# 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 :

| Correct way : | Q. No. | Alternatives |
| :---: | :---: | :---: |
|  | 1 | (A) (B) (D) |
|  | Q. No. | Alternatives |
| Wrong way : | 1 | ( $\triangle$ (B) (C) (D) |

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.

## PART-I : MENTAL ABILITY TEST (MAT)

Directions (Q. 1 to Q.10) : There is a missing number in series shown by question mark (?)
Choose the correct number out of the four alternatives given.

1. $10,100,200,310$,?
(A) 400
(B) 410
(C) 420
(D) 430

## Answer (D)

2. $6,12,21, ?, 48$
(A) 33
(B) 38
(C) 40
(D) 45

Answer (A)
3. $3,7,15, ?, 63,127$
(A) 35
(B) 31
(C) 30
(D) 33

Answer (B)
4. $196,169,144,121$,?
(A) 100
(B) 110
(C) 64
(D) 81

Answer (A)
5. $25,49,81, ?, 169,225$
(A) 100
(B) 121
(C) 144
(D) 125

## Answer (B)

6. $325,259,204,160, ?, 105,94$
(A) 120
(B) 125
(C) 127
(D) 130

## Answer (C)

7. $165,195,255,285,345$, ?
(A) 375
(B) 390
(C) 420
(D) 435

## Answer (A)

8. $1,3,4,8,15,27$, ?
(A) 37
(B) 44
(C) 50
(D) 55

## Answer (C)

9. $6,11,21,36,56$, ?
(A) 42
(B) 51
(C) 81
(D) 91

Answer (C)
10. $3,15, ?, 63,99,143$
(A) 27
(B) 35
(C) 45
(D) 56

## Answer (B)

11. If 'ROHIT' is coded as 'SPIJU', how will 'MOHIT' be coded?
(A) NPIJU
(B) LNGHS
(C) ZATIU
(D) None of the above

## Answer (A)

12. If 'MEAT' is coded as ' 135120 ', how will 'TIME' be coded?
(A) 209135
(B) 211395
(C) 26245
(D) None of the above

Answer (A)
13. In a certain code, 'ROAD' is written as 'URDG'. How is 'SWAN' written in that code?
(A) VXDQ
(B) VZDQ
(C) VZCP
(D) UXDQ

## Answer (B)

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?
(A) 86
(B) 88
(C) 89
(D) 96

## Answer (D)

15. In a certain language 'LUTE' is written as 'MUTE' and 'FATE' is written as 'GATE', then how will 'BLUE' be written?
(A) CLUE
(B) GLUE
(C) FLUE
(D) SLUE

Answer (A)
Directions (Q. 16 to Q.20) : Of the four alternatives, find the odd one out.
16.
(A) Fast - Slow
(B) Bright - Dark
(C) Day - Night
(D) Valley - Depth

## Answer (D)

17. 

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

## Answer (D)

18. (A) January
(B) May
(C) November
(D) July

## Answer (C)

19. (A) Radish
(B) Carrot
(C) Spinach
(D) Potatoes

Answer (C)
20.
(A) 333
(B) 153
(C) 783
(D) 213

## Answer (D)

21. If 'cook' is called 'butler', 'butler' is 'manager', manager' is 'teacher', 'teacher' is 'clerk' \& 'clerk' is 'principal', who will teach in a class?
(A) Clerk
(B) Cook
(C) Butler
(D) Manager

## Answer (A)

22. If 'Black' means 'Pink', 'Pink' means ‘Blue', 'Blue’ means 'White', 'White' means 'Yellow', then what is the colour of clear sky?
(A) Brown
(B) Pink
(C) Red
(D) Blue

## Answer (B)

Directions (Q. 23 to Q.35) : One of the four Alternatives given under the each question satisfies the same relation as is found between two patterns to the left of the sign : : given in the question. Find the correct alternative.
23. Virat Kohli : Cricket : : Mary Kom : ?
(A) Boxing
(B) Badminton
(C) Cricket
(D) Tennis

