QUESTION BANK- FOR TECH-GR-III, LEVEL-2, LDCE QUOTA, CIVIL ENGG,

(PWAY-WELDER)

(ALL DIMENSIONS/VALUES IN THIS QB IS FOR BG TRACK ONLY)

Equipments and Tools of welders

1. Before welding, alignment of rail ends shall be measured by using [d]

   a) 10 cm straight edge b) 50 cm straight edge

   c) 75 cm straight edge d) 1 m straight edge

2. Finished weld tolerances are measured by using [d]

   a) 10 cm straight edge b) 50 cm straight edge

   c) 1 m straight edge d) Both 10 cm and 1m straight edge

3. For thermal plugging _____ tool is used [d]

   a) 1 m straight edge b) 2 m straight edge

   c) Tapping rod d) Aluminium/steel rod

4. For tapping of weld metal in to the weld gap _____ tool is used [a]

   a) Tapping rod b) Cleaning rod c) 1 m straight edge d) None

5. For crucible cleaning _____ tool is used [b]

   a) Tapping rod b) Cleaning rod round c) 1 m straight edge d) None

6. In CAP system, life of tapping rod, in terms of no. of joints [c]

   a) 250 b) 500 c) 1000 d) 1250

7. Gap between rail ends shall be checked by _____ [c]

   a) Metric scale b) Filler gauge c) Gap gauge d) Tapered gauge

8. For measuring wear of CMS crossing _____ tool is used [a]

   a) Filler gauge b) Gap gauge c) Tapered gauge d) Metric scale

9. _____ tool is used for during hole marking in the rail [d]

   a) L square b) Steel Marker c) Tool for punching d) All the above

10. _____ tool is used during welding [b]

    a) Gauge cum level b) Stop watch c) Measuring tape d) Metric scale

11. In AT welding technique, wooden wedges are used for [a]

    a) Rail alignment b) measuring weld gap c) Cleaning of crucible d) None

12. _____ is used For loosen and removing of fish bolts and fish plates [a]

    a) Spanner b) Crow bar c) Wire claw d) Tommy bar

13. Instrument used to check preheating temperature of Rail ends during AT welding [b]

a) Contact type pyrometer b) Optical pyrometer

c) Temperature indicating crayons d) All the above

14. Magnifying glass is used for [d]

a) To indentify cracks in bottom flange of rail b) To indentify bolt hole cracks in rail

c) To detect the cracks at rail ends d) all the above

15. For trimming of excess weld metal, what tool is used for when weld trimmer is not working [c]

a) Hot sets (chisels) b) Sledge Hammer double panel 5 kg

c) Both a & b d) none of the above

16. _____ is used for rail ends cleaning during welding [c]

a) Steel wire brush b) kerosene oil c) Both a & b d) Wire claw

17. _____ tools should be available with welder [d]

a) Funnel tin (for pouring petrol) b) Adjustable spanner

c) Hose clips d) All the above

18. For personnel safety _____ tools should be available with welder [d]

a) First aid box b) Blue goggles c) Asbestos gloves d) All the above

19. In CAP system, life of asbestos gloves, in terms of no. of joints [b]

a) 250 b) 500 c) 1000 d) Not specified

20. _____ tools should be available with welder [d]

a) Pliers b) Rail file 350 × 40 × 6 mm c) Slag container d) All the above

21. _____ Is used for collecting over flowing slag during welding [a]

a) Slag container (bowl) b) Mortar pan c) Mould shoes d) None

22. In CAP system, life of slag container (bowl), in terms of no. of joints [b]

a) 250 b) 500 c) 1000 d) Not specified

23. For rail preparation, Best quality cutting can be obtained by_____. [c]

a) Hand cutting machine b) Hacksaw blade

c) Abrasive disc cutter d) Any RDSO approved blade

24. Minimum time required for performing single cut with hacksaw blade is ____ minutes

a) 20 b) 15 c) 10 d) 25 [a]

25. Minimum time required for performing two cuts with hacksaw blade is ____ minutes

a) 20 b) 30 c) 40 d) 50 [c]

26. Minimum time required for performing single cut with abrasive rail cutter is____ minutes [a]

a) 5 b) 10 c) 15 d) 20

27. Minimum time required for performing two cuts with abrasive rail cutter is____ minutes [c]

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

28. Bends in rail, shall be rectified by using _____. [a]

a) Jim crow b) Rail tensor c) mechanical jack d) Hydraulic jack

29. In AT welding short preheating is done by [d]

a) Compressed air petrol b) Air - Petrol c) OXY – LPG d) All the above

30. CAP stands for [a]

a) Compressed Air Petrol b) Compressed Atmosphere pressure

c) Composite Air Petrol d) None of the above

31. In CAP system, life of compressor system with pressure gauges complete, in terms of no. of joints [d]

a) 200 b) 300 c) 400 d) 500

32. In CAP system, life of torch (burner) complete, in terms of no. of joints [b]

a) 200 b) 300 c) 400 d) 500

33. In CAP system, life of torch (burner) keys, in terms of no. of joints [d]

a) 200 b) 300 c) 400 d) 500

34. In CAP system, life of torch (burner) stand, in terms of no. of joints [d]

a) 200 b) 500 c) 800 d) 1000

35. In CAP system, life of goose neck attachment to vaporizer, in terms of no. of joints

a) 50 b) 100 c) 150 d) 200 [a]

36. In AT welding _____equipment is used for pouring of portion in to the weld gap [b]

a) Mortar pan b) Crucible c) Slag container (bowl) d) None of the above

37. In CAP system, life of crucible complete - crucible shell and crucible lining, in terms of no. of joints [c]

a) 100 & 10 b) 250 & 25 c) 500 & 50 d) 600 & 60

38. In AT welding _____ is used for safe fixing of three piece pre fabricated moulds

a) Plastic mould shoes b) Iron mould shoes [b]

c) Aluminum mould shoes d) None of these

39. The latest development in crucible used for reaction of portion for AT welding of rails is [a]

a) Single shot crucible b) double shot crucible

c) Multi shot crucible d) none of these

40. In CAP system, life of mould shoes, in terms of no. of joints [a]

a) 100 b) 150 c) 200 d) 250

41. In CAP system, life of weld trimmer (cutter), in terms of no. of joints [b]

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

42. In CAP system, life of rail profile guided grinding trolley (grinding wheel), in terms of no. of joints [a]

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

43. Fuel tank capacity of abrasive rail cutter shall be at least [a]

a) 1 Litre b) 1.5 Litre c) 2 Litre d) 0.5 Litre

44. While cutting rails with abrasive rail cutting wheel the vertical/lateral tolerance for squareness on face of rail heads of cut shall not be more than [b]

a) ± 0.5 mm b) ± 1.0 mm c) ± 1.5 mm d) ± 1.75 mm

45. Minimum number of cuts to be given by each abrasive rail cutting disc for 60kg 90 UTS rail section are [c]

a) 4 b) 5 c) 6 d) 7

46. Minimum number of cuts to be given by each abrasive rail cutting disc for 52kg 90 UTS rail section are [a]

a) 7 b) 6 c) 5 d) 4

47. Cutting time of cut using abrasive rail cutting wheel for 52 kg 90 UTS rail section is _____ minutes [c]

a) 4 b) 4.5 c) 3 d) 5

48. Cutting time of cut using abrasive rail cutting wheel for 60 kg 90 UTS rail section is _____ minutes [a]

a) 4 b) 4.5 c) 5 d) 6

49. Maximum overall weight of abrasive rail cutter shall be [d]

a) 30 Kgs b) 40 Kgs c) 25 Kgs d) 35 Kgs

50. Fixing time of rail clamp and the abrasive rail cutter is [a]

a) within 01 minute b) within 1.5 minute c)within 2.0 minute d) within 2.5 minute

51. Cutting time of cut using abrasive rail cutting wheel for 60 kg 110 UTS rail section is _____ minutes [c]

a) 4 b) 4.5 c) 5 d) 6

52. Nominal size of diameter of abrasive rail cutting wheel is [a]

a) 400 x 4 x 22.23 mm b) 400 x 3 x 22.24 mm

c) 400 x 3.5 x 2.23 mm d) 400 x 3.5x 22.23 mm

53. Abrasive rail cutter, prime mover is petrol engine of _____ [a]

a) 7HP at 7000 rpm b) 7HP at 5000 rpm

c) 5HP at 7000 rpm d) 5HP at 5000 rpm

54. Approximately operating speed of the abrasive rail cutting disc [b]

a) 4700 rpm b) 4800 rpm c) 4900 rpm d) 5000 rpm

55. Minimum Man power required to operate abrasive rail cutter is [c]

a) 2 – Both skilled b) 2 – Both unskilled

c) 2 – One skilled and one unskilled d) All the above

56. Approximate weight of rail drilling machine is [d]

a) 50 kgs b) 55 kgs c) 60 kgs d) 65 kgs

57. Approximate drilling time to drill hole with rail drilling machine in 60 kg 90 UTS rail is

a) 3.5 to 5 minutes b) 4 to 5 minutes c) 3 to 4 minutes d) 3.5 to 4.5 minutes [c]

58. Fixing time of rail clamp and the hole drilling machine is [c]

a)within 01 minute b)within 1.5 minute c)within 2.0 minute d)within 2.5 minute

59. Rail drilling machine drill spindle rotation shall be between [b]

a) 50 to 80 rpm b) 60 to 90 rpm c) 60 to 80 rpm d) 50 to 90 rpm

60. Fuel tank capacity of rail drilling machine shall be at least [c]

a) 1 Litre b) 1.5 Litre c) 2 Litre d) 0.5 Litre

61. Minimum Fuel consumption of rail drilling machine shall be_____ number of holes in 01 litre on 60 kg 90 UTS rail section [d]

a) 12 b) 14 c) 08 d) 10

62. No. of holes that can be drilled by a rail drilling machine in a day is___approximately.

a) 30 b) 45 c) 60 d) 90 [c]

63. The standard diameter of fish bolt on BG is [c]

a) 24 mm b) 30 mm c) 25 mm d) 22 mm

64. Size of drill bit used for normal fish bolt holes is [b]

a) 31.50 mm b) 31.75 mm c) 32 mm d) all the above

65. The tolerance for the diameter and position of the hole drilled with rail drilling machine shall be [a]

a) ± 0.7 mm b) ± 0.65 mm c) ± 0.6 mm d) ± 0.5 mm

66. Drill bit shall last for ____ number of fish bolt holes in 60 kg 90 UTS rail section [b]

a) 80 b) 100 c) 90 d) 110

67. Minimum Man power required to operate rail hole drilling machine is [a]

a) 2 – One skilled and one unskilled b) 2 – Both unskilled

c) 2 – Both skilled d) All the above

68. Size of drill bit used for traction bond bolt holes in 60 kg rail section [d]

a) 16 mm b) 16.50 mm c) 17 mm d) 17.50 mm

69. Chamfering of bolt holes is done to [d]

a) delay formation of star cracks b) Hardens the periphery of holes

c) Increase fatigue life of rail at the hole d) all the above

70. The torque wrench in champhering kit shall be able to provide a minimum torque of

a) 52 kg-m b) 54 kg-m c) 56 kg-m d) 58 kg-m [a]

71. Minimum Man power required to operate champhering kit is [a]

a) 2 – One skilled and one unskilled b) 2 – Both unskilled

c) 2 – Both skilled d) All the above

72. For welding In LWR/CWR territory, _____ should be used for maintaining correct rail gap during cold weather condition. [a]

a) Rail tensor b) Tirfor c) mechanical jack d) None of the above

73. Maximum pulling force for hydraulic rail tensor is [a]

a) 70 T b) 85 T c) 65 T d) 80 T

74. Maximum pushing force for hydraulic rail tensor is [d]

a) 25 T b) 20 T c) 35 T d) 30 T

75. Hydraulic rail tensor shall provide a extension of _____ for 52 and 60 kg rail section

a) 200 mm b) 150 mm c) 250 mm d) 300 mm [b]

