

**UP Junior Teacher
Recruitment Exam
Maths & Science
Model Paper**

Part A

1. India's first geothermal power project to be established in_____.

- A. Arunachal Pradesh
- B. Ladakh
- C. Assam
- D. Jammu and Kashmir

2. Who has been appointed as the first chairman of the International Financial Services Centre authority (IFSCA)?

- A. Injeti Srinivas
- B. Vinod Kumar
- C. Suchil Chandra
- D. Abhinav Pandey

3. Who has been appointed as the Interim Chief Executive Officer (CEO) of BCCI?

- A. Rahul Johari
- B. Indrajeet Kumar
- C. Nitin Sahu
- D. Hemang Amin

4. The 4th edition of Maritime bilateral exercise "JIMEX 20" was held between_____.

- A. India and USA
- B. India and France
- C. India and Japan
- D. India and Israel

5. Which state secured the first position in the second edition of India Innovation Index released by NITI Aayog on January 20, 2021?

- A. Maharashtra
- B. Tamil Nadu
- C. Karnataka
- D. Telangana

6. Joe Biden sworn in as_____ President of the United States on January 20, 2021.

- A. 47th
- B. 48th
- C. 45th
- D. 46th

7. 'Uttar Pradesh Diwas' is observed on_____.

- A. 23 January
- B. 24 January
- C. 25 January
- D. 22 January

8. Which country will host the AIBA World Boxing Championship 2021?

- A. India
- B. Serbia
- C. America
- D. Australia

9. Which of the following country's military unit will participate in Republic Day parade 2021 at Rajpath in New Delhi?

- A. Russia
- B. France
- C. Bangladesh
- D. Myanmar

10. Who has been appointed as the chairperson of an empowered committee for administration of Covid-19 vaccine?

- A. Deepak Sharma
- B. Ashwini Kumar Choubey
- C. Rajiv Gauba
- D. R.S. Sharma

11. Who among the following unveiled the country's first indigenously designed and developed Driverless Metro Car on January 15, 2021?

- A. Narendra Modi
- B. Rajnath Singh
- C. Piyush Goyal
- D. Dr G. Satheesh Reddy

12. Which of the following states has the highest life expectancy at birth?

- A. Andhra Pradesh
- B. Jammu and Kashmir
- C. Himachal Pradesh
- D. Kerala

13. Which of the following consists of the highest biodiversity?

- A. Tropical rainforest

- B. Temperate forest
- C. Deciduous forest
- D. Grassland

14. _____ island is the only active volcano of India.

- A. Barren
- B. Oyster rock
- C. Viper
- D. Havelock

15. Which of the following country is not a member of G-20?

- A. China
- B. USA
- C. Turkey
- D. Switzerland

16. Which planet has the fastest orbiting speed?

- A. Venus
- B. Mercury
- C. Jupiter
- D. Earth

17. On which day does the Summer Solstice occur in Northern Hemisphere?

- A. 22nd December
- B. 21st March
- C. 23rd September
- D. 21st June

18. Who became the first Governor General of India in 1773?

- A. Richardson
- B. Warren Hastings
- C. Dalhousie
- D. Clement Atlee

19. In which year, the Civil Disobedience Movement was launched?

- A. 1921
- B. 1925
- C. 1930
- D. 1935

20. Who among the following was called as 'Ajatshatru' by Gandhiji?

- A. Lala Lajpat Rai

- B. Bal Gangadhar Tilak
- C. Bhagat Singh
- D. Dr. Rajendra Prasad

21. Who introduced Ryotwari System in India?

- A. Lord Irwin
- B. Holt Mackenzie
- C. Lord Cornwallis and Alexander Reed
- D. Alexander Read and Thomas Munro

22. Who is popularly known as the Harbinger of Modern India?

- A. Baba Amte
- B. Gopal Krishna Gokhale
- C. Mohandas Karamchand Gandhi
- D. Raja Ram Mohan Roy

