

JMI 11th Science - 2019

1. What will be the genotypic ratio of the cross between Rr and Rr.
(a) 1:1 (b) 3:1
(c) 1:2:1 (d) 1:1:1
2. In man the chromosome number is 46 how many chromosome are present in man's muscle cells.
(a) 23 (b) 46
(c) 69 (d) Variable
3. The plant hormone which is essential for cell division is:
(a) Ethlene (b) Auxin
(c) Gibberellin (d) Cytokinin
4. Which statement is not true about thyroxin?
(a) Thyroxin is also called thyroid hormone
(b) Thyroid gland requires iodine to synthesize thyroxin
(c) Iron is essential for the synthesis of thyroxin
(d) It regulates carbohydrates, protein and fat metabolism in the body
5. Where dose fertilization occur in human females.
(a) Uterus (b) Cervix
(c) Oviduct (d) None of these
6. Which instrument is used for measuring electric potential?
(a) Ammeter
(b) Galvanometer
(c) Voltmeter
(d) Potentiometer
7. With rise in temperature the resistance of pure metals.
(a) Increases
(b) Decreases
(c) First increases and then decreases
(d) Remains constant
8. Three resistant of 10 ohms, 15 ohms and 30 ohms are connect parallel. The equivalent resistance will be.
(a) 5 ohms (b) 10 ohms
(c) 15 ohms (d) 50 ohms
9. Who gave the principal of electromagnetic induction?
(a) Faraday
(b) Oersted
(c) Volt
(d) Ampere
10. Magnitude of magnetic field product around a conductor depends upon:
(a) Voltage (b) Current
(c) Thickness (d) Length of conductor
11. In Fleming's right hand rule, direction in induced current is given by:
(a) Thumb (b) Middle finger
(c) First finger (d) None of these
12. Focal length of plane mirror is.
(a) At infinity (b) Zero
(c) Negative (d) None of these
13. Speed of light in water is.
(a) 3.0×10^8 m/s (b) 2.3×10^8 m/s
(c) 2.0×10^8 m/s (d) 1.2×10^8 m/s
14. Convex lens always gives a real image if the objects is situated beyond.
(a) Optical lens (b) Center of curvature
(c) Focus (d) Radius of curvature
15. In a simple microscope, lens used is:
(a) Bio convex (b) Biconcave
(c) Plano convex (d) Cylindrical
16. The image produced by a concave lens is.
(a) Always virtual and enlarged
(b) Always virtual and reduced in size
(c) Always real
(d) Sometimes real, sometimes virtual
17. Soil erosion can be prevented by.
(a) Deforestation (b) Afforestation
(c) Overgrazing (d) Removal of vegetarian
18. Which of the following is not an example of abiotic factors.
(a) Light (b) Plants
(c) Heat (d) Temperature
19. Soap and detergents are the sources of organic pollutant like:
(a) Glycerol
(b) Polyphosphates
(c) Sulphonated hydrocarbon
(d) All of these

20. Quality which does not change during refraction is.

- (a) Direction
- (b) Speed
- (c) Frequency
- (d) Wavelength

21. \sqrt{n} is an irrational number. if n is.