76. Total weight of hydraulic rail tensor including hand pump is [a]

a) 375 kgs b) 350 kgs c) 380 kgs d) 385 kgs

77. Minimum Man power required to operate hydraulic rail tensor is [b]

a) 4 – Two skilled and Two unskilled b) 4 – One skilled and Three unskilled

c) 4 – Three skilled and one unskilled d) All the above

78. Grinding stone of rail profile grinder is _____ shape [b]

a) Oblique b) Conical c) Cylindrical d) All the above

79. In double action weld trimmer the two shear blades of trimming unit travel towards each other by [c]

a) Mechanical force b) Pneumatic force c) Hydraulic force d) All the above

80. Maximum weight of double action weld trimmer is [a]

a) 175 kgs b) 180 kgs c) 185 kgs d) 190 kgs

81. Double action weld trimmer is also provided with emergency _____ device which can be used in case of failure for trimming. [a]

a) Hand pump b) Hydraulic pump c) Mechanical pump d) Pneumatic pump

82. In double action weld trimmer prime mover is. [c]

a) Petrol start, petrol run only b) Petrol start, kerosene run only

c) Petrol start, petrol/kerosene run d) Hydraulic

83. Tolerance achieved on top of rail head with weld trimmer before grinding [d]

a) + 1.5 mm to + 2.0 mm b) + 1.0 mm to + 1.5 mm

c) + 0.5 mm to + 1.0 mm d) + 0.5 mm to + 1.5 mm

84. Tolerance achieved on side width of rail head with weld trimmer before grinding

a) + 1.5 mm to + 2.0 mm b) + 1.0 mm to + 2.0 mm [b]

c) + 1.0 mm to + 1.5 mm d) + 0.5 mm to + 1.5 mm

85. In double action weld trimmer ensure the gap between cutting heads in fully Extended position as [c]

a) + 1.5 mm to + 2.0 mm b) + 1.0 mm to + 1.5 mm

c) + 0.5 mm to + 1.0 mm d) + 0.5 mm to + 1.5 mm

86. In double action weld trimmer, trimming time is approximately _____ for Different rail sections [b]

a) 1 to 2 minutes b) ½ to 1 minutes c) 1 to 1.5 minutes d) 1.5 to 2 minutes

87. In double action weld trimmer clean the cutting tool edge of shear blades after [a]

a) Every cut b) Every two cuts c) Every Four cuts d) once in a day

88. In double action weld trimmer remove the cutting heads when the [a]

a) Ram is fully contracted b) Ram is fully extended c) Both a & b d) None

89. Double action weld trimmer to be used on [b]

a) Cold weld b) Hot weld c) Both a & b d) Not specified

90. Double action weld trimmer is provided with nylon wheels without flanges to enable the machine to move on [d]

a) Cess b) Plain surface c) Rail surface d) Both a & b

91. Daily schedule check for maintenance of weld trimmer is [d]

a) Cutting head edge is fitted with correct edge to suit rail section

b) Cutting edge is sharp and clean

c) Check cutting edge is free from any defect d) All the above

92. Weekly schedule check for maintenance of weld trimmer is [d]

a) Cutting head edge is fitted with correct edge to suit rail section

b) Check condition of hydraulic hoses and pipes for any sign of damage.

c) Check hydraulic oil level in tank. d) Both b & c

93. Quarterly schedule check for maintenance of weld trimmer is [b]

a) At every 200 hrs running or 3 months whichever earlier

b) At every 250 hrs running or 3 months whichever earlier

c) At every 275 hrs running or 3 months whichever earlier

d) At every 300 hrs running or 3 months whichever earlier

94. Slow movement of ram in weld trimmer is due to [d]

a) Less delivery from pump. b) Direction control valve not shifting fully

c) Low setting or any defect in relief valve. d) All the above

95. Insufficient trimming force in weld trimmer is due to [c]

a) Internal oil leakage due to wear in pump b) Leakage through cylinder.

c) Pump not delivering hydraulic oil. d) All the above

96. Minimum Man power required to operate weld trimmer is [a]

a) 2 - One skilled and one unskilled b) 2 – Both unskilled

c) 2 – Both skilled d) All the above

97. Pump making unstable pressure in weld trimmer is due to [d]

a) Pump not delivering oil b) Relief valve not working properly

c) Air leak in suction line d) Both a & b

98. Maximum weight of rail profile grinder including generator is [a]

a) 80 Kgs b) 75 Kgs c) 65 Kgs d) 50 Kgs

99. Maximum grinding time for grinding of AT weld with rail profile grinder [b]

a) 20 minutes b) 15 minutes c) 10 Minutes d) 12 minutes

100. Minimum Man power required to operate rail profile weld grinder is [c]

a) 2 – Both skilled b) 2 – Both unskilled

c) 2 – One skilled and one unskilled d) All the above

101. One metre straight edge is used for [d]

a) Check the vertical and lateral tolerances

b) Aligning the rail ends both laterally and vertically

c) Check the straightness of rail ends d) All the above

Electrodes and Reconditioning of Points and Crossings

102. ____ series of electrodes, duly approved by RDSO are to be used for reconditioning of points and crossings [d]

a) A2 b) E2 c) M3 d) H3

103. Points and Crossings containing cracks on the worn-out portion having depth more than _____ beyond the condemning size shall not be selected for further reconditioning [b]

a) 2 mm b) 3 mm c) 3.5 mm d) 4 mm

104. CMS crossing should be planned for reconditioning before reaching maximum vertical wear limit on Rajdhani/shatabdi routes [c]

a) 10 mm b) 9 mm c) 8 mm d) 6 mm

105. CMS crossing should be planned for reconditioning before reaching maximum vertical wear limit on other than Rajdhani/shatabdi routes [a]

a) 10 mm b) 9 mm c) 8 mm d) 6 mm

106. Minimum service life achieved after carrying out reconditioning of points and crossings with H3 series electrodes is [a]

a) 15 GMT b) 20 GMT c) 25 GMT d) 30 GMT

107. Minimum service life achieved after carrying out reconditioning of points and crossings with H3A series electrodes is [c]

a) 15 GMT b) 20 GMT c) 25 GMT d) 30 GMT

108. During reconditioning of CMS crossing with single electrode technique to control the temperature in adjoining areas it shall be kept submerged in water in such a way that only top ____ remains above water [b]

a) 05 mm b) 10 mm c) 15 mm d) 20 mm

109. Preferably _____ grinders are used during reconditioning of points and crossings

a) Angle grinder b) Straight grinder c) Both a and b d) None [c]

110. All electrodes shall be consumed within _____ after opening of packing [b]

a) 4 Hrs b) 6 Hrs c) 8 Hrs d) 10 Hrs

111. Minimum service life achieved after carrying out reconditioning of points and crossings with H3B series electrodes is [b]

a) 30GMT b) 35 GMT c) 40 GMT d) 50 GMT

112. Minimum service life achieved after carrying out reconditioning of points and crossings with H3C series electrodes is [c]

a) 40 GMT b) 45 GMT c) 50 GMT d) 55 GMT

113. Minimum service life achieved after carrying out CMS crossing reconditioning with Translamatic robotic welding technique is [d]

a) 50 GMT b) 60 GMT c) 70 GMT d) 80 GMT

114. After opening of packing if the electrodes are not consumed they should be dried in the electrical oven at 130-170˚C for at-least _____ immediately before use [c]

a) 30 minutes b) 45 minutes c) 60 minutes d) 75 minutes

115. Diameter of electrode in depot/cess reconditioning is [d]

a) 3 mm b) 3.15 mm c) 3.75 mm d) 4 mm

116. The tongue rail should be pre-heated by oxy-acetylene flame to a temperature between _____ before reconditioning [a]

a) 250 to 300˚C b) 200 to 300˚C c) 275 to 300˚C d) 225 to 300˚C

117. Competency for private welder for carrying out welding with electrode technique is issued by [c]

a) Chemist and metallurgist of the railway b) Officer nominated by PCE of railway

c) RDSO d) Both a& b

118. Validity of competency certificate issued to welder for carrying welding with single electrode technique is [a]

a) 5 years b) 4 years c) 3 years d) 2 years

119. Competency for departmental welder for carrying out welding with electrode technique is issued by [d]

a) Chemist and metallurgist of the railway b) Officer nominated by PCE of railway

c) RDSO d) Both a& b

120. Weld metal deposited during reconditioning with single electrode technique, shall be _____ excess than parent rail top table [b]

a) 2 mm b) 3 mm c) 3.5 mm d) 4 mm

121. In case of CMS crossing before carrying reconditioning pre heating is _____ [b]

a) Required b) Not required c) Both a & b d) None of the above

122. CMS crossing reconditioning with single electrode technique welding cycle should not be more than _____ minutes at a time [d]

a) 3.5 b) 3 c) 2.5 d) 2

123. CMS crossing reconditioning with single electrode technique temperature in adjoining areas should be less than [c]

a) 100˚ C b) 130˚ C c) 150˚ C d) 170˚ C

124. CMS crossing reconditioning with single electrode technique length of metal deposit shall not be more than _____ at a time [a]

a) 7-8 cm b) 8-9 cm c) 9-10 cm d) 10-12 cm

125. The electrode to be kept at ____ angle to the direction of welding with single electrode technique [c]

a) 30˚ b) 40˚ c) 45˚ d) 50˚

126. Width of welding in case of CMS crossing reconditioning with single electrode technique should be _____of diameter of electrode. [b]

a) same b) Double c) Three times d) Four times

127. In translamatic robotic welding technique for reconditioning of CMS crossing special core fluxed filler wire electrodes of _____ diameter are used [d]

a) 1.3 mm b) 1.4 mm c) 1.5 mm d) 1.6 mm

128. In translamatic robotic welding technique temperature shall not be more than ____ before laying every bead [b]

a) 90˚ C b) 100˚ C c) 110˚ C d) 120˚ C

129. In the interest of safety and enhancement of life of reconditioned CMS crossing SR of 30 kmph for 2 days and _____ [b]

a)50kmph for 2days b)50kmph for 3days c)50kmph for 4days d)50kmph for 5days

130. Wear should be measured at ___ locations before and after reconditioning of crossing [d]

a) 03 b) 4 c) 6 d) 10

131. Wear should be measured at ___ locations on each wing rail before and after reconditioning of crossing [b]

a) 03 b) 4 c) 6 d) 10

132. Wear should be measured at ___ locations on V rail before and after reconditioning of crossing [a]

a) 02 b) 03 c) 04 d) 01

133. Wear should be measured at two locations at a distance of ___ from ANC on V rail before and after reconditioning of crossing [b]

a) 9 & 180 mm b) 100 & 200 mm c) 0 & 90 mm d) 0 & 100 mm

134. Tongue rail wear is to be measured at _____ locations starting from one of the toe to the places at every _____ towards heel before and after reconditioning [c]

a) 6, 75 mm b) 6, 100 mm c) 7, 100 mm d) 7, 75 mm

135. In the interest of safety and enhancement of life of reconditioned CMS crossing SR of

a) 30 kmph for 2 days b) 30 kmph for 3 days [a]

c) 30 kmph for 4 days d) 30 kmph for 5 days

136. During reconditioning CMS crossing grinding wheel to be moved back and forth and not stop at one point to avoid high _____ [a]

