

COAST Packet 6

Written by: Rohan Ganeshan, Lukas Koutsoukos, Aadit Juneja, Darryl Wang, Jacob Hardin-Bernhardt, Owen Farra, Andrew Zeng, Elan Pan, Arjun Panickssery, Bo Chi, Moxie Strom, Yuti Das, Vihan Jayawardhane, Joshua Wang, and Simon Emmanuel

Contributions by: Aalok Bhattacharya, Charles Young, Danny Peelen, and Aditya Pavan

TOSSUPS

1. **The Galil rule enables skipping sections of these entities in one algorithm that also uses two shift rules. The Boyer–Moore and KMP algorithms search this data type. These entities tend to use double quotes as delimiters and a backslash as an escape character. Regular expressions specify (*) searches in this data type.**

While this data type is length-prefixed in Pascal, in C, this data type is often null-terminated. This data type is added together in concatenation. Find and replace algorithms act on, for 10 points, what sequences of characters?

ANSWER: **strings** [accept plain **text**; directed prompt on **characters** or **suffixes** for what data type they are found in] <D. Wang, Science - Other>

2. **One character in this work works at a controlled food market called Statemart while her husband works at a place named dyworks, and the protagonist of this work frequently recalls an article that states, “IT WAS THE DEVIL THAT WAS ABROAD.” A man named Dim fights the protagonist of this novel, the title of which is taken from a manuscript written by the writer (*) F. Alexander. P.R. Deltoid often visits the protagonist of this novel, who is subjected to the Ludovico Technique and subsequently suffers from listening to Beethoven. The Korova Milk bar is a frequent hangout of Alex and his droogs in, for 10 points, what novel by Anthony Burgess?**

ANSWER: **A Clockwork Orange** <Ganeshan, Literature - Short Fiction>

3. **An encampment in this state's neighborhood of Little Tokyo was fenced and relocated before its residents could secure access to the Homekey program. A senator from this state had her name stripped from an elementary school after having defended the display of a Confederate flag. A politician in this state who appointed Alex Padilla as senator defeated Kevin Paffrath and Larry Elder in a 2021 (*) recall election. This state has the highest homeless population in the US. This state's politicians include Dianne Feinstein, Gavin Newsom, and Nancy Pelosi. For 10 points, name this state whose most populous city is Los Angeles.**

ANSWER: State of **California** <Zeng, GCT - Current Events>

4. **Two answers required. Soldiers loyal to one of these two countries primarily fought against the other in the Heimosodat, or “Kinship wars.” One of these two countries gained independence from the other under the guidance of Pehr Svinhufvud, while the other country retook the Petsamo region after a 1944 Armistice. One of these nation’s foreign ministers names a weapon used in the (*) Continuation War. That country was unable to penetrate the other country’s Mannerheim Line during the Winter War, which began two years earlier. For 10 points, name these two countries which were connected by ferry from the cities of Leningrad and Helsinki.**

ANSWER: Republic of **Finland** and the **USSR** [accept in either order; accept **Suomi** for Finland and the **Union of Soviet Socialist Republics** for the **USSR**; prompt on **Russia**; prompt on partial answers]

<Koutsoukos, History - European>

5. **This composer’s second symphony begins with the violins playing an F sharp, G, A melody on the strings leading to a finale that begins with the notes D, E, F sharp. This man's third symphony repeatedly makes use of the C-F sharp tritone, while a horn theme in his fifth symphony has led it to be nicknamed for a bird. Donald Tovey famously critiqued a movement in this composer's only Violin Concerto in (*) D minor. One**

piece by this composer uses two English horns to depict the title bird, and he adapted many of his country’s folklore

in works such as *The Lemminkainen Suite* and “The Swan of Tuonela.” For 10 points, name this composer of *Finlandia*.

ANSWER: Jean **Sibelius** <Ganeshan, Fine Arts - Auditory>

6. **In this city, a cripple maker helps a quack dentist steal golden teeth from dead bodies. A novel set in this city sees one character anger his father by publishing an article about Darwin. Nur and Tarzan aid the protagonist of a novel set in this city where a woman breaks her collarbone while returning home from worship. This city, which contains (*) Midaq Alley, is the setting of a novel centering on Said Mahran titled *The Thief and the Dogs*. An author chronicled the life of the Gawad family in this city over a course of three books including *Palace Walk* and *Sugar Street*. For 10 points, name this setting of a trilogy of novels by Naguib Mahfouz, the capital of Egypt.**

ANSWER: **Cairo**, Egypt [Accept ***The Cairo Trilogy***] <Ganeshan, Literature - Long Fiction>

