**Academic Olympics Preliminary Written 2016** *No Calculators*

1. Meissner’s corpuscles are found …

A. in the adrenal medulla B. in the Haversian C. at the top of the dermis

D. throughout the small intestine E. surrounding the fovea centralis

2. Add 476 base eight to 635 base eight

A. 671 B. 772 C. 1207 D. 1333 E. 1503

3. Which is a neutral color?

A. gray B. yellow C. light red D. yellow-green E. emerald green

4. The Democratic Republic of Sao Tome and Principe are in the …

A. Bay of Bengal B. Sea of Cortes C. Gulf of Guinea D. Cape of Good Hope E. Strait of Gibraltar

5. Gabilan is red pony in a novel by …

A. O. Henry B. Steinbeck C. Hemingway D. Longfellow E. Mark Twain

6. Galvanometers measure …

A. gas pressure B. light polarity C. atomic weights D. radioactive E. small electric currents

7. 96 dozen eggs equals how many gross of eggs

A. 4 B. 6 C. 8 D. 10 E. 12

8. Typecasting is most reminiscent of …

A. Jodie Foster B. Kevin Costner C. Steven Seagal D. Gene Hackman E. Anthony Hopkins

9. The title, pasha, applied to officials in …

A. China B. Greece C. Turkey D. Norway E. Germany

10. Which words illustrate triple rhyme?

A. voodoo, hoodoo B. glorious, victorious C. stowaway, castaway

D. influential, presidential E. restructuring, manufacturing

11. The rate of a chemical reaction is directly proportional to the concentrations of the reacting substances

according to the law of

A. refraction B. mass action C. multiple proportions

D. constant composition E. independent assortment

12. How many pounds of nuts worth $1.44 a pound should be mixed with 20 pounds worth $1.80 a pound to produce

a mixture worth $1.56 a pound?

A. 20 B. 25 C. 30 D. 35 E. 40

13. Modern music known for its quiet improvisation on the piano, guitar, and synthesizer and a spacer-filled, relaxing

sound is called ---- Age.

A. New B. Space C. Middle D. Golden E. Atomic

14. The practice of rewarding political allies with government positions after an electoral victory is called …

A. arbitrage B. vassalage C. brokerage D. anchorage E. patronage

15. The past participle of which verb does not end in the letters “en”?

A. write B. steal C. break D. speak E. swear

16, Which has the highest atomic number?

A. lead B. sulfur C. boron D. fluorine E. aluminum

17. Don and Daisy live 150 miles apart. They leave their homes at the same time traveling toward one another at

40 mph and 20 mph respectively. They will meet in …

A. 2 hours B. 1 hour 45 minutes C. 1 hour 20 minutes D. 2 hours 30 minutes E. 2 hours 15 minutes

18. For art paper used in mats and mounting, the designation “acid free” means the paper has a pH close to what value?

A. 1 B. 3 C. 5 D. 7 E. 9

19. Cropland occupies the greatest percentage of …

A. Iowa B. Idaho C. Arizona D. Washington E. New Jersey

20. Which has a suffix meaning either “having the qualities of” or having the character of”?

A. joggle B. verify C. loaded D. visible E. womanish

21. The photoelectric effect can be produced by …

A. any white light B. infrared light only C. bright red light only

D. light of low frequency E. light of high frequency

22. 2000 marbles are distributed among 3 boys in the ratio of 5 to 14 to 21. How much greater is the largest share

than the smallest share?