23. Who was the founder of Satyashodhak Samaj?

- A. Lala Lajpat Rai
- B. Mahatma Gandhi
- C. Jyotirao Phule
- D. Raja Ram Mohan Roy

24. Who among the following was the President of the Constituent Assembly of India?

- A. C. Rajagopalachari
- B. Dr. Rajendra Prasad
- C. Dr. B. R. Ambedkar
- D. Jawaharlal Nehru

25. Panchayati Raj was first introduced in

- A. Andhra Pradesh
- B. Uttar Pradesh
- C. Himachal Pradesh
- D. Rajasthan

Directions: In these questions select the related letters/word/number from the given alternatives :

26. Fire: Smoke :: ?

- A. Moon: Sky
- B. Shoe: Polish
- C. Children : School
- D. Cloud : Rain

27. Select the related word

TALE : LATE :: FACE : ?

- A. CAFÉ
- B. CAEF
- C. CEFA
- D. FEAC

28. **Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number.**

6859 : 91 :: 9261 : 12 :: 4913 : ?

- A. 71
- B. 6
- C. 73
- D. 11

29. **Select the option in which the letters share the same relationship as that shared by the given pair of letters.**

GUN : JYS :: ? : ?

- A. TOL : WSQ
- B. NAP : QWU
- C. HUB : KYH
- D. SUC : VYG

30. Find the odd one out.

108, 120, 132, 144, 156, 164

- A. 164
- B. 108
- C. 120
- D. 132

31. Find out the odd number from the given alternatives:

- A. 1560
- B. 9243
- C. 4712
- D. 5750

32. Find out the odd term from the given alternatives:

- A. Cone
- B. Square
- C. Trapezium
- D. Hexagon

33. Select the one which is different from other three groups of letters in some respect.

- A. DHLP
- B. MQUY
- C. JNRV
- D. TYDI

34. If GRASS is coded as HFSQBZTRTR, How would you code TOAST?

- A. USPNBTZRUS
- B. USPNBZTRSU
- C. USPNBZTRUS
- D. USPNBZTRTR

35. In a certain code language, if HISTORY is coded as 7326845 and CIVICS is coded as 135312, then VISITOR will be coded as?

- A. 5323684
- B. 6843532
- C. 8463352
- D. 5323648

36. If OM = 56 and GOT = 126, Then what will be the code of CARD in that coding language?

- A. 108
- B. 164
- C. 104
- D. 120

37. If SUN = 26 and GPL = 11, then what will be the code of SKT in that coding language?

- A. 10
- B. 11
- C. 12
- D. 13

38. In a certain code language, 'RAT' is written as '18120', 'BOM' is written as '21513'. What is the code for 'DOG' in that code language?

- A. 4157
- B. 4159
- C. 41516
- D. 41315

39. What is the value of the angle covered in 58 min?

- A. 348°
- B. 360°
- C. 112°
- D. 156°

40. If the day before yesterday was Wednesday, when will Saturday be?

- A. Tomorrow
- B. Day after tomorrow
- C. Today
- D. Two days after today

41. If 24th June is Monday, what day was 25 days before?

- A. Friday
- B. Saturday
- C. Sunday
- D. Thursday

42. If today is Wednesday. On the 52nd day, it will be which day of the week?

- A. Saturday
- B. Friday
- C. Sunday
- D. Tuesday

43. If August 16 is Monday, then how many Sundays and Tuesdays are there in this month?

- A. 5 Sunday and 4 Mondays
- B. 5 Sunday and 5 Tuesdays
- C. 4 Sunday and 5 Mondays
- D. 4 Sunday and 5 Mondays

44. In the following question assuming the given statements to be true, find which of the conclusion among given three conclusions is/are definitely true and then give your answer accordingly.

