

ABT OPEN 1995 Round 2

Questions written and edited by TRIAD QUESTIONS

1.

TOSS-UP SCIENCE

The first form discovered was the white allotrope which glowed in the dark and was very explosive. Anton von Schroetter then discovered that by heating this element in a nitrogen or carbon dioxide atmosphere, it would change into a more stable red form. For ten points name this element used in safety matches that has atomic symbol P.

ANSWER----(Phosphorus)

1.

BONUS SCIENCE

Identify the number of oxygen atoms in one molecule of the following compound.

1. Molecular oxygen. 2. Ozone. 3. Nitric acid. 4. Formaldehyde. 5. Dichromic acid.

ANSWER----1.(Two) 2.(Three) 3.(Three) 4.(One) 5.(Seven)

2.

TOSS-UP LITERATURE

This author attended Columbia on a football scholarship until a leg injury cost him his scholarship and forced him to drop out of school. He turned to writing and wrote his first novel The Town and the City. It was well received but it was his next work that would make him famous. For ten points name this author of The Subterraneans and On the Road.

ANSWER----(Jack Kerouac)

2.

BONUS LITERATURE

Given a poem, name the author.

1. The Prisoner of Chillon. 2. To A Mouse.
3. To the Virgins, To Make Much of Time. 4. Ariel.

ANSWERS----1.(Lord Byron) 2.(Robert Burns) 3.(Robert Herrick) 4.(Sylvia Plath)

3.

TOSS-UP FINE ARTS

Originally a sexual term applied to the Congo dances, this musical form developed from ragtime and blues during the 1920's among the black musicians of New Orleans. First performed impromptu, it influenced such composers as Ravel and Stravinsky. For ten points name this musical form popularized by Charlie Parker, Fats Waller and Bennie Goodman.

ANSWER----(Jazz)

3.

BONUS FINE ARTS

Identify the following about the symphonic fairy tale Peter and the Wolf.

1. Name the composer of this piece.
2. Name the relative of Peter who appears in the story as his guardian.
3. Name the instrument used to symbolize the wolf.
4. Name the instrument used to symbolize the duck.

ANSWER----1.(Sergei Prokofiev) 2.(Grandfather) 3.(French Horns) 4.(Oboe)

4.

TOSS-UP SOCIAL STUDIES

Established on Cape Diamond at the confluence of the St. Charles and St. Lawrence Rivers in 1608 by Samuel de Champlain as a trading post, it served as the capital of New France and Lower Canada. For ten points name this city which is the capital of the Quebec province.

ANSWER---(Quebec city)

4.

BONUS SOCIAL STUDIES

Identify the following regions of land where civilization developed.

1. This belt of farmland loops from Mesopotamia up through Syria and down into the Nile valley in Egypt.
2. Located in Pakistan and north India, this valley is named after the major river that flows through it, providing life for all its inhabitants.
3. Located in northern China around the Huang-Ho River, this plateau is named after the type of loamy soil deposits that are found up to 100 meters thick there.

ANSWER---1.(Fertile Crescent) 2.(Indus valley) 3.(Loess Plateau)

5.

TOSS-UP MATH

The speed of a gear varies inversely as the number of teeth on the gear. If gear A has 12 teeth and makes 400 revolutions per minute, then how many revolutions per minute are made by a gear attached to gear A if it has 32 teeth?

ANSWER---(150 RPM)

5.

BONUS MATH

Answer the following questions about logarithms.

1. Who invented them?
2. What base is used for the Briggs logarithm?
3. What logarithm uses the base e?

ANSWERS---1.(John Napier) 2.(10) 3.(Natural Logarithm)

6.

TOSS-UP MISCELLANEOUS

When the Brooklyn Dodgers signed him away from the Kansas City Monarchs he was not allowed to talk to the press and had to let his playing skills to the talking. In 1949 he won the batting crown, led the league in stolen bases and was named MVP, not bad for someone from the Negro league. For ten points name this second baseman who became the first black to play in the majors.

ANSWER---(Jackie Robinson)

6.

BONUS MISCELLANEOUS

The Internet has become very prominent in our lives. Identify the following acronyms that are commonly encountered.

1. B-B-S.
2. I-R-C.
3. I-M-H-O.
4. E-mail.

ANSWER---1.(Bulletin-Board System) 2.(Internet Relay Chat) 3.(In My Humble Opinion)
4.(Electronic-mail)

7.

