

2011 SCOP Novice Round 3

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TOSSUPS

1. The “extended” version of this man’s algorithm gives solutions to Diophantine equations. He proved that there are an infinite number of prime numbers, and his aforementioned namesake algorithm is used to find the (*) greatest common denominator. He names a claim about the existence of a unique parallel line, his fifth postulate. This “father of geometry” is, for 10 points, what Greek mathematician who wrote *The Elements*?

Answer: Euclid

2. This period sees observation of the delivery of the Gospels to Isa [ee-sah], and of the Torah to Moses. A juz’ [jooz] is read every day of this period during the Tarawih [tah-rah-wee]. A meal at the end of each day in this period is called (*) Iftar. This month begins with the sighting of the new moon and concludes with celebration of Eid al-fitr [eed al-FIH-tur]. For 10 points, name this ninth and most holy month of the Islamic calendar where observers fast during the day.

Answer: Ramadan

3. The third movement of this composer’s second piano sonata features a Lento interlude. This composer of the posthumous *Fantasia-Impromptu* and the *Raindrop Prelude* wrote 27 works for practicing piano technique, including the *Revolutionary* (*) *Étude* [ay-tood]. The inventor of the ballade [ball-ahd] and composer of many nocturnes, mazurkas, and polonaises, for 10 points, name this virtuoso French-Polish composer of a famous Funeral March and the *Minute Waltz*.

Answer: Frederic Chopin

4. Metics were non-citizens living in this city, and Hetaeras [hi-TEER-uh’s] were well regarded educated women in this city. Hippias [hip-PIE-us] was an unpopular dictator, and its traditional four "tribes" were replaced by ten new ones by Cleisthenes [KLYCE-thuh-”knees”]. Devastated by a (*) plague during the Peloponnesian War, it was ruled by a lover of Aspasia, Pericles, during its golden age. For 10 points, name this cultural center and capital of Greece.

Answer: Athens

5. These objects contain alternating dark/light bands called ogives, which can form as basal sliding moves these objects over land. Ablation refers to the receding of these objects, which can form (*) drumlins and eskers as they leave behind debris, called moraine. Crevasses are deep cracks in, and tarns are lakes formed by the melting of, for 10 points, what large, land-based bodies of ice?

Answer: glaciers

6. This architect designed the Greenwich Observatory, and was a founding member of the Royal Society. He worked with William Talman to redesign Hampton Court Palace for William and Mary. He created a “Greek Cross” plan for his most famous work before designing a two-towered west facade and a large dome at (*) St. Paul’s Cathedral. For 10 points, name this British architect, who built 51 churches and much of London after the Great Fire of 1666.

Answer: Sir Christopher Wren

7. This author created the character Anthony Patch and wrote the short stories “Bernice Bobs Her Hair” and “The Diamond as Big as the Ritz.” This author of *The Beautiful and the Damned* wrote about Dick Diver in *Tender is the Night*. Meyer Wolfsheim and (*) Jordan Baker appear in one novel by this author, in which Nick Carraway sees the title character longing for Daisy Buchanan. For 10 points, name this American author of *The Great Gatsby*.

Answer: F(rancis) Scott (Key) Fitzgerald

8. This city saw rioting in 1943 after fighting on Belle Isle; Mayor Edward Jefferies asked federal troops to end the violence here. In 1967, 43 people died in the 12th Street Riot in this city, and corruption charges forced the resignation of Mayor (*) Kwame Kilpatrick in 2008. Attempts at urban renewal in this city include the GM Renaissance Center. For 10 points, name this home to the “Big Three” auto makers, the largest city in Michigan.

Answer: Detroit, Michigan

9. *The Trackers* is the only remaining satyr [SAY-ter] play by this playwright of *Ajax* and *Philoctetes* [fih-LOCK-teh-tees], who set another of his plays in Colonus [koh-LOH-nuss]. In one of his plays, the title character hangs herself after being entombed for burying Polynices [pah-lih-NY-sees] against Creon’s orders. In another play by this man, Tiresias [tye-REE-see-us] advises the title king of Thebes about his relationship with (*) Jocasta, his mother and wife. For 10 points, name this Greek playwright of *Antigone* [an-TIH-go-nee] and *Oedipus Rex* [ED-ih-pus rex].