a) Localised heating b) Central heating c) Both a & b d) None of the above

137. In case of CMS crossing, number of reconditioning cycles to be restricted to a maximum of _____ [c]

a) 1 no. b) 2 no.s c) 3 no.s d) 4 no.s

138. In case of CMS crossing 52 kg following to be deducted from observed vertical wear to find out actual wear due to 1 in 20 cant slope given in wing rail. [d]

a) 3.5 mm b) 3 mm c) 2.5 mm d) 2.0 mm

139. In case of CMS crossing 60 kg following to be deducted from observed vertical wear to find out actual wear due to 1 in 20 cant slope given in wing rail. [c]

a) 3.5 mm b) 3 mm c) 2.5 mm d) 2.0 mm

140. As approved by RDSO, technology for in situ reconditioning of CMS crossing, has to give minimum service life of _____ [d]

a) 25 GMT b) 35 GMT c) 50 GMT d) 80 GMT

Arc welding and Gas welding

141. What is the engine capacity portable D.C. welding generator? [a]

a) 15 HP b) 20 HP c) 25 HP d) 30 HP

142. In portable D.C. welding generator prime mover is [d]

a) Petrol start, petrol run only b) Petrol start, kerosene run only

c) Petrol start, petrol/kerosene run d) Petrol start, petrol/diesel/kerosene run

143. In portable D.C. welding generator range of welding current [c]

a) 20 to 80 amp b) 30 to 60 amp c) 60 to 200 amp d) 200 to 350 amp

144. In portable D.C. welding generator maximum welding current shall not be less than

a) 60 amp at 60% duty cycle b) 100 amp at 60% duty cycle [d]

c) 150 amp at 60% duty cycle d) 200 amp at 60% duty cycle

145. In portable D.C. welding generator one duty cycle consist of _____ [a]

a) 5 minutes b) 10 minutes c) 15 minutes d) 20 minutes

146. In portable D.C. welding generator one duty cycle 5 minutes consist of _____ [c]

a) 1 minutes welding load and 4 minutes no welding load

b) 2 minutes welding load and 3 minutes no welding load

c) 3 minutes welding load and 2 minutes no welding load

d) 4 minutes welding load and 1 minutes no welding load

147. Weight of portable D.C. welding generator is [c]

a) 50 kgs b) 100 kgs c) 150 kgs d) 200 kgs

148. Minimum Man power required to operate portable D.C. generator [a]

a) 2 (1 skilled + 1 unskilled) b) 2 (skilled) c) 2 (unskilled) d) None

149. The weldability depends on _____ [c]

a) Welding method b) Welding metal c) Both a & b d) None of these

150. The electricity is supplied by _____ [d]

a) Motor generator b) Transformer c) Rectifier d) All the above

151. It is a kind of internal defect [d]

a) Blow hole b) Lack of fusion c) Internal crack d) All the above

152. For AT welding with Oxy- LPG technique for pre heating of rails, oxygen pressure should be maintained in the range of [c]

a) 2.0 to 4.0 kg/cm² b) 4.0 to 7.0 kg/cm² c) 7.0 to 8.0 kg/cm² d) 8.0 to 9.0 kg/cm²

153. In reconditioning of points and crossing by arc welding, lack of fusion is due to [d]

a) Dirt surface and improper joint preparation.

b) Current too low and excessive welding speed.

c) Wrong electrode angle and too large electrode dia. d) All the above

154. In reconditioning of points and crossing by arc welding, slag inclusion is due to [d]

a) Incomplete slag removal between run/passes and faulty welding speed.

b) Too large electrode dia, longer arc and too high or too low arc.

c) Improper joint design and damp or caked electrode coating.

d) All the above

155. In reconditioning of points and crossing by arc welding, porosity is due to [d]

a) Welding speed too high and too low or too high welding current.

b) Dirty surface and damp or caked electrode coating.

c) Higher sulphur content in parent metal and arc length too short or long.

d) All the above.

156. In reconditioning of points and crossing by arc welding, cracks is due to [d]

a) Welding speed too high poor, ductility and high S% and C% in base metal.

b) Rapid cooling or high restraint and improper joint design/preparation.

c) Electrodes with high hydrogen and base metal have oil, grease, rust or moisture.

d) All the above.

157. For AT welding with Oxy- LPG technique for pre heating of rails, LPG pressure should be maintained in the range of [a]

a) 2.0 to 2.5 kg/cm² b) 2.5 to 3.0 kg/cm² c) 3.0 to 4.0 kg/cm² d) 4.0 to 5.0 kg/cm²

158. Preheating time would be about _____ minutes for 52/60kg rail with Oxy – LPG preheating technique. [a]

a) 2.0 to 2.5 b) 2.5 to 3.0 c) 3.0 to 4.0 d) 4.0 to 4.5

159. After fixing and luting of moulds for AT welding the rail ends are heated to a desirable temperature in the range of [c]

a) 680 to 720°C b) 600 to 750°C c) 650 to 850°C d) 700 to 850°C

Building up of Rail Ends and AT Welding

160. The height of 60kg rail is _____mm [c]

a) 142.9 b) 156 c) 172 d) none of these

161. The height of 52kg rail is _____mm [b]

a) 142.9 b) 156 c) 172 d) none of these

162. The flange width of 52kg rail is? [c]

a) 150 mm b) 136.5mm c) 136 mm d) 172 mm

163. The flange width of 60kg rail is _____mm [b]

a) 136 b) 150 c) 172 d) none of these

164. The head width of 52kg rail is _____mm [b]

a) 61 b) 67 c) 72 d) 74

165. The head width of 60kg rail is _____mm [c]

a) 61 b) 67 c) 72 d) 76

166. The web thickness of 52kg rail is _____mm [c]

a) 16.9 b) 16.5 c) 15.5 d) 15.0

167. The web thickness of 60kg rail is _____mm [b]

a) 16.9 b) 16.5 c) 15.5 d) 15.0

168. What is the cross sectional area in sq.mm of 52 kg IRS rail? [c]

a) 5250 b) 5895 c) 6615 d) 7686

169. What is cross sectional area in sq.mm of 60 kg UIC rail? [d]

a) 5250 b) 5895 c) 6615 d) 7686

170. The total GMT which 52kg 90UTS can carry is? [c]

a) 350 b) 450 c) 525 d) 800

171. The total GMT which 60kg 90uts can carry route not covered by rail grinding is? [d]

a) 350 b) 450 c) 525 d) 800

172. The total GMT which 60kg 90uts can carry routes covered by rail grinding is? [d]

a) 525 b) 550 c) 800 d) 1000

173. Actual weight of 60kg(UIC) rail per metre is [c]

a) 60 kg b) 60.89 kg c) 60.34 kg d) 60.14

174. Actual weight of 52kg rail per metre is [b]

a) 52kg b) 51.89 kg c) 52.89 kg d) 52.14 kg

175. Latest RDSO rail specification for class I rails is [c]

a) IRS T-12-98 b) IRS T-12-2006 c) IRS T-12-2009 d) IRS T-12-2012

176. Grade 90UTS is equivalent to [b]

a) 710MPa b) 880MPa c) 900MPa d) 1080MPa

177. Rolling mark of a rail is [d]

a) Branded on one side of web b) gives name of manufacturer

c) Repeated within 4 meters d) all the above

178. In prime quality rails, rails classified as class-A and class-B based on_____tolerence

a) Cross sectional area b) Overall height [c]

c) End straightness d) Weight per meter

179. Selection of rails to be welded for both new as well as second hand rails, before welding it should be ensured that the end bends of the rails are within_____ in vertical direction when checked with one metre straight edge. [a]

a) +0.5mm, -0 mm b) +0.4mm, -0 mm c) +0.3mm, -0 mm d) +0.2mm, -0 mm

180. Selection of rails to be welded for both new as well as second hand rails, before welding it should be ensured that the end bends of the rails are within_____ in lateral direction when checked with one metre straight edge. [b]

a) ±0.4 mm b) ±0.5mm c) ±0.1mm d) ±0.3mm

181. Selection of new rails for welding, 52/60kg head width tolerance is_____ [b]

a) ±0.4mm b) ±0.5mm c) ±0.6mm d) ±0.3mm

182. Selection of new rails for welding, 52/60kg height tolerance is_____ [c]

a) +0.6mm, -0.2mm b) +0.7mm, -0.3mm c) +0.8mm, -0.4mm d) +0.9mm, -0.5mm

183. Selection of new rails for welding, 52kg flange width tolerance is_____ [d]

a) ±0.4mm b) ±0.5mm c) ±0.8mm d) ±1.0mm

184. Selection of new rails for welding, 60kg flange width tolerance is_____ [a]

a) +1.2mm, -1.0mm b) +1.0mm, -0.8mm c) +0.8mm, -0.6mm d) +0.5mm, -0.3mm

185. Selection of new rails for welding, 52/60kg web thickness tolerance is_____ [d]

a) +0.4mm, -0.2mm b) +0.6mm, -0.3mm c) +0.8mm, -0.4mm d) +1.0mm, -0.5mm

186. Obsolete rail sections and rails older than _____ years shall not, normally, be welded.

a) 20 b) 30 c) 40 d) 50 [d]

187. AT welding is a process that can be used for carrying out welding of rails [b]

a) In workshops only b) At site c) In factories only d) None of the above

188. Rails shall be free from excessive wear; the minimum height of 52kg old rail shall not be less than_____mm. [a]

a) 150 b) 156 c) 163 d) 172

189. Rails shall be free from excessive wear; the minimum height of 60kg old rail shall not be less than_____mm. [c]

a) 150 b) 156 c) 163 d) 172

190. Rails shall be free from excessive wear; the minimum head width of 52kg old rail shall not be less than_____mm. [a]

a) 61 b) 66 c) 67 d) 72

191. Rails shall be free from excessive wear; the minimum head width of 60kg old rail shall not be less than_____mm. [b]

a) 61 b) 66 c) 67 d) 72

192. Before welding, the ends of second hand rails should be suitably cropped so as to eliminate_____. [d]

a) Fish bolt holes b) Heat affected zone

c) Battered & Hoggered ends d) All the above

193. Where Rails of different grades, i.e. 72UTS and 90UTS are to be welded together, the portion of _____ grade shall be utilised for welding. [b]

a) 72UTS b) 90UTS c) 110UTS d) None

194. Where Rails of different grades, i.e. 90UTS and 110UTS are to be welded together, the portion of _____ grade shall be utilised for welding. [c]

a) 72UTS b) 90UTS c) 110UTS d) None

195. Cropping of rail ends to eliminate Heat Affected Zone during repairing of AT weld fracture _____. [c]

a) 85 mm from centre of weld b) 100 mm from centre of weld

c) 150 mm from centre of weld d) 175 mm from centre of weld

196. To do AT welding, Rail ends having old welds and not having bolt holes, the ends to be cropped up to a distance ____from centre of old weld. [d]

a) 75 mm b) 100 mm c) 175 mm d) 150 mm

197. To do FB welding, Rail ends having old welds and not having bolt holes, the ends to be cropped up to a distance ____ from centre of old weld. [b]

a) 75 mm b) 85 mm c) 90 mm d) 100 mm

198. In case of repair of fractured rail/defective weld, the existing bolt holes should not fall within_____mm from cut faces. [a]

