निर्देश:— उत्तर देने से पहले कृपया निम्नलिखित निर्देशों को ध्यानपूर्वक पढ़ें।

Instructions:— Please read the following Instructions carefully before writing your answer.

1. सभी प्रश्न अनिवार्य है। All questions are compulsory.
2. प्रत्येक प्रश्न 1 अंक का है। गलत उत्तर के लिए कोई अंक नहीं दिया जाएगा। Each question carries 1 mark. There is no negative marking for wrong answer.
3. प्रत्येक प्रश्न के 4 संभावित उत्तर लिखें हैं (A), (B), (C), (D) निम्नलिखित से एक उत्तर सही है। अपने उत्तर को ऑ.एम.आर. उत्तर पत्रिका पर गलत भरकर अंकित करें। There are four options—(A), (B), (C), (D) given against each question, out of which only one is correct. Mark your answer by filling bubble on the OMR answer sheet.
4. अभ्यासी अपने उत्तर को केवल अलग दें और एम.आर. उत्तर पत्रिका पर ही अंकित करें। Candidate has to mark all his responses only on the separate OMR sheet provided.
5. केवल नीला या काला बल्ट चट्ट पेन का ही उपयोग करें। नीले रंग के उत्तर की अनुमति नहीं है। Use only blue or black ball point pen. Use of pencil is not allowed.
6. ऑ.एम.आर. उत्तर पत्रिका में उत्तर अंकित करने से पहले, अपने प्रश्न पत्र के अनुसार दिखाए गए ऑ.एम.आर. उत्तर पत्रिका में निरोधण साबित नियमों पर। ऑ.एम.आर. में गलत /अवैध निरोधण भरने पर मूल्यांकन नहीं किया जाएगा। यदि ऑ.एम.आर. अभ्यासी /निरोधक द्वारा हस्ताक्षर नहीं किया हुआ है तो मूल्यांकन नहीं किया जाएगा। Before you proceed to mark your response in OMR answer sheet, you have to fill in same particulars carefully in the OMR answer sheet as per your admit card. The OMR shall not be evaluated if incorrect/incomplete details are filled. OMR not signed by the Candidate/Invigilator shall not be evaluated.
7. प्रश्न पत्रिका में से कोई पत्र अनलग न करें। No sheet from the question paper should be detached.
8. रक्षा करने के लिए प्रश्न पत्र के अंत में शीट चरण की गाँठ है। Sheet for rough work is appended in the question paper at the end.
9. यदि अभ्यासी एक से अधिक उत्तर देता है तो उनों गलत माना जाएगा। यदि उनसे सभी भी एक उत्तर सही हो। If candidate gives more than one answer, it will be treated as wrong answer even if one of given answer happens to be correct.
10. पश्चात् समाप्ति होने के बाद अपने ऑ.एम.आर. उत्तर पत्रिका निरोधक की गाँठ। अभ्यासी को अपने साथ प्रश्न पत्र ले जाने की अनुमति दी जाएगी। After completion of examination, you have to hand over your OMR answer sheet to Invigilator. Candidate shall be allowed to take the question paper along with him.

विषय को स्थिति में अंग्रेजी संस्करण मान्य होगा। In case of dispute, English version will prevail. TML

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

Direction for questions 1 – 3 :
Choose the word which is nearest in meaning to the bold typed word.

Questions :
1. The officer was divested of all power.
   (A) Bared   (B) Denuded   (C) Dispossessed   (D) Disrobed

2. He is liked by all for his candid behaviour.
   (A) Social   (B) Simple   (C) Frank   (D) Sociable

3. 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

Direction for questions 4 – 6 :
Choose the best word or expression to complete the sentences.

Questions :
4. He lives in the world of ________.
   (A) allusions   (B) illusions   (C) conclusions   (D) delusions

5. 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

6. He informed ________ me to the police.
   (A) about   (B) against   (C) for   (D) with

Direction for questions 7 – 9 :
Choose the OPPOSITE meaning of the given word.

