THE LONG ISLAND QUIZ BOWL ALLIANCE

Lightning Rounds Sample

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It is our sincerest hope that you will enjoy what we have written.

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CATEGORY: Velocity
Answer the following about velocity:
1. The SI Units for velocity.
ANSWER: **meters per second** [accept **m/s** or equivalents like **meters per second**]
2. Quantity that is multiplied by angular velocity to solve for linear velocity.
ANSWER: **radius**
3. The quantity found when multiplying velocity and mass, symbolized p.
ANSWER: linear **momentum**
4. The type of force that occurs when objects follow a curved path and is defined by mass times velocity squared over radius.
ANSWER: **centripetal** force [do not accept centrifugal force]
5. The operation applied to acceleration in order to yield velocity.
ANSWER: **integration** [accept equivalents like **taking the integral**]
6. The ratio of the velocity of light in empty space divided by its velocity in a substance.
ANSWER: **index of refraction** [or **refractive index**]
7. The principle that relates changes in fluid velocity to changes in pressure or height.
ANSWER: **Bernoulli's** principle [or **Bernoulli's** equation]
8. The effect that causes clocks to tick more slowly when they experience relativistic velocities.
ANSWER: **time dilation**
9. The equation that relates the maximum velocity change to the effective exhaust velocity times a ratio of masses.
ANSWER: **rocket** equation [or **Tsiolkovsky** rocket equation or ideal **rocket** equation or classical **rocket** equation]
10. The effect that produces a potential difference which can be used to measure the drift velocity of charge carriers.
ANSWER: **Hall effect**

CATEGORY: Geometric shapes.
Identify the following geometric shapes:
1. A regular four-sided polygon.
ANSWER: **square**
2. A regular ten-sided polygon.
ANSWER: **decagon**
3. A portion of a line with one endpoint.
ANSWER: **ray**
4. The graph of the function "y equals x squared".
ANSWER: **parabola**
5. The regular polyhedron with the most *vertices*.
ANSWER: **dodecahedron**
6. The math term for the shape of a donut or inner tube.
ANSWER: **torus**
7. The regular polyhedron that's dual to itself.
ANSWER: **tetrahedron**
8. The shape formed by a hanging chain or the Gateway Arch.
ANSWER: **catenary**
9. The shape formed by graphing "y squared minus x squared equals 1".
ANSWER: **hyperbola**
10. The four-dimensional analogue of a cube.
ANSWER: **hypercube** [or **tesseract**]

CATEGORY: Metaphysics
Regarding the philosophical field of metaphysics, name the:
1. Student of Plato who outlined the First Philosophy in his book *Metaphysics*.
ANSWER: **Aristotle**
2. Fundamental units of matter first theorized by Democritus.
ANSWER: **atom**s
3. Two Daoist concepts which are said to explain the nature of existence.
ANSWER: **yin** and **yang**
4. Metaphysician whose namesake "razor" can be expressed as "the simplest explanation is usually the best."
ANSWER: William of **Ockham**
5. Concept paired with "Time" by Martin Heidegger which metaphysics investigates.
ANSWER: **being**
6. French existentialist author of the metaphysical treatise *Being and Nothingness*.
ANSWER: Jean-Paul **Sartre**
7. Philosopher who collaborated with Alfred North Whitehead on *Principia Mathematica*.
ANSWER: Bertrand **Russell**
8. European capital city whose namesake "Circle" argued for the elimination of metaphysics.
ANSWER: **Vienna**
9. Metaphysician whose *Proslogion* formulated the ontological argument of God's existence.
ANSWER: St. **Anselm** of Canterbury
10. Islamic thinker whose "floating man" thought experiment tried to prove the soul's existence.
ANSWER: **Avicenna**

CATEGORY: American Highways
1. Former general who signed the Interstate Highway Act of 1956 as president
ANSWER: Dwight D. **Eisenhower**
2. Country whose autobahn was the inspiration to build an Interstate Highway System.
ANSWER: **Germany**
3. Term for a lane that only allows cars with multiple passengers to utilize:
ANSWER: **HOV** lane or **High Occupancy Vehicle** Lane
4. Southern state home to the widest highway strip in the world, the Katy Freeway
ANSWER: **Texas** [accept **TX**]
5. This type of number represents Interstate Highways that run north to south or vice versa
ANSWER: **odd**
6. Term for highways that circle around a city. Part of its name is shared with an article of clothing.
ANSWER: **Beltway**
7. 20th-century New York urban planner responsible for developing NYC's highways and infrastructure.
ANSWER: Robert **Moses**
8. Interstate entirely in Arizona that has distance markers in kilometers instead of miles
ANSWER: **I-19** or Interstate **19**
9. 148 mile long toll road starting in Delaware and ending in New York which runs alongside part of I-95
ANSWER: **NJ Turnpike**
10. State that is home to the highest elevation tunnel on the Interstate Highway System
ANSWER: **Colorado** [accept **CO**]

