

Regd. Office : Aakash Tower, 8, Pusa Road, New Delhi-110005 | Ph.: 011-47623456

Questions & Answers



NTSE (Stage-I) 2019-20

INSTRUCTIONS TO CANDIDATES

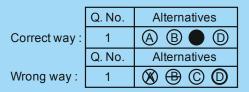
Read the following instructions carefully before you open the question booklet.

- 1. Use blue/black ballpoint pen only. There is no negative marking.
- 2. Part I : MAT : 1 100 questions

Part II : SAT : 1 - 100 questions

- 3. This test booklet contains 200 questions of one mark each. All the questions are compulsory.
- 4. Answer each question by darkening the one correct alternative among the four choices on the OMR SHEET with blue/black ballpoint pen.

Example :



Student must darkening the right oval only after ensuring correct answer on OMR Sheet.

- 5. Students are not allowed to scratch / alter / change out an answer once marked on OMR Sheet, by using white fluid / eraser / blade / tearing / wearing or in any other form.
- 6. Separate sheet has been provided for rough work in this test booklet.
- 7. Please handover the OMR Sheet to the invigilator before leaving the Examination Hall.
- 8. Darken completely the ovals of your answer on OMR Sheet in the time limit allotted for that particular paper.
- 9. Your OMR Sheet will be evaluated through electronic scanning process. Incomplete and incorrect entries may render your OMR Sheet invalid.
- 10. Use of electronic gadgets, calculator, mobile etc, is strictly prohibited.

NTSE (S-I) 2019-20 (Madhya Pradesh)

PART-I : MENTAL ABILITY TEST (MAT)

| Directions (Q.1 to Q.10) : There is a missing number in series shown by question mark (?) | | | | |
|--|-------------------------|------------------------------|--|--|
| Cho give | | out of the four alternatives | | |
| 1. | 10, 100, 200, 310, ? | | | |
| | (A) 400 | (B) 410 | | |
| | (C) 420 | (D) 430 | | |
| Ans | swer (D) | | | |
| 2. | 6, 12, 21, ?, 48 | | | |
| | (A) 33 | (B) 38 | | |
| | (C) 40 | (D) 45 | | |
| Ans | swer (A) | | | |
| 3. | 3, 7, 15, ?, 63, 127 | | | |
| | (A) 35 | (B) 31 | | |
| | (C) 30 | (D) 33 | | |
| Ans | swer (B) | | | |
| 4. | 196, 169, 144, 121, ? | | | |
| | (A) 100 | (B) 110 | | |
| | (C) 64 | (D) 81 | | |
| Ans | swer (A) | | | |
| 5. | 25, 49, 81, ?, 169, 225 | | | |
| | (A) 100 | (B) 121 | | |
| | (C) 144 | (D) 125 | | |
| Ans | swer (B) | | | |
| 6. | 325, 259, 204, 160, ?, | 105, 94 | | |
| | (A) 120 | (B) 125 | | |
| | (C) 127 | (D) 130 | | |
| Ans | swer (C) | | | |
| 7. | 165, 195, 255, 285, 34 | 5, ? | | |
| | (A) 375 | (B) 390 | | |
| | (C) 420 | (D) 435 | | |
| Ans | swer (A) | | | |
| 8. | 1, 3, 4, 8, 15, 27, ? | | | |
| | (A) 37 | (B) 44 | | |
| | (C) 50 | (D) 55 | | |
| Ans | Answer (C) | | | |
| 9. | 6, 11, 21, 36, 56, ? | | | |
| | (A) 42 | (B) 51 | | |
| | (C) 81 | (D) 91 | | |
| Answer (C) | | | | |

| 10 | 0. 3, 15, ?, 63, 99, 143 | | |
|-----------|---|---|--|
| | (A) 27 | (B) 35 | |
| | (C) 45 | (D) 56 | |
| A | nswer (B) | | |
| 1 | 1. If 'ROHIT' is coded a be coded? | as 'SPIJU', how will 'MOHIT' | |
| | (A) NPIJU | (B) LNGHS | |
| | (C) ZATIU | (D) None of the above | |
| A | nswer (A) | | |
| 1: | 2. If 'MEAT' is coded as coded? | : '135120', how will 'TIME' be | |
| | (A) 209135 | (B) 211395 | |
| | (C) 26245 | (D) None of the above | |
| A | nswer (A) | | |
| 1: | In a certain code, 'F How is 'SWAN' writte | ROAD' is written as 'URDG'. en in that code? | |
| | (A) VXDQ | (B) VZDQ | |
| | (C) VZCP | (D) UXDQ | |
| A | nswer (B) | | |
| 1 | 14. If each letter in the English alphabet is assigned odd Numerical value beginning A = 1, B = 3, C = 5 and so on. What will be the value of the letters of word INDIAN? | | |
| The start | (A) 86 | (B) 88 | |
| | (C) 89 | (D) 96 | |
| A | nswer (D) | | |
| 1 | | e 'LUTE' is written as 'MUTE' n as 'GATE', then how will | |
| | (A) CLUE | (B) GLUE | |
| | (C) FLUE | (D) SLUE | |
| A | nswer (A) | | |
| | irections (Q.16 to Q.20 nd the odd one out. |) : Of the four alternatives, | |
| 10 | 6. (A) Fast – Slow | (B) Bright – Dark | |
| | (C) Day – Night | (D) Valley - Depth | |
| Α | nswer (D) | | |
| 1 | 7. (A) Zebra | (B) Lion | |