Questions :
7. Transparent
   (A) Obvious   (B) Distinct   (C) Opaque   (D) Consistent

8. Immense
   (A) Insignificant   (B) Significant   (C) Huge   (D) Gigantic

ITI_Set-A 1
GO ON TO THE NEXT PAGE

Note : The Information Provided here is only for Reference.It may vary the Original
9. Modest  
   (A) Lenient    (B) Reserved    (C) Humble    (D) Arrogant

**Direction for questions 10 – 12:**

In each of the following questions various words are given, one of which is wrongly spelt. Find out the WRONGLY SPELT word.

**Questions :**

10. (A) Broch    (B) Bleak    (C) Bouquet    (D) Baneful
11. (A) Delusion    (B) Dovetail    (C) Divercity    (D) Diffident
12. (A) Doubtfull    (B) Awkward    (C) Ponderous    (D) Distinct

**Direction for questions 13 – 15:**

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 :**

13. in of I money am need  
   _ (A) _ (B) (C) (D)
14. acts care she with  
   (A) (B) (C) (D)
15. me your pleased has news  
   (A) (B) (C) _ (D)
16. The 2017 Island tourism Festival has started in which state / union territory?
(A) Andaman and Nicobar (B) Gujarat
(C) Rajasthan (D) Lakshadweep

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

18. The Chardham highway project will come up in which state of India?
(A) Jharkhand (B) Sikkim (C) Bihar (D) Uttarakhand

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

20. 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

21. 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

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

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

24. 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

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

26. Which state government will launch e-wallet "Tokapoisa.in" for cashless transaction in local language?
(A) Odisha (B) Assam (C) Manipur (D) Kerala
27. 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

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

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

30. The 2017 Vibrant Gujarat Global Investors Summit has started in which city?
   (A) Ahmedabad    (B) Rajkot    (C) Surat    (D) Gandhinagar
31. \((43\% \text{ of } 2750) - (38\% \text{ of } 2990) = ?\)
   (A) 43.6  (B) 46.3  (C) 44.7  (D) 49.3

32. 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

33. 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

34. Which of the following is the value of \(\sqrt{0.000064}\)?
   (A) 0.004  (B) 0.02  (C) 0.04  (D) 0.2

35. 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

36. 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

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

38. 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

39. \(\frac{(0.0036)(2.8)}{(0.04)(0.1)(0.003)} = ?\)
   (A) 840.0  (B) 84.0  (C) 8.4  (D) 0.84

40. 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
41. 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

42. 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

43. 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

44. 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

45. 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
46. 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 47 – 49:
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:
47. Which of the following will be the symbol of 673258?
   (A) ⋅ + ? * $ !  
   (B) @ + ? * $ !
   (C) @ ? + $ ⋅ !
   (D) ⋅ + ? * $ ◎

48. Which of the following will be the symbol of 846721?
   (A) ◎ ⋅ + * ⋅
   (B) ! ⋅ + * @
   (C) ! ⋅ + * ⋅
   (D) ◎ ⋅ + * ⋅

49. Which of the following will be the symbol of 178524?
   (A) @ + ! $ ⋅ ◎
   (B) ⋅ + ! $ ◎
   (C) @ + ! $ ⋅
   (D) None of these

50. If NAXALITE is written in a certain code as LYVYJGRC, how will INTEGRATE be written in the same code?
   (A) LGRECPYRC
   (B) GLRCEPYRC
   (C) RYWMNQPR
   (D) BLACKHOLE
Direction for questions 51 – 54:

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:

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

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

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

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

55. 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

Direction for questions 56 – 59:

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:

56. 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

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

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

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

60. 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
61. Which one of the following is an accessories of lathe work?
   (A) Steady rest  (B) Tail Stock  (C) Feed rod  (D) None of these

62. Which of the following is an example of drilling operation?
   (A) Knurling  (B) Undercut  (C) Trepanning  (D) None of these