Statements: Lion = Monkey, Nightingale < Octopus, Monkey \geq Nightingale, Panda = Octopus

Conclusions:

- I. Lion > Nightingale
 - II. Panda > Nightingale
 - III. Lion = Nightingale
- A. Only I follow

- B. Both I and II follows
- C. Only II follow
- D. Both I and III follows

45. In the following question assuming the given statements to be true, find which of the conclusion among given conclusions is /are definitely true and then give your answers accordingly.

Statement:

$X \leq Y \geq Z \leq O = T; T \leq M$

Conclusions:

- I. $M \geq T$
 - II. $M \leq Z$
- A. Only conclusion I is true.
 - B. Only Conclusion II is true.
 - C. Both I and II is true.
 - D. Neither I nor II is true.

Read the instructions and answer the following question:

$P \# Q \Rightarrow P$ is not smaller than Q.

$P \& Q \Rightarrow P$ is neither greater than nor equal to Q.

$P \vee Q \Rightarrow P$ is neither smaller than nor equal to Q.

$P \perp Q \Rightarrow P$ is not smaller than or greater than Q.

$P \ni Q \Rightarrow P$ is not greater than Q.

46.

Now in each of the following questions assuming the given statements to be true, find which of the conclusions given below them is/are definitely false and give your answer accordingly.

Statements:

$P \ni Q, Q \perp R, S \vee R$

Conclusion:

- I. $P \& R$
 - II. $S \vee P$
- A. Only statement I is true.
 - B. Only statement II is true.
 - C. Neither I nor II is true.
 - D. Both I and II are true.

Direction: A detective is asked to solve a burglary crime. There are three suspects, Raju, Bittu, and Kalu. All of them give two statements. One

of them is a truth-teller, who always tell the truth, one of them is a liar, who always tells the lie and one of them is an alternator who alternately tells truth and lie, i.e., if he tells truth in the first statement then second will be a lie and if he tells the lie in the first statement, the second will be the truth.

Raju says, "I am not the one who stole. Kalu did it."

Bittu says, "I am the one who stole. Kalu didn't do it."

Kalu says, "I am not the one who stole it. Raju didn't do it."

47.

Which of the following is an alternator and the pattern of his truth(T) and lie(L) is?

- A. Raju, TL
- B. Raju, TL
- C. Kalu, TL
- D. Kalu, LT

48. Which one of them committed the burglary crime?

- A. Raju
- B. Bittu
- C. Kalu
- D. None of them.

49. Assertion (A): Virat Kohli has taken captaincy of the test team.

Reason (R): There are no eligible players in the Indian team to take test team's captaincy.

- A. Both A and R are true, and R is the correct explanation of A
- B. Both A and R are true, but R is not the correct explanation of A
- C. A is true, but R is false.
- D. A is false, but R is true.

50. Three student Aman, Babita, Chandan were sitting in a row of three chairs. When asked about their respective positions, each of them made two statements as follows. It is known that each of them made a true

statement and a false statement in any order.

Aman: I am at the extreme left.

Chandan is at the extreme right.

Babita: Aman is between me and Chandan and myself.

I am at extreme right.

Chandan: I am at the extreme left.

Babita is at the extreme right.

What are the actual positions from left to right?

- A. Aman-Babita-Chandan
- B. Chandan-Aman-Babita
- C. Aman-Chandan-Babita
- D. None of these

Part B

1. What is the largest two-digit prime number?

- A. 93
- B. 97
- C. 99
- D. 91

2. Find the smallest number which on adding 17 to it is exactly divisible by 12, 16 and 18 .

- A. 127
- B. 129
- C. 131
- D. 135

3. The sum of the digits of a two-digit number is 11 . If the digits are reversed, the number is decreased by 63. Find the number.