Category: Wonders of the World, Ancient and Modern
Name the:
1. Collection of Egyptian tombs built in this 3D shape
ANSWER: **Pyramids**
2. Country which contains the Great Wall
ANSWER: **China**
3. Mughal-era mausoleum in Agra, India
ANSWER: **Taj Mahal**
4. City which contains the Flavian Amphitheatre
ANSWER: **Rome**
5. The Port of Alexandria had this type of building
ANSWER: **Lighthouse**
6. Greek city in Anatolia which contained a mausoleum
ANSWER: **Halicarnassus**
7. Greek island which contained a statue of Apollo
ANSWER: **Rhodes**
8. A statue of this Greek god was found in Olympia
ANSWER: **Zeus**
9. Archaeological site in Jordan built by the Nabataeans
ANSWER: **Petra**
10. Main pyramid of Chichen Itza
ANSWER: **El Castillo** [accept **Temple of Kukulcan**]

CATEGORY: Winged Victory of Samothrace
Answer the following about the *Winged Victory*. Name the:
1. Country in which it was made, whose other sculptures depict gods such as Zeus and Hermes.
ANSWER: **Greece**
2. Paris museum with a famous glass pyramid that the *Winged Victory* is located in.
ANSWER: The **Louvre** [or **Louvre** Museum or Musée du **Louvre**.]
3. Goddess of victory whom the sculpture depicts.
ANSWER: **Nike**
4. Artist who parodied it by adding a security camera to its head and also created *Girl with Balloon*.
ANSWER: **Banksy**
5. Historical period it belonged to, during which Alexander the Great's conquests began.
ANSWER: **Hellenistic** era
6. Prairie style Architect whose Martin House features a replica of it.
ANSWER: Frank Lloyd **Wright**
7. Island on which it was originally found.
ANSWER: **Samothrace**
8. Italian artist whose *Unique Forms of Continuity in Space* was inspired by it.
ANSWER: Umberto **Boccioni**
9. Type of structure named for Count Daru that it is placed on top of.
ANSWER: **staircase**
10: Movement featuring artists like Filippo Marinetti, whose manifesto declared that "a racing automobile" was more beautiful than it.
ANSWER: Italian **Futurism**

CATEGORY: Musical Theatre
Answer the following about musicals. Name the:
1. Musical about an American Founding Father who declares "I am not throwin' away my shot."
ANSWER: ***Hamilton***
2. Musical set in 19th century France, where an ex-convict adopts Cosette after changing his identity.
ANSWER: ***Les Misérables***
3. Andrew Lloyd Webber musical in which an opera singer performs "Think of Me" and "All I Ask of You."
ANSWER: ***The Phantom of the Opera***
4. Musical in which Catherine of Aragon sings about her loyalty to a monarch in the song "No Way."
ANSWER: ***SIX***
5. Rock musical set in Manhattan's East Village during the AIDS crisis.
ANSWER: ***Rent***
6. Green-skinned protagonist of Wicked who sings "Defying Gravity."
ANSWER: **Elphaba**
7. Titular character of a musical elopes with Dmitri and sings "Journey to the Past."
ANSWER: **Anastasia**
8. Teenage love interest of Veronica Sawyer in Heathers: The Musical.
ANSWER: **J.D.** [accept **Jason Dean**]
9. Musical in which an extraterrestrial carnivorous plant demands to be fed human blood.
ANSWER: ***Little Shop of Horrors***
10. Musical that follows the life of Sally Bowles, who sings at the Kit Kat Klub.
ANSWER: ***Cabaret***

CATEGORY: The Lord of the Rings

Regarding the Lord of the Rings book series by Tolkien, name the:

1. Hobbit that serves as Frodo's loyal gardener and accompanies him on his journey.

ANSWER: **Sam**wise Gamgee

2. Power-hungry wizard who betrays Gandalf and assembles an army at Isengard.

ANSWER: **Saruman**

3. Creature from the Misty Mountains that serves as a guide for Frodo and Sam.

ANSWER: **Gollum** [accept **Sméagol**]

4. Volcano where the One Ring is ultimately destroyed.

ANSWER: **Mount Doom** [accept **Orodruin**]

5. Master of Rivendell and twin brother of Elros.

ANSWER: **Elrond** Half-elven

6. Ancient race of tree-like beings who dwell in Fangorn Forest.

ANSWER: **Ents**

7. Last steward of Gondor before Aragorn's return during the War of the Ring.

ANSWER: **Denethor** II

8. Advisor who poisoned the mind of King Théoden.

ANSWER: **Grima** **Wormtongue** [accept either]

9. River that flows through Gondor and serves as a strategic defense line.

ANSWER: The **Anduin**

10. Name of the sword gifted to Frodo from Bilbo

ANSWER: **Sting**