polymerase.

ANSWER: **transcription factor**s [Accept **TF**s]

[10] Transcription results in the production of one of these molecules, which is given a poly-A tail and a 5' (five prime) cap before being exported from the nucleus.

ANSWER: **mRNA** [Accept **messenger RNA**]

(Note to moderator: do not read the bracketed alternate answer to the first part)

10. The first movement of this work references the composer's earlier aria "Un bacio di mano." For 10 points each:

[10] Name this 1788 C-major symphony, it's composer's last, whose final movement weaves together five themes contrapuntally in its intricate *fugato* conclusion.

ANSWER: Symphony No. **41** or "**Jupiter**" Symphony [also accept **Mozart**'s Symphony No. **41** but DO NOT reveal that as an alternate answer]

[10] The Jupiter Symphony was written by this Austrian composer of *Eine Kleine Nachtmusik* and the "Haffner" and "Prague" Symphonies.

ANSWER: Wolfgang Amadeus **Mozart**

[10] Like most tonal music of the classical era, the Jupiter Symphony ends with one of these cadences, in which a dominant chord resolves to a tonic chord, with both of them in root position and the tonic note in the soprano voice.

ANSWER: **perfect authentic** cadence [or **PAC**, prompt on "authentic" or "perfect"]

11. Answer the following about the political structure of Classical Athens, for 10 points each:

[10] The original high tribunal of Athens, this body took its name from the hill where it met, and where, according to legend, the god of war himself was put on trial. Its name indirectly inspired a polemic against censorship by John Milton.

ANSWER: **areopagus** [do not accept "Areopagitica", that is the Milton title]

[10] The ecclesia was opened to all adult males, even the *thetes*, by this Athenian law-giver, who codified the law around 594 BC.

ANSWER: **Solon**

[10] The *Areopagus*, served as the principal court of law until this statesman transferred most of its power to the *boule* and the *heliaea* in the 460s BC.

ANSWER: **Ephialtes**

12. This man lives in Casa Santa Marta Room 201, after claiming that the papal apartment was too much like an 'inverted funnel.' For 10 points each:

[10] Name this Pope who was elected in 2013 to succeed Benedict XVI.

ANSWER: Pope **Francis** [accept Jorge Mario **Bergoglio**]

[10] On his flight back from a trip to Rio de Janeiro, Francis affirmed homosexual orientation is not itself a sin. He then considered the example of a gay person seeking God, and asked this question. It's usually rendered as five or six words in English.

ANSWER: "**Who am I to judge** [him]?" or "**Chi sono io per giudicarlo**?"

[10] During the Conclave, this cardinal from Ghana was widely considered to be a frontrunner for the Papacy.

ANSWER: Peter **Turkson**

13. This problem asks how large parts of the universe can appear to be similar and isotropic with respect to temperature and other physical properties if information cannot travel faster than the speed of light. For 10 points each:

[10] Name this cosmological problem, which along with the monopole problem and flatness problem, was accounted for in a theory of cosmic inflation by Alan Guth.

ANSWER: **horizon** problem

[10] This scientist proposed the now-discredited "Phoenix universe" theory to solve the horizon problem. He names a solution to Einstein's Field Equations with Robertson, Walker and Friedmann.

ANSWER: Georges **Lemaître**

[10] In Phoenix Universe theory, the universe oscillates over and over between a crunch and this other action, whose name was coined by Fred Hoyle.

ANSWER: **Big Bang** [prompt on "bang"]

14. Its main character blasts his brains out at the conclusion, and secondary characters include the Bayliss family and the Deever family. For 10 points each:

[10] Name this play in which it is revealed that Joe Keller manufactures faulty airplane parts for American soldiers.

ANSWER: *All My Sons*

[10] This man wrote *All My Sons*. He was one of the husbands of Marilyn Monroe and wrote the screenplay for *The Misfits*, which starred her.

ANSWER: Arthur **Miller**

[10] This character was always one year ahead of the draft and thus managed to never fight in World War 2. He is always interested in constructing a horoscope for Larry.

ANSWER: **Frank Lubey** [either answer is okay.]

15. These places often contain a community kitchen called a *langar* where food is free for all. For 10 points each:

[10] Identify these temples where the Adi Granth is venerated.