a) 40 b) 50 c) 83 d) 166

199. Training and certification of labour contracting firms welders and supervisors shall be done by_____ [c]

a) TPP/LKO b) TWTC/BZA c) RDSO/LKO d) IRICEN/PUNE

200. Training and certification of departmental welders and supervisors shall be done by_____ [a]

a) TPP/LKO or TWTC/BZA b) ZCETI'S c) RDSO/LKO d) IRICEN/PUNE

201. Alumino thermit welding of rail ends is a process of [a]

a) Casting b) Forging c) Lapping d) None of the above

202. Advantages of welding of rail ends? [d]

a) Increases the rail life, decreases the maintenance expenditure

b) The noise id reduced, Provides greater comport to the passengers

c) Amount of expansion due to temperature variations is reduced

d) All the above

203. What is the fatigue strength of AT welding comparative to stipulated fatigue strength of the Parent Rail? [b]

a) 35% b) 56% c) 75% d) 100%

204. What is the fatigue strength of Flash butt welding comparative to stipulated fatigue strength of the Parent Rail? [c]

a) 56% b) 75% c) 90% d) 100%

205. The two rail ends to be welded shall be held in position with a uniform gap of [b]

a) 20 $\pm$ 1 mm b) 25 $\pm$ 1 mm c) 28 $\pm$ 1 mm d) 30 $\pm$ 1 mm

206. The gap to be maintained for wide gap repair welding is [d]

a) 25 b) 50 c) 75 d) both 50 & 75

207. Certification of departmental and contracting firms Welders/Supervisors of Approved portion manufacturing firms shall be done by RDSO Specification as per_____ for Fusion Welding of Rails by Alumino Thermic Process. [d]

a) IRST-19-2009 b) IRST-19-2012 c) IRST-19-2015 d) IRST-19-2021

208. Initial course for welder is_____. [a]

a) TW1 b) TW2 c) TW3 d) TW4

209. The portion used for welding shall conform to the technical requirements as per RDSO specification is _____ [d]

a) IRST-19-2009 b) IRST-19-2012 c) IRST-19-2015 d) IRST-19-2021

210. Training duration for initial course for welder (TW1) is_____ [b]

a) One week b) Two weeks c) Three weeks d) four weeks

211. Provisional competency certificate for TW1 course shall be valid for executing _____ or _____ whichever is earlier. [b]

a) 50 joints, 3 months b) 100 joints, 6 months

c) 150 joints, 6 months d) 100 joints, 3 months

212. For evaluating working performance of welder should have executed at least ____ no. of welds [d]

a) 100 b) 75 c) 65 d) 50

213. Welders issued with provisional certificate fail to execute minimum number of 50 welds within six months is [b]

a) Competent b) Incompetent c) can attend TW-2 d) None of the above

214. Welders after executing 50 welds within six months are directed to attend TW- 2 course along with ____ mts test piece with weld at centre [d]

a) 1 b) 1.5 c) 1.75 d) 2

215. Criteria for issuing regular competency certificate defective weld percentage should be less than ___ of the welds executed by welder under provisional certificate [a]

a) 1% b) 1.5% c) 1.75% d) 2%

216. Refresher course for welder is _____ [b]

a) TW1 b) TW2 c) TW3 d) TW4

217. Training duration for refresher course for welders (TW2) is _____ [a]

a) One week b) Two weeks c) Three weeks d) four weeks

218. Regular competency certificate for welders after completion of TW2 course is valid for _____ years. [c]

a) 6 months b) 1 year c) 2 years d) 3years

219. After expiry of the validity of competency certificate, the welder is permitted to attend Refresher course TW2 for revalidation within _____ of issue of competency certificate [d]

a) 6 months b) 1 year c) 2 years d) 3years

220. Welders not undergone Refresher course TW2 within 3 years from issue of competency certificate shall have to attend [b]

a) Initial course and refresher course again b) Initial course again

c) Refresher course only again d) None of these

221. Training course for supervisors on welding is_____ [c]

a) TW1 b) TW2 c) TW3 d) TW4

222. Training duration for supervisors on welding (TW3) is _____ [a]

a) 1 week b) 2 weeks c) 3 weeks d) 4 weeks

223. After successful completion of training course for Supervisors (TW3), the validity period is _____ [d]

a) 1 year b) 2 years c) 3 years d) 5 years

224. Refresher training course for supervisors on welding is_____ [d]

a) TW1 b) TW2 c) TW3 d) TW4

225. Refresher course Training duration for supervisors on welding (TW4) is _____ [a]

a) 2 days b) 1 weeks c) 2 weeks d) 3 weeks

226. Refresher course training for supervisors once in_____ [c]

a) 2 years b) 4 years c) 5 years d) 6 years

227. Life of AT welding portion? [d]

a) 1 year b) 2 years c) 3 years d) No specific life

228. Before using of portion for AT welding, it should be ensured [d]

a) Free from moisture b) Batch number & portion number

c) Type (rail section) and chemistry (UTS) of rail d) All the above

229. Colour of 72 UTS rail welding portion bag is _____ [b]

a) Green colour b) Red colour c) Black colour d) yellow colour

230. Colour of 90 UTS rail welding portion bag is _____ [a]

a) Green colour b) Red colour c) Black colour d) yellow colour

231. Colour of 110UTS (chrome manganese & chrome - vanadium) rail welding portion bag is _____ [c]

a) Green colour b) Red colour c) Black colour d) yellow colour

232. If date of manufacturing welding portion is more than 2 years, reaction test to be done by taking one portion from batch of ____ no.s [b]

a) 200 b) 300 c) 350 d) 400

233. Colour of 110UTS (Head Hardened) rail welding portion bag is _____ [d]

a) Green colour b) Red colour c) Black colour d) yellow colour

234. Colour of R-260 grade rail welding portion bag is _____ [a]

a) Violet colour b) Red colour c) Black colour d) yellow colour

235. The minimum traffic block required for one AT welding _____ [c]

a) 45 minutes b) 60 minutes c) 70 minutes d) 75 minutes

236. Minimum traffic block required for performing two continuous welds is____ [a]

a) 90 minutes b) 80 minutes c) 95 minutes d) 100 minutes

237. Before AT welding, the rail ends shall be cleaned with wire brush and Kerosene for at least a length of _____ [d]

a) 200 mm b) 150 mm c) 100 mm d) 50 mm

238. The traffic block requirement involving two cuts and two welds shall be _____where the cutting is done by abrasive disc cutters. [c]

a) 70 minutes b) 90 minutes c) 100 minutes d) 120 minutes

239. The traffic block requirement involving two cuts and two welds shall be _____where the cutting is done by hacksaw blades. [d]

a) 70 minutes b) 90 minutes c) 100 minutes d) 120 minutes

240. Normally, no AT welded joint shall be located closer than_____ m from any other welded or fish plated joint. [b]

a) 3 b) 4 c) 5 d) 6

241. In case of in situ welding the rail fastenings for at least _____ sleepers on either side shall be loosened. [d]

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

242. The sleepers adjacent to the joint to be welded shall be shifted to obtain a clear working space of _____ mm on either side. [c]

a) 150 b) 200 c) 250 d) 300

243. During AT welding of rails on cess the full rail length should be supported on at least

a) 5 sleepers b) 7 sleepers c) 8 sleepers d) 10 sleepers [d]

244. Tolerance for vertical alignment on before AT welding is checked with 1M straight edge measured at [c]

a) Middle of the straight edge b) Above the straight edge

c) At the end of the straight edge d) None of these

245. Lateral alignment of rail ends before AT welding when checked with one meter straight edge at centre shall be _____ [a]

a) ± 0.5 mm b) ± 0.6 mm c) ± 0.7 mm d) ± 0.8 mm

246. Lateral tolerance of rail end bend in horizontal plane with straight edge is checked at _____ mm below rail top [c]

a) 12 b) 13 c) 14 d) 15

247. The joint shall be kept higher after vertical alignment for AT welding when checked with one meter straight edge for 90 UTS rail [a]

a) 2 to 2.4 mm b) 3 to 4 mm c) 4 to 5 mm d) 1 to 2 mm

248. Tolerance for lateral alignment on before AT welding is checked with 1M straight edge measured at [a]

a) Middle of the straight edge b) Above the straight edge

c) At the end of the straight edge d) None of these

249. PFM stands for _____ [b]

a) Post Fabricated moulds b) Pre Fabricated moulds

c) Pre folded moulds d) none of the above

250. Alumino thermit welding with short pre-heating process is carried out by using [b]

a) Green moulds b) Dry moulds c) Wet moulds d) Red moulds

251. The latest development in pre fabricated moulds used for AT welding of rails is [c]

a) Green moulds b) Two piece moulds c) Three piece moulds d) None of the above

252. Before using of pre fabricated moulds for AT welding the following shall be ensured

a) Free from moisture b) Cracks and blocked vents [d]

c) Date of manufacturing d) All the above

253. Minimum shelf life of AT weld prefabricated moulds is [c]

a) 6 months b) 9 months c) 12 months d) 15 months

254. Ingredients of AT welding portion is [d]

a) Aluminium powder & Mill scale b) Ferro manganese & Ferro vanadium

c) Steel chips, Flour spar & Silicon carbide d) All the above

255. Ingredients of pre fabricated mould is [d]

a) High silica sand b) Sodium silicate c) Red oxide & Zircon wash d) All the above

256. Minimum moisture content of the luting sand is _____ [c]

a) 3% b) 5% c) 6% d) 10%

257. Ingredients of luting sand is [d]

a) High silica sand b) 6% moisture content

c) Red oxide & Bentonite d) All the above

258. During fixing the moulds, it shall be ensured that the center line of the rail gap coincides with the _____ of the mould to avoid cross joint. [a]

a) Centre line b) Inner edge c) Outer edge d) None of the above

259. After fixing the moulds, the gap between mould and the rail shall be packed firmly with _____ to prevent leakage of liquid weld metal. [c]

a) Dry sand b) Wet sand c) Luting sand d) Ordinary sand

260. To protect the rail top table from metal splashes during reaction, the adjacent rail surface on either side of the moulds shall be covered with metal cover or smeared with luting sand up to ____ cm on either side [b]

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

261. After fixing and luting of moulds, the rail ends pre heated to a desirable temperature up to [c]

a) 600 to 700°C b) 625 to 800°C c) 650 to 850°C d) 700 to 900°C

262. In alumino thermit welding short pre-heating is done by compressed [b]

a) Air diesel fuel mixture b) Air petrol fuel mixture

c) Air kerosene oil mixture d) None of the above

263. During AT welding, preheating of rail ends with Compressed Air petrol technique, air pressure should be maintained in the range of [b]

a)0.1 to 0.2 kg/cm^2 b)0.2 to 0.3 kg/cm^2 c)0.3 to 0.4 kg/cm^2 d)0.4 to 0.5 kg/cm^2

264. Preheating time would be about _____ minutes for 52/60kg rail section with compressed air petrol preheating technique. [c]

a) 3.0 to 4.0 b) 3.5 to 4.5 c) 4.0 to 5.5 d) 4.5 to 5.5

265. In AT welding, compressor tank shall be kept at a safe distance of _____m away from burner [a]

a) 2 to 3 b) 1 to 3 c) 3 to 4 d) < 1M

266. The distance between top of mould to crucible bottom should be kept at ____ mm

a) 50 b) 25 c) 75 d) 100 [a]