- (a) Natural number
- (b) Prime number
- (c) Even number
- (d) Odd number

22. HCF of 616 and 32

- (a) 32
- (b) 8
- (c) 6
- (d) 3

23. If $P(x) = 4$ then $P(2) = \dots$

- (a) 1
- (b) 2
- (c) 3
- (d) 4

24. The zero of the polynomial $3x-5$ is.

- (a) 3
- (b) 5
- (c) $\frac{5}{3}$
- (d) $\frac{3}{5}$

25. A solution of pair of equations $x + y = 4, x - y = 2$ is.

- (a) $x = 3, y = 1$
- (b) $x = 3, y = 2$
- (c) $x = 1, y = 1$
- (d) None

26. If $\frac{a^1}{a^2} \neq \frac{b^1}{b^2}$ then the lines are.

- (a) Intersecting
- (b) Parallel
- (c) Coincident
- (d) None

27. Roots of the equation $3x^2 - 243 = 0$ is.

- (a) 3,-3
- (b) -9,9
- (c) 2,4
- (d) 1,3

28. A quadratic equation has real and distinct roots if and only if.

- (a) $D < 0$
- (b) $D = 0$
- (c) $d > 0$
- (d) None

29. Which term of AP 7, 10, 13,... Is 34.

- (a) 7
- (b) 8
- (c) 9
- (d) 10

30. Sum of first 100 natural numbers is.

- (a) 5040
- (b) 5050
- (c) 1014
- (d) 5070

31. Mid point of A(3, 5) and B(11, 15) is.

- (a) (7, 4)
- (b) (7, 5)
- (c) (7, -5)
- (d) (-5, 7)

32. Which of the points lies in the 3rd quadrant.

- (a) (4, 6)
- (b) (1, -2)
- (c) (-4, 5)
- (d) (-4, -3)

33. $BC^2 + AC^2 = AB^2$, then right angled is at..... vertex

- (a) B
- (b) C
- (c) A
- (d) None

34. If a line divides any two sides of a triangle in the same ratio then the line... To third side.

- (a) Perpendicular
- (b) Interesting
- (c) Parallel
- (d) None

35. If a line intersects a circle in one and only one point then it is called...

- (a) Normal
- (b) Tangent
- (c) Chord
- (d) None

36. If two circles touch each other externally then, number of common tangents...

- (a) 3
- (b) 2
- (c) 1
- (d) 0

37. If $\sin\theta_1 = \frac{1}{a^2}, \cos\theta_2 = \frac{1}{b^2}$ then $\theta_1 + \theta_2 = \dots$

- (a) 90°
- (b) 60°
- (c) 30°
- (d) 0°

38. If $\sin\theta = \frac{b}{\sqrt{b^2 - a^2}}$, then $\tan\theta =$

- (a) $\frac{b}{\sqrt{b^2 - a^2}}$
- (b) $\frac{\sqrt{b^2 - a^2}}{a}$
- (c) $\frac{a}{\sqrt{b^2 - a^2}}$
- (d) $\frac{\sqrt{b^2 - a^2}}{b}$

39. At a point 15 m away from the base of a 15 m high house the angle of elvation of the top of the house is.

- (a) 90°
- (b) 60°
- (c) 45°
- (d) 30°

40. Area of a sector of a circle.

- (a) πr^2
- (b) $\frac{\theta}{360} \times \pi r^2$
- (c) $\frac{\theta}{360} \times 2\pi r$
- (d) None

Read the given passage and answer the question that follow

What makes a river so restful to people is that it doesn't have any doubt. It is sure about where it is going and it doesn't want to go anywhere else. Pulitzer prize winning columnist Hal Boyle once said. This statement, however, no longer holds true as some of the world's greatest rivers, including the Ganga are no longer assured of reaching the sea unhindered. Human greed, expanding population and climate change have ensured that together.

In the year to come the northern plains heavily dependent on the Ganga are likely to face severe water scarcity together with the onslaught of industrial and sewage pollutants the river's fate stands more or less sealed among the categories dead, dying and threatened. I would put the river in the dying category says WWF programme director Sejal Worah. The mighty Indus too has been the victim of climate change, water extraction and infrastructure development in all poor planning. Inadequate protection of natural means have ensured that the world population can no longer assume that water is going to flow forever. WWF is warning that the world's water suppliers—rivers in every continent are dying, threatening the world with severe water shortage in the future. The population, dams and overfishing are the Yangtze, the Mekong-Lancang, the Salween, the Danube, the La Plata, the Rio Grande, the Nile and the Murray-Darling. The bottom line therefore is that rivers are no longer assured of reaching the sea unhindered.