63. Surface plate is made of
   (A) mild steel  (B) high carbon steel (C) grey cast iron  (D) wrought iron

64. For mass production of helical gears, the following machine is suitable.
   (A) Gear shaper  (B) Broach  (C) Plain milling machine  (D) Hobbing machine

65. While cutting double start threads of pitch 2 mm in a lathe, the cutting tool will advance by
   (A) 2 mm/revolution  (B) 1 mm/revolution  (C) 4 mm/revolution  (D) None of these

66. Hobbing m/c is used for the mass production of
   (A) spur gear  (B) thread  (C) helical gear  (D) None of these

67. In chipping process, the following chisel is used.
   (A) Cape chisel  (B) Hot chisel  (C) Cold chisel  (D) Side chisel

68. Universal milling machine is equipped with
   (A) quick return arrangement  (B) indexing arrangement  (C) fool-proof arrangement  (D) None of these

69. Suitable change gears for cutting 17 TPI on 4 TPI lead screw lathe are
   (A) 30, 105  (B) 20, 85  (C) 15, 85  (D) None of these

70. Drill sleeve has
   (A) no taper  (B) internal taper  (C) external taper  (D) Both (B) & (C)

71. Smaller sizes of drills are not marked and the size is found by the use of
   (A) micrometer  (B) template  (C) drill gauge  (D) None of these

72. In mass production, for guiding the milling cutter, ________ is used.
   (A) jig  (B) dividing head  (C) template  (D) fixture

73. The average cutting speed for machining mild steel by a high speed steel tool is taken as
   (A) 10 mm  (B) 30 mm  (C) 40 mm  (D) 24 mm
74. Lapping is done after
   (A) reaming    (B) drilling    (C) trepanning    (D) boring

75. To obtain the correct diameter of hole, the drill should be ground with both lips at
   (A) $30^\circ$    (B) $45^\circ$    (C) $59^\circ$    (D) $60^\circ$

76. More than one surface can be machined at a time in
   (A) shaper    (B) lathe    (C) plano-miller    (D) None of these

77. Spindle speed in a lathe for turning a 40 cm dia job at a cutting speed of 30 m/min would be
   (A) 206 rpm    (B) 238 rpm    (C) 350 rpm    (D) None of these

78. Tumbler gears are used in
   (A) shaper    (B) milling m/c    (C) lathe    (D) broaching

79. Filing is followed by
   (A) grinding    (B) lapping    (C) scraping    (D) None of these

80. In universal milling machine ________ number of table movements can be obtained.
   (A) 2    (B) 3    (C) 4    (D) 5

81. Which one of the following material has the highest cutting speed?
   (A) Brass    (B) Bronze    (C) Al    (D) C.I.

82. Multiple tooling layout is possible in
   (A) Capstan lathe    (B) plano-miller    (C) planer    (D) All of these

83. Internal thread is cut by
   (A) tap    (B) die    (C) reamer    (D) thread chaser

84. To mill a gear of 89 teeth, ________ indexing method is to be adopted.
   (A) simple    (B) compound    (C) differential    (D) rapid

85. Rotary power of lead screw is transmitted to the lathe carriage through
   (A) gear    (B) rack and pinion    (C) half-nut    (D) chain & sprocket

86. Drilling is followed by
   (A) reaming    (B) tapping    (C) boring    (D) None of these

87. Cylindrical job is supported by
   (A) stepped block    (B) angle plate    (C) V- block    (D) None of these
88. Milling cutter is mounted on spindle in
   (A) vertical milling machine     (B) horizontal milling machine
   (C) plano-miller                 (D) None of these

89. Translating gear has the following number of teeth:
   (A) 127 teeth     (B) 20 teeth      (C) 47 teeth      (D) None of these

90. Dividing head is used in mass production for guiding the
    (A) drills          (B) milling cutters   (C) reamers     (D) All of these

