Engagement of Trade Apprentices 55th batch in Ordnance Factories

EX-ITI

Q.P. Series: C

ROLL NO. .................................................

Sr. No..................................................

Signature of the Invigilator

Date:.................................................

Time: 10:00 AM to 1:00 PM

Duration: 3 Hours

Max. Marks: 150

Instructions:

1. All questions are compulsory.

2. Each question carries 1 mark. There is no negative marking for wrong answer.

3. In each question, figures given in (A), (B), (C), (D) are the options. You are to choose the correct option only. Mark your answer by filling bubble on the OMR answer sheet.

4. Candidate has to mark all his responses only on the separate OMR sheet provided.

5. Use only blue or black ball point pen. Use of pencil is not allowed.

6. OMR answer sheet is furnished in the question paper at the end. Sheet for rough work is appended in the question paper at the end.

7. Sheet for rough work is appended in the question paper at the end.

8. Candidate is to use the answer sheet only for answering the questions. Pen and paper should be kept with him.

9. No sheet from the question paper should be detached.

10. Candidate will be given a request to mark his answer by filling the appropriate bubble in the OMR Answer Sheet.

Note: The Information Provided here is only for Reference. It may vary the Original.
ENGLISH
Questions : 15

Direction for questions 1 – 3 :
Choose the best word or expression to complete the sentences.

Questions :
1. He informed _______ me to the police.
   (A) about  (B) against  (C) for  (D) with
2. He lives in the world of _______.
   (A) allusions  (B) illusions  (C) conclusions  (D) delusions
3. The husband was taken aback when his wife _______ to him that she _______ him for his money.
   (A) revealed .... had married  (B) declared .... married
   (C) revealed .... married  (D) confirmed .... has married

Direction for questions 4 – 6 :
In each of the following questions various words are given, one of which is wrongly spelt. Find out the WRONGLY SPELT word.

Questions :
4. (A) Doubtfull  (B) Awkward  (C) Ponderous  (D) Distinct
5. (A) Broch  (B) Bleak  (C) Bouquet  (D) Baneful
6. (A) Delusion  (B) Dovetail  (C) Divercity  (D) Diffident

Direction for questions 7 – 9 :
Choose the word which is nearest in meaning to the bold typed word.

Questions :
7. In his old age the man turned a fatalist.
   (A) Disbeliever in God  (B) Believer in God
   (C) Believer in fate  (D) Non-believer in destiny
8. The officer was divested of all power.
   (A) Bared  (B) Denuded  (C) Dispossessed  (D) Disrobed
9. He is liked by all for his candid behaviour.
   (A) Social  (B) Simple  (C) Frank  (D) Sociable
Direction for questions 10 – 12:

Below several disarranged words are given in each question. Arrange them in proper order so that it makes a sense and indicate the index (A or B or C or D) of the word you have chosen to put LAST.

Questions:

10. me your pleased has news
   (A)     (B)     (C)     (D)

11. in of I money am need
    (A)     (B)     (C)     (D)

12. acts care she with
    (A)     (B)     (C)     (D)

Direction for questions 13 – 15:

Choose the OPPOSITE meaning of the given word.

Questions:

13. Modest
    (A) Lenient  (B) Reserved  (C) Humble  (D) Arrogant

14. Transparent
    (A) Obvious  (B) Distinct  (C) Opaque  (D) Consistent

15. Immense
    (A) Insignificant  (B) Significant  (C) Huge  (D) Gigantic
16. Which state government will launch e-wallet “Tokapoisa.in” for cashless transaction in local language?
   (A) Odisha  (B) Assam  (C) Manipur  (D) Kerala

17. Who has won the 2016 Best FIFA Men’s player award?
   (A) Cristiano Ronaldo  (B) Lionel Messi  (C) Carli Lloyd  (D) Antonie Griezmann

18. The 2017 Vibrant Gujarat Global Investors Summit has started in which city?
   (A) Ahmedabad  (B) Rajkot  (C) Surat  (D) Gandhinagar

19. Veteran actor Om Puri, who passed away recently, was belonged to which state?
   (A) Punjab  (B) Haryana  (C) Uttar Pradesh  (D) Madhya Pradesh