Answer: Sophocles

10. This leader served as First Lord of the Admiralty until the disastrous Gallipoli Campaign, and he was succeeded in his highest post by Clement Attlee. This winner of the 1953 Nobel Prize in Literature said “I have (*) nothing to offer but blood, toil, tears, and sweat” just before the Battle for Britain, and later spoke of an “Iron Curtain.” For 10 points, name this prime minister who led Great Britain through the Second World War.

Answer: Sir Winston Leonard Spencer-Churchill

HALF TIME

11. In one episode of this show, a character is asked if he is “captain of the innuendo squad,” while another episode sees a disguised main character fall in love with Joan Redfern. The Face of Boe tells the main character, “You are not alone;” that main character has traveled with (*) Sarah Jane Smith, Martha Jones, and Rose Tyler, and has been portrayed by David Tennant. Concerning a TARDIS-owning Time Lord, for 10 points, name this British sci-fi show.
Answer: Doctor Who (do not accept The Doctor or any of his aliases)

12. The large Tarim Basin is part of this country, whose northern border is partly formed by the Amur river. The Taklimakan desert is in its east, and this country is north of the Yalu river. This country shares Mt. Everest with (*) Nepal and includes the region of Tibet. Including rivers like the Yangtze and the Yellow, for 10 points, name this country featuring the cities of Shanghai and Beijing.
Answer: People’s Republic of China (do NOT accept “Republic of China”)

13. The orthobaric type of this measurement is used for coexisting states of matter. Specific gravity compares a ratio of these values. Buoyancy uses this concept in order to determine if an object will (*) sink or float. This measurement for water is given as 1 gram per cubic centimeter. Symbolized by the Greek letter rho, for 10 points, name this quantity that is equal to mass over volume.
Answer: density

14. This philosophy “is a Humanism” according to a 1945 lecture that argues that one’s essence is created as a result of living. The Christian version of this theory is described by *The Sickness Unto Death*, while another work inspired by this theory holds that (*) “Hell is other people,” and is titled *No Exit*; those works are by Soren Kierkegaard and Jean-Paul Sartre. For 10 points, give this philosophy dealing with human existence.
Answer: Existentialism (accept Existentialist/s)

15. Doc Daneeka is a self-absorbed doctor in this novel, which sees Major de Coverley rent apartments for soldiers on leave. Nately loves an Italian whore, and Major Major Major is promoted to Major while still a new recruit. This novel’s protagonist obsesses over (*) Snowden’s death and observes the ultra-capitalist dealings of Milo Minderbinder in, for 10 points, what work by Joseph Heller about the company of Captain John Yossarian?
Answer: Catch-22

16. In 1839, Thomas Jefferson Farnham led a failed early use of this by the Peoria Party. Its popularity spiked in 1843 when over 800 people used it to reach the Willamette Valley, most beginning near (*) Independence, MO. Its use declined in the 1870s as railroad connections reached Portland. For 10 points, name this route used by pioneers in Conestoga wagons to travel to a namesake state in the Pacific Northwest.
Answer: Oregon Trail

17. It is not thrust, but the Oberth effect allows a rocket engine to generate this quantity at higher speeds. Another quantity is subtracted from this quantity to compute the Lagrangian. Temperature is proportional to molecules' amount of this quantity, which is *not conserved* in (*) inelastic collisions. For 10 points, name this quantity that is equal to one half mass times velocity squared, the energy possessed by moving objects.

Answer: kinetic energy (accept KE; prompt on K; prompt on energy)

18. In one of this man's novels, U Po Kyin attempts to discredit Dr. Veraswami. In addition to *Homage to Catalonia* and *Burmese Days*, this author wrote a novel which contains "The Book," written by the target of the "Two Minutes of Hate," (*) Emmanuel Goldstein. This author wrote about Julia and Winston Smith, who succumb to this author's omnipresent "Big Brother." For 10 points, name this British author of *1984* and *Animal Farm*.

Answer: George Orwell (or Eric Arthur Blair)

19. This god appeared to his son as the ferryman Graybeard. He was denied by Billing's daughter, but tricked Gunnlod [GOON-loth] into giving him the Meade of Poetry. He possessed two ravens, Hugin [HOO-gihn] and Munin [MOO-nihn], and hung himself on (*) Yggdrasil [IHG-drah-sihl] to gain knowledge of the runes. He wields the spear Gungnir [GOON-g-neer] and rides the eight-legged horse Sleipnir [SLYP-neer]. For 10 points, name this one-eyed chief god of Norse mythology, the father of Thor.