Water extraction is only one of the daunting challenges that a river faces as it makes its way to its terminus. "Dams and damming destroy habitats, cut rivers off from their floodplains and alter the natural ebb and flow on which a river's plants and animals depend. Invasive species crowd river banks, drive out native fish and choke their courses. Pollution fouls their waters, sometimes turning life-giving rivers into threats to human health. And climate change threatens to alter all the rules that rivers have lived by for thousands of years."

While the imminent freshwater crisis is bigger than the 10 rivers listed, the summary mirrors the extent to which unabated development is jeopardizing nature's ability to meet growing demands.

The Ganga is facing a threat due to increased water withdrawal for agriculture, pollution, climate change and the 14 proposed large dams. In India, barrages control all the tributaries to the Ganga and divert about 60 per cent of the river to large-scale irrigation.

Over-extraction of water for agriculture from the river has caused a great reduction in surface water resources, increasing dependence on groundwater, loss of water-based livelihoods and the destruction of habitat for 109 fish species and other aquatic and amphibian fauna. Now answer these questions:

41. The world may face a grim situation in the near future in the form of a.

- (a) Rise in water levels of rivers
- (b) Rise in global warming
- (c) Shortage of portable water
- (d) Rise in theft cases

42. In which category is the river Ganga placed?

- (a) Dead
- (b) Dying
- (c) Threatened
- (d) None

43. How many dams are proposed to be built over the river Ganga?

- (a) 15
- (b) 22
- (c) 17
- (d) 14

44. How many species of fish and other aquatic fauna are in danger of losing their habitats because of over-extraction of water?

- (a) 105
- (b) 109
- (c) 14
- (d) 120

45. The word 'tributaries' means.

- (a) Respect
- (b) Qualities
- (c) Streams flowing into larger rivers
- (d) Allegations

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46. Among other problems, the over-extraction of water has caused:

- (a) The loss of homes in the sea.
- (b) The extinction of certain species of flora and fauna.
- (c) Both (A) and (B)
- (d) The extinction of flora only.

47. Identify a word from the passage which means 'danger'.

- (a) Victim
- (b) Extraction
- (c) Terminus
- (d) Threat

48. What fear do people have about the Ganga?

- (a) Ganga may dry up on the way before reaching its terminus.
- (b) Ganga may overflow.
- (c) Ganga may be polluted even more.
- (d) None of the above.

49. What do you mean by the phrase-flora and fauna.

- (a) Birds and insects
- (b) Insects and reptiles
- (c) Plants and animals
- (d) Insects and plants

50. Which among the following is the natural terminus of a river?

- (a) Gulf (b) Ocean
(c) Tributary (d) Sea

Directions (Q. no. 51-54): Specify the types of sentences.

51. Is it dead?

- (a) Assertive Sentence
(b) Exclamatory sentence
(c) Interrogative Sentence
(d) Imperative sentence

52. Show me the money.

- (a) Assertive Sentence
(b) Exclamatory sentence
(c) Interrogative Sentence
(d) Imperative sentence

53. The tyrannosaurus rex was huge!

- (a) Assertive Sentence
(b) Exclamatory sentence
(c) Interrogative Sentence
(d) Imperative sentence

54. Either my friend is attending the function, or I am.

- (a) Assertive Sentence
(b) Exclamatory sentence
(c) Interrogative Sentence
(d) Imperative sentence

Directions (Q.no.55-59): Choose the best alternative for the underlined parts.

55: The gardener has been watered the plants.

- (a) Had been watered the plants.
(b) Has watering the plants.
(c) Had watering the plants.
(d) Has been watering the plants.

56. Your good wishes is reciprocated by him.

- (a) Was reciprocated by him.
(b) Had reciprocated by him.
(c) Were reciprocated with him
(d) Are reciprocated by him.

57. Dilip was been singing from morning.

- (a) Has been singing since morning.
(b) Has been singing for morning.
(c) Is been singing since morning.
(d) Was been singing for morning.

