Pennsylvania Mine Officials Examination

Sample Test Questions

Section 422

1. Diesel mechanic training instructors must be approved by _____.

    a. State
    b. Secretary
    c. MSHA
    d. Department

2. To be qualified as a diesel mechanic, one shall complete _____ hours of training.

    a. 12
    b. 8
    c. 16
    d. 24

Section 424

3. The _____ shall appoint one member to represent the viewpoint of the coal operators on the technical advisory committee on diesel.

    a. Department
    b. Governor
    c. Secretary
    d. Operator

4. Each member of the technical advisory committee on diesel shall be appointed for a term of _____ years.

    a. 2
    b. 1
    c. 4
    d. 3

5. Within _____ days, a receipt of an application for use of alternative technology or methods, the technical advisory committee shall complete its investigation and make a recommendation to the Secretary.

    a. 30
    b. 90
    c. 180
    d. 365

Section 424

6. To whom shall the technical advisory committee forward their recommendations?

a. applicant
b. Governor
c. MSHA
d. Secretary

7. Members of the committee will be compensated at what rate?

a. Normal salary rate
b. Time and one half normal rate
c. Not less than $150 per day plus expenses
d. Not less than $200 per day plus expenses

Section 503

8. Who has the right to assess administrative penalties?

a. Governor
b. Department
c. Superintendent
d. UMWA

9. How many days do you have to appeal any penalty?

a. 15
b. 20
c. 30
d. 60

10. The Department may assess an administrative penalty of not less than _____.

a. $500
b. $1,000
c. $5,000
d. $10,000

Section 503

11. The Department may assess an administrative penalty of not more than _____.

a. $10,000
b. $100,000
c. $200,000
d. $250,000

Section 330

12. Secondary underground transmission voltage shall not exceed _____ volts, nominal, phase to phase.

a. 15,000
b. 25,000
c. 20,000
d. 10,000

13. Ground fault-current limiting resistor capable of continuously limiting the ground fault current, to _____ amperes or less.

a. 15
b. 20
c. 25
d. 30

Section 331

14. When trolley wire is hung in a haulage entry, the cable shall be installed at least _____ inches from the trolley wire or feeder wire and away from the track.

a. 12
b. 24
c. 18
d. 6

15. High voltage cables shall not exceed _____ feet in length.

a. 500
b. 1500
c. 1000
d. 2000

Section 106.2

16. A rescue chamber needs to be capable of surviving an initial event with a peak over-pressure of _____ pounds per square inch for 3 seconds and a flash fire, as defined by the NFPA.

a. 25
b. 30
c. 10
d. 15

17. A rescue chamber needs to be capable of surviving a flash fire as defined by NFPA of _____ degrees Fahrenheit for 3 seconds.

a. 200
b. 350
c. 300
d. 150

18. A rescue chamber should provide for carbon monoxide below _____ parts per million, and an apparent-temperature of _____ degrees Fahrenheit.

a. 50-98
b. 55-100
c. 50-95
d. 45-85

19. A rescue chamber shall provide internal atmosphere of oxygen above 19.5% and carbon dioxide below ____ %.

a. 0.6%
b. 0.5%
c. 0.8%
d. 0.1%

20. A rescue chamber shall provide a minimum of _____ calories of food per miner.

a. 3000
b. 4000
c. 5000
d. 20,000

Section 257

21. The triprider shall see that any material defect in the rope, link or chain, he shall immediately remedy the defect, or if unable to do so, shall detain the trip and report the matter to the _____.

a. Mine foreman or assistant mine foreman
b. Superintendent
c. The operator
d. Mine examiner

Section 258

22. Who governs the speed of mantrips?

a. Superintendent
b. Assistant mine foreman
c. Mine foreman
d. Secretary

23. Where transportation of personnel is exclusively by rail, track shall be maintained to within _____ feet of the tail piece on the longwall section, or the nearest working face on development sections.

a. 800
b. 1000
c. 1500
d. 750

24. The track distance can be extended to a distance up to _____ feet, if a self-propelled transport vehicle with rubber tires, is readily available in the working section for the transportation of sick or injured miners.