17. (A) Zebra (B) Lion (C) Tiger (D) Horse

Answer (D)



| NTSE (S-I) 2019-20 (Madh | va Pradesh) | | Aakash MedicalIIT-TEEFennatatio |
|---|---|----------------------------|------------------------------------|
| 18. (A) January | (B) May | 27. Rupee : India : : Yen | U:? |
| (C) November | (D) July | (A) Turkey | (B) Bangladesh |
| Answer (C) | | (C) Japan | (D) Pakistan |
| 19. (A) Radish | (B) Carrot | Answer (C) | (_) |
| (C) Spinach | (D) Potatoes | 28. Air : Atmosphere : : : | Water · 2 |
| Answer (C) | | (A) Hydrosphere | (B) Ecosphere |
| 20. (A) 333 | (B) 153 | | |
| (C) 783 | (D) 213 | (C) Biosphere | (D) Stratosphere |
| Answer (D) | outler', 'butler' is 'manager', | Answer (A) | |
| | er', 'teacher' is 'clerk' & 'clerk' | 29. Mumbai : Maharasht | |
| is 'principal', who | will teach in a class? | (A) Gujarat | (B) Kerala |
| (A) Clerk | (B) Cook | (C) Chhattisgarh | (D) Jharkhand |
| (C) Butler | (D) Manager | Answer (C) | 5 |
| Answer (A) | Nink' (Dink' means (Dive' (Dive' | 30. Ship : Sea : : Camel | :? |
| | Pink', 'Pink' means 'Blue', 'Blue' hite' means 'Yellow', then what | (A) Forest | (B) Mountain |
| is the colour of cle | | (C) Land | (D) Desert |
| (A) Brown | (B) Pink | Answer (D) | |
| (C) Red | (D) Blue | 31. Thermometer : Tem | perature : : Barometer : ? |
| Answer (B) | | (A) Pressure | (B) Humidity |
| • | Q.35) : One of the four ler the each question satisfies | (C) Electric current | |
| ÷ | found between two patterns to | Answer (A) | (_) |
| the left of the sign : : : correct alternative. | given in the question. Find the | 32. Dog : Rabies : : Mos | auito · ? |
| 23. Virat Kohli : Cricke | et · · · Mary Kom · ? | (A) Sting | (B) Malaria |
| (A) Boxing | | (C) Death | (D) Plague |
| (C) Cricket | (D) Tennis | Answer (B) | (D) Mague |
| Answer (A) | (B) Badminton(D) Tennis | | · · · Cotoroot · 2 |
| 24. 81:3::16:? | C GINIS | 33. Tuberculosis : Lungs | |
| (A) 2 | (B) 4 | | (B) Throat |
| (C) 9 | (D) 12 | (C) Eyes | (D) Skin |
| Answer (A) | | Answer (C) | |
| 25. Aeroplane : Hange | er::Car:? | 34. AB : ZY : : CD : ? | |
| (A) Port | (B) Garage | (A) XW | (B) WV |
| (C) Depot | (D) Harbour | (C) XY | (D) WX |
| Answer (B) | | Answer (A) | |
| 26. Bees : Swarm : : C | Cattle : ? | 35. Cruel : Kind : : Lazy | :? |
| (A) Mob | (B) Flock | (A) Alert | (B) Sharp |
| (C) Herd | (D) Shoal | (C) Interest | (D) Shrewd |
| | | | |



Directions (Q.36 to Q.39) : Four types of figures (a), (b), (c) & (d) are given. One of the figure type represents the relation of 3 types of things. Select the right answer.

| ngn | lanswei | | |
|-----|------------|--|---------|
| | \bigcirc | | $\Big)$ |
| | (a) | (b) (c) (d) | |
| 36. | Bus; Ca | ar; Vehicle | |
| | (A) a | (B) b | |
| | (C) c | (D) d | |
| Ans | swer (B) | | |
| 37. | Week, I | Day, Year | |
| | (A) a | (B) b | |
| | (C) c | (D) d | |
| Ans | swer (A) | | |
| 38. | Thief, C | Criminal, Judge | |
| | (A) a | (B) b | |
| | (C) c | (D) d | |
| Ans | swer (C) | | |
| 39. | Profess | Professor, Researcher, Scientist | |
| | (A) a | (B) b | |
| | (C) c | (D) d | |
| Ans | swer (D) | | |
| 40. | Which r | number is in all Geometrical figures | ? |
| | | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | |
| | (A) 3 | (B) 4 | |
| | (C) 5 | (D) 8 | |

Answer (B)

41. Rohit travels 7 km to the North. He then turns right and walks 4 km. He again turns right and moves 4 km forward. How many km is he from the starting point?

| (A) 6 km | (B) 5 km |
|----------|----------|
| | |

(C) 9 km (D) 15 km

Answer (B)

| NTSE (S-I) 2019-20 (| Madhya Pradesh) |
|----------------------|-----------------|
| | |

| 42. | Pointing to a man, a woman said, "He is the son of only son of my grandfather". How is that man related to woman? | |
|------------|--|--|
| | | |
| | (A) Uncle | (B) Brother |
| | (C) Cousin | (D) None of these |
| Ans | swer (B) | |
| 43. | What is the product of of a Telephone? | all the Numbers in the Dial |
| | (A) 158480 | (B) 0 |
| | (C) 159450 | (D) 159480 |
| Ans | swer (B) | |
| 44. | If '+' means 'x', 'x' me | eans '+', '+' means '-' and |
| | | alue of 16 × 3 + 5 – 2 ÷ 4. |
| | (A) 9 | (B) 10 |
| | (C) 19 | (D) None of these |
| Ans | swer (A) | |
| 45. | | eans '+' and '\$' means '+' |
| | then what would be the | e value of 27 > 81 \$ 9 < 6? |
| | (A) 6 | (B) 33 |
| | (C) 36 | (D) 30 |
| Ans | swer (D) | |
| 46. | If the seven (7 th) day of the month is Tuesday, what day will it be on the 19 th day of the month? | |
| | (A) Sunday | (B) Monday |
| | (C) Wednesday | (D) Friday |
| Ans | swer (A) | |
| 47. | 7. Rohan ranks 7 th from the top and 26 th from the bottom in a class. How many students are there in the class? | |
| | (A) 31 | (B) 32 |
| | (C) 33 | (D) 34 |
| Ans | swer (B) | |
| 48. | In the following Nur alphabets are written to | mber series, how many |
| | GOSSRGMLGT | - |
| | (A) 3 | (B) 5 |
| | (C) 1 | (D) 2 |
| ۸ne | wer (A) | (D) 2 |
| | | t than turn right again and |
| 49. | | t, then turn right again and nich direction you are now? |
| | (A) North | (B) South |
| | (C) East | (D) West |
| Answer (C) | | |