- A. 23
- B. 19
- C. 92
- D. 54

4. What is the highest common factor of $4x$, $6x$, $8x$?

- A. $4x$
- B. x
- C. $2x$
- D. 2

5. A chocolate has 24 equal pieces. Ram gave $\frac{1}{4}$ th of it to Ramu, $\frac{1}{3}$ rd

to Rajan and 1/6th of it to Rakesh. the No. of pieces of chocolate left with Ram is

- A. 3
- B. 7
- C. 6
- D. 4

6.If the roots of the quadratic equation $x^2 + mx + 9$ are equal, then find the value of m?

- A. 81
- B. ± 8
- C. ± 6
- D. $\frac{1}{81}$

7.If $a - b = 5$ and $a^2 + b^2 = 97$, $ab = ?$

- A. 48
- B. 32
- C. 36
- D. 72

8.Find the factors of $(p^2 - 9q^2 - 42q - 49)$

- A. $(p + 3q - 7)(p + 3q + 7)$
- B. $(p - 3q - 7)(p + 3q + 7)$
- C. $(p - 3q - 7)(p + 3q - 7)$
- D. $(p - 3q + 7)(p - 3q + 7)$

9.On dividing 15623 by a certain number, we get 102 as quotient and 119 as remainder. What is the divisor?

- A. 152
- B. 142
- C. 153
- D. 170

10.If l and m are the roots of the equation $4x^2 + 3x + 7$, then

$$\frac{1}{l} + \frac{1}{m} = ?$$

- A. $\frac{3}{7}$
- B. $-\frac{3}{7}$
- C. $-\frac{7}{3}$

D. None of these

11.

$$56 \div \frac{1}{3} \{15 + 12 - (9 + 6 - \overline{5 + 7})\} = ?$$

- A. 8
- B. 9
- C. 7
- D. 12

$$\sqrt{176 + \sqrt{2401}}$$

12.Simplify:

- A. 14
- B. 25
- C. 18
- D. 15

13.The value of $24 \times 2 \div 12 + 12 \div 6$ of $2 \div (15 \div 8 \times 4)$ of $(28 \div 7$ of 5) is:

- A. $4\frac{1}{6}$
- B. $4\frac{2}{3}$
- C. $4\frac{8}{75}$
- D. None of these

14.If $729^k = \frac{1}{243}$ the find the value of k.

- A. $\frac{5}{6}$
- B. $-\frac{5}{6}$
- C. 3
- D. - 9

15.The average age of 4 boys is 21 years and their ages are in the proportion 2:3:4:5 find the age of the youngest boy.

- A. 10 years
- B. 12 years
- C. 18 years
- D. 16 years

16.The average age of P, Q and R was 30 years and that of Q and R was 32 years. What is the present age of P?

- A. 30
- B. 32
- C. 26
- D. 28

17.If $a:b = 7 : 3$ and $b:c = 5 : 9$, then find $a:b:c$.

- A. 15 : 20 : 23
- B. 35 : 15 : 27
- C. 2 : 5 : 9
- D. 13 : 18 : 22

18.If $\frac{x}{y} = \frac{7}{9}$ then what will be the value of $\frac{6x-11y}{6x+11y}$?

- A. $\frac{6}{11}$
- B. $-\frac{7}{11}$
- C. $\frac{16}{45}$
- D. $-\frac{19}{47}$

19.If Rs 200 is divided among X, Y and Z in the ratio 2 : 3 : 5, then how much is Z more than X.

- A. 140
- B. 20
- C. 60
- D. 40

20.In an examination, 80% of the students passed and 40 students failed. How many students appeared in the examination?

- A. 160
- B. 180
- C. 150
- D. 200

21.The price of petrol was increased by 20 % but the consumption is decreased by more than 10 %. What is the effect on the expenditure?

- A. 6 %
- B. 8 %
- C. 10 %
- D. 12 %

22.Radhika sold an item at 12% below the cost price. she would have made a profit of 20%. If she had sold the item for Rs. 750. find her selling price.