a. 2000
b. 1000
c. 1500
d. 2500

25. No individual shall ride under the trolley wire, unless suitable covered mantrips are used.

a. True
b. False

Section 342

26. Each ground-test circuit shall inject a primary current _____% or less of the current transformer and cause each corresponding circuit-interrupting device to open.

a. 75
b. 25
c. 55
d. 50

27. High voltage motor and shearer circuits shall be provided with instantaneous ground fault protection of not more than _____ of an ampere.

a. 0.125
b. 0.251
c. 0.215
d. 0.512

Section 106.1

28. Who has the authority to promulgate regulations and consider Federal Mine Safety Standards as regulations?

a. The Board
b. Secretary
c. Governor
d. Department

29. The Department can disapprove a final regulation approved by the Board if _____.

a. The regulation reduces the level of safety of the miners.
b. The regulation reduces the compensation to the miners.
c. The regulation reduces the right for the miner to appeal.
d. The regulation reduces the right of the miner for representation.

30. Who promulgates regulations concerning the Miner Act?

a. The Board
b. Governor
c. Secretary
d. Department

Section 106.2

31. Chambers will provide _____ hours of support.

a. 48
b. 24
c. 30
d. 90

Section 254

32. Haulage road shall have a continuous unobstructed clearance of at least _____ inches from the widest extension of regular coal transportation equipment on the clearance side.

a. 30
b. 12
c. 24
d. 36

33. What are dimensions of a shelter hole?

a. 4 ft. deep, 5 ft. wide, 6 ft. high
b. 5 ft. deep, 4 ft. wide, 4 ft. high
c. 4 ft deep, 4 ft. wide, 6 ft. high
d. 5 ft. deep. 4 ft. wide, 6 ft. high

Section 327

34. A longwall section power center must have a _____ to de-energize all cables extending to the longwall.

a. A visual disconnect
b. A main disconnecting device
c. A visual disconnect with a locking mechanism
d. A person assigned at the LC to de-energize when needed

Section 273

35. How often does condition and examination of firefighting equipment have to be performed?

a. 30 days
b. 60 days
c. 6 months
d. 12 months

Section 273

36. When branch lines are used in water type spray systems, how many feet apart must the nozzles be spaced?

a. 2 feet
b. 4 feet
c. 6 feet
d. 8 feet

Section 273

37. How long must water or chemical flow be maintained?

a. 10 minutes
b. 15 minutes
c. 20 minutes
d. 25 minutes

38. At what temperature must a sprinkler system be activated?

a. 150 to 300 degrees
b. 125 to 300 degrees
c. 200 to 300 degrees
d. 700 to 80 degrees

39. What is the minimum length of fire hose that must be stored at each belt drive?

a. 300 feet
b. 100 feet
c. 200 feet
d. 500 feet

Section 405

40. Who sets the standards for diesel powered equipment and the fuel used underground?

a. Superintendent
b. Mine foreman
c. Operator
d. EPA

Section 405

41. How much fuel can be stored in an underground storage facility?

a. 24 hr. supply
b. 8 hr. supply
c. 500 gallons
d. As much as it can hold

42. A fuel storage area must be at least _____ feet from the trolley wire.

a. 25
b. 50
c. 75
d. 100

43. The nozzle used for pumping fuel must have a _____ type of valve.

a. Ball
b. Quick stop
c. Self closing
d. Gate

Section 202

44. To become a mine foreman or mine electrician, you must have at least _____ years of underground experience.

a. 2
b. 3
c. 4
d. 5

45. To become a mine foreman or mine electrician, you must have at least _____ years at the face.

a. 2
b. 3
c. 4
d. 5

Section 203

46. A mine foreman can appoint a mine examiner to be an acting assistant mine foreman for what period of time?

a. Time being
b. 6 months
c. 12 months
d. 1 month

Section 202

47. To whom must a person give evidence showing he/she is capable of being a mine electrician?

a. Mine foreman
b. Department
c. Governor
d. Mine Electrician

48. What score must be obtained to become an assistant mine foreman?

a. 70%
b. 75%
c. 80%
d. 90%

Section 108

49. Each mine should be inspected at least _____ for electrical purposes.

a. Annually
b. Quarterly
c. Semi-annually
d. Monthly

50. Where there is no authorized representative of the miners, the Department shall meet with no fewer than _____ miners, concerning health and safety at the mine?

