



2024-25 Post-Secondary Championship (T3) – Pack 1

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PACK 1

5-Part Blitz

1. The structures of what objects are predicted with remarkable accuracy by DeepMind's AlphaFold AI?
A: **proteins**
2. What Canadian holds the all-time record for career goals in international women's soccer?
A: Christine **Sinclair**
3. What two countries share Hispaniola?
A: the **Dominican** Republic (reject: Dominica) AND **Haiti**
4. In what sort of experimental setup is a liquid continually boiled and condensed, often back into the original container?
A: **reflux**
5. The notes E, D-sharp, E, D-sharp, E begin what short piano piece by Ludwig van Beethoven, named for a still-unknown dedicatee?
A: "**Fur Elise**"

Double Jump

6. The only 3D Mario platformer for the GameCube, what game takes place on the tropical Isle Delfino?
A: *Super Mario* **Sunshine**
7. What water-nozzled backpack is used by Mario to platform in *Super Mario Sunshine*?
A: **F.L.U.D.D.** ["flood"] (accept: **Flash Liquidizer Ultra Dousing Device**)

Double Jump

8. When being used to compare living standards, per capita GDP is usually given what adjustment to account for different costs of living?
A: **PPP** (accept: **purchasing power parity**)
9. One of the main sources of purchasing power parity measurements is what database, which is also a major source of historical estimates of GDP and other economic statistics?
A: **Maddison** Project Database (accept: **Maddison** Historical Statistics Project)

Set of 4: Ducks

10. Force-feeding ducks or geese is the source of what controversial delicacy?
A: **foie gras**
11. At the end of a Hans Christian Andersen fairy tale, what sort of animal does the Ugly Duckling realize he actually is?
A: **swan**
12. What monotreme is sometimes named for its duck-like snout?
A: duck-billed **platypus**
13. What Charles Dickens character gives his name to Donald Duck's rich uncle?
A: **Ebenezer Scrooge** (accept either bolded part)

Jackpot

14. Part 1: The B73 phenotype was used to map what's organism's entire genome for the first time in 2017?
15. Part 2: The activator/dissociator system was first discovered in this organism.
16. Part 3: This food notably lacks vitamin B3, or niacin, leading to an increased incidence of pellagra in cultures that primarily use this food as a staple.
17. Part 4: In the United States, this plant is the most common source of the controversial ethanol biofuel. Along with beans and squash, this plant is one of the "Three Sisters" of traditional indigenous North American agriculture.
A: **corn** (accept: **maize**)

Set of 3: *The Handmaid's Tale*

18. What is the name of the totalitarian state established by the Sons of Jacob after overthrowing the American government?
A: Republic of **Gilead**
19. Women who are responsible for overseeing Handmaids, and traditionally wear brown clothing, are known by what familial term?
A: **aunts**
20. Despite a ban on reading and writing for women, what board game do the Commander and Offred play?
A: **Scrabble**

5-Part Blitz

21. Around the end of the 16th century, what country's Three Great Unifiers ended the Warring States Period and re-established central government?
A: **Japan**
22. Asia's three longest rivers have names beginning with what letter?
A: **Y**
23. English kings sharing what regnal name began their reigns in 1830, 1689, 1087, and 1066?
A: **William**
24. What single digit is used in figured bass to notate a triad in first inversion?
A: **6**
25. What is the plural form of the Persian word for quatrain, giving its name to the best-known collection of Omar Khayyam's poetry?
A: **rubaiyyat**

END OF FIRST QUARTER

SECOND QUARTER

Splits: The French Resistance & Spelling

The French Resistance

26. On June 18, 1940, who made a now-iconic speech urging the public to continue their fight against the Germans following the fall of France?
A: Charles **de Gaulle**
27. What symbol was in the centre of the flag of Free France?
A: **Cross of Lorraine** (prompt on: red cross)

28. While Vichy was the capital of the French puppet state, what foreign city initially served as the de facto capital of Free France?
A: **London**
29. Referring to the kind of environment in which they hid, what term was used for rural guerilla groups of French Resistance fighters?
A: **maquis** (accept: **maquisard**)

Spelling

30. It means a fake attack meant to distract the adversary: spell feint.
A: **F-E-I-N-T**
31. It's a word or phrase borrowed from another language by translating its components literally: spell calque ["kalk"].
A: **C-A-L-Q-U-E**
32. The name of a virus and fever that can cause an itchy rash and sometimes blood loss: spell dengue ["DENG-ay"].
A: **D-E-N-G-U-E**
33. It's a verb meaning to take the place of something: spell supersede.
A: **S-U-P-E-R-S-E-D-E**

Double Jump

34. The asthenosphere is part of which larger layer of the Earth, bounded by the outer core and crust?
A: **mantle**
35. What German-American scientist names the discontinuity at the lower boundary of the mantle that S-waves are unable to pass through?
A: Beno **Gutenberg**