58. My neighbor writes stories and prints them too.

- (a) Uploads (b) Publishes
(c) Subscribes (d) No improvement

59. I can't believe she had the capacity to ask me to do her work for her.

- (a) Dare (b) Impunity
(c) Audacity (d) No improvement

Directions (Q.no.60-62): Specify the tenses.

60. Unity is strength

- (a) Past Perfect Tense
(b) Past Perfect Continuous Tense
(c) Simple Present Tense
(d) Simple Past Tense

61. He is always bothering me with his problem.

- (a) Present Continuous Tense
(b) Past Perfect Continuous Tense
(c) Present Perfect Continuous Tense
(d) Simple Present Tense

62. She has lectured at this university for ten years.

- (a) Past Perfect Tense
(b) Past Perfect Continuous Tense
(c) Present Perfect Continuous Tense
(d) Present Perfect Tense

Directions (Q. no, 63-85): Change the narration into reported speech.

63. He said, "I am unwell"

- (a) He said that I am unwell.
(b) He said that he was unwell.
(c) He told that I was not unwell.
(d) He told that I am unwell.

64. He said to me, "What are you doing?"

- (a) He said that what I am doing.
(b) He asked me what I was doing.
(c) He asked me what you were doing.
(d) No improvement Tense

65. Rama said to Arjun, "Go away."

- (a) Rama said Arjun to go away.
(b) Rama asked why Arjun not went away.
(c) Rama ordered that Arjun should go away.
(d) Rama ordered Arjun to go away.

66. Which is the main production activity in the villages of India?

- (a) Service (b) Transportation
(c) Fishing (d) Farming

67. Which among the following is a Rabi Crop?

- (a) Jawar (b) Bajra
(c) Wheat (d) Rice

68. Growing more than one crop on a piece of land during the year is known as.
- (a) Mechanical Farming (b) Modern Farming
(c) Multi Cropping (d) Mixed Farming
69. ___ Green revolution-is related to.
- (a) Milk production (b) Grain production
(c) Fruits production (d) Fishing
70. Which of the following factors is responsible for poverty in India?
- (a) Illiteracy (b) Size of the family
(c) Unemployment (d) All of the above
71. Which one of the following statement regarding democracy is not true?
- (a) People have freedom to express view
(b) Freedom to form a political party
(c) Rulers are elected by the people
(d) Criticism on the government is not allowed
72. The basic rule to be followed by citizens and the government together is called:
- (a) Supreme Court (b) Parliament
(c) Constitution (d) Rule Book
73. Why do we celebrate 26 January as the Republic Day every year?
- (a) On this day India got freedom
(b) On this day India-was -portioned
(c) On the day first election was held
(d) On this day the constitution of India came
74. Who was the editor of 'Young India' magazine?
- (a) Maulana Azad (b) Sarojini Naidu
(c) Sardar Patel (d) Mahatma Gandhi
75. As per the constitution of India, which one of the following is not a Fundamental Right?
- (a) Right to equality
(b) Right to freedom
(c) Right against exploitation
(d) Right to property
76. Crystallization is absent in which of the following salts?
- (a) Blue Vitrol (b) Washing Soda
(c) Gypsum (d) Baking Soda
77. If the PH value of a solution is '0' (zero), then solution will be.
- (a) Strong acid (b) Strong base
(c) Mild acid (d) Mild base
78. Heating of ferrous sulphate gives which of the following products.
- (a) Ferric oxide (b) Sulphur dioxide
(c) Sulphur trioxide (d) All of the above
79. What happens when carbon dioxide is passed through lime water?
- (a) Lime water turns milky because of formation of water
(b) Lime water turns milky because of formation of calcium carbonate
(c) Lime water turns red because of formation of permanganate
(d) Lime water turns milky because of formation of lime
80. Rusting of Iron occurs due to?
- (a) Reduction (b) Hydrogenation
(c) Oxidation (d) Sublimation
81. The non-metal which is liquid at room temperature is?
- (a) Mercury (b) Iodine
(c) Bromine (d) Chlorine
82. Which is most reactive metal?
- (a) Sodium (b) Calcium
(c) Potassium (d) Magnesium
83. Process in which some minerals are converted into oxide by heating in air at temperature below their melting point is called?
- (a) Roasting (b) Calcination
(c) Smelting (d) Concentration
84. The IUPAC name of the given compound is?
- (a) 2- methyl butane
(b) 2, 2-dimethyl butane
(c) 2,- dimethyl propane
(d) 2-ethyl, -2methyl propane
85. Which of the following is used as a fuel in cars along with petrol?
- (a) Ethane
(b) Butane
(c) Ethanol
(d) Methane
86. The group number and period number respectively of an element with atomic number 16 is.
- (a) 6, 2 (b) 16, 2
(c) 16, 3 (d) 16, 4