a. 2
b. 3
c. 4
d. 1

Section 108

51. How often should each mine be inspected for general purposes?

a. Monthly
b. Semi-annually
c. Quarterly
d. Weekly

Section 109

52. How soon after a discovery of an accident, should the operator notify the Department?

a. Immediately
b. As soon as possible
c. Within 15 minutes
d. Within 10 minutes

Section 106.2

53. A minimum of _____ quarts of water per miner, must be stored in emergency chambers and shelters.

a. 8
b. 10
c. 12
d. 6

Section 259

54. Conveyors shall be equipped with an automatic control that will stop the drive motor in case of slipping on the drive pulley. How often shall this be tested?

a. Each operating shift
b. Every 24 hours
c. Weekly
d. Monthly

55. Control lines on conveyor belts shall be installed the full length of the belt.

a. True
b. False

Section 260

56. Blow torches can be used in coal mines if 240 pounds of rock dust and 2 fire extinguishers are readily available.

a. True
b. False

Section 263

57. Not more than _____ supply of oxygen or gas shall be stored in any underground or surface shop.

a. One week
b. One day
c. One shift
d. Two weeks

Section 344

58. At least once every _____ days, an MSHA qualified person shall test and examine each unit of high voltage longwall equipment.

a. 7
b. 10
c. 14
d. 30

Section 264

59. Multiple units of gas and oxygen tanks are permitted in a working section when necessary.

a. True
b. False

60. Cutting and burning shall be done in _____ air.

a. Intake
b. Return
c. Belt
d. All of the above

Section 264

61. No personnel shall be permitted inby the point of the working section where cutting or welding is being performed.

a. True
b. False

Section 316

62. The methane monitor shall automatically de-energize electrical equipment or shut down diesel-powered equipment, when the methane accumulation reaches _____ %.

a. 1.0
b. 1.5
c. 2.0
d. 5.0

Section 120

63. The _____ shall develop and maintain a repository of all mine maps it has obtained or has had an opportunity to copy.

a. Operator
b. Department
c. Governor
d. Superintendent

Section 201

64. An individual who holds a current and valid certification as an assistant mine foreman, may also work as a _____.

a. Mine foreman
b. Mine electrician
c. Mine examiner
d. Superintendent

65. During coal production shifts, an assistant mine foreman shall be assigned to _____ working sections.

a. 1
b. 2
c. 3
d. 4

Section 202

66. In order to be eligible to sit for examination as a mine foreman or mine electrician, you must have worked at least _____ years underground.

a. 3
b. 2
c. 5
d. 4

67. To become an assistant mine foreman, you must work at least _____ years underground.

a. 5
b. 4
c. 3
d. 2

Section 273

68. Water lines on track haulage shall be equipped with outlet valves at intervals of not more than _____ feet.

a. 200
b. 250
c. 500
d. 1000

Section 403

69. What type of filter has proven itself capable of a reduction of total diesel particulate matter?

a. DPM filter
b. Oil filter
c. Air filter
d. Foam filter

70. How many parts per million can an oxidation catalyst operate at a normal engine operating temperature range?

a. 100 ppm
b. 200 ppm
c. 300 ppm
d. 400 ppm

Section 403

71. An automatic engine shutdown system will off the engine before the exhaust gas temperature reaches _____ degrees Fahrenheit.

a. 150
b. 302
c. 400
d. 325

72. The Department shall require that a _____ be attached to each piece of diesel powered equipment.

a. Inspection plate
b. Approval' plate
c. Manufacturer's name
d. Date of manufacture

Section 406

73. Vertical pipeline shall have manual shutoff valves installed _____.

a. Every 200 feet
b. Supply fill point
c. Underground discharge point
d. Every 150 feet
e. B & C