20. Which country, on the map of world, appears as “Long Shoe”?
   (A) Portugal  (B) Italy  (C) Greece  (D) Hungary

21. Which of the following atmospheric layers reflects radio waves that are transmitted from the earth and again back to the earth?
   (A) Ionosphere  (B) Stratosphere  (C) Mesosphere  (D) Troposphere

22. The partition of Bengal was sought to be brought about by
   (A) Lord Curzon  (B) Warren Hastings  (C) Alfred Lyall  (D) Lord Cornwallis

23. The gas usually filled in the electric bulb is
   (A) Nitrogen  (B) Hydrogen  (C) Carbon dioxide  (D) Oxygen

24. The largest river of all the west flowing rivers of the peninsular India is
   (A) Tapti  (B) Kaveri  (C) Krishna  (D) Narmada

25. Rajiv Gandhi Environment Award is given for outstanding contribution
   (A) to health  (B) to tourism  (C) to agriculture  (D) in the development of Neat technology

26. The 2017 Island tourism Festival has started in which state / union territory?
   (A) Andaman and Nicobar  (B) Gujarat  (C) Rajasthan  (D) Lakshadweep

27. The Chardham highway project will come up in which state of India?
   (A) Jharkhand  (B) Sikkim  (C) Bihar  (D) Uttarakhand
28. Which bollywood personality has been conferred honorary doctorate by the Maulana Azad National Urdu University?
   (A) Aamir Khan   (B) Nawazuddin Siddiqui
   (C) Shahrukh Khan (D) Salman Khan

29. Which of the following islands in India was once named “New Denmark”? 
   (A) Salsatte Island   (B) Elephanta Island
   (C) Lakshadweep   (D) Andaman & Nicobar Island

30. Which become the first cricket venue in India to have a roof top solar power plant? 
   (A) Jawaharlal Nehru Stadium   (B) Chinnaswamy Stadium
   (C) Salt Lake Stadium   (D) Eden Gardens
31. In an increasing sequence of 10 consecutive integers, the sum of the first 5 integers is 560. What is the sum of the last 5 integers in the sequence? 
   (A) 585   (B) 580   (C) 575   (D) 570

32. The water from one outlet, flowing at a constant rate, can fill a swimming pool in 9 hours. The water from a second outlet, flowing at a constant rate, can fill the same pool in 5 hours. If both outlets are used at the same time, approximately what is the number of hours required to fill the pool? 
   (A) 0.22   (B) 2.50   (C) 3.21   (D) 4.56

33. Car A is 20 miles behind Car B, which is traveling in the same direction along the same route as Car A. Car A is traveling at a constant speed of 58 miles per hour and Car B is traveling at a constant speed of 50 miles per hour. How many hours will it take for Car A to accelerate and drive 8 miles ahead of Car B? 
   (A) 2.0   (B) 2.5   (C) 3.0   (D) 3.5

34. There are 4 more women than men on Centerville’s board of education. If there are 10 members on the board, how many are women? 
   (A) 3   (B) 4   (C) 6   (D) 7

35. Machine A produces bolts at a uniform rate of 120 every 40 seconds, and Machine B produces bolts at a uniform rate of 100 every 20 seconds. If the two machines run simultaneously, how many seconds will it take for them to produce a total of 200 bolts? 
   (A) 22   (B) 25   (C) 28   (D) 32

36. If Mahim loses 8 pounds, he will weigh twice as much as his sister. Together they now weigh 278 pounds. What is Mahim’s present weight, in pounds? 
   (A) 131   (B) 139   (C) 147   (D) 188

37. If \( x + 5 > 2 \) and \( x - 3 < 7 \), the value of \( x \) must be between which of the following pairs of numbers? 
   (A) -3 and 10   (B) -3 and 4   (C) 2 and 7   (D) 3 and 4

38. A man sells his typewriter at 5% loss. If he sells it for Rs. 80 more, he gains 5%. The cost price of the typewriter is 
   (A) Rs. 1600   (B) Rs. 1200   (C) Rs. 1000   (D) Rs. 800

39. Which of the following is the value of \( \sqrt[3]{0.000064} \)? 
   (A) 0.004   (B) 0.02   (C) 0.04   (D) 0.2
40. Rabin has 10 pairs of matched socks. If he loses 7 individual socks, what is the greatest number of pairs of matched socks he can have left?
   (A) 7  (B) 6  (C) 5  (D) 4