7. **This man’s death was documented by a Venetian man who served as supernumerary, Antonio Pigafetta. Notes from this man’s final voyage to translate the Cebuano language, which was likely spoken by Rajah Humabon, as well as this man’s killer, Datu Lapulapu of (*) Mactan island. The flagship in this man’s final voyage was a carrack funded by King Charles V, called the Trinidad, and, following this man’s death, Juan Sebastián Elcano completed his final voyage. For 10 points, name this Portuguese explorer whose death was declared a holiday in the Philippines, and whose final voyage led to the first circumnavigation of the world.**

ANSWER: Ferdinand **Magellan** <Hardin-Bernhardt, History - World>

8. **An equation defining one of these constructs subtracts two terms containing sigma over r. An equation of one of these constructs contains terms raised to the 6th and 12th powers to model a pair of interacting molecules and is named for Lennard-Jones. The derivative or gradient on one of these mathematical constructs gives the force on a particle, meaning particles will (*) move when placed on a sloping line in these diagrams. A ball on a two-dimensional hill is intuitively similar to this type of diagram. For 10 points, name these graphs of a quantity often contrasted with kinetic energy.**

ANSWER: field **potentials** [or scalar **potential**; accept description of **graphs** of **potential energy** with respect to position or scalar **fields** of **potential energy** across points in space] <D. Wang, Science - Physics>

9. **The creator of an artwork of this type supposedly did not want a barber’s sign obscuring it and subsequently placed it behind an “Ace of Cups” because of its resemblance to a tarot card. A poem that contains the line “A crooked trumpet bears” inspired another work of this type that depicts Glaucus and two dolphins in front of the central figure holding a conch shell. An Egyptian (*) Obelisk can be found at the center of another artwork of this type commissioned by Innocent X that depicts figures including the Rio de La Plata and the Nile, known as the Four Rivers. For 10 points, the “Trevi” is an example of what water spewing sculptures?**

ANSWER: **Fountains** [accept **Trevi Fountain**, **Fountain of the Four Rivers**, and the **Triton Fountain**. Accept **Fountains** by Bernini only after the first sentence] <Ganeshan, Fine Arts - Other>

10. **Following this battle, a skirmish resulted in Nathan Bedford Forrest being shot in the “Fallen Timbers” incident. The losing side at this battle attempted to drive the victors into the Owl Creek swamps by launching a surprise attack from their base at Corinth, though Don Carlos Buell reinforced the victors soon after. Benjamin Prentiss and W. H. L. Wallace defended a sunken road known as the (*) “Hornet’s Nest” in this battle and P. G. T. Beauregard took command of the Confederate Army of Mississippi following Albert Sidney Johnston’s death. For 10 points, name this Tennessee Civil War Battle where Ulysses S. Grant was victorious.**

ANSWER: Battle of **Shiloh** [accept Battle of **Pittsburg Landing**] <Hardin-Bernhardt, History - American>

11. **A character of this type is the main subject of a poem that mentions how the author scales “little ladders with glue pots and pails of lysol” while describing that figure as glued. Another poem titled for a character of**

this type depicts the “beautiful Nauset” and a “Taroc pack” while imagining certain locations such as the “Freakish Atlantic” and the “Snows of Tyrol.” The speaker claims “There’s a stake in your fat black (*) heart” and “I may be a bit of a Jew” in that poem addressed to a character of this type which opens “You do not do, you do not do.” For 10 points, Otto Plath was of what relative to poet Sylvia?

ANSWER: **Father** (Accept **Daddy** or other clear knowledge equivalents to **Dad** or **Father**) <Ganeshan, Literature - Poetry>

12. Description Acceptable: One place in present day Budapest designed for this purpose simply consists of shoes stacked upon the riverbank, while another one of these places in the same city is an abstract version of the Weeping Willow. Another location located in Berlin specifically designed for this purpose consists of over 2,000 concrete slabs of different heights, while one of these locations in Jerusalem contains a "Hall of Names" within its design by architect Moshe Safdie. Yad (*) Vashem and sites commemorating the Secret Annex serve, for 10 points, what purpose that memorializes a World War II mass genocide against Jews?

ANSWER: **Holocaust Memorials** [prompt on partial answer. Generously accept **Holocaust Museums**, and accept obvious synonyms for **Memorials**; prompt on **World War II Memorials** or anything vaguely referring to the **Holocaust**; accept memorials to **Concentration Camps** or **Holocaust Genocide Sites** but DO NOT accept or prompt on a specific concentration camp] <Ganeshan, GCT - Geography>

13. A site in this modern day country contains remnants of what was to be named “The largest single mass child sacrifice in history.” That civilization based in this country had waters from the Tschudi river supplying its capital of Chan Chan. A culture from this country based in Sipan was known for pottery depicting exaggerated sexual acts, and another civilization in this country was known for (*) geoglyphs depicting Condors and Herons. The Moche culture developed in this nation home to another culture led by Sapa such as Atahualpa before being conquered by conquistadors. For 10 points, name this nation where the Inca developed around Cuzco and Lima.