| NTSE | E (S-I) 2019-20 (Madhya Pr | adesh) | | | Aakash Medical IIT-JEE Foundations down data based down und |
|--|---------------------------------------|---|--|-------------------------|---|
| 50. In the following words. Which word will come third | | 57. A and B together can do a piece of work in 6 days. A alone can do it in 9 days. In how many days can | | | |
| | in the English dictionar | - | | B alone do it? | days. In now many days can |
| | (A) Fallible | (B) Faithfully | | (A) 18 | (B) 14 |
| | (C) False | (D) Follow | | (C) 16 | (D) 20 |
| Ansv | wer (C) | | Ans | swer (A) | |
| | English dictionary? | g words will cone third in | 58. | points towards North | rist watch. If the minute hand East direction, then the hour |
| | (A) Magnify | (B) Magnetic | | hand will point towar | |
| | (C) Magical | (D) Martial | | (A) South-West | (B) North-West |
| Ansv | wer (A) | | A | (C) South | (D) South-East |
| 52. | 66 × 83 = 8636 | | | swer (D) | 2) , la o contain cada (co no |
| | 56 × 73 = 7635 46 × 63 = 6634 | | <i>Directions (Q.59 to Q.62) :</i> In a certain code ' <u>ca na</u> <u>da</u> ' means ' <u>how are you</u> ' ' <u>ta na co</u> ' means ' <u>we are</u> <u>happy</u> '; ' <u>ta po da</u> ' means ' <u>we and you</u> ' | | |
| ; | 36 × 53 = ? | | 59. | What is the code for | 'happy'? |
| | (A) 5633 | (B) 5643 | | (A) ca | (B) co |
| | (C) 5655 | (D) 5663 | | (C) po | (D) na |
| | . , | (D) 5000 | Ans | swer (B) | |
| Answer (A) | | 60. | 60. What is the code for 'how'? | | |
| | if 9 – 3 – 1 = 913, 6 – : = ? | 5 - 4 = 645, then $8 - 7 - 0$ | | (A) ca | (B) ta |
| | | (D) 700 | | (C) po | (D) co |
| | (A) 708 | (B) 780 | Ans | swer (A) | |
| | (C) 807 | (D) 804 | 61. | What is the code for | 'you are happy'? |
| | wer (C) | | | (A) ca co na | (B) ta an co |
| | - | this number its digits are | | (C) po ca da | (D) da na co |
| | reversed. Point out the | | | swer (D) | |
| | (A) 36 | (B) 45 | 62. | 'how you happy' will | |
| | (C) 54 | (D) 27 | | (A) po ca da | (B) ca da co |
| Ansv | wer (C) | AV O. | _ | (C) na da na | (D) co ca po |
| 55. | How many 4's are ther | e in the series below which | | swer (B) | |
| | are preceded by 840480480480840804 | 8 and followed by 0 804840804 | | ue in following questio |) : Find the missing numerical ns. |
| | (A) 2 | (B) 3 | 63. | 8 | |
| | (C) 4 | (D) 5 | | $\langle \rangle$ | |
| Ansv | wer (B) | | | 12 | - ? |
| | An athlete runs 10 km in km/h is | in 30 min. Then his speed | | 26 30 28 | |
| | (A) 25 km/h | (B) 20 km/h | | (A) 26 | (B) 25 |
| | (C) 30 km/h | (D) 10 km/h | | (C) 24 | (D) 38 |
| Ansv | wer (B) | | Ans | swer (C) | · / |
| | | | | | |

() Aakach

| Aa | () Nash | | |
|---------------------|---|--|---------------------------|
| Medical Deserved | IIT-JEE[Foundations Award Edwards General Lenter | ,5 7, ,? | Directions |
| 64. | 3 2 9 | ⁵ ⁷ [?] | Directions as they occ |
| | Ť Ť | ľ | 71. 1. Inwa |
| | 5 56 | 24 | (A) 4, |
| | (A) 5 | (B) 4 | (C) 1, |
| | (C) 3 | (D) 2 | Answer (B) |
| An | swer (A) | () | 72. 1. Matt |
| | | g events in the order as they | (A) 2, |
| | 1. Consultation, 2. III | - · | (C) 1, - Answer (C) |
| | 3. Treatment, 4. Rec | | 73. In the |
| | (A) 2, 1, 3, 4 | (B) 3, 2, 1, 4 | ascend |
| | (C) 1, 2, 3, 4 | (D) 3, 1, 2, 4 | unchar |
| ۸n | swer (A) | (D) 3, 1, 2, 4 | (A) Or |
| | | H' is written 'EHRG', how will | (C) No |
| 00. | 'JUNGLE' be written | | Answer (B) |
| | (A) ITNFKD | (B) ITMFKD | Directions |
| | (C) IKMFKD | (D) TIMFKD | answer the |
| An | swer (B) | | |
| | | denotes '÷', 'C' denotes '-', 'D' | Scientist ← |
| | 5 A 1 4 B 2 D 2 | C 2 = ? | |
| | (A) 20 | (B) 17 | 74. Which doctors |
| | (C) 19 | (D) 16 | (A) A |
| An | swer (B) | | (C) G |
| 68. | | at is the value of 14 * 1? | Answer (C) |
| | (A) 144 | | 75. Which |
| | (C) 125 | (B) 169 (D) 225 | scientis |
| An | swer (D) | Open Open | (A) A a |
| | | A, B & C so that A have 30%, | (C) B a |
| | • | have the rest. How much the | Answer (A) 76. Which |
| | (A) 160 | (B) 232 | dancer |
| | (C) 212 | (D) 200 | (A) A a |
| An | swer (A) | | (C) C : |
| 70. | 'A' is 3 years older t | han 'B' and 3 years younger | Answer (B) |
| | • | are twins. How many years | 77. Which doctors |
| | (A) 6 | (B) 7 | (A) A |
| | (C) 5 | (D) 4 | (C) F |
| An | swer (A) | | Answer (A) |
| | | - (| 6 - |