41. \( (43\% \text{ of } 2750) - (38\% \text{ of } 2990) = ? \)
   (A) 43.6  (B) 46.3  (C) 44.7  (D) 49.3

42. The sum of the ages of a father and his son is 100 years now. Five years ago, their ages were in the ratio of 2 : 1. The ratio of the ages of father and son after 10 years will be
   (A) 4 : 3  (B) 5 : 3  (C) 3 : 5  (D) 10 : 7

43. A carpenter constructed a rectangular sandbox with a capacity of 10 cubic feet. If the carpenter were to make a similar sandbox twice as long, twice as wide, and twice as high as the first sandbox, what would be the capacity, in cubic feet, of the second sandbox?
   (A) 20  (B) 40  (C) 60  (D) 80

44. If \( y \) is an integer, then the least possible value of \( |23 - 5y| \) is
   (A) 2  (B) 3  (C) 4  (D) 5

45. \( \frac{(0.0036)(28)}{(0.04)(0.1)(0.003)} = ? \)
   (A) 840.0  (B) 84.0  (C) 8.4  (D) 0.84
APTITUDE / REASONING
Questions – 15

Direction for questions 46 – 49:
In each of the following questions, some words are given which are related in some way. The same relationship obtains among the words in one of the four alternatives given under it. Find the correct alternative.

Questions :

46. Smile : Laugh : Cry
   (A) Sit : Sleep : Play
   (B) Frown : Anger : Temper
   (C) Morning : Night : Day
   (D) Touch : Catch : Release

47. Lizard : Reptile : Insects
   (A) Fox : Wolf : Forest
   (B) Fly : Insect : Bee
   (C) Man : Omnivorous : Meat
   (D) Tiger : Mammal : Deer

48. Magazine : Story : Article
   (A) Tea : Milk : Sugar
   (B) Television : Newspaper : Entertainment
   (C) Bed : Quilt : Pillow
   (D) Novel : Drama : Literature

49. Dog : Squirrel : Tail
   (A) Cottage : Hut : Palace
   (B) Fish : Crocodile : Water
   (C) Horse : Ox : Horn
   (D) Truck : Scooter : Gear

50. Pointing to a boy in a photograph Akhil says, "He is the son of my mother’s only son’s son". How is Akhil related to that boy?
   (A) Uncle
   (B) Brother
   (C) Father
   (D) Grandfather
Direction for questions 51 – 54:
Read the information given below and answer the following questions on the basis of the information provided.

i) There is a family of 5 persons A, B, C, D and E.
ii) They are working as a doctor, a teacher, a trader, a lawyer and a farmer.
iii) B, an unmarried teacher, is the daughter of A.
iv) E, a lawyer, is the brother of C.
v) C is the husband of the only married couple in the family.
vi) A, a farmer, is a father of two sons and an unmarried daughter.
vii) Daughter-in-law of A is a doctor.

Questions:

51. Who is the doctor in the family?
   (A) A  (B) B  (C) C  (D) D

52. Which of the following is a group of female members in the family?
   (A) B and D  (B) D and E  (C) A, C and E  (D) B and C

53. Who is the trader in the family?
   (A) A  (B) B  (C) C  (D) D

54. Which of the following is the married couple?
   (A) A and B  (B) C and D  (C) A and D  (D) B and D

55. If NAXALITE is written in a certain code as LYVYJGRC, how will INTEGRATE be written in the same code?
   (A) LGRECYPRC  (B) GLRCEPYRC  (C) RYWMNOPQR  (D) BLACKHOLE

Direction for questions 56 – 58:
Read the following information to answer the questions:

Symbolise the given number and symbol:
Number: 1 2 3 4 5 6 7 8 9
Symbol: × * ☐ $ • + ! Δ

i) If any number begins by odd number then the odd number symbolized as @.
ii) If any number ends by even number then the even number symbolized as ◊.
Questions:

56. Which of the following will be the symbol of 178524?
   (A) @ + ! $ * ◊ (B) × + ! $ ◊
   (C) @ + ! $ * + (D) None of these

57. Which of the following will be the symbol of 673258?
   (A) × + ? * $ ! (B) @ + ? * $!
   (C) @ ? + $ * ! (D) × + ? * ◊