TOSS-UP SCIENCE

Their internal organs are long and slender. They have a well developed right lung, but their left lung is small or sometimes missing entirely. For ten points name these organisms which move by lateral undulation, caterpillar movement or sidewinding.

ANSWER---(Snakes)

7.

BONUS SCIENCE

Identify the following parts of fish.

1. The hard plate which covers and protects a fish's gills.
2. The line of sensory cells along each side of the fish.
3. The tail fin of a fish which helps to propel it.
4. The special skin cells which contain pigment granules and cause the coloration of the fish.

ANSWERS---1.(Operculum) 2.(Lateral Line) 3.(Caudal Fin) 4.(Chromatophores)

8.

TOSS-UP SOCIAL STUDIES

This vice-president felt that vice-president and President were too plebeian of titles for the US' chief executive officers, and suggested His Highness and His Mighty Benign Highness. He dropped the issue though, when a South Carolina Senator proposed he personally adopt the title His Rotundity. For ten points name this man whose last spoken words were "Thomas Jefferson survives".

ANSWER---(John Adams)

8.

BONUS SOCIAL STUDIES

Identify the five men who were appointed to the committee to draft the Declaration of Independence.

ANSWERS---1.(Thomas Jefferson) 2.(Ben Franklin) 3.(John Adams)
4.(Roger Sherman) 5.(Robert Livingston)

9.

TOSS-UP MISCELLANEOUS

She founded the Hamsted Child Therapy Course and Clinic in 1947. During her career she studied the function the ego had in personality development and how the mind used defense mechanisms such as repression. For ten points name this psychologist whose father is more well known in the field of psychology for his development of psychoanalysis.

ANSWER---(Anna Freud)

9.

BONUS MISCELLANEOUS

Name the first three inductees into the Rock and Roll Hall of Fame.

ANSWERS---(Elvis Presley, Sam Cooke and Chuck Berry)

10.

TOSS-UP LITERATURE

In this book, Professor Pierre Aronnax and Ned Land are aboard the ship Abraham Lincoln tracking a huge sea monster when they discover that the sea monster is a ship built by a wealthy man who wanted to escape the world around him. For ten points name this book featuring Captain Nemo, written by Jules Verne.

ANSWER--(Twenty Thousand Leagues Under the Sea)

10.

BONUS LITERATURE

Name the four lands visited by Gulliver in Gulliver's Travels

ANSWERS---(Lilliput, Brobdingnag, Laputa and Houyhnhnmland [Win-hm])

Half-Time

11.

TOSS-UP MATH

The chip itself contains 5.5 million transistors, and features its own built in level 2 cache(cash) which runs at the full clock speed of the chip, initially 133 megahertz. It features a 14 stage super pipelining architecture compared with the Pentium's 5 stages. It is supposed to run 32 bit applications 50% faster on Windows NT and 30% faster on Windows 95 than the Pentium. For ten points name this upcoming Intel processor.

ANSWER---(P6 or Pentium Pro Processor)

11.

BONUS MATH

Given the function $x^2 - 7x + 6$ find the following.

1. The coordinates of the x intercepts.
2. The coordinates of the y intercepts.
3. The equation of the axis of symmetry.
4. The coordinates of the minimum.
5. The range of the function.

ANSWER---1. ((1,0) & (6,0)) 2. (0,6) 3. (x=7/2) 4. (7/2, negative 25/4)
5. (Negative 25/4 to infinity)

12.

TOSS-UP SOCIAL STUDIES

Lake Clark, Kobuk Valley, Katmai, Kenai Fjords, Wrangell-St.Elias, Denali, Glacier Bay and Gates of the Arctic. For ten points these are all of the national parks that can be found in what state.

ANSWER---(Alaska)

12.

BONUS SOCIAL STUDIES

Moderator: Hand out map ABT1 to both teams.

Identify the island on which letters A through E are placed.

ANSWER---(A-Taiwan or Formosa, B-Borneo, C-Sumatra, D-Celebes + E-Mindanao)

13.

TOSS-UP SCIENCE

First noticed in the 1890's by a geologist named Gregory, it includes the only active volcanoes in Africa, the Dead Sea, the Gulf of Aqaba, Lake Malawi and Lake Tanganyika. Running from Syria to Mozambique through eastern Africa, this geological formation is separating Africa into two continents. For ten points name this valley.