- A. Rs. 450
- B. Rs. 550
- C. Rs. 625
- D. Rs. 600

23.Arun sold two shoes Rs 800 each. On one he gained 14% and so the other he lost 14 %. His gain or loss % on the transaction is

- A. 0 %
- B. 1.96 % loss
- C. 28 % loss
- D. None

24.What is the marked price of laptop, if the vendor selling a laptop at a given discount of 5%, if he gives a discount of 7% and from that he earns Rs 1500 less as a profit.

- A. Rs 70,000
- B. Rs 75,000
- C. Rs 80,000
- D. None of these

25.Karan took 1 hour to travel $\frac{2}{5}$ of a journey. He then took another 1 hour to travel the next $\frac{1}{5}$ of the journey. He spent 45 minutes to travel the remaining 220 km. Find the distance he travelled in the whole journey.

- A. 550 km
- B. 220 km
- C. 330 km
- D. 440 km

26.The speed of boat in still water is 20 km/hr and the rate of current is 4 km/hr. Find the distance traveled downstream in 8 minutes?

- A. 4 km
- B. 3.2 km
- C. 4.5 km
- D. 5.2 km

27. Pipe C is a filling pipe and can fill an empty tank in 100 hours whereas pipe D and E are emptying pipe and can empty a tank in 200 hours and x hours, respectively. If all the three pipes were opened together. They

took 10 hours to fill $\frac{1}{60}$ part of the tank. What is the value of x?

- A. 400 hours
- B. 250 hours
- C. 300 hours
- D. 500 hours

28.

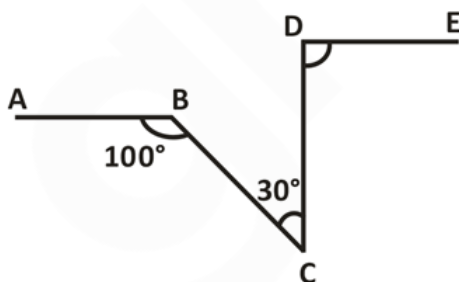
What is the Interest on Rs.500 for six months with a rate of 16% yearly?

- A. Rs. 20
- B. Rs. 30
- C. Rs. 48
- D. Rs. 40

29. If the compound interest on a certain sum for 2 years at 5% per annum is 102.5, then the simple interest on the same sum at the same rate and for the same time will be:

- A. Rs 112
- B. Rs 102.5
- C. Rs 110
- D. Rs 100

30. In the given figure $AB \parallel DE$ then $\angle CDE = ?$



- A. 120°
- B. 110°
- C. 140°
- D. 130°

Direction: Answer the following questions by selecting the correct/most appropriate options.

31. If the angles, in degrees, of a triangle are x, $3x + 20$ and $6x$, the triangle must be

- A. Acute
- B. Right
- C. Isosceles
- D. Obtuse

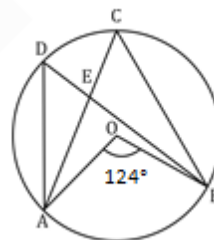
32. Which quadrilateral has only one pair of parallel sides?

- A. Rhombus
- B. Trapezium
- C. Kite
- D. Rectangle

33. The number of sides of a regular polygon whose interior angles are 168° each is:

- A. 20
- B. 30
- C. 15
- D. 31

34. In the figure, $\angle AOB = 124^\circ$, $\angle CBE = 26^\circ$. Find $\angle CEB$.



- A. 100°
- B. 96°
- C. 92°
- D. 90°

35. How many times will the wheel of a car rotate in a journey of 132 kilometer, if it is known that the diameter of wheel is 84 cm.