58. Which of the following will be the symbol of 846721?
   (A) ◊ + * + * × (B) ! + * + * @
   (C) ! + * + * × (D) ◊ + * + * ×

59. Which pair of English letters should be the next in the series of pairs of letters of English alphabet given below?

   BE  GK  MR  TZ  BI
   (A) JR  (B) KS  (C) JS  (D) KR

60. A man travels 3 kms to the West, turns left and goes 3 kms, turns right and goes 1 km, again turns right and goes 3 kms. How far is he from the starting point?
   (A) 7 kms (B) 6 kms (C) 5 kms (D) 4 kms
61. During hammering, blacksmith's work is supported by
   (A) swage block   (B) anvil   (C) flatter   (D) surface plate

62. Sands are graded according to their
   (A) permeability  (B) strength  (C) moisture content  (D) clay content and grain size

63. Slip roll forming m/c is used to give _______ shape of a sheet metal.
   (A) square  (B) triangular  (C) cylindrical  (D) None of these

64. During forging, grains of steel becomes
   (A) elongated  (B) broken up  (C) larger  (D) squeezed

65. Loose pieces of the loose piece pattern are removed separately from the mould cavity by a tool known as
   (A) skewer  (B) draw spike  (C) runner  (D) None of these

66. To do away the sharp edges of the sheet metal, the edges are bent by folding, which is known as
   (A) seams  (B) hems  (C) crimping  (D) None of these

67. Wrought iron is best forged at a temperature little below
   (A) 1300°C  (B) 1000°C  (C) 800°C  (D) 500°C

68. Oxygen cylinders are _______ cylinder.
   (A) cast iron  (B) alloy steel  (C) seamless steel  (D) None of these

69. The operation of cutting of flat sheet to the desired shape is known as
   (A) punching  (B) piercing  (C) blanking  (D) None of these

70. For bending rods of small diameter in smithy work, the following hole of anvil is to be used.
   (A) Pritchel hole  (B) Hardie hole  (C) Both (A) and (B)  (D) None of these

71. Arc blow is a welding defect which is encountered in _______ welding.
   (A) thermit  (B) gas  (C) metal inert gas  (D) None of these

72. The operation of bending a sheet metal to the desired shape for accommodating a screw through the produced hole is known as —
   (A) plunging  (B) cupping  (C) curling  (D) drawing
73. In smithy work, weight of the anvils vary upto about—
   (A) 50 to 75 kg  (B) 75 to 100 kg  (C) 100 to 150 kg  (D) None of these

74. To repair the corner of the mould cavity _______ is used.
   (A) trowel  (B) slick  (C) spade  (D) None of these

75. The development of elbows are done by
   (A) triangle method  (B) radial line method
   (C) parallel line method  (D) None of these

76. For greater size of casting, the following type of sand should be used
   (A) Fine grain  (B) Medium grain  (C) Coarser grain  (D) None of these

77. _______ hammer is NOT used for smithy work.
   (A) Hand  (B) Steam drop  (C) Small power  (D) None of these

78. The following method is usually used for welding of cast iron.
   (A) TIG  (B) MIG  (C) Arc  (D) Gas

79. MIG welding m/c is run by
   (A) D.C. straight polarity  (B) D. C. reverse polarity
   (C) Both (A) & (B)  (D) None of these

80. A rivet has three portions, which are known as
   (A) head, heel & tail  (B) head, shank and tail
   (C) head, peen and tail  (D) None of these

81. Plain and butt welds may be used on materials up to approximately _______ thick.
   (A) 25 mm  (B) 40 mm  (C) 50 mm  (D) None of these

82. Facing sand comprises of
   (A) silica, water  (B) clay, amonia  (C) clay, silica  (D) None of these

83. In smithy shop, _______ furnace is NOT used.
   (A) open fired  (B) closed oil fired  (C) hearth  (D) None of these

84. Electrode is NOT used as filler metal in case of —
   (A) TIG  (B) Submerged  (C) MIG  (D) None of these

85. For welding of steel with metal inert gas welding, the following flux is used.
   (A) Helium  (B) Carbon di-oxide  (C) Nitrogen  (D) None of these

86. The surface of the metal to be electroplated must be prepared properly before coating by means of
   (A) honing  (B) buffing  (C) lapping  (D) None of these
87. Neutral flame is used for the following operation.
   (A) Welding   (B) Cutting   (C) Both (A) & (B)   (D) None of these