Section 407

74. Containers used for the transport of diesel fuel shall not exceed a capacity of _____.

a. 500 gallons
b. 300 gallons
c. 100 gallons
d. 50 gallons

Section 204

75. How many non-certified miners may a certified miner have under his direction?

a. 1
b. 3
c. 2
d. 4

Section 205

76. How many years in a bituminous coal mine must an individual have to take the exam to become certified?

a. 3
b. 1
c. 2
d. 4

Section 208

77. Who has the full charge of inside workings and individuals employed in the mine?

a. Mine foreman
b. Operator
c. Superintendent
d. Shift foreman

Section 273

78. How often shall functional tests of water sprinkler systems be made?

a. Weekly
b. Monthly
c. Yearly
d. Daily

Section 274

79. Every mine shall have no fewer than _____ main entries connected to the openings or outlets to the surface.

a. 1
b. 2
c. 3
d. 5

Section 407

80. May diesel fuel be transported on conveyor belts?

a. Yes
b. No

81. Diesel fuel cars may be transported with other cars in a trip.

a. True
b. False

Section 212

82. Who shall see that all dangerous and doubtful pieces of coal, slate and rock are taken down immediately, or carefully secured, against falling on the workers?

a. Mine foreman and assistant mine foreman
b. Superintendent
c. Mine foreman or assistant mine foreman
d. Mine examiner

83. Who shall, once each week, travel and examine all workings, air courses, and openings to all workings or falls and make a record in ink of the condition of all places in the book provided for that purpose?

a. Superintendent, Mine Foreman, Assistant Mine Foreman
b. Mine Foreman, Assistant Mine Foreman, or mine examiner
c. Assistant Mine Foreman and mine examiner
d. Mine Foreman or Assistant Mine Foreman

Section 212

84. Transportation of tools into and out of the mine shall be under the direction of _____.

a. Mine foreman and Superintendent
b. Shift foreman
c. Mine foreman or assistant mine foreman
d. Mine foreman and assistant mine foreman

Section 276

85. Not more than _____ days supply of flammable oil or lubricant shall be stored in any portion of a mine, unless kept in a fire-proof building or a structure cut out of solid rock

a. 7
b. 3
c. 2
d. 30

Section 277

86. How many gas detection devices shall be kept in good condition for use in case of an emergency?

a. 10
b. 20
c. Sufficient number
d. Enough for the entire shift

87. No gas detection device shall be entrusted to any individual for use in a mine until they have given satisfactory evidence of its operation to the _____.

a. Mine examiner
b. Superintendent
c. Mine Foreman
d. Shift foreman

Section 409

88. Fire suppression systems shall include _____ manual actuators.

a. 1
b. 2
c. 3
d. 4

89. How often do fire suppression systems need to be inspected visually?

a. Weekly
b. Daily
c. Monthly
d. Quarterly

Section 211

90. Evacuation shall begin within _____ minutes, after a ventilation interruption, and shall proceed in an orderly and expedient manner.

a. 60
b. 5
c. 15
d. 30

91. If methane is detected in an amount of _____ or more, the transportation vehicles will be de-energized and the evacuation on foot.

a. 2.0%
b. 0.25%
c. 0.50%
d. 1.0%

92. When operations are temporarily suspended in a mine, the _____ shall see that danger signs are placed across the mine entrance, which signal shall be sufficient warning for unauthorized individuals not to enter the mine.

a. Superintendent
b. Mine foreman
c. Operator
d. Shift foreman

Section 211

93. If ventilation is restored to the normal water gage before the evacuation is completed, a certified mine foreman, assistant mine foreman, or mine examiner may start the re-examination of the mine but all other individuals must _____.

a. Remain in the working section
b. Continue to evacuate
c. Evacuate to the tail piece
d. Evacuate outby 2000 feet

Section 274

94. When a mine is operated by a shaft more than _____ feet in depth, the individuals employed at the shaft shall be lowered and hoisted by means of machinery, unless the second opening is a drift or slope.

a. 50
b. 100
c. 500
d. 275

95. Employees shall be lowered into and hoisted from the mine at a speed of _____.

a. As governed by the mine foreman
b. Not to exceed 6 miles per hour
c. Not to exceed 8 miles per hour
d. Not to exceed 5 miles per hour

Section 409

96. The system shall be installed in accordance with the _____ specifications and the limitations of the listing or approval.

a. The operators
b. Manufacturers
c. DEP
d. Mine foreman

Section 409

97. Engine shutdown and discharge of a suppressant agent may be delayed for a maximum of _____ after a fire alarm enunciator alerts the operator.