| | NISE | (3-1) 2013-20 (Mauriya Flauesh) | |
|-----|---|--|--|
| | ections (Q.71 & Q.72) hey occur in the diction | : Arrange the given words ary. | |
| 71. | 1. 1. Inward, 2. Ion, 3. Iodine, 4. Invite, 5. Iodoform | | |
| | (A) 4, 1, 2, 5, 3 | (B) 4, 1, 3, 5, 2 | |
| | (C) 1, 3, 2, 4, 5 | (D) 5, 4, 1, 2, 3 | |
| Ans | swer (B) | | |
| 72. | 1. Matter, 2. Meal, 3. M | Maze, 4. Maximum, 5. Mean | |
| | (A) 2, 3, 5, 4, 1 | (B) 1, 4, 2, 5, 3 | |
| | (C) 1, 4, 3, 2, 5 | (D) 4, 1, 3, 2, 5 | |
| Ans | wer (C) | | |
| 73. | • | ber 6492758 are written in how many digits will remain | |
| | (A) One | (B) Two | |
| | (C) None | (D) Three | |
| Ans | swer (B) | | |
| | | 8) : Study the figure and | |
| ans | wer the question given | | |
| | A D | A Artists | |
| Sc | ientist | $B \rightarrow Doctors (Circle)$ | |
| | | \rightarrow Dancers (Square) | |
| 74. | Which latter represe | / | |
| 74. | doctors and dancers | ents the artists who are only? | |
| | (A) A | (B) D | |
| | (C) G | (D) H | |
| Ans | swer (C) | | |
| 75. | Which letter represent scientists nor doctors | s the Artists who are neither ? | |
| | (A) A and B | (B) A and L | |
| | (C) B and G | (D) L and H | |
| Ans | swer (A) | | |
| 76. | Which letter represe dancers as well as do | ents the Artists who are ctors only? | |
| | (A) A and D | (B) C and G | |
| | (C) C and D | (D) G and H | |
| Ans | swer (B) | | |
| 77. | Which letter represent doctors nor scientists | s the Artists who are neither nor dancers? | |
| | (A) A | (B) D | |
| | (C) F | (D) G | |
| Ans | wer (A) | | |

78. Which letter represents the scientists only?

| (A) B | (B) D |
|-------|-------|
|-------|-------|

(C) F (D) L

Answer (C)

79. A class of boys stands in a single line. One boy is nineteenth in order from both the ends. How many boys are there in the class?

| (A) 27 | (B) 37 |
|--------|--------|
| (| |

(C) 38 (D) 39

Answer (B)

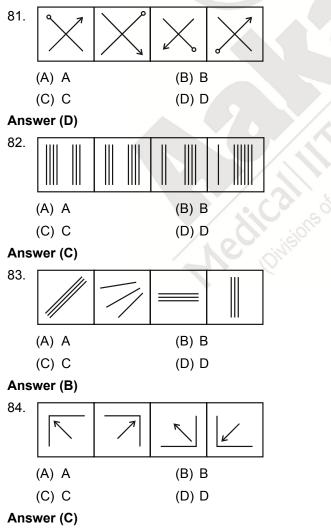
80. In the following series, how many pairs of successive numbers have difference of 2 each?

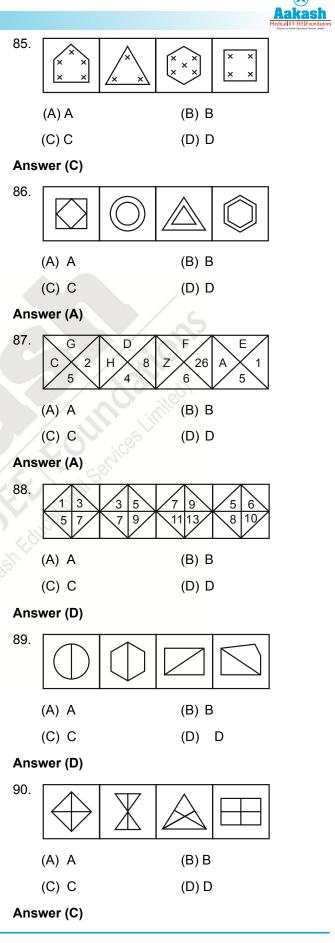
64122874215386217141

(A) Four(B) Five(C) Six(D) Seven

Answer (A)

Directions (Q.81 to Q.90) : Choose the odd figure out of the given.