## Answer (A)

24. $81: 3: 16:$ ?
(A) 2
(B) 4
(C) 9
(D) 12

## Answer (A)

25. Aeroplane : Hanger : : Car :?
(A) Port
(B) Garage
(C) Depot
(D) Harbour

## Answer (B)

26. Bees:Swarm :: Cattle :?
(A) Mob
(B) Flock
(C) Herd
(D) Shoal

## Answer (C)

27. Rupee:India::Yen:?
(A) Turkey
(B) Bangladesh
(C) Japan
(D) Pakistan

## Answer (C)

28. Air: Atmosphere : : Water:?
(A) Hydrosphere
(B) Ecosphere
(C) Biosphere
(D) Stratosphere

## Answer (A)

29. Mumbai : Maharashtra : : Raipur :?
(A) Gujarat
(B) Kerala
(C) Chhattisgarh
(D) Jharkhand

## Answer (C)

30. Ship : Sea : : Camel : ?
(A) Forest
(B) Mountain
(C) Land
(D) Desert

## Answer (D)

31. Thermometer:Temperature : : Barometer :?
(A) Pressure
(B) Humidity
(C) Electric current
(D) Earthquake intensity

## Answer (A)

32. Dog: Rabies: : Mosquito:?
(A) Sting
(B) Malaria
(C) Death
(D) Plague

## Answer (B)

33. Tuberculosis: Lungs:: Cataract:?
(A) Ear
(B) Throat
(C) Eyes
(D) Skin

## Answer (C)

34. $A B: Z Y:: C D: ?$
(A) XW
(B) WV
(C) $X Y$
(D) WX

## Answer (A)

35. Cruel: Kind: : Lazy :?
(A) Alert
(B) Sharp
(C) Interest
(D) Shrewd

## Answer (A)

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.

(a)

(b)

(c)

(d)
36. Bus; Car; Vehicle
(A) a
(B) b
(C) c
(D) d

## Answer (B)

37. Week, Day, Year
(A) a
(B) b
(C) c
(D) d

## Answer (A)

38. Thief, Criminal, Judge
(A) a
(B) b
(C) c
(D) d

## Answer (C)

39. Professor, Researcher, Scientist
(A) a
(B) $b$
(C) c
(D) d

## Answer (D)

40. Which number is in all Geometrical figures?

(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)

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

## Answer (B)

43. What is the product of all the Numbers in the Dial of a Telephone?
(A) 158480
(B) 0
(C) 159450
(D) 159480

## Answer (B)

44. If ‘ $\div$ ' means ' $x$ ', ' $x$ ' means ' + ', ' + ' means ' - ' and ' - ' means ' $\div$ ' find the value of $16 \times 3+5-2 \div 4$.
(A) 9
(B) 10
(C) 19
(D) None of these

## Answer (A)

45. If ‘<' means ' - ', '>' means ' + ' and ' $\$$ ' means ‘ $\div$ ' then what would be the value of $27>81 \$ 9<6$ ?
(A) 6
(B) 33
(C) 36
(D) 30

## Answer (D)

46. If the seven $\left(7^{\text {th }}\right)$ day of the month is Tuesday, what day will it be on the $19^{\text {th }}$ day of the month?
(A) Sunday
(B) Monday
(C) Wednesday
(D) Friday

## Answer (A)

47. Rohan ranks $7^{\text {th }}$ from the top and $26^{\text {th }}$ from the bottom in a class. How many students are there in the class?
(A) 31
(B) 32
(C) 33
(D) 34

Answer (B)
48. In the following Number series, how many alphabets are written twice, consecutively?
GOSSRGMLGTOPQQRPPSOG
(A) 3
(B) 5
(C) 1
(D) 2

## Answer (A)

49. You go North, turn right, then turn right again and then go to the left. In which direction you are now?
(A) North
(B) South
(C) East
(D) West

## Answer (C)

50. In the following words. Which word will come third in the English dictionary?
(A) Fallible
(B) Faithfully
(C) False
(D) Follow

## Answer (C)

51. Which of the following words will cone third in English dictionary?
(A) Magnify
(B) Magnetic
(C) Magical
(D) Martial

## Answer (A)

52. $66 \times 83=8636$
$56 \times 73=7635$
$46 \times 63=6634$
$36 \times 53=$ ?
(A) 5633
(B) 5643
(C) 5655
(D) 5663

## Answer (A)

53. If $9-3-1=913,6-5-4=645$, then $8-7-0$ =?
(A) 708
(B) 780
(C) 807
(D) 804

## Answer (C)

54. On subtracting 9 form this number its digits are reversed. Point out the number.
(A) 36
(B) 45
(C) 54
(D) 27

Answer (C)
55. How many 4's are there in the series below which are preceded by 8 and followed by 0 840480480480840804804840804
(A) 2
(B) 3
(C) 4
(D) 5