- A. 50000
- B. 480000
- C. 60000
- D. 560000

36. If 729 cu cm is the volume of a cube, then find the length of its diagonal?

- A. $9\sqrt{2}$ cm

- B. $9\sqrt{3}$ cm
- C. 18 cm
- D. $18\sqrt{3}$ cm

37. If the area of a circle is A, radius of circle is r and circumference of it is C, then

A. $Cr = 2A$

B. $\frac{C}{A} = \frac{r}{2}$

C. $AC = \frac{r^2}{4}$

D. $\frac{A}{r} = C$

38. Two cylinders have equal volumes and their heights are in the ratio 1 : 3. The ratio of their radii will be

A. 1 : 3

B. 3 : 1

C. $\sqrt{3} : 3$

D. $3 : \sqrt{3}$

39. Find the area of the triangle formed by the points A (0,1), B (0,5) and C (5,4).

A. 8 sq. units

B. 16 sq. units

C. 10 sq. units

D. 5 sq. units

40. If the perpendicular distance of a point from y-axis is 4 units, then the point has:

A. y coordinate 4

B. x coordinate -4

C. x coordinate 4

D. x coordinate 4 or -4

41. Simplify the following expression:
 $(\operatorname{cosec} A - \cot A)(1 + \cos A)$

A. $\sin A$

B. $\cos A$

C. $\operatorname{cosec} A$

D. $\sec A$

42. If $\tan \theta = 9/40$, then $\sec \theta = ?$

A. $40/41$

B. $9/41$

C. $41/40$

D. $41/9$

43. Find the probability of diamond or a jack when a card is drawn from a pack of 52 cards?

A. $\frac{13}{4}$

B. $\frac{13}{2}$

C. $\frac{52}{3}$

D. 4

44. A pot contains 6 green and 8 blue balls. One ball is drawn at random. What is the probability that the ball drawn is blue?

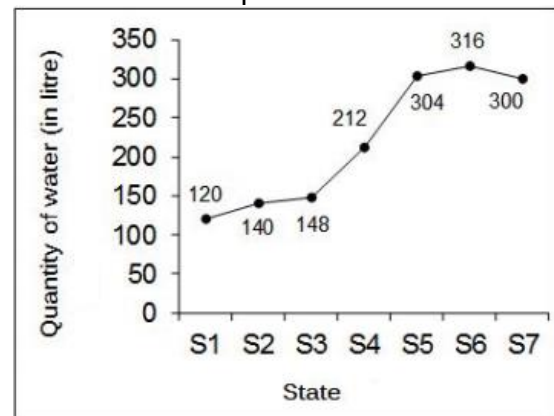
A. $\frac{4}{3}$

B. $\frac{7}{4}$

C. $\frac{8}{3}$

D. $\frac{7}{3}$

45. The line chart given below shows the quantity of water (in litre) sold in the seven states of a country. The water sold is represented in litres.



R = Total water sold by S1 and S2 state.

Q = Total water sold by S7 and S6 state.

What is the value (in litres) of R + Q?

A. 760

B. 876

C. 840

D. 800

46. Consider the frequency distribution table, which gives the weights of 100 employees of a company. If an employee is chosen at random then what is the probability that the weight of that employee lies in the interval of 70-75 kg.

Weight in kg	Number of persons
50-55	46
55-60	30
60-65	70
65-70	16
70-75	44
75-80	10
80-85	4

- A. $\frac{2}{9}$
- B. $\frac{1}{5}$
- C. $\frac{3}{8}$
- D. $\frac{3}{10}$

47. For what value of k is the mode of the following data being 7?

2, 2, 2, 3, 5, 6, 6, 7, 7, 7, 8, k

- A. 2
- B. 6
- C. 7
- D. 8

48. Find the median of the following data –

292, 295, 305, 340, 420, 820

- A. 400
- B. 305
- C. 340
- D. 322.5

49. Find the median of the data

4, 8, 10, 13, 15, 16, 18, 20

- A. 14
- B. 18
- C. 16
- D. 20

50. A group of students went for summer holidays and performed various activities as given by the following diagram. What is the name of this representation of data in statistics?