ANSWER---(Great Rift Valley)

13.

BONUS SCIENCE

Answer the following questions about the prevailing wind patterns of the earth.

1. Located along the equator, this ocean region is noted for its areas of dead calm and its overall lack of any good breezes for sailing ships.
2. Located around 30 degrees latitude, this region is also noted for its calm air and is named after the fact that sailors threw the onboard animals into the ocean in an attempt to lighten the boat.
3. Lying between the equator and 30 degrees, in the northern hemisphere these winds blow towards the equator from the northeast.
4. Lying between 30 and 60 degrees, these winds are caused by the Coriolis effect and are named after the direction from which they originate.

ANSWER---1. (Doldrums) 2. (Horse latitudes) 3. (Trade winds) 4. (Westerlies)

14.

TOSS-UP LITERATURE

Called the Performing Flea of English Literature, he made his reputation with the school story Piccadilly Jim. For ten points name this author and knight who gained immortality with his creation of Bertie Wooster and his gentleman's gentleman Jeeves.

ANSWER---(Sir P. G. Wodehouse [Wud-hows])

14.

BONUS LITERATURE

Identify the British author who created the following characters.

1. Dr. Watson and Professor Moriarty.
2. Heathcliffe and Catherine Earnshaw.
3. Winston Smith and Napoleon.
4. Hazel, Bigwig and Fiver.

ANSWER---1.(Arthur Conan Doyle) 2.(Emily Bronte) 3.(George Orwell or Eric Blair)
4.(Richard Adams)

15.

TOSS-UP MATH

What is the sum of the infinite geometric series 25, 5, 1/5, etc.

ANSWER---(125/4)

15.

BONUS MATH

Calculate the following volumes.

1. A sphere with a radius of 13 meters.
2. A right circular cone with a radius of 14 meters and a height of 18 meters.
3. A right circular cylinder with a radius of 16 meters and a height of 5 meters.
4. A cube with a interior diagonal of $11\sqrt{3}$ meters.

ANSWERS---1.($8788/3$ pi cubic meters) 2.(1176 pi cubic meters)
3.(1280 pi cubic meters) 4.(1331 cubic meters)

16.

TOSS-UP FINE ARTS

This British artist studied drawing under Hubert Gravelot at age 15 and later became prominent as a portraitist and landscape painter. For ten points name this artist, rivals with Reynolds who produced such works as The Charterhouse, Mrs. Richard Brinsley Sheridan and Robert Andrews and His Wife.

ANSWER---(Thomas Gainsborough)

16.

BONUS FINE ARTS

The moderator will now hand out the visual art aid contained at the end of the round. Please answer the following questions related to that painting.

1. Who is the artist of the painting?
2. What is the title of the painting?
3. In what artistic style is the work painted?
4. In what decade was the work painted.

ANSWER---1.(Theodore Gericault) 2.(The Raft of the Medusa) 3.(Romantic) 4.(1820's (1824))

17.

TOSS-UP LITERATURE

In 1969 he ran for mayor of New York City. He lost but would go to find success with his writing career. After he co-founded the Village Voice he published a novel set in the Pacific during World War Two featuring the characters General Cummings and Sgt. Croft. His latest work is a biography of Lee Harvey Oswald titled Oswald's Tale. For ten points name the author of The Naked and the Dead.

ANSWER---(Norman Mailer)

17.

BONUS LITERATURE

Given a title name the author.

1. Anna Christie. 2. The Godfather. 3. Endgame. 4. The Gospel of Wealth.

ANSWERS---1.(Eugene O'Neill) 2.(Mario Puzo) 3.(Samuel Beckett) 4.(Andrew Carnegie)

18.

TOSS-UP SOCIAL STUDIES

Located along the slopes of Huayna Picchu in the Urubamba Valley, its pristine condition is due to the fact that it was never discovered by the Spaniards and was not seen by westerners until Hiram Bingham in 1911. For ten points name this world heritage site near Cuzco, Peru which is a ruined Incan city.

ANSWER---(Machu Picchu [Ma-choo Pee-choo])

18.