Answer: Odin or Wodan

20. This phylum's most primitive species include the tunicates and lancelets. All members of this phylum have an iodine storage organ called an endostyle, along with pharyngeal slits and a post-anal tail. The early (*) notochord disappears during development of this phylum's vertebrates. Containing the fish, amphibians, reptiles, birds, and mammals, for 10 points, name this phylum of backboned animals.

Answer: Chordates (accept: Chordata)

BONUSES

1. It forms the basis of stoichiometry. For 10 points each,

[10] Name this SI unit which expresses an amount of a chemical substance based on a specific number of particles.

Answer: **mole**

[10] The number of particles in a mole is attributed to this man. His namesake quantity is equal to 6.02×10^{23} .

Answer: **Avogadro**'s number

[10] This value is equal to the number of liters in a mole of gas at standard temperature and pressure.

Answer: **22.4** liters

2. For 10 points each, answer some questions about native Japanese religion.

[10] This animistic religion is native to Japan, and includes deities like Amaterasu [ah-mah-tay-rah-soo] and Susanoo [soo-sah-no].

Answer: **Shintoism**

[10] Shinto venerates the spirits of animals and natural features, known by this name. In modern Japan, this name has become associated with the concept of "god."

Answer: **kami** [kah-mee]

[10] The majority of Japanese citizens follow a combination of Shinto and the Zen form of this major religion founded by Siddharta Gautama.

Answer: Zen **Buddhism**

3. His characters include Willy Loman and his sons, Biff and Happy. For 10 points each,

[10] Name this American playwright who wrote *A View from the Bridge* and *Death of a Salesman*.

Answer: Arthur Asher **Miller**

[10] In this Arthur Miller play, Abigail Williams has John and Elizabeth Proctor accused of witchcraft, and Giles Corey is pressed to death during the Salem Witch Trials.

Answer: The **Crucible**

[10] In this play by Miller, George Deever reveals that Joe Keller approved the shipment of faulty airplane parts that killed his son and twenty other airmen in World War Two.

Answer: **All My Sons**

4. This all-time NBA offensive rebounding leader made a legendary "Fo, fo, fo" prediction that his team would sweep the 1982-83 playoffs; they ended up losing one game. For 10 points each,

[10] Name this player, who played 21 seasons in the ABA and NBA, winning the 1983 title with Philadelphia.

Answer: **Moses Malone** (prompt on Malone)

[10] Moses Malone is unrelated to Karl Malone, who played nearly two decades with John Stockton for this NBA team.

Answer: **Utah Jazz** (accept either or both)

[10] The Malone/Stockton Jazz teams lost two NBA finals, in 1997 and '98, to this team led by Michael Jordan and Scottie Pippen.

Answer: **Chicago Bulls** (accept either or both)

5. This event began with an attempted break-in of the Democratic National Committee's headquarters. For 10 points each:

[10] Named for the Washington, DC hotel home of the DNC, name this scandal, that would eventually force the resignation of President Richard Nixon.

ANSWER: **Watergate** scandal (accept word forms for scandal)

[10] Reporters Bob Woodward and Carl Bernstein of the Washington Post used this anonymous source during their reporting on the scandal. In 2005, former FBI Associate Director Mark Felt stepped forward as the source.

ANSWER: **Deep Throat**

[10] This leader of the "White House Plumbers" unit organized the Watergate break-in and served over four years in prison. Since 1992, he has hosted a syndicated conservative talk radio show.

ANSWER: G(eorge) Gordon **Liddy**

6. His tuning-fork diagram divides galaxies into three classes. For 10 points each:

[10] Name this astronomer who developed a law that states that a galaxy's recessional velocity is directly proportional to its distance from us.

Answer: Edwin **Hubble**

[10] In developing his law, Hubble correlated distance with this phenomenon. It occurs when light from objects traveling away from the observer increases in wavelength. It is the opposite of blueshift.

Answer: (cosmological) **redshift** (prompt on, but do not otherwise mention, **Doppler** shift or **Doppler** effect)

[10] Redshift and blueshift are consequences of this effect in which relative motion between a wave source and an observer causes apparent changes in the wavelength, illustrated by the change in pitch of a passing siren.