267. The Reaction time for AT welding portion is [b]

a) 15 ± 3 seconds b) 20 ± 3 seconds c) 25 ± 3 seconds d) 30 ± 3 seconds

268. After the exothermic reaction lasting a few seconds, approximately equal volumes of molten steel liquid Al_2O_3 are separated at a temperature of about _____ [c]

a) 1500°C b) 2000°C c) 2400°C d) 2960°C

269. After pouring of the molten metal into the mould of 25 mm gap weld, trimming should be done after waiting for [d]

a) 2 to 3 minutes b) 3 to 4 minutes c) 4 to 6 minutes d) 5 to 7 minutes

270. _____ should be used for trimming of extra weld metal from rail top and sides at AT welding rail joint after the welding process [c]

a) Hammer b) Chisel c) Hydraulic weld trimmer d) Rail profile grinder

271. The wedges used for alignment of rails for AT welding shall not be removed after trimming for at least [a]

a) 20 minutes b) 30 minutes c) 40 minutes d) None of these

272. The first train should be allowed to pass on the newly insitu AT welded joint after pouring of the weld metal shall be only after a lapse of [c]

a) 20 minutes b) 25 minutes c) 30 minutes d) none of these

273. The riser must not be removed until the weld cooled down and by knocking towards the _____ only [a]

a) Rail b) Ballast c) along the track d) All the above

274. After In-situ AT welding necessary speed restriction shall be observed until the

a) Grinding operation is over B) 2 days are over [a]

c) one week is over d) none of these

275. _____ should be used for grinding of AT welded joints after trimming operation is complete [d]

a) Hammer b) Chisel c) Hydraulic weld trimmer d) Rail profile grinder

276. Rail profile grinder is fitted with [d]

a) Stand b) Frame c) Grinding wheel d) Rail profile guided grinding tolley

277. Finished AT weld joints when checked with 1 meter straight edge the tolerance for vertical alignment shall not vary [b]

a) +0.5 mm b) +1 mm c) +2 mm d) +3 mm

278. Finished AT weld joints when checked with 1 meter straight edge the tolerance for lateral alignment shall not vary [a]

a) $\pm$0.5 mm b) $\pm$0.6 mm c) $\pm$0.7 mm d) $\pm$1 mm

279. Tolerance of vertical alignment on finished AT weld is checked with 1m & 10cm straight edge measured at [c]

a) Middle of the straight edge b) Above the straight edge

c) At the end of the straight edge d) None of these

280. Tolerance of lateral alignment on Finished AT weld is checked with 1M & 10CM straight edge measured at [a]

a) Middle of the straight edge b) Above the straight edge

c) At the end of the straight edge d) None of these

281. Finished AT weld joints when checked with 10 cm straight edge the tolerance for Top surface shall not vary [a]

a) +0.4 mm b) +0.5 mm c) +0.6 mm d) +0.7 mm

282. Finished AT weld joints when checked with 10 cm straight edge the tolerance for head finishing on sides shall not vary [a]

a) $\pm$ 0.3 mm b) $\pm$ 0.4 mm c) $\pm$ 0.5 mm d) none of these

283. In specific cases, for joint geometry, in case of old rails, dispensations may be permitted by [d]

a) ADEN b) DEN/Sr.DEN c) Dy. Chief Engineer d) Chief Engineer

284. Welds are executed by the Firms, if Any joint found not conforming to the finished weld tolerances shall be _____ by the firm. [b]

a) Accept b) Cut and rewelded, free of cost

c) Cut and rewelded, 50% of cost d) Cut and rewelded, 100% of cost

285. welding identification code, letter AA denotes [a]

a) Agency to which the welder belongs b) Specific welder number

c) Welder belongs which railway d) None of the above

286. In AT welding identification code, letter BBB denotes [b]

a) Agency to which the welder belongs b) Specific welder number

c) Welder belongs which railway d) None of the above

287. All new welded joints should be ultrasonically tested as early as possible but in any case not later than [b]

a) 45 days b) 30 days c) 15 days d) 10 days

288. First periodic USFD test for AT welds shall be done after _____ by JE/SSE/USFD [b]

a) 6 months b) 1 year c) 2 years d) 3 years

289.In AT welding identification code, letter CCC denotes [c]

a) Agency to which the welder belongs b) Specific welder number

c) Welder belongs which railway d) None of the above

290.In single line, the welded joints shall be serially numbered in the direction of [c]

a) Train traffic b) opposite to the train traffic

c) Increasing kilometer d) Decreasing kilometer

291.In double line, the welded joints shall be serially numbered in the direction of [c]

a) Train traffic b) opposite to the train traffic

c) Increasing kilometer d) Decreasing kilometer

292.Painting of weld collar should be done on all welds to protect them against corrosion is [a]

a) Immediately after the welding b) After 5 days

c) After 6 months d) After 12 months

293.Frequency of weld collar anticorrosive painting of AT welds should be carried out once in _____ in non corrosive prone areas. [a]

a) 4 years b) 3 years c) 2 years d) 1year

294.Frequency of weld collar anticorrosive painting of AT welds should be carried out once in _____ in corrosion prone areas. [d]

a) 4 years b) 3 years c) 2 years d) 1year

295.During visual inspection of AT welding, what are the defects are to be identified

a) Cracks, blow holes b) Shrinkage, mismatch [d]

c) Fins, surface mismatch d) All the above

296.Joggling of AT welding done [a]

a) Immediately after grinding operation over b) After 6 months

c) After 12 months d) After 18 months

297.Acceptance test by JE/SSE/USFD for AT welding is [a]

a) Immediately after welding b) After 6 months

c) After 12 months d) After 18 months

298.A thermit welding done insitu shall be joggled fish plated with two clamps and supported on wooden blocks of 300 – 450 mm length until tested as [d]

a) Good by JE/P.Way b) Good by SSE/P.Way

c) Good by ADEN d) Good by JE/SSE/USFD

299. In the initial acceptance test of the AT welds, if weld is marked_____, the weld should not be allowed to continue in service [b]

a) DFWO/DFWR b) DFWN c) OBS/IMR d) None of the above

300. One out of every _____ joints welded shall be selected at randomly for sample test joint [b]

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

301. Joggled fishplates with far end bolts shall be provided on AT welds, which have undertaken traffic equal to or more than _____ of stipulated fatigue life (GMT) of the rail. [b]

a) 30% b) 50% c) 75% d) 100%

302. Joggled fishplates with clamps or two far end bolts on good AT welds shall be provided on banks having height _____ m or more. [d]

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

303. Joggled fishplates with clamps or two far end bolts on good AT welds shall be provided on bridges (having length of waterways as 100 m or more) and on its approaches upto _____ m length. [b]

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

304. Joggled fishplates with clamps or two far end bolts on good AT welds shall be provided on curves of _____ and sharper. [c]

a) 1° b) 2° c) 3° d) 4°

305. All AT welds more than _____ years old are to be provided with joggled fishplates with two far end bolts/clamps of routes having less than 15GMT traffic [c]

a) 5 b) 10 c) 15 d) 20

306. Rail joints welded by a firm shall be guaranteed against failure which includes failures in execution, acceptance & regular ultrasonic testing and during service up to _____ years from the date of welding. [a]

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

307. Cumulative number of failed A.T. welds including rewelded joints in 2 years, shall not exceed _____ of the total quantity of joints in a particular contract. [b]

a) 1% b) 2% c) 3% d) 4%

308. Anti corrosion Painting of welds should be done in _____ no. of coats. [b]

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

309. If Any AT weld executed by firm fails within the guarantee period shall be _____ using their portions, equipments, labour and consumables [b]

a) Re welded by Departmental b) Re welded by firm free of cost

c) Re welded by firm with 50% of cost d) None of the above

310. A welding supervisor shall supervise not more than two welding teams at a time when [c]

a) Within 1 km distance b) Within 500 m distance

c) Within 50 m distance d) None of the above

311. No hole should be made within heat affected zone of AT weld i.e. _____ mm from centre of AT weld in the new SKV welds of 25mm gap. [c]

a) 40 b) 50 c) 75 d) 83

312. Composition of thermit welding team, number of welder grade I/ grade II are required in one thermit welding team [a]

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

313. Composition of thermit welding team, number of welder grade III/ skilled artisan are required in one thermit welding team [b]

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

314. Composition of thermit welding team, number of helper khalasi/ khalasi are required in one thermit welding team [d]

a) 1 b) 2 c) 4 d) 5

315. Composition of thermit welding team, number of gangman are required in one thermit welding team [d]

a) 3 b) 5 c) 8 d) as per work load

316. The interval between two coats of anti corrosion painting of new welds shall be minimum of [c]

a) 3hrs b) 5hrs c) 8hrs d) 10hrs

317. Panting of new welds as well as old welds, to a distance of _____ cm on either side of weld. [b]

a) 5 b) 10 c) 15 d) 20

318. The test weld shall withstand minimum transverse breaking load for 52kg, 90UTS rails in tones _____ [c]

a) 60 b) 80 c) 90 d) 115

319. BHN value of hardness test on weld metal for 90 UTS rails [d]

a) 329 + 30, -0 b) 365 + 30, -0 c) 229 + 20, -0 d) 265 + 30, -0

320. BHN value of hardness test on weld metal for 60kg Head hardened rails [a]

a) 321(min) b) 365(min) c) 229(min) d) 265(min)

321. The test weld shall withstand minimum transverse breaking load for 60kg, 90UTS rails in tones _____ [d]

a) 60 b) 80 c) 90 d) 115

322. The test weld shall withstand minimum transverse breaking load for 60kg, Head Hardened rails in tones _____ [b]

a) 95 b) 115 c) 120 d) 125

323. Longitudinal crack in rail web (at AT weld) is caused by [a]

a) Cutting of wear resistant grade rails by flame cutting

b) Luting sand too wet c) Dropping of luting sand in to the mould

d) Gap between rail ends is too wide – rail ends outside the collar formation

324. Lack of fushion in rail foot of AT weld is caused by [a]

a) Flame cutting of rail ends b) Luting sand too wet

c) Dropping of luting sand in to the mould

d) Gap between rail ends is too wide – rail ends outside the collar formation

325. Cold spots - Lack of fushion of AT weld is caused by [d]

a) Flame cutting of rail ends b) Luting sand too wet

c) Dropping of luting sand in to the mould

d) Gap between rail ends is too wide – rail ends outside the collar formation

326. Lack of fushion on foot of one rail end of AT weld is caused by [c]

a) Flame cutting of rail ends b) Dropping of luting sand in to the mould

c) Mould fitted centre to the gap but inclined to the vertical d) Luting sand too wet

327. Gross Lack of fushion on rail end of AT weld is caused by [b]

a) Flame cutting of rail ends b) standard moulds fitted to rails of dissimilar depth

c) Luting sand too wet d) Dropping of luting sand in to the mould

328. Sand inclusion in the rail foot and sand burn marks transversely across the rail head of AT weld is caused by [b]

a) Flame cutting of rail ends b) Dropping of luting sand in to the mould

c) Mould fitted centre to the gap but inclined to the vertical d) Luting sand too wet

329. Porosity in the thermit steel of AT weld is caused by [d]

a) Flame cutting of rail ends b) Dropping of luting sand in to the mould

c) Mould fitted centre to the gap but inclined to the vertical d) Luting sand too wet