88. The mould is housed in a
   (A) cope   (B) drag   (C) chaplet   (D) flask

89. In open fire, coke is drawn
   (A) into the centre   (B) to the top   (C) to the sides   (D) Any one of these

90. In case of leftward welding, the head of the blow pipe is held at an angle of __________ to the plane of weld.
   (A) 20° to 30°   (B) 40° to 50°   (C) 60° to 70°   (D) None of these

91. The size of gas welding tips depends upon the __________ of metal to be welded.
   (A) type   (B) thickness   (C) All of these   (D) None of these

92. Gun metal is an alloy of
   (A) tin, Cu, lead   (B) tin, Cu, zinc   (C) tin and lead   (D) None of these

93. For high pressure gas welding, the plate thickness should be
   (A) less than 10 mm   (B) less than 20 mm   (C) greater than 25 mm   (D) None of these

94. In sand moulding, the middle part of the flask is called —
   (A) cope   (B) drag   (C) cheek   (D) chaplet

95. The following coal is suitable for use in stock fire
   (A) Pulverized coal   (B) Lumped coal   (C) Hard coke   (D) All of these

96. Open circuit voltage for arc welding is normally in the range of
   (A) 25 – 30 volts   (B) 40 – 50 volts   (C) 50 – 90 volts   (D) None of these

97. Flame temperature of city gas is about
   (A) 1700°C   (B) 2000°C   (C) 2300°C   (D) None of these

98. A twist drill bit should be ground with both lips at
   (A) 30°   (B) 45°   (C) 59°   (D) 60°

99. Electrode holder is required for
   (A) arc welding   (B) gas welding   (C) gas cutting   (D) All of these

100. Cow dung is sometimes used in —
    (A) dry sand moulding   (B) green sand moulding
    (C) pit moulding   (D) None of these
101. Anodising is a ______ process.
   (A) oxidation  (B) reduction  (C) electroplating  (D) None of these

102. For welding thin material with D.C., work is connected with
   (A) positive  (B) negative  (C) Any one of these  (D) None of these

103. Chaplet is used to support the
   (A) coreprint  (B) chill  (C) riser  (D) None of these

104. In smithy work, for many sizing, squaring, bending & forming operations, _______ is used as a tool.
   (A) anvil  (B) flatter  (C) swage block  (D) None of these

105. For cracking of weld metal, the following thing is responsible
   (A) Surface tension  (B) Shrinkage  (C) Metal fluidity  (D) None of these

106. The temperature of the oxyacetylene flame in its highest region is about
   (A) 2000°C  (B) 3000°C  (C) 3200°C  (D) None of these

107. A fixture is a device which
   (A) can hold and locate the job  (B) cannot guide the tool
   (C) is usually heavier in construction  (D) All of these

108. Which of the following is an example of fillet welds?
   (A) Seam  (B) Convex  (C) Spot  (D) All of these

109. Sprue in casting refers to
   (A) gate  (B) vertical passage  (C) riser  (D) None of these

110. Snip is used for cutting
   (A) threads  (B) hollow pipes  (C) light sheet metal  (D) None of these

111. The formation of gas pockets on the surface of weld metals is called
   (A) cracks  (B) porosity  (C) cold shut  (D) under cut

112. Which of the following frequency is normal in case of A.C. are welding?
   (A) 40 Hz  (B) 50 Hz  (C) 60 Hz  (D) None of these

113. Resistance welding is used in
   (A) tubing  (B) steel piping
   (C) sheet metal working  (D) Any one of these

114. Soft solder is melted at
   (A) 400°C  (B) 260°C  (C) 600°C  (D) 800°C
115. ______ is required to repair the corner of mould cavity.
   (A) Slick  (B) Sieve  (C) Spade  (D) Towel

116. For minimum scaling, the following heating process is most suitable.
   (A) Coal heating  (B) Gas heating  (C) Electric heating  (D) Oil heating

117. In gas welding, the flame produced by excess O₂ is called
   (A) neutral flame  (B) reducing flame  (C) oxidising flame  (D) None of these