Double Jump

36. What phrase reversed medieval European philosophy's approach of starting with God's existence, to instead begin with the certainty of personal experience and identity, when it was published in the *Meditations* of René Descartes?
A: **cogito, ergo sum** (accept: **I think, therefore I am, je pense, donc je suis**) (prompt on: the cogito)
37. The cogito was a rejection of the dogma-based approach of what philosophical tradition that was dominant in medieval Europe?
A: **scholasticism**

Set of 3: Pop Art

38. What action did Dmitri Vrubel depict Erich Honecker and Leonid Brezhnev engaging in on a painting on the side of the decommissioned Berlin Wall?
A: **kissing** each other (accept word forms)
39. What painter and photographer, who predated and influenced pop art, once painted two f-holes on a photograph of a woman's back to make her look like a violin?
A: **Man Ray** (accept: Emmanuel **Radnitzky**)
40. Who made the silkscreen painting *Marilyn Diptych* as well as a work on 32 canvases depicting Campbell's soup cans?
A: Andy **Warhol**

Set of 3: Triangles

41. If two sides of a triangle are 5 units and 7 units long, the triangle inequality states that the third side has an upper bound of what length?
A: **12** units
42. If you had one of each platonic solid, how many total triangular faces would you have?
A: **32**
43. A triangle is the two-dimensional instantiation of what more general concept, the simplest possible polytype in a given dimension?
A: **simplex** (accept: **simplicies**)

Linked Set of 7

44. What objects popular in the late 20th century primarily came in forms called Betamax and VHS?
A: **videotapes** (accept: **cassette** tapes) (prompt on: **tapes**)
45. What horror movie franchise from Japan centres on a cursed videotape that kills anyone who watches it seven days later?
A: **The Ring**
46. What company owns the home security and surveillance brand Ring?
A: **Amazon**
47. In order to fire arrows more easily, what body part did Amazons cut off?
A: right **breasts**
48. What colour of ribbon is used in awareness and fundraising campaigns for breast cancer?
A: **pink**
49. On which day of the week do the Plastics wear pink in *Mean Girls*?
A: **Wednesdays**
50. Who stars as the title character on the Netflix show *Wednesday*?
A: Jenna **Ortega**

END OF FIRST HALF

THIRD QUARTER

Splits: English Cities & The Atom

English Cities

51. The Midlands are centred on what city, England's second-largest?
A: **Birmingham**
52. What industry dominates the square mile of downtown London known as the "City of London"?
A: **financial** industry (accept: investment **banking** industry, **finance** industry)
53. What is the largest city on England's coasts, located where the Mersey River enters the Irish Sea?
A: **Liverpool**
54. Geordies ["JOAR-deez"] come from what northeastern city on the Tyne River?
A: **Newcastle** upon Tyne

The Atom

55. What alliterative nickname is given to J.J. Thomson's model of the atom, in which electrons were small negative particles embedded on a positive surface?
A: **plum pudding** model
56. Who was the first scientist to publish observations of the fact that atomic masses are all integer multiples of the atomic mass of hydrogen?
A: William **Prout**
57. What undergraduate student of Hans Geiger helped perform the gold foil experiments in Ernest Rutherford's lab?
A: Ernst **Marsden**
58. The atomic mass decreases by 4 and the atomic number by 2 in what sort of radioactive decay?
A: **alpha** decay

Set of 3: Opening Numbers

59. In what song are the social roles of family members and other professionals, such as matchmakers and rabbis, described by Tevye at the start of *Fiddler on the Roof*?
A: **"Tradition"**
60. What musical opens with a chorus of imprisoned labourers proclaiming "look down, look down" as Prisoner 24601 is released on parole by Javert ["zha-VAIR"]?
A: Les **Miserables**
61. What musical's opening track "Hello!" sees characters mime pressing doorbells as they practice missionary work?
A: The **Book of Mormon**

Jailbreak

62. What scientist names a way to stain neurons with silver, as well as a cellular transport organelle?
A: Camillo **Golgi**
63. The sci-fi movie *Mickey 17* is the latest by what director, better known for thrillers like *Snowpiercer* and *Parasite*?
A: **Bong Joon-Ho**
64. Which book of the Bible consists of five chapters that discuss the destruction of Jerusalem and the First Temple at the hands of Babylon?
A: Book of **Lamentations**
65. *Licensed to Ill* and *Paul's Boutique* were the first two albums by what '80s rap group?
A: **Beastie Boys**
66. In computer science, a function that accepts a function as an argument or returns a function is commonly known by what term?
A: **higher-order** function (accept: **HOF**)
67. Tricks known as Sidewinder, Around the World, and Walk the Dog can all be performed using what toy?
A: **yo-yo**
68. Who dressed militia in regular uniforms and had Native allies march across the same ground repeatedly in order to exaggerate the strength of his forces and trick Fort Detroit into surrendering in 1812?
A: Isaac **Brock**
69. The city of Johor Bahru is connected by causeway to what island country off the coast of the Malay Peninsula?
A: **Singapore**