## Answer (B)

56. An athlete runs 10 km in 30 min . Then his speed in $\mathrm{km} / \mathrm{h}$ is
(A) $25 \mathrm{~km} / \mathrm{h}$
(B) $20 \mathrm{~km} / \mathrm{h}$
(C) $30 \mathrm{~km} / \mathrm{h}$
(D) $10 \mathrm{~km} / \mathrm{h}$

Answer (B)
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 B alone do it?
(A) 18
(B) 14
(C) 16
(D) 20

Answer (A)
58. It's 3 'O'clock in a wrist watch. If the minute hand points towards North-East direction, then the hour hand will point towards which direction?
(A) South-West
(B) North-West
(C) South
(D) South-East

## Answer (D)

Directions (Q. 59 to Q.62) : In a certain code 'ca na da' means 'how are you' 'ta na co' means 'we are happy'; 'ta po da' means 'we and you'
59. What is the code for 'happy'?
(A) ca
(B) co
(C) po
(D) na

## Answer (B)

60. What is the code for 'how'?
(A) ca
(B) ta
(C) po
(D) co

## Answer (A)

61. What is the code for 'you are happy'?
(A) ca co na
(B) ta an co
(C) po ca da
(D) da na co

## Answer (D)

62. 'how you happy' will be coded as?
(A) po ca da
(B) ca da co
(C) na da na
(D) co ca po

## Answer (B)

Directions (Q. 63 \& Q.64) : Find the missing numerical value in following questions.
63.

(A) 26
(B) 25
(C) 24
(D) 38

Answer (C)

(A) 5
(B) 4
(C) 3
(D) 2

## Answer (A)

65. Arrange the following events in the order as they occur to form meaningful sequence
66. Consultation, 2. Illness,
67. Treatment, 4. Recovery
(A) $2,1,3,4$
(B) $3,2,1,4$
(C) 1, 2, 3, 4
(D) $3,1,2,4$

## Answer (A)

66. In a certain code 'FISH' is written 'EHRG', how will 'JUNGLE' be written in that code?
(A) ITNFKD
(B) ITMFKD
(C) IKMFKD
(D) TIMFKD

## Answer (B)

67. If ' $A$ ' denotes ' + ', ' $B$ ' denotes ' $->$ ', ' $C$ ' denotes ' - ', ‘ $D$ ' donates ' $x$ ', then

$$
5 \text { A } 14 \text { B } 2 \text { D } 2 \text { C } 2 \text { = ? }
$$

(A) 20
(B) 17
(C) 19
(D) 16

## Answer (B)

68. If $9 * 4=169$, then what is the value of $14 * 1$ ?
(A) 144
(B) 169
(C) 125
(D) 225

## Answer (D)

69. Divide ₹ 640 among A, B \& C so that A have $30 \%$, $B$ have $45 \%$ and $C$ have the rest. How much the C have?
(A) 160
(B) 232
(C) 212
(D) 200

## Answer (A)

70. ' $A$ ' is 3 years older than ' $B$ ' and 3 years younger to ' $C$ ' while ' $B$ ' and ' $D$ ' are twins. How many years is $C$ older than $D$ ?
(A) 6
(B) 7
(C) 5
(D) 4

Answer (A)

Directions (Q. 71 \& Q.72) : Arrange the given words as they occur in the dictionary.
71. 1. Inward, 2. Ion, 3. lodine, 4. Invite, 5. Iodoform
(A) $4,1,2,5,3$
(B) $4,1,3,5,2$
(C) $1,3,2,4,5$
(D) $5,4,1,2,3$

## Answer (B)

72. 73. Matter, 2. Meal, 3. Maze, 4. Maximum, 5. Mean
(A) $2,3,5,4,1$
(B) $1,4,2,5,3$
(C) $1,4,3,2,5$
(D) $4,1,3,2,5$

## Answer (C)

73. In the digits of number 6492758 are written in ascending order, then how many digits will remain unchanged?
(A) One
(B) Two
(C) None
(D) Three

## Answer (B)

Directions (Q. 74 to Q.78) : Study the figure and answer the question given below :