BONUS SOCIAL STUDIES

In 1982 a short war broke out over the ownership of a group of islands in the south Atlantic, sometimes known as the Islas Malvinas.

1. By what name are these islands more commonly known.
2 + 3. Name the European and South American countries who both claimed these islands.
4. In one of the best known episodes of the war, the frigate Sheffield was sunk after being hit by only one of these French built missiles launched by a Etendard aircraft.

ANSWER---1.(Falkland Islands) 2. + 3.(Argentina + Great Britain) 4.(Exocet)

19.

TOSS-UP SCIENCE

In 1896 he died as a result of heart failure about the same time that X-rays were discovered. Several years later his wife had one of the first X-rays ever taken. In 1901 William Roentgen [Ran-kin], the discoverer of X-rays won the first of his prizes in physics. For ten points name this man whose awards are now worth about one million dollars each.

ANSWER---(Alfred Nobel)

19.

BONUS SCIENCE

Answer the following questions about quarks.

- 1 + 2. Name the two types of quarks that make up protons and neutrons.
3. The name quark is taken from the line, "Three quarks for Muster Mark! Sure he hasn't got much of a bark." which appears in this work by James Joyce.
4. The discovery of the top quark provides further proof for this model proposed in the 1960's by Murray Gell-Mann that explains the nature of matter in our universe.

ANSWER---1 + 2.(Up and Down quarks) 3.(Finnegan's Wake) 4.(Standard Model)

20.

TOSS-UP MATH

If a parallelogram has an angle of measure 63 degrees, then what is the measure of an angle adjacent to the angle?

ANSWER---(117 Degrees)

20.

BONUS MATH

Convert the following radian measures to degrees.

1. $3\pi/2$. 2. $7\pi/3$. 3. $17\pi/6$. 4. $38\pi/18$. 5. $53\pi/6$.

ANSWERS---1.(270 degrees) 2.(420 degrees) 3.(510 degrees)
4.(380 degrees) 5.(1590 degrees)

Replacement Questions

TOSS-UP MATH

The statement, y varies directly as x means there is some positive number k such that y equals kx . For ten points by what special name is k known?

ANSWER---(Constant of variation or Variation constant)

BONUS MATH

The height y of a projectile shot vertically up from the ground with an initial velocity of 144 feet per second is given by the formula y equals $144T$ minus $16T$ squared. Answer the following.

1. How many seconds will it take for the projectile to hit the ground?
2. At what time does the projectile reach its maximum height?
3. What is the maximum height of the projectile?

ANSWERS---1. (9 seconds) 2. (4.5 seconds) 3. (324 feet)

TOSS-UP SCIENCE

Duchenne-muscular dystrophy, hemophilia and color blindness are all for ten points what type of traits.

ANSWER---(Sex-Linked)

BONUS SCIENCE

Given a chemical formula give the scientific name of the following acids.

1. H-C-L.
2. H-two-C-O-three.
3. H-two-S-O-three.
4. H-three-B-O-four.

ANSWER---1. (Hydrochloric acid) 2. (Carbonic acid) 3. (Sulfurous acid) 4. (Perboric acid)

TOSS-UP LITERATURE

She wrote biographies of Napoleon and Lincoln as well as her own entitled All in the Day's Work. She was famous for her exposés in McClure's Magazine attacking big business. For ten points name this famous muckracker who gained fame for her two volume work titled History of the Standard Oil Company.

ANSWER---(Ida Tarbell)

BONUS LITERATURE

I'll give you an author you give me the country they are from.

1. Franz Kafka.
2. Hans Christian Anderson.
3. Thomas Mann.
4. James Joyce.

ANSWERS---1. (Austria) 2. (Denmark) 3. (Germany) 4. (Ireland)

TOSS-UP MISCELLANEOUS

He began his professional career in 1978 with the Indianapolis Racers before being traded to the Edmonton Oilers. He would go on to both lead the league in scoring and win the MVP award nine times. For ten points name this hockey player nicknamed "The Great One" who was traded in 1989 to the Los Angeles Kings.

ANSWER---(Wayne Gretzky)

BONUS SOCIAL STUDIES

Given a phobia tell of what each is the fear.

1. Agoraphobia.
2. Triskadekaphobia.
3. Phobophobia.
4. Theophobia.

ANSWERS---1. (Open places) 2. (The number 13) 3. (Fear) 4. (God)