- A. Histogram
- B. Bar diagram
- C. Pie diagram
- D. Frequency Polygon

51. Which of the following type of teeth help in cutting the food?

- A. Incisors
- B. Canine
- C. Pre molar
- D. Molar

52. Association between sucker fish (Remora) and shark is called _____.

- A. Parasitism
- B. Symbiosis
- C. Predation
- D. Commensalism

53. Garlic is a modification of _____.

- A. Root
- B. Stem
- C. Bark
- D. Leaves

54. Which of the following is the reproductive structure found in flowering plants?

- A. Flower
- B. Leaf
- C. Fruit
- D. Stem

55. Hepatitis is caused by which of the following micro-organism?

- A. Bacteria
- B. Virus

- C. Fungi
- D. All of Above

56. The functional group COOH represents _____.

- A. Alcohol
- B. Carboxylic Acid
- C. Sulphuric Acid
- D. Carbonic Acid

57. By which method diesel is obtained from crude oil?

- A. Fractional distillation
- B. Filtration
- C. Chromatography
- D. None of these

58. Which amongst the following statements is wrong:

- A. Sound travels as waves
- B. Sound travels faster in vacuum faster than that in air
- C. Sound travels in a straight line
- D. Sound is a form of energy

59. Bakelite is a type of a _____ polymer.

- A. Linear
- B. Branched
- C. Cyclic
- D. Cross linked

60. What is the focal length of a mirror if radius of curvature is 20 cm ?

- A. 20 cm
- B. 10 cm
- C. 5 cm
- D. None of these

61. What is the nature of magnetic lines of force inside a bar magnet?

- A. They are from north pole to south pole of magnet
- B. They do not exist
- C. They depend on area of cross-section of bar magnet
- D. They are from south pole to north pole of magnet

62. What is the commercial unit of electrical energy?

- A. Joule
- B. Ohm
- C. Watt
- D. Kilowatt hour

63. Who found out about buoyancy?

- A. Kepany
- B. JN Niepce
- C. G Maconi
- D. Archimedes

64. Which is the correct expression to find force?

- A. $F=ma$
- B. $F=a/m$
- C. $F=m/a$
- D. None of these

65. What is the speed of light?

- A. $3 \times 10^8 \text{m/s}$
- B. $3 \times 10^9 \text{m/s}$
- C. $3 \times 10^6 \text{m/s}$
- D. $3 \times 10^4 \text{m/s}$

66. Which blood corpuscles help to build up resistance against disease?

- A. Monocytes
- B. Leukocytes
- C. Lymphocytes
- D. Thrombocytes

67. The sound waves having frequencies greater than _____ are called ultrasonic waves.

- A. 2-8 KHz
- B. 8-10 KHz
- C. 10-20 KHz
- D. > 20KHz

68. The direction of flow of heat between any two systems depends upon _____.

- A. Latent Heat
- B. Specific heat
- C. Individual temperature
- D. None of above

69. Bio-fertilizers convert nitrogen to _____.

- A. nitrates
- B. ammonia

- C. nitrogenase
- D. amino acids

70. Which of the following is true about knitting?

- A. The horizontal rows of loop are called wales
- B. the vertical columns of loops are called courses
- C. Both A and B
- D. Neither A nor B

71. Which cellular structure regulates the entry and exit of molecules to and from the cell in animals?

- A. Cell membrane
- B. Nuclear membrane
- C. Cell wall
- D. Endoplasmic reticulum

72. Short green plants with the tender stem are called _____?

- A. Shrubs
- B. Trees
- C. Herbs
- D. None of these

73. Which of the following increases the surface area of lungs for exchange of gases?

- A. Cardiac Notch
- B. Lobe
- C. Trachea
- D. Alveoli

74. The method that can not be used for removing permanent hardness of water is _____.

- A. Adding Sodium Carbonate
- B. Distillation
- C. Adding Caustic Soda
- D. Boiling

75. Rickets disease is caused by deficiency of which of the following?

- A. Iron and Zinc
- B. Phosphate and Calcium
- C. Cobalt and Zinc
- D. Iron and Magnesium