330. Gross Porosity throughout the whole weld section of AT weld is caused by [c]

a) Use of damp portion b) Use of damp crucible

c) Both a & b d) None of the above

331. Gross inclusion of slag in the rail head of AT weld is caused by [c]

a) Flame cutting of rail ends b) Dropping of luting sand in to the mould

c) Pouring without the plug in the position d) Pouring off centre to the plug

332. Gross inclusion of slag in the rail head on one side of AT weld is caused by [d]

a) Flame cutting of rail ends b) Dropping of luting sand in to the mould

c) Pouring without the plug in the position d) Pouring off centre to the plug

333. Presence of Fin bottom part of line of AT weld is caused by [b]

a) Flame cutting of rail ends b) Improper mould fixing and improper luting

c) Luting sand too wet d) Dropping of luting sand in to the mould

334. Fracture through weld centre is due to [b]

a) weld subjected to compressive forces b) weld subjected to tensile forces

c) Both a & b d) None of the above

335. Cracking of weld after cooling at rail ends is due to [c]

a) Incorrect thermit portion

b) Incorrect welding parameters at time of welding

c) Both a & b d) None of the above

336. While fixing three piece mould proper care should be taken for proper fixing of bottom plate to avoid formation of ___ at the edges of bottom flanges of weld [b]

a) Lack of fusion b) Fins c) Porosity d) All the above

Safety Precaution at work spot

337. Engineering works can be broadly divided into [b]

a) 4 categories b) 3 categories c) 2 categories d) none of these

338. Works of short duration are those works which are completed [a]

a) on the same day of commencement b) on the next day of commencement

c) on the third day of commencement d) none of these

339. Works of long duration are those works which are completed [c]

a) Within three hours b) within 6 hours

c) Taking more than a day d) none of these

340. While doing short duration works the track is protected with [b]

a) fixed signals b) hand signals c) operating signals d) none of these

341. While doing Long duration works the track is protected with [c]

a) operating fixed indicators b) hand signals

c) Temporary engineering fixed indicators d) none of these

342. During works of short duration when the train is required to stop and proceed, the flagmen should exhibit HS Red flag at a distance from work spot [a]

a) 30 mts b) 600 mts c) 800 mts d) 1200 mts

343. During works of short duration when the train is required to stop and proceed, the flagmen should exhibit Banner flag at a distance from work spot [b]

a) 30 mts b) 600 mts c) 800 mts d) 1200 mts

344. During works of short duration when the train is required to stop and proceed, the flagmen should exhibit three detonators with red hand signal at a distance from work spot [d]

a) 30 mts b) 600 mts c) 800 mts d) 1200 mts

345. During works of short duration when the train is required to proceed at restricted speed,the flagmen should exhibit caution hand signal at a distance from work spot

a) 30 mts b) 600 mts c) 1200 mts d) Both a & c [d]

346. shape of caution indicator is _____ [d]

a) round b) rectangle c) triangle d) fish tailed

347. During works of short duration when the train is required to proceed at restricted Speed, the flagmen should exhibit banner flag at a distance from work spot [b]

a) 30 mts b) 600 mts c) 1200 mts d) Both a & c

348. During welding work, for protection of work spot red hand signal should exhibit at a distance from work spot [d]

a) 30 mts b) 600 mts c) 1200 mts d) Both a & c

349. During welding work, for protection of work spot banner flag should exhibit at a distance from work spot [b]

a) 30 mts b) 600 mts c) 800 mts d) 1200 mts

350. During works of long duration the temporary engineering fixed signal (Caution indicator) should be fixed at a distance from work spot when the trains required to proceed at restricted speed are as per G&SR [d]

a) 30 mts b) 600 mts c) 800 mts d) 1200 mts

351. During works of long duration the temporary engineering fixed signal (Speed indicator) should be fixed at a distance from work spot when the trains required to proceed at restricted speed are as per G&SR [a]

a) 30 mts b) 600 mts c) 800 mts d) 1200 mts

352. During works of long duration one termination indicator bearing letters **T/G** should be located a distance equal to the length of longest [c]

a) Express train b) passenger train c) goods train d) none of these

353. During works of long duration one termination indicator bearing letters **T/P** should be located a distance equal to the length of longest [b]

a) Coal train b) passenger train c) goods train d) none of these

354. During long duration works when the train required to stop and proceed, the flagman posted at stop indicator should take the signature of the train driver in a book called [b]

a) Train dairy b) Restriction book c) flagman dairy d) None of these

355. Shape of a Stop indicator board [b]

a) Square b) Rectangle c) Triangle d) Round

356. Shape of a Speed restriction board [c]

a) Square b) Rectangle c) Triangle d) Round

357. Shape of a Termination board [d]

a) Square b) Rectangle c) Triangle d) Round

358. Life of detonators is [d]

a) 2 years b) 3 years c) 4 years d) 5 years

359. The flagman should stand at a distance of …… mts after fixing detonators in the line for Protection [c]

a) 10 mts b) 20 mts c) 45 mts d) 50 mts

360. T/P on termination Board indicates [d]

a. Termination for passenger
b. Driver of passenger train can pickup normal speed from this point
c. Should be fixed at a distance of longest passenger train in that section
d. All the above

361. When works at times of poor visibility are to be undertaken and site is protected by temporary engineering fixed signals ……..Nos of detonators 10 mts apart be fixed at not less than ……..mts in rear of Caution Indicator and a caution hand signal exhibited to approaching trains [c]

a) 3 & 600 b) 2 & 600 c) 2 & 270 d) 3 & 1200

362. Life of a detonator manufactured after 2010 can be extended to …….. years on a Yearly basis after testing …… detonator from each lot of over …… years [a]

a) 8, one & 5 b) 10, one & 7 c) 8, one & 6 d) none of these

363. The safety radius at the time of testing of detonators is [c]

a) 10 mts b) 20 mts c) 45 mts d) 50 mts

364. For intermediate tracks on triple or multiple lines, engineering indicators shall be Fixed between tracks to within ……. mm from rail level [c]

a) 100 b) 200 c) 300 d) 400

365. Whistle indicator boards should be fixed ahead at a distance of [b]

a) 500 mts. b) 600 mts. c) 800mts. d) 1200mts

366. Construction machinery and vehicles plying at worksite away from the track should not infringe the demarcation line marked at a distance away from centre line of track is [b]

a) 3 mts. b) 6 mts. c) 9 mts d) 10 mts.

367. The staff required for fixing hand signal of keyman / patrolman should be at a height of _____ [c]

a) 3 feet (b) 4 feet (c) 5 feet (d) 6 feet

368. Stationary watchman should have …… book [b]

a) Patrol (b) Note (c) Key man (d) None

369. When any work is undertaken in the vicinity of track, barricading should be provided along side of the track at a distance away from centre line of nearest track should not be less than [a]

a) 3.5 mts. b) 3.8 mts. c) 4.8 mts. d) 6.8 mts.

370. At a worksite in the vicinity of track, the vehicles are permitted to ply only in the presence of authorized Railway employee & Contractor's Supervisor and also duly issuing caution order to trains, when they are required to move within a distance away from the centre line of the nearest track is [b]

a) more than 2.5 mts and less than 5.5 mts

b) more than 3.5 mts and less than 6 mts.

c) more than 4.5 mts and less than 6.5 mts.

d) none of the above

371. At a worksite in the vicinity of track, the vehicles are permitted to ply only in the presence of authorized Railway employee, Contractor's Supervisor and Block Protection, when they are required to move within a distance away from the centre line of the nearest track is [b]

a) Less than 4.5 mts b) Less than 3.5 mts

c) Less than 5.5 mts d) none of the above

372. For carrying out track works requiring speed restriction, the caution indicator board shall be fixed at a height of …… metres from the Rail Level. [c]

a) 3.0 m (b) 2.5 m (c) 2.0 m (d) 1.65 m

373. For carrying out track works requiring speed restriction, the speed indicator board shall be fixed at a height of …… metres from the Rail Level. [c]

a) 3.0 m (b) 2.5 m (c) 2.0 m (d) 1.65 m

374. For carrying out track works requiring speed restriction , the T/P & T/G boards shall be fixed at a height of …… metres from the Rail Level. [d]

a) 3.0 m (b) 2.5 m (c) 2.0 m (d) 1.65 m

375. What are all the indicator boards to be provided ahead of speed restriction location

a) Caution board b) Speed board c) Stop dead board d) All the above. [d]

376. What are all the indicator boards to be provided in rear of speed restriction location

a) T/P & T/G boards b) Speed board c) Stop dead board d) Caution board [a]

P.Way, Works and Bridges

377. ADEN should check small track machines once in _____ months [c]

a) 03 b) 04 c) 06 d) 12

378. AT welding site inspection by ADEN once in _____ at least one welding team under _____ [a]

a) A month, each SSE/P.way (incharge) b) 2 months, each SSE/P.way (incharge)

c) 3 months, each SSE/P.way (incharge) d) A months, entire sub division

379. Schedule of inspection of small track machines by SSE/P.Way in charge of section is once in ___ months [a]

a) 03 b) 04 c) 06 d) 12

380. _____ shall ensure to arrange for the repairs and maintenance of small track machines available with him. [c]

a) ADEN b) JE/P.Way c) SSE/P.Way in charge d) All the above

381. The direct responsibility for quality of AT welding being done in the section shall rest on the _____ of the section [d]

a) ADEN b) JE/SSE/P.Way c) DEN d) SSE/P.Way in charge

382. Inspection of AT welding site by SSE/P.Way in charge is once in _____ for each welding team [c]

a) 3 months b) 2 months c) a month d) Fortnight

383. JE/P.Way schedule for inspection of AT welding site is [d]

a) at least once each welding team in a month

b) at least once each welding team in 15 days

c) at least once each welding team in 2 months d) Not defined

384. Group A routes is classified with speeds up to _____ [d]

a) 110 kmph b) 120 kmph c) 130 kmph d) 160 kmph

385. Group B routes is classified with speeds up to _____ [c]

a) 110 kmph b) 120 kmph c) 130 kmph d) 160 kmph

386. Group D routes is classified with speeds up to _____ [b]

a) 100 kmph b) 110 kmph c) 120 kmph d) 50 kmph

387. Sleeper density is expressed as the number of sleepers per___ [a]

a) KM b) Metre c) Rail d) All the above

388. PSC sleepers marked by paint with “FTC” indicate [c]

a) Fit for track in curve b) Fit for transition curve

c) Fit for track circuit d) All the above

389. On PSC track fish plate joint should preferably be provided with _____ fish plates [b]

a) 60 cm long b) 1 M long c) Both a & b d) Joggled

390. Full form of ERC [b]

a) Elastic rail clamp b) Elastic rail clip c) Elastic roller clip d) Elastic roller clamp

391. Full form of GRSP [c]

a) Grooved rubber sleeper pad b) Grooved rubber sole pad

c) Grooved rubber sole plate d) Grooved rubber sleeper plate

392. Full form of CGRSP [c]

a) Composite Grooved rubber sleeper pad b) Composite Grooved rubber sole pad

c) Composite Grooved rubber sole plate d) Composite Grooved rubber sleeper plate

393. The surface of CGRSP where the manufacturer’s initials are embossed should be placed on rail seat _____ [a]

a) Facing up to bottom of rail b) Facing down to top of sleeper

c) Both a & b d) None of the above

394. ERC mark – III drawing no [a]

a) RT – 3701 b) RT- 8258 c) RT- 5919 d) RT-6254

395. Anti theft ERC drawing no [d]

a) RT – 3701 b) RT- 8258 c) RT- 5919 d) RT-6254

396. ERC mark- V drawing no [c]

a) RT – 3701 b) RT- 8258 c) RT- 5919 d) RT-6254

397. GRSP drawing no to be provided on 52kg sleeper RT 2495 [a]

a) RT-3703 b) RT- 3711 c) RT-3709 d) RT-4732

398. GRSP drawing no to be provided on 60 kg sleeper RT-2496 [b]

a) RT-3703 b) RT- 3711 c) RT-3709 d) RT-4732

399. GRSP drawing no to be provided on SEJ sleeper [b]

a) RT- 4158 b) RT-4159 c) RT- 4160 d) RT-4162

400. CGRSP drawing number to be provided on 60 kg sleeper RT-2496 [d]

a) RT-6615 b) RT- 6616 c) RT-6617 d) RT-6618

401. Metal liner for 52 kg rail and 52 kg sleeper RT -2495 [c]

a) RT-3742 b) RT-3741 c) RT-3738 d) RT-3740

402. Metal liner for 60 kg rail and 60 kg sleeper RT -2496 [d]

a) RT-3742 b) RT-3741 c) RT-3738 d) RT-3740

403. GFN liner for 52 kg rail and 52 kg sleeper RT -2495 [a]

a) RT -3702 b) RT-3706 c) RT-3707 d) RT.3708

404. GFN liner for 60 kg rail and 60 kg sleeper RT -2496 [b]

a) RT -3702 b) RT-3706 c) RT-3707 d) RT.3708

405. Combination metal liner for 52 kg rail and 60 kg sleeper RT -2496 [d]

a) RT -3736/3738 b) RT-3737/3739 c) RT-3738/3740 d) RT.3741/3742

406. Combination GFN liner for 52 kg rail and 60 kg sleeper RT -2496 [b]

a) RT -3704/3705 b) RT-3707/3708 c) RT-3706/3707 d) RT.3702/3703

407. Colour band on RT-3741 metal liner is [a]

a) Yellow b) Green c) Pink d) White

408. Colour band on RT-3742 metal liner is [b]

a) Yellow b) Green c) Pink d) White

409. Colour band on RT-3706 GFN liner is [d]

a) Yellow b) Green c) Pink d) White

410. Colour band on RT-3702 GFN liner is [c]

a) Yellow b) Green c) Pink d) White

411. Colour band on RT-3707 combination GFN liner is [a]

a) Yellow b) Green c) Pink d) White

412. Colour band on RT-3708 combination GFN liner is [b]

a) Light Yellow b) Light Green c) Light Pink d) White

413. Formation width for new track single line BG is [c]

a) 7650 mm b) 7750 mm c) 7850 mm d) 7950 mm

414. While unloading BT should [d]

a) Move in only one direction b) No pushing back to be done.