118. The operator works more easily without safety equipments in case of
   (A) MIG  (B) TIG  (C) Submerged  (D) Thermit

119. Local thining down is effected by
   (A) cross peen hammer  (B) sledge hammer  (C) set hammer  (D) None of these

120. In welded joint, poor fusion occurs due to
   (A) lack of proper current  (B) lack of flux  (C) high welding speed  (D) None of these

121. The following thing is usually used for smithy work
   (A) Slab  (B) Ingot  (C) Billet  (D) Bloom

122. To lift heavy and large sized pattern, ______ is used.
   (A) gagger  (B) rapping plate  (C) chaplets  (D) draw spike

123. The best metal to work for a sheet metal component is
   (A) silver  (B) copper  (C) aluminium  (D) stainless steel

124. In smithy shop, job is heated in
   (A) open fired furnace  (B) hearth  (C) All of these  (D) None of these

125. Moulding sand can contain maximum ______ of moisture in it.
   (A) 5%  (B) 8%  (C) 10%  (D) 12%

126. A deep conical part of metal can be easily made by
   (A) drawing  (B) raising  (C) spining  (D) None of these

127. During forging, heating on steel creates the formation of
   (A) scab  (B) burrs  (C) scale  (D) All of these

128. Green sand is a mixture of
   (A) 70% sand, 30% clay  (B) 30% sand, 70% clay
   (C) 50% sand, 50% clay  (D) None of these
129. Cylindrical shapes are formed on a  
(A) cylinder maker  (B) forming rollers  (C) cornice brake  (D) None of these

130. Uniform heating of stock is possible by ________ heating.  
(A) oil  (B) electric  (C) gas  (D) coal

131. Inner surfaces of the sand mould are coated with refractory material such as  
(A) coal  (B) talc  (C) graphite  (D) All of these

132. Copper sheet is preferred for making utensils because of  
(A) good ductility  (B) high strength  (C) high heat conductivity  (D) All of these

133. For easy control and economy in forging, the following fuel is used  
(A) Coal  (B) Gas  (C) Oil  (D) Both (B) and (C)

134. Floor sand is also known as  
(A) backing sand  (B) facing sand  (C) parting sand  (D) None of these

135. Folding is working of edges usually at right angles to the metal surface for a  
(A) cylindrical job  (B) round flat job  (C) rectangular flat job  (D) None of these

136. The following hammer is NOT related to smithy work.  
(A) Steam drop hammer  (B) Hand hammer  (C) Small power hammer  (D) None of these

137. Synthetic sand is suitable for  
(A) heavily cored casting  (B) high pressure moulding  (C) Both (A) & (B)  (D) None of these

138. A sheet metal pattern is  
(A) a full size drawing of the object  (B) an isometric drawing of the object  
(C) a three dimensional drawing of the object  (D) None of these

139. If grain growth becomes excessive, then forgeability  
(A) increases  (B) decreases  (C) first decreases then increases  (D) does not depend on grain growth

140. Gate is cut in the  
(A) cheek  (B) drag  (C) cope  (D) both drag and cope

Note: The Information Provided here is only for Reference. It may vary the Original
141. Stakes are very important tools used in
   (A) forging          (B) welding
   (C) sheet metal working (D) heat treatment

142. Which of the following is NOT a part of heating furnace?
   (A) Recuperator   (B) Fire box  (C) Pressure gauge (D) Chimney

143. Pouring basin is formed in the
   (A) drag          (B) cope      (C) cheek    (D) None of these

144. Which one of the following is an example of sheet metal operation?
   (A) Nibbling     (B) Slitting  (C) Lanclng   (D) All of these

145. A fire which is thin and spreads all over the hearth is
   (A) useless       (B) usefull   (C) very effective (D) None of these

146. Gaggers is used for
   (A) cleaning the moulding sand (B) repairing the mould
   (C) re-enforcing the sand in the cope (D) None of these

147. The development of surfaces can be done by
   (A) radial line method      (B) parallel line method
   (C) triangle method         (D) All of these

148. In the spot where the flame is desired, the coal should be loosened with a
   (A) shovel              (B) tuyer
   (C) pocker             (D) None of these

149. _______ is used to scrape off the excess sand level from the top of the flask.
    (A) Strickle (B) Rapping plate (C) Sprue (D) Chaplets

150. For production work, shearing machine is used to
    (A) cut sheet metal (B) bend sheet metal (C) fold sheet metal (D) None of these