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87. Identify the wrong sequence of the elements in a group.

- (a) Ca, Sr, Ba (b) N, P, As
(c) Cu, Au, Ag (d) Cl, Br, I

88. The modern periodic table is given by.

- (a) Bohr (b) Einstein
(c) Mosley (d) Mendeleev

89. Ore of aluminum is.

- (a) Haematite (b) Buxite
(c) Halite (d) galena

90. What is calcium sulphate dehydrate?

- (a) Gypsum (b) Potassium
(c) Plaster of pails (d) Blue vitrol

91. Blood consist of what fluid medium.

- (a) Lymph (b) Platelets
(c) Plasma (d) All of these

92. Proteins after digestion are converted in to.

- (a) Carbohydrates (b) Starch
(c) Amino acid (d) Small globules

93. Which of the following organism have parasitic mode of nutrition?

- (a) Penicillium (b) Parrot
(c) Paramecium (d) Plasmodium

94. The kidneys in human beings are a part of the system for?

- (a) Excretion (b) Nutrition
(c) Respiration (d) Transportation

95. A specific messenger molecule synthesized by an endocrine gland is.

- (a) Enzyme (b) Hormone
(c) Chemical (d) Activation

96. Which among the following diseases is not sexually transmitted?

- (a) Syphillis (b) HIV-AIDS
(c) Haptitis (d) Gonorrhoea

97. Which of the following is not a unicellular organism.

- (a) Amoeba (b) Hydra
(c) Yeast (d) Paramoecium

98. Fertilization of ova in human takes place in:

- (a) Uterus (b) Ovary
(c) Fallopian tube (d) Vagina

99. Which section of DNA provides information for one protein?

- (a) Nucleus (b) Chromosomes
(c) Gene (d) Trait

100. Which type of variation is inherited?

- (a) Somatic variation
(b) Germinal variation
(c) Both Somatic and Germinal
(d) None of these

Answer Key

1	2	3	4	5	6	7	8	9	10
c	b	d	a	d	c	a	a	a	b
11	12	13	14	15	16	17	18	19	20
b	a	b	c	a	b	b	b	d	c
21	22	23	24	25	26	27	28	29	30
b	b	d	c	a	a	b	c	d	b
31	32	33	34	35	36	37	38	39	40
b	d	b	c	b	a	a	c	c	b
41	42	43	44	45	46	47	48	49	50
c	b	d	b	c	b	d	a	c	d
51	52	53	54	55	56	57	58	59	60
c	d	b	a	d	d	a	b	c	c
61	62	63	64	65	66	67	68	69	70
d	d	b	b	d	d	c	c	b	d
71	72	73	74	75	76	77	78	79	80
d	c	d	d	d	d	a	d	b	c
81	82	83	84	85	86	87	88	89	90
c	c	a	c	c	c	c	c	b	a
91	92	93	94	95	96	97	98	99	100
d	c	d	a	b	c	b	c	c	b