c) Not work BT after sunset and foggy days d) All the above

415. A SR of ------ to be imposed for first train only, inspective of infringement after unloading material during block from material train. [c]

a) 3O kmph b) 50 kmph c) 45 kmph d) 15 kmph

416. Formation width for new track double line BG is [d]

a) 13190 mm b) 13180 mm c) 13170 mm d) 13160 mm

417. Frequency of ERC greasing in corrosion prone areas is [a]

a) Once in a year b) Once in six months c) Once in 1½ years d) Once in 2 years

418. Frequency of ERC greasing in other than corrosion prone areas is [d]

a) Once in a year b) Once in six months c) Once in 1 ½ years d) Once in 2 years

419. Frequency of lubrication of plate screws in points and crossings in corrosion prone areas is [b]

a) Once in a year b) Once in six months c) Once in 1 ½ years d) Once in 2 years

420. Frequency of lubrication of plate screws in points and crossings in other than corrosion prone areas is [a]

a) Once in a year b) Once in six months c) Once in 1½ years d) Once in 2 years

421. Frequency of lubrication of SEJ is once in [c]

a) Week b) 10 days c) 15 days d) Month

422. Frequency of greasing of gauge face of rails in points and crossings is once in [b]

a) Week b) 15 days c) 21 days d) Month

423. Frequency of greasing of gauge face of rails on curves less than 2^o is once in [d]

a) Week b) 15 days c) 21 days d) Month

424. Frequency of greasing of gauge face of rails on curves 2^o and up to 3^o is once in [b]

a) Week b) 15 days c) 21 days d) Month

425. Adequate distance of _____ in the direction of approaching train should be visible while working on bridges without caution order and with lookout man [d]

a) 0.6KM b) 0.8 KM c) 1 KM d) 1.2 KM

426. Bridges with openings more than 6.1 m, the preferred position of the rail joint are at

a) 1/3 the span from either end. b) 1/4 the span from either end. [a]

c) 1/2 the span from either end. d) 1/5 the span from either end.

427. Bridges with openings less than 6.1 m, the preferred position of the rail joint [d]

a)1/3 the span from either end. b) 1/4 the span from either end.

c) 1/2 the span from either end. d) Should be avoided

428. The clear distance between joint sleepers on un ballasted deck bridges should not be more than [c]

a) 150 mm b) 175 mm c) 200 mm d) 250 mm

429. Track on girder bridges with un-ballasted deck is laid with [c]

a) Rigid fastenings b) Elastic fastenings c) Rail free fastenings d) All the above

430. The clear distance between sleepers on un ballasted deck bridges during TSR/CTR work should not be more than [b]

a) 500 mm b) 450 mm c) 400 mm d) 600 mm

431. The guard rail shall be provided on the track adjacent to a column /pier /abutment which is located within a distance of ___ from centre of track. [a]

a) 8 M b) 6 M c) 5 M d) 4.5 M

432. Clearance between guard rail and running rail is [d]

a) 200 ± 50 mm b) 250 ± 40 mm c) 200 ± 40 mm d) 250 ± 50 mm

433. The top table of the guardrail should not be lower than that of the running rail, by more than ____ [b]

a) 20 mm b) 25 mm c) 30 mm d) 40 mm

434. Lubrication of rail joints is done to [d]

a) Facilitate expansion of rails b) Reduce wear on fishing planes of rail

c) Reduce wear on fishing planes of fish plates d) All the above

435. Lubrication of rail joints is carried out [b]

a) Once in six months in the month of October and February

b) Once in a year from October and February

c) Once in two year from October and February d) None of the above

436. Lubrication of rail joints on important girder bridges and their approaches should be done ____ [a]

a) Twice in a year b) Once in a year c) Once in 4 months d) Once in four months

437. Battering of rail ends occur when the _____ [d]

a) Steep rising gradients b) Improper rail table

c) Different rail section d) Joint gaps are more

438. Wheel burns causes [d]

a) Hammering on rails b) Packing is loosened

c) Fittings get loose d) All the above

439. Permanent rail closure in running lines other than LWR track on routes having speed less than 100kmph should not be less than _____ [c]

a) 11 m b) 6.5 m c) 5.5 m d) 4 m

440. Thickness of each coat of anti corrosive paint should be _____ microns [b]

a) 200 b) 100 c) 150 d) 75

441. During anti corrosive of rail painting interval between two coats shall be less than ___

a) 6 Hrs b) 7 Hrs c) 8 Hrs d) 10 Hrs [c]

442. Permanent rail closure in running lines other than LWR track on routes having speed more than 100kmph should not be less than _____ [a]

a) 11 m b) 6.5 m c) 5.5 m d) 4 m

443. The fractured rail pieces of approximately ____ long each to be cut and sent to chemist and metallurgist for investigation [b]

a) 300 mm b) 500 mm c) 400 mm d) 1 m

444. The lifting of track should not exceed ____ at a time so as to allow proper consolidation. [c]

a) 30 mm b) 40 mm c) 50 mm d) 75 mm

445. The easement gradient for the passage of trains during lifting of track should not be steeper than ____ in one rail length of 13 meters. [d]

a) 30 mm b) 35 mm c) 20 mm d) 25 mm

446. In case of single line Lifting of track should commence from the _____ end carried out in the direction of rising grade [a]

a) Downhill b) Uphill c) Opposite to direction of traffic

d) Along the direction of traffic

447. In case of double line Lifting of track should commence [c]

a) Downhill b) Uphill c) Opposite to direction of traffic

d) Along the direction of traffic

448. In case of curves during lifting of track _____ rail should be taken as sighting rail [b]

a) Outer b) Inner c) Either of both rails d) As per site

449. The lowering of track should not exceed ____ at a time so as to allow proper consolidation. [d]

a) 30 mm b) 40 mm c) 50 mm d) 75 mm

450. When unloading rails along tracks, care shall be taken to ensure that rails do not touch each other to form a continuous metallic mass of length greater than _____ metres [a]

a) 300 b) 200 c) 250 d) 500

451. The easement gradient for the passage of trains during lowering of track should not be steeper than _____ in one rail length of 13 meters. [d]

a) 30 mm b) 35 mm c) 20 mm d) 25 mm

452. For efficient drainage the bottom of side drains should be at least _____below the formation level. [c]

a) 50 cm b) 40 cm c) 30 cm d) 25 cm

453. Distance pieces to platform lines are provided at an interval of _____ [a]

a) 30 m b) 25 m c) 35 m d) 50 m

454. Fouling marks should be fixed at a point at which spacing between tracks is not less than _____ for existing yards [b]

a) 4255 mm b) 4265 mm c) 4275 mm d) 4285 mm

455. Record of work in artisans diary should be submitted to office of SSE/P.Way in charge _____ [c]

a) At the every week b) Once in 15 days

c) At the end of every month d) On every day

456. _____ should not leave any tool unprotected during the course of working or during mid-day-break. [a]

a) Track maintainer b) Key man c) Gang mate d) JE/P.Way

457. _____ tapes should be avoided in track circuited areas [b]

a) Linen b) Steel c) Cloth d) Plastic

458. No work shall be done within a distance of _____ metres from the live parts of the O.H.E. without a *'*permit-to-work'. [c]

a) 1 b) 1.5 c) 2 d) 2.5

459. Permanent way staffs are advised to keep clear of the tracks and avoid contact with the rails when an electrically hauled train is within _____ meter [c]

a) 150 b) 200 c) 250 d) 300

460. When joggled fish plates are removed for deployment of track machines, a SR _____ shall be imposed till such time the joggled fish plates are re-fixed. [b]

a) 30 kmph b) 50kmph c) 45 kmph d) 20 kmph

461. _____ is used for surface dressing, dragging soil and sand or fine stone , cleaning of weeds and undergrowth, manual excavation [a]

a) Powrah b) Ballast rake c) Crow bar d) Pan mortor

462. _____ is used to lift track for surfacing, to correct the alignment, for packing the ballast under concrete sleepers [c]

a) Powrah b) Ballast rake c) Crow bar d) Pan mortor

463. No part of the tree shall be nearer than ___ meters from the nearest live conductor.

a) 2.5 b) 3 c) 3 .5 d) 4 [d]

464. _____ is used for filling ballast, earth and muck etc [d]

a) Powrah b) Ballast rake c) Crow bar d) Pan mortor

465. _____ is used to take up removing and placing of ballast on the sleepers and also to remove the earth from track [c]

a) Powrah b) Ballast rake c) Shovel d) Pan mortor

466. _____ is used for handling of ballast [b]

a) Powrah b) Ballast rake c) Shovel d) Pan mortor

467. _____ is used to open and close the track, to fill ballast in pan motor, dressing of shoulder ballast and cess [c]

a) Bar claw b) Ballast rake c) wire claw d) Tommy bar

468. _____ is used for hand compaction of road surface and ballast [c]

a) Hammer b) ballast rake c) Rammer d) Shovel

469. _____ is used to lift the track in track maintenance and construction work site [c]

a) Hydraulic track jack b) Mechanical track jack

c) Both a & b d) Tommy bar

470. _____ is provided between sleeper and rail to give cushioning effect [d]

a) Bearing plate b) Ballast c) Formation d) Rubber pad

471. _____ are provided between ERC and rail flange to avoid point contact of ERC toe over the flange [b]

a) Rubber pad b) Liner c) Washer d) Plate screw

472. _____ is used for fastening the rails to sleepers directly [c]

a) Rubber pad b) Liner c) ERC d) Bearing plate

473. The shortest distance between the gauge faces of rails of a track is called [a]

a) Track gauge b) Cross level c) Versine d) Unevenness

474. Length of check rail at level crossing shall be [d]

a) Width of road + 0.5 m b) width of road + 1 m

c) Width of road + 1.5 m d) width of road + 2 m

475. The level difference between two rails, on a sleeper, of a track is called [b]

a) Track gauge b) Cross level c) Versine d) Unevenness

476. The total traffic carried on a line, is expressed as [c]

a) Gross in Kgs b) Gross in ton c) Gross million ton d) Gross billion ton

477. Check rail clearance to be provided at level crossing [c]

a) 41 – 45 mm b) 44 – 48 mm c) 51 – 57 mm d) 52 – 58 mm

478. Plate screws are used at _____ [a]

a) Switch of t/out b) crossing of t/out c) lead of t/out d) none of the above

479. Spherical washers are used at_____ [a]

a) Heel and check blocks of t/out b) LC c) GB d) SEJ

480. Tapered washers are used at _____ [b]

a) Heel and check blocks of t/out b) CMS crossing c) LC d)SEJ

481. The amount by which one of the rail is raised with reference to the other rail of a track is called as [d]

a) Cant deficiency b) Cant excess c) Cross level d) Super elevation

482. _____is used to measure the distance between gauge faces of rails of a track at 13 to 15 mm below top of the rails from nominal gauge [c]

a) Sprit level b) Tape c) Gauge cum level d) Hemp cord

483. The measured gauge which is less than the nominal gauge is called [b]

a) Slack gauge b) Tight gauge c) Neat gauge d) None

484. The measured gauge which is more than the nominal gauge is called [a]

a) Slack gauge b) Tight gauge c) Neat gauge d) None

485. The lowest division in gauge cum level instrument for gauge reading is [b]

a) 0.5 mm b) 1 mm c) 1.5 mm d) 2 mm

486. In gauge cum level instrument the tight gauge reading is shown in _____ window

a) White b) Green c) Yellow d) Red [d]