74. Which letter represents the artists who are doctors and dancers only?
(A) A
(B) D
(C) G
(D) H

## Answer (C)

75. Which letter represents the Artists who are neither scientists nor doctors?
(A) A and B
(B) $A$ and $L$
(C) B and G
(D) L and H

Answer (A)
76. Which letter represents the Artists who are dancers as well as doctors only?
(A) A and D
(B) $C$ and G
(C) C and D
(D) G and H

## Answer (B)

77. Which letter represents the Artists who are neither doctors nor scientists nor dancers?
(A) A
(B) D
(C) F
(D) G

## Answer (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.
81.

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

Answer (D)
82.

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

Answer (C)
83.

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

## Answer (B)

84. 


(A) A
(B) B
(C) C
(D) D
85.

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

## Answer (C)

86. 


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

## Answer (A)

87. 


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

## Answer (A)

88. 


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

## Answer (D)

89. 


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

## Answer (D)

90. 


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

## Answer (C)

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) $D$
(D) E

## Answer (C)

92. Who is good in Physics, History and Mathematics, but not in computer Science?
(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 :
96.

(A) 1440
(B) 2880
(C) 860
(D) 1140

Answer (A)
97.

(A) 310
(B) 320
(C) 330
(D) 300

## Answer (B)

98. 


(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

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

## Answer (D)

100. Question Figure


Answer Figure

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

## Answer (A)

## 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)

3. 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) $\mathrm{ms}^{-1}$
(B) $\mathrm{ms}^{-2}$
(C) $\mathrm{ms}^{2}$
(D) m

## Answer (B)

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

## Answer (A)

6. 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)

NTSE (S-I) 2019-20 (Madhya Pradesh)
14. Which statements are correct regarding the following reaction?
$2 \mathrm{PbO}(\mathrm{s})+\mathrm{C}(\mathrm{s}) \rightarrow 2 \mathrm{~Pb}(\mathrm{~s})+\mathrm{CO}_{2}(\mathrm{~g})$
(1) Lead is reduced
(2) Carbon dioxide is oxidised
(3) Carbon is oxidised
(4) Lead oxide is reduced
(A) (1) and (2)
(B) (3) and (4)
(C) (1), (2) and (3)
(D) All

## Answer (B)

15. What will happen on putting dilute HCl on iron powder?
(A) Hydrogen gas and $\mathrm{FeCl}_{2}$ will form
(B) Chlorine gas and $\mathrm{FeCl}_{2}$ will form
(C) $\mathrm{FeCl}_{2}$ and $\mathrm{H}_{2} \mathrm{O}$ will form
(D) Will be no reaction

## Answer (A)

16. The number of covalent bonds in ethane are :
(A) 6
(B) 7
(C) 8
(D) 9

## Answer (B)

17. If electronic configuration of an atom is $2,8,7$, then atomic number of atom will be :
(A) 15
(B) 16
(C) 17
(D) 18

## Answer (C)

18. Which functional group is present in Butanone?
(A)

(B)

(C) $\bar{C}=0$
(D) $-\mathrm{C} \equiv \mathrm{N}$

## Answer (C)

19. Which will have electronic configuration $2,8,2$ ?
(A) Na
(B) Mg
(C) Al
(D) Si

## Answer (B)

20. Which element have two shells and both these shells are fulfilled with electrons?
(A) S
(B) Ne
(C) N
(D) He

Answer (B)
21. $\mathrm{CH}_{4}+\mathrm{Cl}_{2} \xrightarrow{\text { sunlight }} \mathrm{CH}_{3} \mathrm{Cl}+\mathrm{HCl}$. This reaction is
(A) Substitution
(B) Oxidation
(C) Combination
(D) Reduction

## Answer (A)

22. 