Directions (Q.91 to Q.95) : Study the following information and answer the given questions :

- (i) B and E are good in Dramatics and Computer Science.
- (ii) A and B are good in Computer Science and Physics.
- (iii) A, D and C are good in Physics and History.
- (iv) C and A are good in Physics and Mathematics.
- (v) D and E are good in History and Dramatics.
- 91. Who is good in Physics, History and Dramatics?
 - (A) A (B) B
 - (C) D

Answer (C)

92. Who is good in Physics, History and Mathematics, but not in computer Science?

(D) E

- (A) A (B) B
- (C) C (D) D

Answer (C)

- 93. Who is good in Computer Science, History and Dramatics?
 - (A) A (B) B
 - (C) C (D) E

Answer (D)

94. Who is good in History, Physics, Computer Science and Mathematics?

| (A) A | (B) B |
|-------|-------|
| (C) C | (D) D |

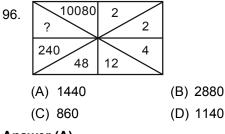
Answer (A)

95. Who is good in Physics, Dramatics and Computer Science?

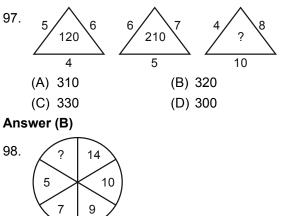
| (A) A | (B) B |
|-------|-------|
| (C) D | (D) E |

Answer (B)

Directions (Q.96 to Q.98) : Find the missing number from among the given alternatives :





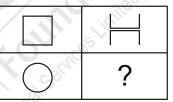


(A) 3 (B) 6 (C) 18 (D) 2

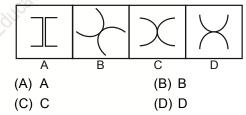
Answer (C)

Directions (Q.99 & Q.100) : In each of the following questions; find out which of the answer figure complete the matrix.

99. Question Figure

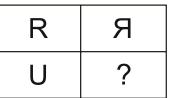


Answer Figure

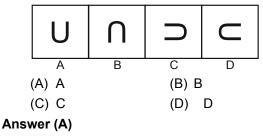


Answer (D)

100. Question Figure



Answer Figure



NTSE (S-I) 2019-20 (Madhya Pradesh)

PART-II : SCHOLASTIC APTITUDE TEST (SAT)

- 1. The value of acceleration due to gravity is :
 - (A) Least on equator
 - (B) Least on poles
 - (C) Same on equator & pole
 - (D) Increases from pole to equator

Answer (A)

- 2. The numerical ratio of displacement to distance covered by a moving object is :
 - (A) Always < 1 (B) Always = 1
 - (C) Always > 1 (D) = or < 1

Answer (D)

- According to third law of motion, action and reaction:
 - (A) Always act on the same body
 - (B) Always act on different bodies in opposite direction
 - (C) Have same magnitude and direction
 - (D) Act on any one of the body at normal to each other

Answer (B)

- 4. The S.I. unit of retardation is
 - (A) ms⁻¹ (B) ms⁻²
 - (C) ms² (D) m

Answer (B)

- 5. _____ is located behind a convex mirror :
 - (A) The focal point (B) A ray
 - (C) A real image (D) The object

Answer (A)

- When white light passes through the prism colour which deviates the least is :
 - (A) Red (B) Blue
 - (C) Violet (D) Green

Answer (A)

- 7. Two charged bodies having equal potential are connected through a conducting wire. In this case
 - (A) Current will flow
 - (B) Not flow
 - (C) Can't say
 - (D) Current will flow if a resistance is connected

Answer (B)

- 8. Two parallel wires carrying current in opposite directions
 - (A) Attract each other
 - (B) Repel each other
 - (C) Do not affect each other
 - (D) Get moved to perpendicular to each other

Answer (B)

- 9. The magnetic field inside a solenoid is :
 - (A) Non-uniform
 - (B) Variable
 - (C) Same at all points except at its ends
 - (D) Zero

Answer (C)

- 10. Inside a magnet lines of force move from :
 - (A) North to south pole
 - (B) Away from north pole
 - (C) South to north pole
 - (D) Away from south pole

Answer (C)

- 11. The resistance of a conductor is directly proportional to :
 - (A) Its area of cross-section
 - (B) Density
 - (C) Melting point
 - (D) Length

Answer (D)

- 12. Light travels fastest in which of the following materials
 - (A) Diamond (B) Water
 - (C) Glass (D) Air

Answer (D)

- 13. Acceleration always acts in the direction :
 - (A) Of displacement
 - (B) Of the initial velocity
 - (C) Of net force
 - (D) Of final velocity

Answer (C)



| (| | | | |
|---|---|--|------------------------------------|-----------------------------------|
| Medical III-JI | El Foundations autoritérices Lines | | NT | SE (S-I) 2019-20 (Madhya Pradesh) |
| | Which statements a following reaction? | re correct regarding the | | $CH_3CI + HCI$. This reaction is |
| 2 | $2PbO(s) + C(s) \rightarrow 2Pb(s)$ | s) + CO ₂ (g) | (A) Substitution | (B) Oxidation |
| (| (1) Lead is reduced | | (C) Combination | (D) Reduction |
| (| (2) Carbon dioxide is | oxidised | Answer (A) | |
| (| (3) Carbon is oxidised | l | 22. R $C = C$ R $Catalys H_2$ | $st \rightarrow R - C - C - R$ |
| | (4) Lead oxide is redu | | $R R H_2$ | |
| | (A) (1) and (2) | | The given reaction is | |
| | (C) (1), (2) and (3) | | (A) Oxidation | (B) Reduction |
| | ver (B) | | (C) Substitution | (D) Decomposition |
| 15. \ | What will happen on | putting dilute HCI on iron | Answer (B) | |
| I | oowder? | | 23. The structural formula | a of cyclopentane is : |
| (| (A) Hydrogen gas and | FeCl ₂ will form | (A) | (B) |
| (| (B) Chlorine gas and I | FeCl₂ will form | | |
| (| (C) FeCl ₂ and H ₂ O wil | l form | (C) | (D) |
| (| (D) Will be no reaction | | Answer (C) | \sim |
| Answer (A) | | | | |
| 16. ⁻ | The number of covaler | nt bonds in ethane are : | 24. The name of $H - C -$ | His |
| (| (A) 6 | (B) 7 | (A) Acetone | (B) Acetic Acid |
| (| (C) 8 | (D) 9 | (C) Ethanol | (D) Formaldehyde |
| Ansv | ver (B) | | Answer (D) | |
| | f electronic configurati atomic number of atom | on of an atom is 2, 8, 7, then | 25. Which among the | following is/are saturated |
| | (A) 15 | (B) 16 | compound? | |
| | (C) 17 | (D) 18 | (A) CH ₄ | (B) C ₃ H ₈ |
| | | | (C) C ₅ H ₁₂ | (D) All the above |
| Answer (C)18. Which functional group is present in Butanone? | | Answer (D) 26. XCl ₂ is a solid and high melting point compound. | | |
| | | | X will be | nign meiting point compound. |
| (| (A) _ –С–ОН | (B) – C– H | (A) Na | (B) Mg |
| | (C) >C = O | (D) – C ≡ N | (C) Al | (D) Si |
| | | (D) = C = N | Answer (B) | |
| | ver (C) | phie configuration 2, 9, 22 | 27. Which of the following | g is not a divisional stage? |
| | | onic configuration 2, 8,2? | (A) Telophase | (B) Prophase |
| | (A) Na | (B) Mg | (C) Metaphase | (D) Interphase |
| | (C) Al | (D) Si | Answer (D) | |
| Answer (B) | | 28. Cell Organelles are embedded in | | |
| | 20. Which element have two shells and both these shells are fulfilled with electrons? | | (A) Cytoplasmic mer | ninane |
| | (A) S | (B) Ne | (B) Mucin | |
| | (C) N | (D) He | (C) Protoplasm (D) Cytoplasm | |
| | ver (B) | | Answer (D) | |
| A113V | | 4 | | |