91. An alloy made of lead and zinc is called
    (A) borax         (B) spelter        (C) solder       (D) None of these

92. In milling machine, which of the following standard taper is mostly used?
    (A) Jarno         (B) Morse          (C) Metric       (D) Brown and Sharpe

93. The feed shaft must be in disengaged condition during
    (A) facing         (B) thread cutting   (C) turning      (D) None of these

94. Which type of milling cutter is required for high speed mill operation?
    (A) Zero rake      (B) Negative rake   (C) Positive rake (D) None of these

95. Austempering is an _______ process.
    (A) tempering      (B) hardening      (C) annealing    (D) normalising

96. To mill the hexagonal headed bolt, the following milling operation is most suitable.
    (A) Form milling   (B) Straddle milling (C) Face milling   (D) Angular milling

97. Which of the following feed is required for grooving operation?
    (A) Longitudinal   (B) Cross          (C) Vertical     (D) Combined

98. In vertical milling m/c, cutter is mounted on
    (A) spindle        (B) collar         (C) arbor        (D) None of these

99. A rivet consists of head, shank and
    (A) neck           (B) body           (C) tail         (D) pilot

100. Which of the following milling machine is suitable for tool room work?
    (A) Fix bed type   (B) Universal milling machine
    (C) Plain milling machine (D) None of these

101. In lathe operation, job can be centred automatically and quickly by means of
    (A) magnetic chuck  (B) 4-jaw chuck
    (C) air operated chuck (D) 3 jaw chuck

Note: The Information Provided here is only for Reference It may vary the Original
102. The term ‘loading’ is associated with
   (A) drill bit           (B) milling cutter       (C) grinding wheel       (D) broach

103. The tool for holding and turning the threading die is known as
   (A) handle           (B) adjusting wrench       (C) stock               (D) drift

104. Martempering is a ________ process.
   (A) normalising       (B) tempering            (C) annealing           (D) hardening

105. In case of turning, speed of job is four times greater than
   (A) grooving           (B) Knurling           (C) facing              (D) None of these

106. To mill a gear of 83 teeth, ______ indexing method is used.
   (A) simple           (B) compound            (C) differential         (D) rapid

107. Zinc chloride is commonly used flux in the process of
   (A) welding           (B) soldering           (C) hard brazing         (D) None of these

108. Which of the following is a direct measuring instrument?
   (A) Vernier caliper    (B) Sine bar            (C) Oddleg caliper        (D) Telescopic gauge

109. External thread is cut by means of
   (A) die               (B) reamer              (C) tap                 (D) thread chaser

110. To obtain better gripping surface, the following operation is required:
   (A) Undercut          (B) Knurling           (C) Reaming              (D) Forming

111. Hardening is followed by
   (A) tempering         (B) normalising        (C) annealing           (D) None of these

112. High carbon steel contains ________ of carbon.
   (A) 0.3% to 0.5%       (B) 0.6% to 1.5%      (C) 0.15% to 0.3%        (D) None of these

113. Taper turning attachment is used to cut
   (A) external long taper  (B) external steep taper  (C) both internal and external tapers  (D) only internal taper

114. Drill socket compared to drill sleeve is
   (A) smaller           (B) larger              (C) of equal size         (D) much larger

115. Extension rods are extra features for
   (A) sine bar           (B) inside micrometer   (C) vernier caliper      (D) None of these

116. The term ‘module’ is related with
   (A) gear              (B) coupling            (C) pulley               (D) None of these
117. Fool-proof arrangement is a safety measure of
   (A) broaching  (B) shaper  (C) milling m/c  (D) None of these