The given reaction is
(A) Oxidation
(B) Reduction
(C) Substitution
(D) Decomposition

## Answer (B)

23. The structural formula of cyclopentane is:
(A)

(B) $\square$
(C)

(D)


## Answer (C)

24. The name of $\mathrm{H}-\stackrel{\mathrm{O}}{\mathrm{C}}-\mathrm{H}$ is
(A) Acetone
(B) Acetic Acid
(C) Ethanol
(D) Formaldehyde

Answer (D)
25. Which among the following is/are saturated compound?
(A) $\mathrm{CH}_{4}$
(B) $\mathrm{C}_{3} \mathrm{H}_{8}$
(C) $\mathrm{C}_{5} \mathrm{H}_{12}$
(D) All the above

## Answer (D)

26. $\mathrm{XCl}_{2}$ is a solid and high melting point compound. $X$ will be
(A) Na
(B) Mg
(C) Al
(D) Si

## Answer (B)

27. Which of the following is not a divisional stage?
(A) Telophase
(B) Prophase
(C) Metaphase
(D) Interphase

## Answer (D)

28. Cell Organelles are embedded in
(A) Cytoplasmic membrane
(B) Mucin
(C) Protoplasm
(D) Cytoplasm

Answer (D)
29. Growth rings are formed by the activity of
(A) Xylem
(B) Phloem
(C) Both Xylem and Phloem
(D) Cambium

## Answer (D)

30. Reserve Food Product of most of the algae is
(A) Glycogen
(B) Fat
(C) Cellulose
(D) Starch

## Answer (D)

31. Largest Ecosystem of the world are
(A) Forest
(B) Grassland
(C) Great lakes
(D) Oceans

Answer (D)
32. The Xylem in plants are responsible for
(A) Transport of water
(B) Transport of oxygen
(C) Transport of food
(D) Transport of Amino acid

## Answer (A)

33. Budding type of Reproduction is found in
(A) Peepal
(B) Bryophyllum
(C) Rose
(D) Sugarcane

## Answer (B)

34. Which of the following acid is also a vitamin?
(A) Ascorbic acid
(B) Formic acid
(C) Malic acid
(D) Palmitic acid

## Answer (A)

35. Which of the following plant tip has Quiescent centre?
(A) Stem
(B) Root
(C) Leaf
(D) Sepal

## Answer (B)

36. Which of the following is a plant Hormone?
(A) Insulin
(B) Thyroxin
(C) Cytokinin
(D) Oestrogen

## Answer (C)

37. Ribosomes are granules formed of
(A) Only m-RNA
(B) Only Proteins
(C) r RNA + Proteins
(D) Only DNA

Answer (C)
38. The Anther contains
(A) Sepals
(B) Ovules
(C) Pistil
(D) Pollen-grains

## Answer (D)

39. Cell Organelles essential for photorespiration is
(A) Ribosome
(B) Dictyosomes
(C) Peroxisomes
(D) Glyoxisome

## Answer (C)

40. Pollination in Maize held by
(A) Insect
(B) Water
(C) Air
(D) Animal

## Answer (C)

41. Which of the following cities in not related to the Indus civilization?
(A) Mohenjo daro
(B) Kalibangan
(C) Lothal
(D) Patliputra

Answer (D)
42. Which was the governor General during the 1857 the first war of independence?
(A) Lord Dalhousie
(B) Lord Ripon
(C) Lord Curzon
(D) Lord Canning

## Answer (D)

43. Who was the founder of Satya Shodhak Samaj?
(A) Ram Mohan Roy
(B) Dayanand Saraswati
(C) Jyotiba Phule
(D) Swami Vivekanand

## Answer (C)

44. Which of the following foreign travellers came to India during Chandra Gupta Maurya's Period?
(A) Fa-Xian
(B) Arena
(C) XuanZang/Hiuen Tsang
(D) Megasthenes

## Answer (D)

45. Who among the following is called the "Bhoja of Andhra"?
(A) Krishnadeva Rai
(B) Veer Narsimha
(C) Immadi Narasimha
(D) Rajendra Chola

Answer (A)
46. Kandariya Mahadev Temple is located at
(A) Khajuraho
(B) Badami
(C) Ajanta
(D) Ellora

Answer (A)

NTSE (S-I) 2019-20 (Madhya Pradesh)
47. Where is the ancient coastal settlement Arikamedu Located?
(A) Visakhapatnam
(B) Chennai
(C) Puducherry
(D) Port Blair