A. 650 B. 725 C. 800 D. 850 E. 900

23. Which statement is not true?

A. Pink is a shade of red. B. Yellow is a primary color. C. Navy blue is a shade of blue.

D. Orange and purple are achromatic. E. Green is a complimentary color of red.

24. Which is not essential to the operation of private enterprise economies?

A. markets B. corporations C. the profit motive

D. competitive pricing E. demand for goods and services

25. Who is the Hero in “Much Ado about Nothing”?

A. a servant B. a constable C. the prince’s evil brother

D. a young lord of Florence E. the daughter of Leonato

26. Man appeared during which geologic era?

A. Cenozoic B. Mesozoic C. Paleozoic D. Proterozoic E. Precambrian

27. Simplify 3a-5[(2a-1) - (4-a)]

A. -5a-8 B. 7a-4 C. -8a+14 D. -12a+15 E. 9a-6

28. The opera, “Amahl and the Night Visitors,” is associated with which season?

A. spring B. Easter C. summer D. Christmas E. Thanksgiving

29. The world’s largest reserves of tin are in …

A. Belgium B. Indonesia C. El Salvador D. Sierra Leone E. United States

30. A piece of writing in which an author retracts something stated in an earlier piece is a …

A. parody B. palinode C. doggerel D. panegyric E. euphemism

31. Ecosystems and communities within them change through time. The orderly, predictable changes a

community undergoes is …

A. cessation B. perpetuity C. succession D. periodicity E. alternation

32. What is the square root of 2 ¼?

A. 1/8 B. 3/2 C. 5/6 D. 2/3 E. 9/4

33. The composer of “Prelude to the Afternoon Faun” also wrote

A. Bolero B. Swan Lake C. Water Music D. Claire de Lune E. Sorcerer’s Apprentice

34. In the beginning of Reconstruction, there was a continual dispute over who should make the major decisions about

Reconstruction; the president or …

A. Congress B. the cabinet C. popular vote D. state legislature E. the Supreme Court

35. A poetic metrical foot of two syllables with a long syllable followed by a short one is a(n) …

A. jamb B. dactyl C. anapest D. trochee E. spondee

36. A leaf has a greatly thickened palisade layer. It has thick cutin. Its stomata are in pits. This plant came from a …

A. bog B. desert C. tropical forest D. high mountain top E. marine environment

37. Six cards numbered 1 through 6 are in a hat. What is the probability that these cards will form the number 123,456

when placed in the order they were randomly drawn from the hat?

A. 1/720 B. 1/980 C. 1/1260 D. 1/1640 E. 1/2020

38. A row of arches supported by piers or columns is a(n) …

A. patio B. vault C. arcade D. colonnade E. flying buttress

39. Lake Maracaibo features …

A. lots of oil rigs B. massive salt pillars C. crystal clear waters

D. the crater of a meteorite E. surrounding vistas of lofty mountains

40. This line by Milton illustrates what figure of speech? Weep no more, woeful shepherds, weep no more.

A. oxymoron B. hyperbole C. antithesis D. epanalepsis E. onomatopoeia

41. Organic bases include …

A. alkaloids B. quick-lime C. amino acids D. caustic potash E. potassium chloride

42. The y-coordinate of a point on a circle is 6. The equation for the circle is x squared + y squared = 100

The value of the x-coordinate at that point could be …

A. 4 B. 5 C. 7 D. 8 E. 9

43. These are the last words in what musical? Eliza! Where the devil are my slippers?

A. Greece B. Hello Dolly! C. My Fair Lady D. The King and I E. The Matchmaker

44. Which civilization developed on Crete?

A. Minoan B. Scythian C. Etruscan D. Akkadian E. Cimmerian

45. Adverbs of assertion answer the question …

A. why B. when C. where D. how much E. true or false

46. If the temperature of the atmosphere rises above the dew point …

A. dew will form B. precipitation will occur C. evaporation will probably occur

D. the air will feel heavy and humid E. relative humidity approaches 100 percent

47. A bookstore sold 700 copies of the autobiography The Great Auk. The store made a profit of 30% on each sale.

the books sold for $6.00 each. What is the total profit?

A. $1010.00 B. $1150.00 C. $1260.00 D. $1340.00 E. $1420.00

48. Which developed from a lively Irish dance?

A. polka B. gigue C. mazurka D. saraband E. fandango

49. The open free range of the West was closed by the use of whose invention?

A. Eli Whitney’s B. Joseph Glidden’s C. George Eastman’s

D. Samuel Morse’s E. Charles Goodyear’s

50. Ralph Waldo Emerson and William Wordsworth often expressed …

A. paganism B. pantheism C. paternalism D. philistinism E. photoperiodism

**Answers for 2016 Preliminary Written Exam**

**1. C 11. B 21. E 31. C 41. A**

**2. D 12. E 22. C 32. B 42. D**

**3. A 13. A 23. D 33. D 43. C**

**4. C 14. E 24. B 34. A 44. A**

**5. B 15. E 25. E 35. D 45. E**

**6. E 16. A 26. A 36. B 46. C**

**7. C 17. D 27. D 37. A 47. C**

**8. C 18. D 28. D 38. C 48. B**

**9. C 19. A 29. B 39. A 49. B**

**10. B 20. E 30. B 40. D 50. B**