Toss-Ups

1. It's normally found by taking the integral over all space of mass density times the squared magnitude of the radius vector, but if the origin is moved, the parallel axis theorem can be used to easily recalculate it. FTP, what is this dynamic quantity, the analogue of mass in rotational dynamics, normally denoted "I"?

Answer: moment of inertia

2. His father was a soldier in the service of the famous anti-Crusader champion Nureddin. As a young man, he took part in his uncle Shirquh's conquest of Egypt, and distinguished himself in Shirquh's defeat at the Battle of Cairo. He became vizier of Egypt, abolished the Fatimid caliphate, and established the Ayyubid dynasty. FTP, name this general who was gravely defeated at the battle of Arsuf by Richard I Coeur de Leon.

Answer: Saladin

3. The west African one, *Protopterus*, is known to estivate during dry periods by burrowing into the mud and secreting a mucous covering, which hardens, leaving a small closable breathing vent. This cocoon softens when wet. The Australian genus, *Neoceratodus*, can obtain sufficient oxygen from water unless conditions become stagnant, but the American and African ones must rise to the surface. FTP, name this group of fish, whose gills degenerate in favor of another method of respiration more familiar to us.

Answer: Lungfish

4. He settled in Croton around 530 BCE, claiming to have been Euphorbus, a warrior in the Trojan War. Xenophanes tells us that when he saw a man beating a dog, he told him to stop because the dog had been a friend of his in another life, but his most famous teaching was that "Everything is numbers." FTP, name this creator of the "music of the spheres" idea and a theorem on the length of the hypoteneuse of a right triangle.

Answer: Pythagoras

5. Whenever he went down town, the people on the pavement looked at him. You could have recognized him from the way he fluttered pulses when he said "Good-morning" or the way he glittered when he walked. FTP, name this man "richer than a king and admirably schooled in every grace" who "one calm summer night, went home and put a bullet through his head."

Answer: Richard Cory (accept either)

6. His father's widow imprisoned him after his father's death, but he escaped in 715, and was proclaimed mayor of the palace by the Austrasians. He conquered Neustria, fought the Alamanni and the Bavarians, but his most famous victory came against Abd-ar-Rahman, the emir of Spain, whom he drove out of the Rhône valley. FTP, name this father of Carloman and Pepin, who won the battle of Tours in 73b.

Answer: Charles Martel
Accept: Charles the Hammer

7. He started playing tennis at age nine in 1965, and soon developed his trademark two-handed backhand. He left school at age 14 and within a year was the world's top-ranked junior player. His first major title

came at the Italian Open in 1974, and in the same month, he won the French Open the first of six times. FTP, name this man who lost six U.S. Open finals, but assimilated five straight at Wimbledon.

Answer: Bjorn Borg

8. Thomas Clifford was made Lord of Chudleigh in 167b. Anthony Ashley was Chancellor of the Exchequer. The Duke of Buckingham was a privy counselor. Henry, Earl of Arlington was lord chamberlain. And John, Duke of Lauderdale was also a privy counselor. Together from 1667-1674, they formed an influential clique of ministers to Charles II that was known by an acronym of their last names. FTP, name this group whose name has been lent to any group of political intriguers.

Answer: Cabal

9. It had its origins in the Democratic party's divisions over the Lecompton constitution, the Whig Party's collapse, and the problems of the Know-Nothings. Senator John Crittenden of Kentucky set up a meeting of 50 conservative, pro-compromise congressmen in 1859, which led to a convention in Baltimore in 1860. FTP, which party selected Edward Everett to run with presidential candidate John Bell in 1860?

Answer: The Constitutional Union Party

10. Known for his strong heroines and *deus ex machina* endings, this playwright composed his dramas in a cave on the island of Salamis; of this 92 he wrote, 17 or 18 survive, including the stories of Helen, Ion, and Electra. FTP, name this author of *The Trojan Women* and *Bacchae*.

Answer: Euripides

11. The name's the same. One was a beggar in a parable told by Jesus in Luke 16: A rich man named Dives was enjoying a feast while this man lay starving in the gateway. Later the beggar is safe in Abraham's bosom while Dives burns in hell. The other was a native of Bethany in John 11-12, the brother of Mary and Martha. FTP, name this man whom Christ raised from the dead.