76. Which among the following devices is used to measure extremely high temperatures?

- A. Pyrometer
- B. Photometer
- C. Pycnometer
- D. None of these

77. How many elements are there in the first period of the periodic table?

- A. 2
- B. 4
- C. 6
- D. 8

78. What is the movement known as through which the food passes through oesophagus?

- A. Bowel movement
- B. Peristalsis
- C. Epistaxis
- D. Epiglottis

79. The group of pistils in plants is known as _____.

- A. Androecium
- B. Gynoecium
- C. Receptacle
- D. Style

80. There is a thin two layered sac around the heart known as _____.

- A. Pacemaker
- B. Pericardium
- C. Ventricles
- D. Auricles

81. Which of the following function is performed by the kidneys in the human body?

- A. Excretion
- B. Respiration
- C. Digestion
- D. Transportation

82. What will happen when an electron shifts to an inner shell, it will _____.

- A. Emits a photon
- B. Emits a positron

- C. Absorbs a positron
- D. Absorbs photon

83. Dissolving an acid in water is which type of reaction?

- A. Endothermic
- B. Exothermic
- C. Decomposition
- D. Double displacement

84. When do we heat a magnet what happens?

- A. It gains magnetism
- B. It loses magnetism
- C. Gets electrically charged
- D. Neither lose nor gain magnetism

85. In which case, there is perfect pair of sex chromosomes?

- A. Females
- B. Males
- C. Both male and female
- D. In case of Turner syndrome

86. The possessed by the object is the energy present in it by virtue of its position or configuration?

- A. Kinetic Energy
- B. Potential Energy
- C. Thermal Energy
- D. Space Energy

87. Stars twinkle but planets do not twinkle because _____.

- A. they emit light of a constant intensity
- B. their distance from the earth does not change with time
- C. they are very far away from the earth resulting in decrease in intensity of light
- D. they are nearer to the earth and hence we receive a greater amount of light and therefore minor variations in intensity are not noticeable

88. Which of following structure transports water through the stem of the plant?

- A. Guard cell

- B. Phloem
- C. Stomata
- D. Xylem

89. The process of converting fiber into yarn is called

- A. Knitting
- B. Spinning
- C. Yarning
- D. Weaving

90. Which metal is used as radiation shield?

- A. Silver
- B. Lead
- C. Nickle
- D. Gold

91. What is nature of Amphoteric oxides?

- A. Acidic
- B. Basic
- C. Neutral
- D. Can be acidic or basic

92. Which device is used to convert electrical energy into mechanical energy?

- A. Transformer
- B. Microphone
- C. Electric Motor
- D. A.C. Dynamo

93. How many units of electricity will be consumed by ten 100 watt bulbs used for 1 hour?

- A. 1 unit
- B. 10 units
- C. 100 units
- D. 20 units

94. What is the process by which a solid is converted into gas?

- A. Deposition
- B. Sublimation
- C. Vaporisation
- D. Freezing

95. Acid rain mainly contains oxides of which elements?

- A. Sulphur and Nitrogen

- B. Phosphorous and Argon
- C. Carbon and Fluorine
- D. Antimony and Mercury

96. When acid and base are mixed in a test tube, its temperature.....?

- A. Increases
- B. Decrease
- C. Remain constant
- D. Increase or decrease depend upon on concentration of acid and base

97. What is the colour of the light emitted by the Sun?

- A. Red
- B. Yellow
- C. White
- D. Orange

98. Which is a biotic factor?

- A. Plants
- B. Heat
- C. Light
- D. Temperature

99. Name an organelle which serves as a primary packaging area for molecules that will be distributed throughout the cell?

- A. Mitochondria
- B. Plastids
- C. Golgi Apparatus
- D. Vacuole

100. In which organ, protein is completely digested in the human body ?

- A. Liver
- B. Stomach
- C. Small Intestine
- D. Large Intestine