| NT | SE (S-I) 2019-20 (Madhya F | Pradesh) | Aakash |
|------------|----------------------------|------------------------------|--|
| | Growth rings are forn | | 38. The Anther contains |
| 23. | (A) Xylem | led by the activity of | (A) Sepals (B) Ovules |
| | (B) Phloem | | (C) Pistil (D) Pollen-grains |
| | (C) Both Xylem and | Phloem | Answer (D) |
| | (D) Cambium | i nioeni | 39. Cell Organelles essential for photorespiration is |
| Δng | swer (D) | | (A) Ribosome (B) Dictyosomes |
| | | ct of most of the algae is | (C) Peroxisomes (D) Glyoxisome |
| 00. | (A) Glycogen | (B) Fat | Answer (C) |
| | (C) Cellulose | (D) Starch | 40. Pollination in Maize held by |
| Δng | swer (D) | | |
| | Largest Ecosystem o | f the world are | |
| 01. | (A) Forest | (B) Grassland | |
| | (C) Great lakes | (D) Oceans | Answer (C) |
| Ang | swer (D) | | 41. Which of the following cities in not related to the Indus civilization? |
| | The Xylem in plants a | are responsible for | (A) Mohenjo daro (B) Kalibangan |
| • | (A) Transport of wate | | (C) Lothal (D) Patliputra |
| | (B) Transport of oxy | | Answer (D) |
| | (C) Transport of food | | 42. Which was the governor General during the 1857 |
| | (D) Transport of Ami | | the first war of independence? |
| Answer (A) | | | (A) Lord Dalhousie (B) Lord Ripon |
| | Budding type of Repro | oduction is found in | (C) Lord Curzon (D) Lord Canning |
| | (A) Peepal | (B) Bryophyllum | Answer (D) |
| | (C) Rose | (D) Sugarcane | 43. Who was the founder of Satya Shodhak Samaj? |
| ۸n | swer (B) | (D) ougaroand | (A) Ram Mohan Roy (B) Dayanand Saraswati |
| | . , | n acid in alco a vitamin? | (C) Jyotiba Phule (D) Swami Vivekanand |
| 54. | | g acid is also a vitamin? | Answer (C) |
| | (A) Ascorbic acid | (B) Formic acid | 44. Which of the following foreign travellers came to |
| _ | (C) Malic acid | (D) Palmitic acid | India during Chandra Gupta Maurya's Period? |
| | swer (A) | a d'isio | (A) Fa-Xian |
| 35. | | ring plant tip has Quiescent | (B) Arena |
| | centre? | | (C) XuanZang/Hiuen Tsang |
| | (A) Stem | (B) Root | (D) Megasthenes |
| _ | (C) Leaf | (D) Sepal | Answer (D) |
| | swer (B) | | 45. Who among the following is called the "Bhoja of |
| 36. | Which of the following | | Andhra"? |
| | (A) Insulin | (B) Thyroxin | (A) Krishnadeva Rai (B) Veer Narsimha |
| | (C) Cytokinin | (D) Oestrogen | (C) Immadi Narasimha (D) Rajendra Chola |
| Ans | swer (C) | | Answer (A) |
| 37. | Ribosomes are granul | les formed of | 46. Kandariya Mahadev Temple is located at |
| | (A) Only m-RNA | (B) Only Proteins | (A) Khajuraho (B) Badami |
| | (C) r RNA + Proteins | (D) Only DNA | (C) Ajanta (D) Ellora |
| Ans | swer (C) | | Answer (A) |