Answer: Lazarus

12. If you started a business offering insurance against negative fives, R. would be likely to sign up for it since he knows that he takes a lot of them, but you might not know that. He may also purchase auto insurance knowing that his driving record is worse than average. FTP, what two-word term do economists give to this phenomenon in which below-average insurance risks take advantage of companies' ignorance of their habits?

Answer: moral hazard

13. She was a Fulbright scholar at the University of Cambridge, but she had attended Smith College at home in America. She wrote her most famous work under the pseudonym Victoria Lewis, while some of her other works were edited by her husband and her mother--these include *Letters Home*, *Crossing the Water* and *Johnny Panic and the Bible of Dreams*. FTP, name this poet of *The Colossus*, best known for *The Bell Jar*.

Answer: Sylvia Plath

14. Some examples include terpenes, certain aromatic compounds and long-chain alcohols. Some are derived from sphingosine or glycerol. More common examples include steroids, fat-soluble vitamins, waxes and fatty acids. FTP, name this class of non-polar natural products that are characterized by their insolubility in water.

Answer: lipids

Pleiades, or Seven Sisters.
20. This constellation also contains the Crab Nebula.
10. It contains the bright orange star Aldebaran that according to some interpretations represents the eye of the creature.
5. It is the bull.
Answer: Taurus

17. Identify the following virtuous women from Greek mythology for ten points apiece.
a. She never lost faith in Odysseus' eventual return; she planned to remarry upon finishing a funeral canopy, but unraveled work at night.
Answer: Penelope
b. This Queen of Thebes was willing to die in her husband Admetus' place so that he could continue his rule.
Answer: Alcestis
c. This old woman urged to her husband Philemon to be hospitable to strangers; one night they turned out to be gods who granted the couple the chance to die together.
Answer: Baucis

18. Identify these Jewish religious holidays for ten points each.
a. This festival's beginning is marked with the seder. Strict dietary
rules are enforced, reflecting conditions during the Jewish flight from slavery in Egypt.
Answer: Passover
b. This is a celebration of the acts of the Maccabees and rededication of the second temple of Jerusalem.
Answer: Hanukkah
c. This holiday seeks absolution and reconciliation with God. It
concludes the 10 day period that begins on Rosh Hoshanah.
Answer: Yom Kippur (Day of Atonement)

19. Answer the following questions about the administration of James Madison for the stated number of points.
a. (10 pts) For five points each, name the two men that Madison defeated in the elections of 1808 and 1812.
Answer: DeWitt Clinton and C.C. Pinckney
b. (10 pts) For five points each, name the two vice-presidents of Madison.
Answer: George Clinton and Elbridge Gerry
c. (5 pts) For five points, he served as Madison's first Secretary of the Treasury.
Answer: Albert Gallatin
d. (5 pts) For five points, he served as both Secretary of State and Secretary of War from 1814-15.
Answer: James Monroe

20. Answer the following questions about a 17th century philosopher for ten points apiece.
a. Identify the thinker whose examination of infinitesimals led him to
discover calculus independently of Isaac Newton.
Answer: Gottfried Wilhelm von Leibniz
b. Leibniz advocated a philosophy based on the existence of unique,
indestructible, immaterial points that contain the basic substance of
the universe. Name these objects whose collections form the physical
world.
Answer: monads
c. Leibniz's thoughts on the nature of God led him to believe that
ours is the best of all possible worlds. For ten points, identify the
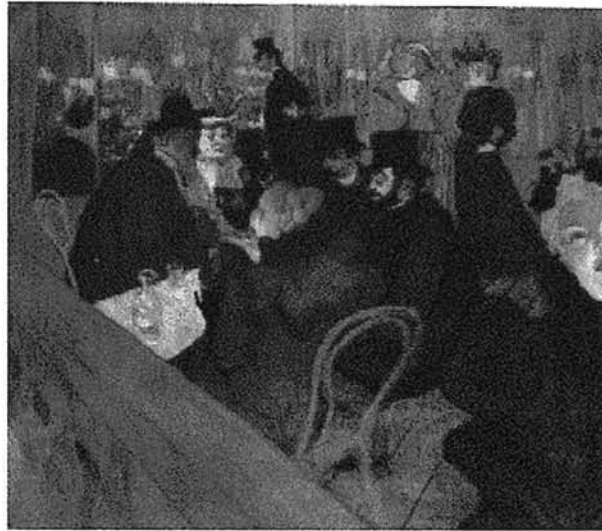character from *Candide* that Voltaire meant as a parody of this view.
Answer: Pangloss

Visual Bonus LET-11

A

B

C