## Answer (C)

48. Who wrote "Humayun nama"?
(A) Gulbadan Begam
(B) Abul Fazl
(C) Badayuni
(D) Barni

## Answer (A)

49. Who wrote "Kiratarjuniya"?
(A) Shudraka
(B) Bharvi
(C) Kalhan
(D) Bilhan

## Answer (B)

50. Who founded Forward Bloc?
(A) Subhas Chandra Bose
(B) Jawahar Lal Nehru
(C) Gandhi Ji
(D) Mohammad Ali Jinnah

## Answer (A)

51. Lothal the port city of Indus Valley civilization is located
(A) Gujrat
(B) Rajasthan
(C) Punjab
(D) Haryana

## Answer (A)

52. Rani Durgawati was the queen of $\qquad$
(A) Garha
(B) Riwa
(C) Jaipur
(D) Jhansi

## Answer (A)

53. Who established "Khalsa" in 1699 A.D.?
(A) Guru Gobind Singh
(B) Guru Angad
(C) Guru Arjan Dev
(D) Guru Teg Bahadur

## Answer (A)

54. Who was the author of Prayag Prashasti?
(A) Kalidas
(B) Harishena
(C) Varahmihir
(D) Shudrak

Answer (B)
55. Ashvaghosha writer of Buddhacarita belonged to the court of which Ruler?
(A) Kanishka
(B) Ashoka
(C) Chandragupta Maurya
(D) Bimbisara

## Answer (A)

56. The largest area under mangroves is in which of the following state/union territory?
(A) Andaman and Nicobar
(B) Andhra Pradesh
(C) West Bengal
(D) Gujarat

## Answer (C)

57. River in its last stage forms-
(A) Water Fall
(B) Flood Plains
(C) Delta or Estuary
(D) OX-Bow lake

Answer (C)
58. Sundari trees are found in
(A) Tropical Forest
(B) Himalayan Forest
(C) Mangrove Forest
(D) Tropical deciduous forest

## Answer (C)

59. Which scale is a Representative Fraction (R.F.)?
(A) One inch is equal to ten miles
(B) $1 \mathrm{~cm}=1 \mathrm{~km}$
(C) One cm for ten km
(D) $1: 1,00,000$

## Answer (D)

60. Jim Corbett National Park is located in
(A) Himachal Pradesh
(B) Uttarakhand
(C) Jammu \& Kashmir
(D) Assam

## Answer (B)

61. Yellow Revolution is related to
(A) Fruit Production
(B) Sheep rearing
(C) Fish Production
(D) Edible Oil \& Oil Seeds

## Answer (D)

62. Which of the following Indian States is also known as a 'Land of Red river and Blue Hills'?
(A) Uttarakhand
(B) Assam
(C) Meghalaya
(D) Arunachal Pradesh

## Answer (B)

63. Which of the following is not a Metallic Mineral?
(A) Iron
(B) Manganese
(C) Gold
(D) Coal

## Answer (D)

64. The Clouded Leopard National Park is Situated in which of the following States?
(A) Tripura
(B) Uttar Pradesh
(C) Assam
(D) Mizoram

## Answer (A)

65. Silent Valley is located in
(A) Tamil Nadu
(B) Kerala
(C) Karnataka
(D) Himachal Pradesh

## Answer (B)

66. River Brahmaputra in Tibet (China) is called
(A) Meghana
(B) Tsangpo
(C) Padma
(D) Debanga

## Answer (B)

67. The largest Iron and Steel in Plants in India is
(A) Tata Iron and Steel Company
(B) Indian Iron and Steel Company
(C) Hindustan Steel Ltd.
(D) Visvesvaraya iron and Steel Company

## Answer (A)

68. Which of the following Separates India and Sri Lanka?
(A) The Gulf of Cambay
(B) The Rann of Kutch
(C) The Bay of Bengal
(D) The Gulf of Mannar

## Answer (D)

69. The best Quality of coal.
(A) Bituminous
(B) Anthracite
(C) Lignite
(D) Peat

## Answer (B)

70. Where is Kalpakkam?
(A) Uttar Pradesh
(B) Maharashtra
(C) Gujarat
(D) Tamil Nadu

## Answer (D)

71. The word 'Democracy' is focused by "Demos" and "Kratia" which are (both) $\qquad$ words
(A) Greek
(B) Latin
(C) Spanish
(D) English

Answer (A)
72. Which Article of the constitution states about the working of an election in India?
(A) Article - 19
(B) Article - 300
(C) Article - 324
(D) Article - 368

## Answer (C)

73. 'Fundamental Rights' can be suspended
(A) By Judiciary
(B) By Parliament
(C) In Emergency Period
(D) None of the above