| Aa | À kash | | | |
|--|---|-----------------------------|--|---|
| Medical Division of A | T-JEEFoundations Where is the ancient c | oastal settlement Arikamedu | 55 | NTSE (S-I) 2019-20 (Madhya Pradesh) Ashvaghosha writer of Buddhacarita belonged to |
| | Located? | | | the court of which Ruler? |
| | (A) Visakhapatnam | (B) Chennai | | (A) Kanishka |
| | (C) Puducherry | (D) Port Blair | | (B) Ashoka |
| Ans | swer (C) | | | (C) Chandragupta Maurya |
| 48. | Who wrote "Humayun | nama"? | | (D) Bimbisara |
| | (A) Gulbadan Begam | (B) Abul Fazl | Ans | wer (A) |
| | (C) Badayuni | (D) Barni | 56. | The largest area under mangroves is in which of the following state/union territory? |
| | swer (A) | | | (A) Andaman and Nicobar |
| 49. | Who wrote "Kiratarjuni | ya"? | | (B) Andhra Pradesh |
| | (A) Shudraka | (B) Bharvi | | (C) West Bengal |
| | (C) Kalhan | (D) Bilhan | | (D) Gujarat |
| Ans | swer (B) | | Ans | wer (C) |
| 50. | Who founded Forward | Bloc? | 57. | River in its last stage forms- |
| | (A) Subhas Chandra I | Bose | | (A) Water Fall (B) Flood Plains |
| | (B) Jawahar Lal Nehru | | | (C) Delta or Estuary (D) OX-Bow lake |
| | (C) Gandhi Ji | | Ans | wer (C) |
| | (D) Mohammad Ali Jir | nah | 58. | Sundari trees are found in |
| Answer (A) | | 1 | (A) Tropical Forest | |
| 51. Lothal the port city of Indus Valley civilization is | | | (B) Himalayan Forest | |
| | located | | \sim | (C) Mangrove Forest |
| | (A) Gujrat | (B) Rajasthan | 14 | (D) Tropical deciduous forest |
| | (C) Punjab | (D) Haryana | 00 | wer (C) |
| Answer (A) | | 59. | Which scale is a Representative Fraction (R.F.)? | |
| 52. | Rani Durgawati was th | e queen of | | (A) One inch is equal to ten miles |
| | (A) Garha | (B) Riwa | | (B) $1 \text{ cm} = 1 \text{ km}$ |
| | (C) Jaipur | (D) Jhansi | | (C) One cm for ten km |
| Ans | Answer (A) | | A mo | (D) 1 : 1,00,000 |
| 53. | Who established "Khal | sa" in 1699 A.D.? | | wer (D) Jim Corbett National Park is located in |
| | (A) Guru Gobind Sing | h | 00. | (A) Himachal Pradesh (B) Uttarakhand |
| | (B) Guru Angad | | | (C) Jammu & Kashmir (D) Assam |
| | (C) Guru Arjan Dev | | Δns | wer (B) |
| | (D) Guru Teg Bahadu | r | | Yellow Revolution is related to |
| Answer (A) | | 01. | (A) Fruit Production | |
| 54. | 54. Who was the author of Prayag Prashasti? | | | (B) Sheep rearing |
| | (A) Kalidas | (B) Harishena | | (C) Fish Production |
| | (C) Varahmihir | (D) Shudrak | | (D) Edible Oil & Oil Seeds |
| Ans | swer (B) | | Ans | wer (D) |

| | | | | _ |
|------------|-----------------------------------|---|---|---------------------------|
| NT | SE (S-I) 2019-20 (Madhya | Pradesh) | Aaka Madauliitteete | indations osc Linited) |
| 62. | | g Indian States is also known | 70. Where is Kalpakkam? | |
| | as a 'Land of Red riv | | (A) Uttar Pradesh (B) Maharashtra | |
| | (A) Uttarakhand | (B) Assam | (C) Gujarat (D) Tamil Nadu | |
| - | (C) Meghalaya | (D) Arunachal Pradesh | Answer (D) | |
| | swer (B) | e is est a Mastallia MissaralO | 71. The word 'Democracy' is focused by "Demos" a | and |
| 63. | | g is not a Metallic Mineral? | "Kratia" which are (both) words | |
| | (A) Iron | (B) Manganese | (A) Greek (B) Latin | |
| • | (C) Gold | (D) Coal | (C) Spanish (D) English | |
| | swer (D) | | Answer (A) | |
| 64. | which of the following | d National Park is Situated in States? | 72. Which Article of the constitution states about working of an election in India? | the |
| | (A) Tripura | (B) Uttar Pradesh | (A) Article - 19 (B) Article - 300 | |
| | (C) Assam | (D) Mizoram | (C) Article - 324 (D) Article – 368 | |
| An | swer (A) | | Answer (C) | |
| 65. | Silent Valley is locate | ed in | 73. 'Fundamental Rights' can be suspended | |
| | (A) Tamil Nadu | (B) Kerala | (A) By Judiciary | |
| | (C) Karnataka | (D) Himachal Pradesh | (B) By Parliament | |
| Answer (B) | | | (C) In Emergency Period | |
| 66. | River Brahmaputra ir | n Tibet (China) is called | (D) None of the above | |
| | (A) Meghana | (B) Tsangpo | Answer (C) | |
| | (C) Padma | (D) Debanga | 74. Who is responsible for the registration of the vot | er? |
| Answer (B) | | | (A) Governor (B) Voters | 51: |
| 67. | The largest Iron and | Steel in Plants in India is | (C) Political Parties (D) Election Commissio | ` |
| | (A) Tata Iron and Sto | eel Company | | I |
| | (B) Indian Iron and Steel Company | | Answer (D) | |
| | (C) Hindustan Steel | Ltd. | 75. Indian constitution is | |
| | (D) Visvesvaraya iro | n and Steel Company | (A) Rigid (B) Flexible | |
| An | swer (A) | | (C) Rigid and flexible (D) None of the above | |
| 68. | Which of the follow Lanka? | ring Separates India and Sri | Answer (C) 76. What is marginal productivity of labour in disguis | sed |
| | (A) The Gulf of Cam | bay | employment? | |
| | (B) The Rann of Kut | ch | (A) Zero (B) Minimum | |
| | (C) The Bay of Beng | al | (C) One (D) Maximum | |
| | (D) The Gulf of Man | nar | Answer (A) | |
| An | swer (D) | | 77. What the industrial unit is called which is run v | vith |
| 69. | The best Quality of c | oal. | the help of family members? | |
| | (A) Bituminous | (B) Anthracite | (A) Village industry (B) Agricultural industry | |
| | (C) Lignite | (D) Peat | (C) Cottage industry (D) Small industry | |
| An | swer (B) | | Answer (C) | |