487. In gauge cum level instrument the slack gauge reading is shown in _____ window

a) White b) Green c) Yellow d) Red [a]

488. In gauge cum level instrument the maximum tight gauge that can be read up to [a]

a) 10 mm b) 15 mm c) 20 mm d) 25 mm

489. _____ is used to measure the level difference between two rails, on a sleeper, of a track [b]

a) Tape b) Spirit level c) Gauge cum level d) Hemp cord

490. In gauge cum level instrument the maximum slack gauge that can be read up to [c]

a) 10 mm b) 15 mm c) 20 mm d) 25 mm

491. The lowest division in gauge cum level instrument for level reading between two rails of a track is [b]

a) 0.5 mm b) 1 mm c) 1.5 mm d) 2 mm

492. Deviation of rails in vertical plane, from its original/intended position, measured individually for each of the rail with reference to a chord of specified length is called as [d]

a) Gauge b) Versine c) Alignment d) Unevenness

493. Deviation of rails in horizontal plane, from its original/intended position, measured individually for each of the rail with reference to a chord of specified length [c]

a) Gauge b) Versine c) Alignment d) Unevenness

494. _____ is the perpendicular distance measured at the midpoint of a chord from the arc of curved track. [b]

a) Gauge b) Versine c) Cross level d) Unevenness

495. A circular curve in vertical plane. [c]

a) Transition curve b) Horizontal curve c) Vertical curve d) Turn in curve

496. A welded rail, the central part of which does not undergo any longitudinal movement due to temperature variations is called [c]

a) Fish plated track b) Short welded rail c) Long welded rail d) Buffer rail

497. A welded rail that contracts and expands, throughout its length, due to temperature variations is called [b]

a) Fish plated track b) Short welded rail c) Long welded rail d) Buffer rail

498. An easement curve which has curvature change throughout its length [a]

a) Transition curve b) Horizontal curve c) Vertical curve d) Turn in curve

499. _____installed at each end of LWR/CWR to permit expansion /contraction of the adjoining breathing lengths due to temperature variations. [c]

a) Switch expansion joint b) Buffer rail c) Both a & b d) None of the above

500. _____ is used to check the squaring of sleepers [b]

a) Chord b) T square c) Straight edge d) L square

501. _____ is used to check the squaring of rail cut [d]

a) Chord b) T square c) Straight edge d) L square

502. _____ tool is used to check the soundness of packing under concrete sleepers [a]

a) Canne boule b) shovel c) Crow bar d) all the above

503. Sudden or Gradual shifting of Track in lateral or vertical direction due to unbalanced thermal stress in rail / track is called [d]

a) Creep b) Movement of rail c) Sun kinks d) Buckling of track

504. Mechanical track jack used for lifting of track is [a]

a) Infringing type b) Non infringing type c) Both a & b d) None of the above

505. Hydraulic track jack used for lifting of track is [b]

a) Infringing type b) Non infringing type c) Both a & b d) None of the above

506. _____ for removing the jammed ERC from concrete sleepers without damage to the sleepers [a]

a) Hydraulic extractor for ERC b) Concrete sleeper drilling machine

c) Angle grinder d) Hydraulic sleeper spacer

507. _____ is used for tamping of track for slack packing in concrete sleeper track as means of intermediate attention in between the runs of on track machine. [d]

a) CSM machine b) Duomatic machine c) Unimat machine d) Off track tampers

508. After laying Steel channel sleepers, tightening of all fittings including hook bolts should be done once in _____ for initial one month [d]

a) Every day b) 7 days c) 10 days d) 15 days

509. After initial one month of laying of steel channel sleepers tightening of all fittings including hook bolts should be done once in _____ for next six months [b]

a) 15 days b) a month c) Two months d) 45 days

510. After initial one month of laying of steel channel sleepers guard rail fittings should be tightened once in _____ for next six months [a]

a) a month b) 45 days c) Two months d) Three months

511. Rail joints should be avoided within _____ from abutment [c]

a) 1 Mts b) 2 Mts c) 3 Mts d) 6 Mts

512. On approaches of important and major bridge approaches, for a length of about _____, width of cess should be _____ clear of full ballast section to maintain ballast profile. [c]

a) 200 m, 100 cm b) 150 m, 100 cm c) 100 m, 90 cm d) 200 m, 90 cm

513. At commencement of each gang length between stations a sample track of _____ rail lengths of track should be maintained [c]

a) 2 b) 2 ½ c) 3 d) 3 ½

514. When parting of train is noticed _____ signal shall not be shown during day time

a) Red flag b) Green flag c) Banner flag d) None [a]

515. When hot axle, hanging chains, hanging battery, a vehicle /wagon /train/ battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains is noticed _____ shall be shown during night time. [a]

a) Red light b) Green light c) White light d) Both b & c

516. _____ Indication shown to loco pilot to proceed slowly reducing speed during day time at work site [d]

a) Waving Red flag b) Waving green flag c) Waving red flag vertically up and down

d) Waving green flag vertically up and down

517. _____ is the pitch of first hole in ordinary fish plate joint to create a gap of 6 mm [b]

a) 83 mm b) 80 mm c) 82 mm d) 81 mm

518. _____ Indication shown to loco pilot to proceed slowly reducing speed during night time at work site [c]

a) Waving Red light vertically up and down

b) Waving white light vertically up and down

c) Waving green light vertically up and down d) None

519. _____ Indication shown to loco pilot to stop the train during night time [b]

a) Showing Red light

b) Waving white light violently across the body

c) Waving green light violently across the body d) Both a & b

520. plain track tamping machine is_____ [d]

a) BRM b)UNIMAT c) BCM d) duomatic m/c

521. points and crossing tamping machine is_____ [b]

a) BRM b) UNIMAT c) BCM d) duomatic m/c

522. Ballast deep screening machine is_____ [c]

a) BRM b) UNIMAT c) BCM d) duomatic m/c

523. Ballast profiling and boxing machine is_____ [a]

a) BRM b) UNIMAT c) BCM d) duomatic m/c

524. FRM is a_____ machine [a]

a) Shoulder ballast screening m/c b) deep screening m/c

c) Tamping m/c d) P & C relaying m/c

525. T-28 is a_____ machine. [d]

a) Shoulder ballast screening m/c b) deep screening m/c

c) Tamping m/c d) P & C relaying m/c

526. Machine used for trucking of p.way material along track is_____ [d]

a) DGS b) PQRS c) T-28 d) UTV

527. Machine used for relaying of plain track is_____ [b]

a) DGS b) PQRS c) T-28 d) UTV

528. Machine used for compaction and consolidation of track is_____ [a]

a) DGS b) PQRS c) T-28 d) UTV

529. The turnouts on which trains are to be received from SRJ side are called [c]

a) Non interlocked points b) Trailing points

c) Facing points d) interlocked points

530. The turnouts on which trains are received from crossing side from any of two tracks are called [b]

a) Non interlocked points b) Trailing points

c) Facing points d) Interlocked points

531. SRJ is_____ [c]

a) Switch rail joint b) Stock rail junction c) Stock rail joint d)Switch rail junction

532. HOC is_____ [b]

a) Head of crossing b) heel of crossing c) heel on crossing d) none of above

533. In CMS crossing , CMS stands for_____ [d]

a) Carbon manganese steel b) Carbon magnesium steel

c) Cobalt manganese steel d) Cast Manganese Steel

534. ATS is_____ [a]

a) Actual toe of switch b) Ahead of tongue and stock

c) Advance toe of switch d) none of the above

535. TTS is_____ [b]

a) Theoretical tongue of switch b) Theoretical toe of switch

c) Theoretical throat of switch d) none of the above

536. ANC is _____ [c]

a) Actual number of crossing b) advance nose of crossing

c) Actual nose of crossing d) ahead of nose in crossing

537. TNC is _____ [b]

a) Total number of crossing b) Theoretical nose of crossing

c) Terminal nose of crossing d) none of the above

538. BCM full form is_____ [a]

a) Ballast cleaning machine b) Ballast crushing machine

c) Ballast collecting machine d) Ballast compaction machine

539. SBCM is _____ [d]

a) Standard ballast cleaning machine b) Shoulder ballast collecting machine

c) Shoulder ballast compaction machine d) Shoulder ballast cleaning machine

540. DTS is _____ [c]

a) Ddynamic tamping system b) Dynamic train stabilizer

c) Dynamic track stabilizer d) Dynamic tamper and stabilizer

541. PQRS is_____ [d]

a) Permanent and quick restoration system b) Prime quality relaying system

b) Plasser's quick relaying and stabilizing d) Plasser's quick relaying system

542. RBMV is_____ [a]

a) Rail borne maintenance vehicle b) Railway board maintenance vehicle

c) Railway board monitoring vehicle d) Railway ballast moving van

543. TRT is_____ [a]

a) Track relaying train b) Track restoration train

c) Turnout renewal train d) Track relaying and tamping

544. USFD is _____ [a]

a) Ultra sonic flaw detection b)Ultra sonic fast detection

c) Ultrasound finding of defects d) Ultra sonic flaw deflection

545. RDSO is _____ [d]

a) Railway design standards organization

b) Research development standard organization

c) Railway design standard office

d) Research designs standard organization

546. OMS is _____ [b]

a) Oscillations measuring system b) Oscillation monitoring system

c) Oscillation monitoring schedule d) Oscillation management system

547. TRC is _____ [c]

a) Track reading car b) Track reporting car

c) Track recording car d) Track recording coach

548. IRPWM is _____ [b]

a) Indian railway permanent works manual b) Indian railway permanent way manual

c) Indian railway permanent way machine d) Indian railway primary works manual

549. IRTMM is_____ [d]

a) Indian railway train monitoring manual

b) Indian railway track monitoring manual

c) Indian railway track management manual

d) Indian railway track machine manual

550. IRSTMM is_____ [b]

a) Indian railway standard track machine manual

b) Indian railway small track machine manual

c) Indian railway standard track management manual

d) Indian railway standard track monitoring manual

551. IRSOD Is_____ [c]

a) Indian railway standard overall dimensions b) Indian railway schedule of damages

c) Indian railway schedule of dimensions

d) Indian railway schedule of official dimensions