118. Coolant used while turning of cast iron is
   (A) soap water  (B) kerosine  (C) lard oil  (D) None of these

119. For mass production, inspection of jobs is done by
   (A) gauge  (B) measuring instrument  (C) template  (D) jig

120. Gun metal is an
   (A) non-ferrous alloy  (B) compound  (C) alloy of copper  (D) All of these

121. After thread cutting, the next operation is
   (A) drilling  (B) chamfering  (C) filing  (D) facing

122. Which one of the following is a job supporting device?
   (A) Steady rest  (B) Mandrel  (C) Face plate  (D) Chuck

123. For general use of drill, point angle is
   (A) 60°  (B) 118°  (C) 120°  (D) 59°

124. Tolerance is of _______ types.
   (A) 2  (B) 3  (C) 4  (D) None of these

125. Enlarging of previously drilled holes is known as
   (A) reaming  (B) boring  (C) broaching  (D) None of these

126. Internal keyway can be cut by
   (A) shaping m/c  (B) broaching m/c  (C) sloting m/c  (D) All of these

127. ‘Thumb rule’ for tap drill size is normally taken as
   (A) 0.6 d  (B) 0.75 d  (C) 0.8 d  (D) d
   Where d = dia of hole

128. Differential indexing is required to cut _______ gear.
   (A) 96  (B) 48  (C) 37  (D) 86

129. An undercut shoulder is produced by using
   (A) grooving tool  (B) parting-off tool  (C) square nose tool  (D) None of these

130. Last element of the cutting tool signature is
   (A) nose radius  (B) side clearance angle  (C) front rake angle  (D) None of these
131. In pipe joints, the following thread is used.
   (A) BSW    (B) BSP    (C) BA    (D) None of these

132. Which index plate is to be required to index an angle of $19^\circ40'$?
   (A) Plate – I  (B) Plate – II  (C) Plate – III  (D) None of these

133. Mandrel is required to hold the
   (A) hollow job  (B) solid job  (C) stepped job  (D) None of these

134. Backlash eliminator should be provided in
   (A) upmilling  (B) down milling  (C) face milling  (D) gang milling

135. In which of the following power transmission system, key and keyway are needed?
   (A) Coupling  (B) Gear drive  (C) Belt-pulley drive  (D) All of these

136. Downmilling operations should only be performed on
   (A) rigid machine  (B) plain milling machine  (C) rigid machine with backlash eliminator  (D) hand milling machine

137. Which of the following tool angle improves surface finish?
   (A) Clearence angle  (B) Rake angle  (C) Nose angle  (D) None of these

138. For tool room work, the following milling m/c is suitable.
   (A) Plain milling m/c  (B) Fixed bed type milling m/c  (C) Plano-miller  (D) Universal milling m/c

139. In annealing, cooling is done
   (A) very rapidly  (B) rapidly  (C) very slowly  (D) in air

140. The thickness of chip is minimum at the beginning and is maximum at the end of cut in case of ______ milling operation.
   (A) up  (B) down  (C) end  (D) face

141. The signature of the single point cutting tool comprises of _____ elements.
   (A) 7  (B) 6  (C) 5  (D) 4

142. Drilling jig is used for
   (A) prototype work  (B) repairing work  (C) mass production  (D) All of these work

143. Spiral flutes of reamer is
   (A) left handed  (B) right handed  (C) Any one of these  (D) None of these

144. In case of end milling, the cutter has teeth
   (A) on the end face  (B) on the periphery  (C) both on the end face and the periphery  (D) on half of the periphery
145. Lathe centre has a point angle of
   (A) 30°   (B) 45°   (C) 60°   (D) None of these

146. Back gear is used for _______ operation
   (A) reaming   (B) grooving   (C) forming   (D) Thread cutting

147. Plug tap is also known as
   (A) taper tap   (B) bottoming tap   (C) intermediate tap   (D) None of these

148. To cut a spur gear of 54 teeth having module 3, the size of gear blank is required
   (A) 132 mm   (B) 168 mm   (C) 180 mm   (D) None of these

149. Included angle of the centre punch is
   (A) 30°   (B) 45°   (C) 60°   (D) 90°

150. Chasing dial is mounted on right end of the
   (A) tail stock   (B) apron   (C) cross slide   (D) None of these