- 78. Where the first mobile bank was established?
 - (A) In Ahmednagar district of Maharashtra
 - (B) In Khargone district of Madhya Pradesh
 - (C) In Kota district of Rajasthan
 - (D) In Mysore district of Karnataka

Answer (B)

- 79. When Prime Minister Rozgar Yojana started?
 - (A) 15th august 1947 (B) 26th January 1950
 - (C) 2^{nd} October 1993 (D) 15^{th} august 2015

Answer (C)

- 80. Which of the following sector contributes maximum in gross domestic product of India?
 - (A) Primary sector (B) Secondary sector
 - (C) Tertiary sector (D) Foreign sector

Answer (C)

- If the sum of 14 terms of an A.P. is 1050 and its first term is 10, the 20th term will be
 - (A) 140(B) 160(C) 180(D) 200

Answer (D)

- The roots of quadratic equation ax²+bx+c=0 are real and distinct if
 - (A) $b^2 = 4ac$
 - (B) $b^2 4ac > 0$
 - (C) $b^2 4ac < 0$
 - (D) None of these

Answer (B)

83. If in a triangle, square of longest side is equal to the sum of the squares of the other two sides, then the angle opposite the longest side is

(B) 0

| | (A) Acute angle | (B) Right angle |
|--|-----------------|-----------------|
|--|-----------------|-----------------|

(C) Obtuse angle (D) None of these

Answer (B)

- 84. $\frac{\tan 65^{\circ}}{\cot 25^{\circ}} = ?$ (A) 1
 - (C) $\frac{1}{2}$ (D) None
- Answer (A)

| | NTS | E (S-I) 2019-20 (Madhya Pradesh) | | |
|------------|---|---|--|--|
| 85. | Which of the following cannot be the probability of an event? | | | |
| | (A) 0.78 | (B) $\frac{2}{5}$ | | |
| | (C) 73% | (D) -0.78 | | |
| Ans | swer (D) | | | |
| 86. | Cube root of 328509 is | 3 | | |
| | (A) 65 | (B) 66 | | |
| | (C) 68 | (D) 69 | | |
| Ans | swer (D) | | | |
| 87. | The ratio of angles in a largest angle is | a triangle is 1 : 2 : 3, then the | | |
| | (A) 60° | (B) 90° | | |
| | (C) 120° | (D) None of these | | |
| Answer (B) | | | | |
| 88. | | | | |
| | and $6x + 12y - 18 = 0$ | is | | |
| | (A) $\left(\frac{-49}{29}, \frac{19}{29}\right)$ | (B) $\left(\frac{49}{29}, \frac{19}{29}\right)$ | | |
| | (C) $\left(\frac{49}{29}, \frac{-19}{29}\right)$ | (D) None of these | | |
| Ans | Answer (B) | | | |
| 89. | Pair of equations | 5x - 8y + 1 = 0 and | | |
| | $3x - \frac{24}{5}y + \frac{3}{5} = 0$ have | e | | |
| | (A) No solution | (B) Unique solution | | |
| | (C) Infinite solutions | (D) None of these | | |
| Answer (C) | | | | |
| 90. | The area of the triangle and $(-3, -5)$ is | e with vertices (1, -1), (-4, 6) | | |
| | (A) 20 square unit | (B) 22 square unit | | |
| | (C) 24 square unit | (D) 28 square unit | | |

- Answer (C)
- 91. Tenth term of A.P. 2, 7, 12, is
 - (A) 42 (B) 47 (C) 37 (D) 52
- Answer (B)

92. With usual meanings of notations, formula for assumed mean method for A.M. is

(A)
$$\overline{x} = A + \frac{\sum_{i=1}^{N} f_i d_i}{\sum_{i=1}^{N} f_i}$$
 where $d_i = x_i - A$

(B)
$$\overline{x} = \frac{x_1 + x_2 + \dots + z_n}{N}$$

(C)
$$\overline{x} = \frac{\sum_{i=1}^{N} f_i x_i}{\sum_{i=1}^{N} f_i}$$

(D) None of these

Answer (A)

- 93. The value of $\frac{\cos 30^\circ \times \sin 60^\circ}{\cos 60^\circ}$ is
 - (A) 0 (B) 0.5
 - (C) 1 (D) 1.5

Answer (D)

94. For individual series 108, 64, 40, 57, 30, 54, 32, 52 Median is :

- (A) 52
- (B) 53
- (C) 54
- (D) 55

Answer (B)

95. If, $\tan \theta = \frac{3}{4}$, then $\sin \theta \times \cos \theta = ?$ (B) $\frac{11}{25}$ (A) $\frac{10}{25}$ (D) $\frac{13}{25}$ (C) $\frac{12}{25}$ Answer (C) 96. Total two digit numbers completely divisible by 3 are (A) 29 (B) 30 (C) 31 (D) 32 Answer (B) 97. sin30° × tan30° × cot30° × cosec60° = (A) tan30° (B) cot 60° (C) sin30° × cosec60° (D) All of the above Answer (D) 98. (3x+6)(x+1) + 2x = (x+5)(x+4) has (A) No roots (B) Imaginary roots (C) Real roots (D) None of these Answer (C) 99. When $2x^2 + 3x + 1$ is divided by x + 2 then quotient and remainder are : (A) Q = 2x - 1, R = 3 (B) Q = x + 1, R = 3(C) Q = 2x + 1, R = 3 (D) None of these Answer (A) 100. The zeros of quadratic polynomial $x^2 + 7x + 10$ will be (A) 2 and –5 (B) -2 and 5 (C) –2 and –5 (D) None of these Answer (C)