Pennsylvania Mining Law

Questions and Answers

301. The maximum potential used for signal purposes in outby areas shall not exceed _____.

A. 4 volts
B. 24 volts
C. 125 volts
D. 480 volts

302. What is the maximum number of temporary splices permitted on a trailing cable?

A. 2
B. 4
C. 5
D. no limit

303. Slices on trailing cables on machines that do not have cable reels shall be at least _____ from the machine.

A. 25 feet
B. 50 feet
C. 100 feet
D. no regulation exists

304. Each trailing cable shall be examined at least _____ by the machine operator.

A. daily
B. weekly
C. monthly
D. when the inspector is in the section

305. Whose duty is it to see that the electrical requirements of the mining law are observed?

A. section foreman
B. section mechanic
C. chief electrician
D. mine foreman

306. Cable and feed wires other than trolley wire on haulage roads shall be kept at least _____ from haulage equipment, unless it is properly guarded.

A. 2 inches
B. 6 inches
C. 12 inches
D. 24 inches

307. All electrical stations or transformer rooms shall be provided with rock dust and fire extinguishers for fire protection.

A. true
B. false

308. The _____ of a substance is the number expressing how many times that substance is heavier or lighter, volume for volume, than a substance taken as a standard.

A. percentage
B. specific gravity
C. atomic weight
D. molecular weight

309. 32 degrees F. is equal to _____ degrees C.

A. -32 degrees C.
B. 0 degrees C.
C. 4 degrees C.
D. 32 degrees C.

310. There are _____ gallons of water in a cubic foot.

A. 0.834
B. 3.75
C. 7.48
D. 8.34

311. There are cubic inches in a gallon of water.

A. 144
B. 196
C. 214
D. 231

312. The weight of a water column one inch square and one foot high is

A. 434 lbs.
B. 834 lbs.
C. 1.191 lbs.
D. 3.756 lbs.

313. A cubic foot of water weighs _____.

A. 7.48 lbs.
B. 8.34 lbs.
C. 32.6 lbs.
D. 62.5 lbs.

314. One horsepower equals _____ watts.

A. 100
B. 360
C. 746
D. horsepower cannot be measured in watts

315. Find the weight of 20 cubic feet of bituminous coal with a specific gravity of 1.4.

A. 17.5 lbs
B. 175 lbs.
C. 1750 lbs
D. 17,500 lbs.

316. Under constant pressure, the volume of a gas is directly proportional to the temperature. This is known as _____.

A. Charles Law
B. Boyles Law
C. Daltons Law
D. Henrys Law

317. Under constant temperature, the volume of a gas is indirectly proportional to the pressure. This is known as _____.

A. Charles Law
B. Boyles Law
C. Daltons Law
D. Henrys Law

318. If 5 cubic feet of air at a temperature of 41 degrees F. is heated under constant pressure to a temperature of 55 degrees F., what will be the new volume?

A. 4.76 cubic ft.
B. 5 cu. ft.
C. 5.14 cubic ft.
D. 6.36 cubic ft.

319. What would be the weight of one cubic foot of air if the barometer reads 29 inches of mercury and the temperature is 65 degrees F.?

A. 0.0733 lbs.
B. 0.0834 lbs.
C. 1.091 lbs.
D. 1.191 lbs.

320. “The solubility of a gas is directly proportional to the pressure which is applied to it” refers to _____.

A. Charles Law
B. Boyles Law
C. Daltons Law
D. Henrys Law

321. “The total pressure of a mixture of gases is equal to the sum of their partial pressures” refers to _____.

A. Charles Law
B. Boyles Law
C. Daltons Law
D. Henrys Law

322. What resistance must be overcome when a pump is in operation?

A. the static head
B. the weight of the water
C. the resistance of the pipe
D. all of the above

323. The resistance of water to flow in a pipe is called _____.

A. static head
B. friction resistance
C. friction head
D. none of the above

324. The _____ pump is best adapted for gathering service.

A. axial
B. centrifugal
C. submersible
D. reciprocating

325. Reciprocating pumps are best used in collection areas where inflow is small and pumps frequently get on air.

A. true
B. false

326. To change a centrifugal pump so that it is capable of pumping more water, this is accomplished by _____.

A. changing the horsepower of the pump
B. changing the size of the impeller
C. changing the speed of rotation
D. both B and C