ANSWER: **gurudwaras** [prompt on "Sikh temples"]

[10] The Adi Granth is the holy book of Sikhism, which was founded by this man who claimed "There is no Hindu, there is no Muslim."

ANSWER: Guru **Nanak** Dev

[10] Unlike Islam, Sikhism has three pillars: earning an honest living, sharing wealth, and mediation on *this*. Examples of this thing used among Sikhs include Waheguru and Akal Parakh.

ANSWER: the **name of God** or the **divine name**

16. The actual value for the demand for this quantity is proportional to the real wage rate. For 10 points each:

[10] Name this quantity that is defined as the measure of work done by human beings. It is one of the factors of production along with land and capital.

ANSWER: **labor**

[10] This quantity, which may be positive or negative, is defined as the salary or wage adjustment in accordance with the unpleasantness or desirability associated with holding that position.

ANSWER: **compensating differential** or **compensating wage differential** or **wage differential** or **equalizing difference**

[10] One of the problems with labor economics is that this situation exists between employers and the labor market. Michael Spence wrote an article on signaling on attempting to get around it, which is defined as a state in which one party knows more than another.

ANSWER: **information asymmetry**

17. Only about 600 lines of his greatest work survive. For 10 points each:
[10] Name this early Roman poet of the 3rd and 2nd centuries B.C., whose epic the *Annales* chronicled the history of Rome up to its founding and was immensely popular until it was eclipsed by the *Aeneid*.
ANSWER: Quintus **Ennius**
[10] The *Annales*, or *Annals*, is also the title of the masterwork of this Roman historian and senator, who also wrote a history of his father-in-law Agricola and his conquest of Britain.
ANSWER: **Tacitus** [or Publius Gaius Cornelius **Tacitus**]
[10] Ennius's pioneering work on satire laid the groundwork for poets like this man who wrote a ton of *Epodes* and *Odes* and claimed "Dulce et decorum est pro patria mori." Wilfrid Owen did not agree.
ANSWER: **Horace** [or Quintus **Horatius** Flaccus]

18. During this skirmish, the *USS Maddox* fired on North Vietnamese torpedo boats. For 10 points each:
[10] Name this event that sparked a resolution that authorized the president to fight "communist aggression" in countries of Southeastern Asia. That resolution was curbed by the War Powers Act.
ANSWER: **Gulf of Tonkin** incident
[10] This naval officer stated he had the best seat in the house to watch the Gulf of Tonkin affair. As a VP candidate, he opened a debate with the questions "Who am I? Why am I here?"
ANSWER: James **Stockdale**
[10] Stockdale and Perot collected 19% of the vote in this presidential election year, in which the slogan "It's the economy, stupid" helped the Democrat candidate overcome the Republican incumbent.
ANSWER: 19**92**

19. He managed Warren G. Harding's presidential campaign and was a postmaster general before he established a series of rules that filtered films for their obscenity. For 10 points each:
[10] Name this former head of the MPDDA, whose namesake code was a guideline for movie censorship.
ANSWER: Will **Hays**
[10] This filmmaker assisted in the compilation of the "Don't and Be Carefuls" as part of a series of guidelines on movie censorship. He produced the Marx brothers movie *Night at the Opera* and was nicknamed "The Boy Wonder."
ANSWER: Irving **Thalberg**
[10] A provision in the Hays Code allowed this film to not be fined for featuring the line "Frankly, my dear, I don't give a damn" due to artistic necessity. This movie stars Clark Gable and Vivian Leigh as Rhett Butler and Scarlett O'Hara.
ANSWER: ***Gone with the Wind***

20. The net value for this quantity is zero for every baryon and every meson, but it is non-zero for every quark, a phenomenon explained by its namesake confinement. For 10 points each:
[10] Name this property possessed by quarks and gluons which can be used to explain how they interact.
ANSWER: **color** charge
[10] The interaction between quarks and gluons is caused by this one of the four fundamental forces.
ANSWER: **strong** nuclear force
[10] In quantum chromodynamics, this quantity consists of one term equal to minus one-fourth times the product of two gluon field tensors, an interaction term, which contains the coupling constant and describes quark-gluon interaction, and a mass term.
ANSWER: the QCD **Lagrangian** density