a. 60 seconds
b. 30 seconds
c. 15 seconds
d. 0 seconds

Section 214

98. The _____ shall see that the work areas are kept as free from water as is practical during working hours.

a. Superintendent
b. Shift foreman
c. Mine foreman
d. Assistant mine foreman

Section 218

99. A certified person designated by the _____ must make a pre-shift examination within 3 hours preceding the beginning any 8 hour interval, during which any person is scheduled to work or travel underground.

a. Superintendent
b. Mine foreman
c. Operator
d. Shift foreman

Section 216

100. It shall be the duty of the mine electrician to make and sign a written report once each _____ in a record book provided for that purpose.

a. 8 hours
b. 24 hours
c. Week
d. Month

Section 216

101. In all mines, the _____ shall employ a sufficient number of assistants to insure a visit to each employee during each shift.

a. Operator
b. Superintendent
c. Mine foreman
d. Shift foreman

Section 217

102. The _____ shall insure that the mine examiner has initialed, dated, and recorded the time of all places examined or reported as examiner.

a. Operator & superintendent
b. Superintendent and mine foreman
c. Mine foreman or assistant mine foreman
d. Operator and Mine foreman

Section 301

103. It shall be the duty of the _____ to see that the requirements of this chapter for the installation and maintenance of electrical equipment are observed in and around coal mines.

a. Mine foreman, mine electrician
b. Mine electrician, superintendent
c. Mine foreman, superintendent
d. Operator, superintendent

Section 311

104. Circuit breakers used to protect feeder circuits shall be set to trip when the current exceed by more than _____% of the rate of capacity of the feeder.

a. 25
b. 50
c. 75
d. 100

Section 302

105. Medium voltage is _____.

a. Up to 660 volts
b. 661 to 1000 volts
c. Above 1000 volts
d. Above 4160

106. All flame resistant cables used underground shall have the approval number embossed or indented on the jacket at intervals not to exceed _____ feet.

a. 6
b. 8
c. 10
d. 12

Section 304

107. Gloves or rubber mats or other suitable insulating material shall be provided by the _____.

a. Mine electrician
b. Mine foreman
c. Superintendent
d. Operator

Section 212

108. All reports entered in the record book by a mine examiner must be countersigned by the _____.

a. Shift foreman
b. Mine foreman
c. Superintendent
d. Assistant mine foreman

109. How often must a mine electrician inspect the condition of electrical equipment?

a. Each shift
b. Weekly
c. Daily
d. Monthly

Section 212

110. How often must a pre-shift examination be made?

a. At the beginning of a coal producing shift
b. 3 hours preceding the beginning of the next shift
c. Once in a 24 hour period
d. When directed by the mine foreman

111. The mine foreman or assistant mine foreman shall be notified of the need of roof support material, how much in advance?

a. One day
b. At the end of the shift
c. Immediately
d. Start of the shift

112. Who is responsible to provide a wash-house?

a. Operator
b. Mine foreman
c. Superintendent
d. A & C

Section 217

113. Who is responsible to employee a sufficient number of mine examiners?

a. Operator
b. Superintendent
c. Mine foreman
d. Superintendent and mine foreman

Section 213

114. Who shall direct that the holes for blasting shall be properly placed and designate the angle and depth of the holes?

a. Operator
b. Superintendent
c. Mine foreman
d. Mine foreman or assistant mine foreman

Section 303

115. A plan kept at the mine showing the location of all stationery electrical apparatus in the mine electrical system, shall be of sufficient size and the scale shall not be less than _____ feet per inch.

a. 200
b. 300
c. 500
d. 1000

Section 302

116. Low voltage is _____.

a. Up to 120 volts
b. Up to 300 volts
c. Up to 600 volts
d. Up to 660 volts

Section 305

117. What instructions must be posted at every electrical generating, transforming, and motor room and at the entrance to the mine?

a. Operation instructions
b. Restoration of individuals from electrical shock
c. Firefighting
d. Maintenance troubleshooting

Section 302

118. All electrical equipment and circuits that pertain to the operation of the mine are under the control of _____.

a. Superintendent
b. Mine foreman
c. Mine electrician
d. Mine management

119. A cable in which the insulated conductor is covered with a conductive material for the purpose of clearing ground faults is called a _____.