Answer: **Doppler** effect

7. The May 2011 Canadian federal election was a decisive one, giving the Conservatives a majority in the House of Commons. For 10 points each,

[10] Name this Conservative Party leader from Calgary, the current Prime Minister of Canada.

Answer: Stephen **Harper**

[10] Harper and his party members will convene in the House of Commons located at Parliament Hill in this Ontario city, the capital of Canada.

Answer: **Ottawa**, Ontario

[10] Under the leadership of the late Jack Layton, this party supplanted the Liberal Party as Official Opposition in the House of Commons in the 2011 election.

Answer: **New Democratic** Party (prompt **NDP**; do not accept or prompt Democratic Party)

8. It was first introduced in *Beyond the Pleasure Principle*. For 10 points each,
[10] Based on the pleasure principle, this part of the psyche is unorganized and contains basic psychological drives.

Answer: the **id**

[10] The id, ego, and superego were concepts developed by this Austrian psychologist, who founded the field of psychoanalysis.

Answer: Sigmund **Freud**

[10] One of Freud's works was titled after *The Interpretation of* these entities. That work included one of these called "Irma's Injection" and described these things as forms of "wish fulfillment."

Answer: **dreams** (or *The Interpretation of Dreams*)

9. This equation states that the relative frequency of genotypes in a population will stay constant despite the shuffling of genes. For 10 points each,

[10] Identify this equation that explains that alleles do not disappear when a population reproduces. The letters p and q represent allele frequencies in this equation.

Answer: **Hardy-Weinberg** Equation (or **H-W** Equation)

[10] The proportions of heterozygotes and homozygotes always sum to this value in the Hardy-Weinberg equation, which says that $p^2 + 2pq + q^2$ equals this number.

Answer: **1** (one)

[10] This term is used to describe random fluctuations in allele frequencies due to small population size. It causes the Hardy-Weinberg principle to fail and examples of it are the founder and bottleneck effects.

Answer: **Genetic Drift**

10. The protagonist visits Joachim Ziemsson, but is soon admitted to the Sanatorium Berghof. For 10 points each,

[10] Name this novel about Hans Castorp.

Answer: The **Magic Mountain**

[10] *The Magic Mountain* is set in a tuberculosis clinic in this nation with capital Bern and cities Zurich and Geneva. This modern country is also the setting of the William Tell story.

Answer: **Switzerland**

[10] *The Magic Mountain* is by this German author of *Buddenbrooks* and *Doctor Faustus*.

Answer: Thomas **Mann**

11. This musical form opens with an exposition where each voice states the theme in succession before developing the theme, usually in different keys. For 10 points each,

[10] Give this style of musical composition. One unfinished work exploring this style is *The Art of* (this style).

Answer: **fugue**

[10] *The Art of Fugue* was composed by this Baroque master of counterpoint, the composer of *The Well-Tempered Clavier*.

Answer: **Johann Sebastian Bach** (prompt on Bach)

[10] This eccentric Canadian pianist recorded a version of *The Art of Fugue*, as well as many other Bach works. He gave fewer than 200 concerts in his life, focusing instead on recording.

Answer: Glenn **Gould**

12. For 10 points each, name some authors of fables.

[10] This Greek storyteller's fables include "The Ant and the Grasshopper," "The Boy Who Cried Wolf," and "The Tortoise and the Hare."

Answer: Aesop

[10] This Danish author wrote fairy tales like "The Steadfast Tin Soldier," "The Emperor's New Clothes," and "The Ugly Duckling."

Answer: Hans Christian Andersen

[10] This author wrote *Fables for Our Time*, a collection that includes "The Unicorn in the Garden" and "The Owl Who Was God." He also wrote "The Secret Life of Walter Mitty" and "The Catbird Seat."

Answer: James Thurber

13. He was known as Il Duce [eel doo-CHAY]. For 10 points each:

[10] Name this fascist leader of Italy, who led that nation into World War II.

Answer: Benito Mussolini

[10] Mussolini's supporters were known as this, to reflect the color of their uniforms.

Answer: Blackshirts

[10] Mussolini's Italy invaded and seized this nation from King Zog. This predominantly Muslim nation in the Balkans was later ruled by the communist Enver Hoxha [ho-CHA].