ANSWER: Republic of **Peru** [accept República del **Perú**] <Ganeshan, History - Ancient>

14. Tommy Flanagan wrote a track named after a player of this instrument which puts his first name after the word “Big.” Many high pitched solos characterize the piece “Bird Calls,” which was written by a player of this instrument. An album written by a player of this instrument contains a solo for it that begins its first track, “Better Git it in Your Soul,” and later contains a piece named for a Governor, “Fables for (*) Faubus.” A player of this instrument composed albums such as *Pithecanthropus Erectus* and one titled for his last name “Ah um,” named Charles Mingus. For 10 points, What jazz instrument is often played by plucking strings upright?

ANSWER: Double **Bass** <Ganeshan, Fine Arts - Other>

15. After being captured, one leader of this event named Shi Dakai sacrificed himself in exchange for the safety of his soldiers, and was executed by slowly cutting off parts of his body. Troops in this conflict were known as “hair rebels” for not wearing the traditional male hairstyle in the nation this event took place in. The Hakka ethnic group comprised most of the rebel forces in this conflict, who were opposed by Charles (*) Gordon’s Ever Victorious Army. The leader of this event, who aimed to set up a capital at Nanjing, claimed he was the younger brother of Jesus. For 10 points, name this failed rebellion against the Qing Dynasty led by Hong Xiuquan.

ANSWER: **Taiiping** Rebellion [accept obvious equivalents for “Rebellion”; accept **Tai Ping Tian Guo**; accept **Kingdom of Heavenly Peace Rebellion**; accept **Rebellion of Great Peace**] <Juneja, History - World>

16. These two molecules are infrequently seen adjacently since one of them spontaneously deaminates, so they are generally seen in conserved "islands." These two molecules increase T-sub-m, or melting temperature, because of greater hybridization affinity. These two molecules are the first and third in a series of triplets found in the polyglutamine tract of the gene mutated in (*) Huntington's disease. These two molecules form

three hydrogen bonds with each other, and they are a purine and pyrimidine. For 10 points, name these two nucleotides that are not adenine or thymine.

ANSWER: cytosine and guanine [or C and G; accept deoxycytidine and deoxyguanosine, prompt on CpG, reject DNA] <D. Wang, Science - Biology>

17. **The Hellenic Club is the setting of a squash game in a work by this author and the Youth Guard is brought into forced labor by a man in the same novel by this author. One character in his novels is influenced to study in America following the brutal murder of a mask-collecting priest and this author had a 1996 conflict with (*) Paul Theroux. Salim tries to escape "Big Man" in one of this author's novels and in this author's most famous novel, the protagonist eats too many overripe bananas and marries into the Tulsi family to gain property. For 10 points, name this Trinidadian author of A Bend in the River and A House for Mr. Biswas.**

ANSWER: **V.S Naipaul** <Emmanuel, Literature - Long Fiction>

18. **A man in a work depicting people of this type presents himself in the *umbra mortis* style while another figure in that work was pointed out on having an R-shaped navel. A work depicting a person of this type shows him holding a foxglove plant as he rests on a table. In another work depicting people of this type, a man with a goatee looks at the artist leaning on a railway in the background. (*) Paul Gachet, a member of this profession, was the subject of two Van Gogh portraits, and Aris Kindt stands out in a painting titled for one of these people named Nicholas Tulp. For 10 points, many paintings depict people of what profession practicing medicine?**

ANSWER: **doctor** (or **physician** or **medical student**; Accept obvious equivalents) <Ganeshan, Fine Arts - Visual>

19. **Some of this event's leaders were assassinated in Operation Nemesis after its completion. The Russian victory in the Battle of Sarikamish preceded this action, which was followed a few months later by the passage of the Tehcir Law. Henry Morgenthau, Sr. was unable to coax the United States into intervening in this event, which began on (*) Red Sunday and was opposed in the city of Van. This event was primarily organized by Enver Pasha and saw the forced march of hundreds of thousands through the Syrian desert. For 10 points, name this genocide in which the Turkish government deliberately killed up to 1,500,000 of a certain ethnic group.**

ANSWER: **Armenian Genocide** [accept **Armenian** Genocide after "genocide" is read; accept **Armenian** Holocaust; accept **September Days** until "Russian" is mentioned] <Koutsoukos, History - European>

20. **Jeremy Bentham called these things "nonsense on stilts" while Rousseau stated that the origin of these things is the agreement made when exiting the "state of nature." Libertarians focus on the distinction between non-interference and entitlement, or the "positive" and (*) "negative" types of these things. A "Universal Declaration of 'these things'" was adopted by the U.N. General Assembly in 1948 and the Natural Law is cited as a source of the "inalienable" type of these things. For 10 points, name these things which according to John Locke include life, liberty, and property.**

ANSWER: **right** [accept **human rights** or **natural rights** or **inalienable rights** or **positive rights** or **negative rights**] <Panickssery, RMPSS/Misc. - Philosophy/Social Science>