## Answer (C)

74. Who is responsible for the registration of the voter?
(A) Governor
(B) Voters
(C) Political Parties
(D) Election Commission

Answer (D)
75. Indian constitution is $\qquad$
(A) Rigid
(B) Flexible
(C) Rigid and flexible
(D) None of the above

Answer (C)
76. What is marginal productivity of labour in disguised employment?
(A) Zero
(B) Minimum
(C) One
(D) Maximum

Answer (A)
77. What the industrial unit is called which is run with the help of family members?
(A) Village industry
(B) Agricultural industry
(C) Cottage industry
(D) Small industry

Answer (C)

NTSE (S-I) 2019-20 (Madhya Pradesh)
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) $15^{\text {th }}$ august 1947
(B) $26^{\text {th }}$ January 1950
(C) $2^{\text {nd }}$ October 1993
(D) $15^{\text {th }}$ 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)

81. If the sum of 14 terms of an A.P. is 1050 and its first term is 10 , the $20^{\text {th }}$ term will be
(A) 140
(B) 160
(C) 180
(D) 200

## Answer (D)

82. The roots of quadratic equation $a x^{2}+b x+c=0$ are real and distinct if
(A) $b^{2}=4 a c$
(B) $b^{2}-4 a c>0$
(C) $b^{2}-4 a c<0$
(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
(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
(B) 0
(C) $\frac{1}{2}$
(D) None

## Answer (A)

85. Which of the following cannot be the probability of an event?
(A) 0.78
(B) $\frac{2}{5}$
(C) 73\%
(D) -0.78

## Answer (D)

86. Cube root of 328509 is
(A) 65
(B) 66
(C) 68
(D) 69

## Answer (D)

87. The ratio of angles in a triangle is $1: 2: 3$, then the largest angle is
(A) $60^{\circ}$
(B) $90^{\circ}$
(C) $120^{\circ}$
(D) None of these

## Answer (B)

88. The point of intersection of lines $7 x-15 y-2=0$ and $6 x+12 y-18=0$ 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

## Answer (B)

89. Pair of equations $5 x-8 y+1=0$ and $3 x-\frac{24}{5} y+\frac{3}{5}=0$ have
(A) No solution
(B) Unique solution
(C) Infinite solutions
(D) None of these

## Answer (C)

90. The area of the triangle with vertices $(1,-1),(-4,6)$ and $(-3,-5)$ is
(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, $\qquad$ 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) $\bar{x}=A+\frac{\sum_{i=1}^{N} f_{i} d_{i}}{\sum_{i=1}^{N} f_{i}}$ where $d_{i}=x_{i}-A$
(B) $\bar{x}=\frac{x_{1}+x_{2}+\ldots \ldots+z_{n}}{N}$
(C) $\bar{x}=\frac{\sum_{i=1}^{N} f_{i} x_{i}}{\sum_{i=1}^{N} f_{i}}$
(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 $\sin \theta \times \cos \theta=$ ?
(A) $\frac{10}{25}$
(B) $\frac{11}{25}$
(C) $\frac{12}{25}$
(D) $\frac{13}{25}$

## Answer (C)

96. Total two digit numbers completely divisible by 3 are
(A) 29
(B) 30
(C) 31
(D) 32

## Answer (B)

97. $\sin 30^{\circ} \times \tan 30^{\circ} \times \cot 30^{\circ} \times \operatorname{cosec} 60^{\circ}=$ $\qquad$
(A) $\tan 30^{\circ}$
(B) $\cot 60^{\circ}$
(C) $\sin 30^{\circ} \times \operatorname{cosec} 60^{\circ}$
(D) All of the above

## Answer (D)

98. $(3 x+6)(x+1)+2 x=(x+5)(x+4)$ has
(A) No roots
(B) Imaginary roots
(C) Real roots
(D) None of these

## Answer (C)

99. When $2 x^{2}+3 x+1$ is divided by $x+2$ then quotient and remainder are :
(A) $Q=2 x-1, R=3$
(B) $Q=x+1, R=3$
(C) $Q=2 x+1, R=3$
(D) None of these

Answer (A)
100. The zeros of quadratic polynomial $x^{2}+7 x+10$ will be
(A) 2 and -5
(B) -2 and 5
(C) -2 and -5
(D) None of these

Answer (C)