Answer: Albania

14. He developed a new degree of freedom for particle physics. For 10 points each,

[10] Name this Austrian physicist known for a namesake exclusion principle.

Answer: Wolfgang Pauli

[10] Pauli's exclusion principle states that no two electrons can have the same four of these quantities at the same time.

Answer: quantum numbers (accept quantum states)

[10] In particular, two particles in the same orbital must have opposite values of this quantity that represents a sort of intrinsic angular momentum. This component of an electron's quantum state is measured in half-integer amounts.

Answer: spin

15. Name some cultural heroes for 10 points each.

[10] This figure in English folklore led his Merry Men through Sherwood Forest and robbed the rich to give to the poor.

Answer: Robin or Robert Hood (accept Robin or Robert of Locksley; accept Robin or Robert, Earl of Huntingdon; accept Robin Wood)

[10] This son of Zeus rescued Andromeda, his consort, from a sea monster. He also defeated Medusa.

Answer: Perseus

[10] This King of Uruk fought with Enkidu and later rejected the goddess Ishtar. He is described as two-thirds god and one-third man.

Answer: Gilgamesh

16. This case established judicial review. For 10 points each,
[10] Name this Supreme Court case that resulted when a man appointed by John Adams was not delivered his commission. The named defendant would later become the fourth U.S. President.

Answer: Marbury v. Madison (or Marbury v. Madison; accept in either order)

[10] This chief justice from 1801-1835 presided over *Marbury v. Madison*. Other cases during his tenure included *Gibbons v. Ogden* and *Fletcher v. Peck*.

Answer: John Marshall

[10] This other case during Marshall's tenure stopped a state from taxing the Second Bank of the United States. It precluded states from impeding constitutional federal actions.

Answer: McCulloch v. Maryland (accept in either order; prompt on Maryland)

17. Mr. Earnshaw brings this boy home from Liverpool. For 10 points each,

[10] Name this adoptive brother of Catherine and Hindley, who marries Isabella Linton to gain control of Thrushcross Grange.

Answer: Heathcliff

[10] Heathcliff is finally buried next to Catherine in this novel, whose action is related to Lockwood through the flashbacks of Nellie Dean.

Answer: Wuthering Heights

[10] *Wuthering Heights* is by this author, who published her works under the name Ellis Bell.

Answer: Emily Brontë (prompt on Brontë)

18. B-26 bombers were repainted to look like FAR planes to maintain the illusion that this event was operated only by rebel troops. For 10 points each,

[10] Name this failed 1961 invasion that attempted to overthrow the Communist dictator of Cuba.

Answer: Bay of Pigs invasion (accept Operation Zapata; accept word forms for invasion)

[10] This man was the target of the Bay of Pigs invasion; he gained power after overthrowing Fulgencio Batista in 1959.

Answer: Fidel Castro

[10] This revolutionary led forces that attacked a diversionary force during the Bay of Pigs invasion. He became the Cuban Minister of Industry before leading guerilla warriors in the Congo and Bolivia.

Answer: Che Guevara

19. He depicted a group of people dancing in his “Le Chahut” [luh shah-HOO]. For 10 points each:

[10] Name this French painter who also created a famous island scene along the river Seine depicting a leashed monkey, women with parasols, and several small dogs.

Answer: Georges Seurat

[10] Name that aforementioned and most famous work of Seurat, which also appears hanging on the wall in Seurat’s “The Models.”

Answer: A Sunday Afternoon on the Island of la Grande Jatte

[10] Seurat employed this technique of combining small dots of paint to form a picture when seen from a distance. Paul Signac also practiced this technique.

Answer: pointillism (accept word forms like pointillist)

20. For 10 points each, give the following about the work of Karl Friedrich Gauss:

[10] This statistical distribution is sometimes named for Gauss. According to the central limit theorem, the sum of many independent, identically distributed random variables converges to this distribution.

Answer: **normal** distribution (accept **bell curve**)

[10] Gauss' dissertation was written on the fundamental theorem of this branch of mathematics, whose basic variety involves solving equations with numbers and variables.

Answer: **algebra**

[10] The Gaussian integers are numbers with an integer real part and an integer imaginary part; ones with nonzero imaginary part are not themselves reals, but are in this set of numbers denoted **C**.

Answer: **complex** numbers