70. What novel follows a young couple who have a secret relationship, are separated, exchange letters for years, and then break up, with one of them living a promiscuous life while the other marries Dr. Juvenal Urbino?
A: **Love in the Time of Cholera**
71. Provincetown is found on what peninsula situated north of Martha's Vineyard and Nantucket?
A: **Cape Cod** Peninsula
72. What is the chemical formula of the compound once known as prussic acid, but now referred to as hydrogen cyanide?
A: **HCN**
73. The events of June 16, 1904 in the lives of several Dubliners are recounted in what modernist classic by James Joyce?
A: **Ulysses**
74. Who was the last tsar of Russia?
A: **Nicholas II** (prompt on: Nicholas)
75. Which province will host the upcoming G7 summit in Kananaskis Country?
A: **Alberta**

END OF THIRD QUARTER

FOURTH QUARTER

Jackpot

76. Part 1: People with what job on Geneva Lake in Wisconsin uniquely operate by jumping off and then back onto moving boats to do their work?
77. Part 2: In a television episode, a character leads a campaign against people with this job but is then intimidated by their boss, Henry Atkins, who is angry he had to interrupt his golf game with the Secretary of State.
78. Part 3: An idiom meaning to suddenly act violently or angrily, especially in the workplace, derives from a series of shootings by people with this occupation in the US in the late 20th century.
79. Part 4: Represented by the CUPW ["cup double u"], people with this occupation in Canada went on strike for 32 days at the end of 2024, delaying the delivery of millions of parcels and letters.
A: **postal worker** (accept: **postman**, **mailman**, **mail carrier**) (prompt on: courier, delivery worker/man/person)

Set of 4

80. Often viewed as a golden age of Indian culture, what empire ruled the northern and central subcontinent from the third century to the sixth?
A: **Gupta** Empire
81. What system of notation was developed by mathematicians in Gupta India, then spreading to the Arab world, and from there to the West?
A: Hindu/Indian/Arabic/Indo-Arabic **numerals/digits** (accept: **Hindu/Indian/Arabic/Indo-Arabic numbers**) (reject: numbers)
82. *The Recognition of Shakuntala* is the most famous play by what great writer of the Gupta period?
A: **Kalidasa**
83. The Guptas first expanded to control the entire Ganges delta under the rule of what emperor, the dynasty's second?
A: **Samudragupta**

5-Part Mystery

84. Rihanna declares “When the sun shines, we’ll shine together” on what hit from early in her career?
A: **“Umbrella”**
85. Wieliczka [“Vyel-EECH-kuh”], in southern Poland, contains a UNESCO World Heritage Site that preserves a medieval mine for what substance?
A: **salt** (accept: **halite**)
86. Who tells the queen every day who is “the fairest one of all” in *Snow White and the Seven Dwarfs*?
A: mirror, **mirror** on the wall (accept: magic **mirror** on the wall)
87. What objects are juxtaposed with chutes or snakes in different versions of a classic children’s board game?
A: **ladders**
88. What jersey number did Wilt Chamberlain, Alex Rodriguez, and Mats Sundin wear throughout their careers?
A: **13**

12-Part Blitz

89. With a famously deep lineup lacking in stars, what team won an upset victory over the Lakers in the 2004 NBA Finals?
A: **Detroit Pistons** (accept either bolded part)
90. Generally in order to preserve secularism and a pro-Western foreign policy, what country’s military carried out four coups in the 20th century, and a mysterious failed coup in 2016?
A: **Turkey**
91. What week-long event takes place in Antwerp every July, one of the largest electronic music festivals in the world?
A: **Tomorrowland**
92. People of what occupation are covered by a California state law commonly known as the Coogan Act, which is designed to protect their earnings until they reach legal adulthood?
A: child **actors**
93. What is the main river of Pakistan?
A: **Indus** River
94. Before it was given its current name in 1948, what was the most common name of the Celsius temperature scale?
A: **centigrade** temperature scale
95. What British series has been the most-streamed show on Netflix since its release two weeks ago?
A: **Adolescence**
96. What kind of volleyball serve aims to minimize spin?
A: **floater** (accept: **floating** serve)
97. Who survived a challenge from Justin Rose to complete the career grand slam on his 11th try by finally winning his first Masters this April?
A: Rory **McIlroy** (prompt on: **Rory**)
98. What term refers to playing two strings at once on a bowed string instrument?
A: playing a **double stop** (accept: **double stopping**)
99. “Cantaloupe Island” and “Watermelon Man” are jazz standards written by what keyboard player and composer?
A: Herbie **Hancock**
100. How do you say goodbye in Japanese?
A: **sayonara**

END OF GAME