a. Armored cable
b. Borehole cable
c. Trailing cable
d. Shielded cable

Section 419

120. The concentration of diesel exhaust gasses in the mine atmosphere shall not exceed _____ ppm for carbon monoxide.

a. 20
b. 35
c. 50
d. 100

121. The concentration of diesel exhaust gasses in the mine atmosphere shall not exceed _____ ppm for nitrogen dioxide.

a. 3
b. 5
c. 10
d. 30

Section 416

122. A qualified mechanic shall perform maintenance tasks and make all necessary adjustments or repairs to diesel equipment at intervals not exceeding _____ hours.

a. 25
b. 50
c. 100
d. 200

Section 414

123. Records of pre-operational examinations shall be retained for _____.

a. 1 month
b. 1 year
c. The previous 100 hour maintenance cycle
d. Permanently

Section 240

124. Who shall ascertain that all workmen are trained in the proper methods of testing roof, face, and ribs?

a. Assistant mine foreman
b. Assistant mine foreman and mine foreman
c. Shift foreman and mine foreman
d. Superintendent and mine foreman

Section 241

125. How often should the operator revise the roof-control plan?

a. Monthly
b. Every 6 months or more frequently if required by the Department
c. Annually
d. Never

Section 244

126. Explosives and detonators shall be kept at least _____ feet from roadways and power lines in a well rockdusted area.

a. 10
b. 15
c. 20
d. 25

127. How many feet from the face or faces shall explosives and detonators be stored?

a. 100
b. 200
c. 300
d. 500

Section 224

128. Every entry must be surveyed at intervals not to exceed _____ lineal feet.

a. 250
b. 5000
c. 1000
d. 300

Section 224

129. All workings not surveyed and taken from a working map, or other official record, shall be shown on the map with _____.

a. Red ink
b. Dashed lines
c. Green ink
d. Blue ink

Section 221

130. Beginning one year after the effective date of this paragraph, no individual may be appointed as a Superintendent at any mine in this Commonwealth, unless the individual possesses a valid _____.

a. Mine foreman certificate
b. Assistant mine foreman certificate
c. Mine engineer's certificate
d. Mine examiner's certificate

Section 218

131. The retention period for records shall be _____.

a. One week
b. 6 months
c. One year
d. Two years

Section 221

132. How many mines may a Superintendent serve at one time?

a. One
b. Two
c. As many as appointed to
d. Four

133. Danger signals shall be _____.

a. Uniform in design approved by the Department
b. Of fluorescent material
c. Of reflective material
d. Printed on both sides

Section 221

134. Who shall distribute the danger signs?

a. Mine foreman
b. Assistant mine foreman
c. Superintendent
d. A & B

Section 224

135. Who shall cause the map to be made by a professional engineer?

a. Mine foreman or his assistant
b. Operator
c. Superintendent and operator
d. Superintendent

136. The scale of a map shall be _____ per inch.

a. 20 feet
b. 100 feet
c. 200 feet
d. 300 feet

Section 230

137. A fan is needed when a mine extends more than _____ feet.

a. 100
b. 200
c. 300
d. 500

Section 326

138. Switches or circuit breakers to de-energize trolley or feeder lines shall not exceed _____ feet.

a. 500
b. 1000
c. 1500
d. 2000

Section 325

139. On main haulage roads, both rails shall be bonded, except welded track, and cross bonds shall be placed at points not to exceed _____ feet apart.

a. 50
b. 100
c. 150
d. 200

Section 237

140. How often shall main fans be inspected?

a. Weekly
b. Daily
c. Monthly
d. Yearly

Section 231

141. The maximum distance driven between entries to establish ventilation is _____ feet.

a. 100
b. 200
c. 250
d. 300

Section 320

142. Electric lamps used in face areas shall be installed in _____ enclosures.

a. Airtight
b. Explosion proof
c. Water proof

Section 323

143. What is the highest voltage allowed for a trolley system?

a. 300
b. 600
c. 400
d. 500

Section 326

144. Trolley hangers shall be no more than _____ feet apart.

a. 10
b. 24
c. 30
d. 15

Section 249

145. How often shall cages and elevators be inspected?

a. Every 24 hours
b. Each shift
c. Weekly
d. Monthly

Section 106

146. Who approves electrical equipment, machinery, materials, methods and plans used in the mine?

a. Superintendent
b. Department
c. Operator
d. Mine electrician