

Sample questions for Grade XI, Science

There are total 100 multiple choice questions. Out of 100 questions, 30 are from English and 20 are from C. Mathematics, 30 are from C. Science and 20 are from Additional Mathematics (Opt. Math) of Grade 10.

Make your answer by blackening the appropriate bubble against each question in OMR sheet.

1. Synonym of the word 'credible' is
a. authentic b. debtor c. borrower d. insolvent
2. The antonym of the word 'humid' is
a. wet b. dry c. hot d. damp
3. Neither of studentspresent
a. is b. are c. has d. had been going
4. More than half the draindistilled
a. has b. has been c. had d. had been
5. Which of the following is in passive voice?
a. I love being stared at. b. I like him driving my car
c. I found her reading my book. d. I adore being looked at.
6. A mosquito is flying..... your head.
a. inside b. through c. over d. on
7. Choose the sentence with the correct use of the past perfect tense:
a. By the time we arrived, the movie already started.
b. By the time we arrived, the movie had already started.
c. By the time we arrived, the movie was already starting.
d. By the time we arrived, the movie has already started.
8. Do you wantwith you or do you want to go alone.
a. me coming b. me to come c. that I come d. that I'll come
9. "Reeta has finished her work, now she is _____ home."
a. going b. going to c. going to the d. going towards the
10. While Nepal has earned record revenue this year, _____ well behind in exports.
a. it still lag b. it still lags c. it lag still d. it lags still
11. Let him watch TV,.....?
a. will you b. won't you c. shall he d. will he
12. Which of the following is an example of a subordinating conjunction?
a. But b. And c. Although d. Or
13. I bought a round table in the supermarket.
What is the word class of "round"?
a. Noun b. Adjective c. Verb d. Adverb
14. I get up early morning. I've got a lot to do.
Which phrase best completes the sentence?
a. had better b. should c. might d. could
15. ISaguna in town a few days ago.
a. meet b. met c. meeting d. meets
16. Perhaps shevisit Jumla.
a. will b. going to c. goes d. gone
17. We are going to Lumbini. How.....!
a. exciting b. excited c. excitable d. excites
18. Choose the correct indirect speech for: "He said, 'I am reading a book.'"
a. He said that he was reading a book. b. He said he is reading a book.
c. He said that I am reading a book. d. He says that he is reading a book.
19. A person who hates women is called
a. misogynist b. misogynist c. masochist d. misanthrope
20. They go to class_____ Mondays, Wednesdays, and Fridays.
a. at b. in c. on d. from
21. The baby slept
a. Sadly b. Soundly c. Bitterly d. Helpfully

22. Neither the teacher nor the students _____ responsible for the mess.
a. Is b. Are c. Was d. were
23. The movie was so _____ that I couldn't stop watching it.
a. interesting b. interest c. interests d. interested
24. Identify the tense used in the given sentence. "You are always working on your laptop."
a. Present indefinite tense b. Present perfect tense
c. Present continuous tense d. Present perfect continuous tense
25. You should not _____ back with your teacher.
a. talk b. talks c. had talked d. talked
26. Erica likes to go to the cinema_____ noon.
a. At b. In c. On d. By
27. What is the preposition in the sentence: "He walked across the bridge."
a. Walked b. Across c. Bridge d. He
28. I shall.....him if heto me for his misbehavior.
a. punish...abuses b. punish...forgives c. forgive...apologizes d. command...obeys
29. None of us had tickets cancelled.
a. their b. our c. his d. her
30. Which of the following is in passive voice?
a. I love being stare at. b. I like him driving my car.
c. I found her reading my book. d. I adore being looked at.
31. If $n(U) = 150$, $n(A) = 60$, $n(B) = 80$ and $n(A \cup B)=110$, the value of $n_o(A)$ is
a. 10 b. 20 c. 30 d. 40
32. If the arcs formed by the chords are equal then the chords are
a. Equal b. Twice c. Thrice d. none
33. The formula for S.P without VAT is
a. $\frac{S.P.wth\ VAT}{(100+VAT)\%}$ b. $\frac{S.P.wth\ VAT}{(100-VAT)\%}$ c. $\frac{S.P.}{(100+VAT)\%}$ d. None
34. The compound interest on the sum of money in 2 years at the rate of 5% per annum is
a. $\frac{41P}{400}$ b. $\frac{41P}{300}$ c. $\frac{41P}{300}$ d. $\frac{41P}{100}$
35. Sangita bought a new scooter for Rs 2,10,000. After 2 years , she sold it to her friend Anjali at 10% per year compound depreciation. How much did Anjali pay for the scooter?
a. Rs. 1,70,000 b. Rs. 1,70,100 c. Rs. 1,70,200 d.Rs. 1,70,300
36. If the cost of an article with VAT is Rs. 4,746 and without VAT is Rs. 4,200. The VAT rate is
a. 11% b. 12% c. 13% d. 14%
37. A field is in a shape of rhombus. The diagonals of the field are 350m and 240m respectively. What is the area of field in hectare? (1 hectare = 10,000 m²)
a. 4.0 hectares b. 4.1 hectares c. 4.2 hectares d. 4.3 hectares
38. If a right circular cone height 4cm and slant height 5cm, find its curved surface area.
a. 46.22 cm² b. 47.14 cm² c. 56.32 cm² d. None
39. If $\bar{X}=32$, $\sum fm=k$ and $\sum f=15$, find the value of k.
a. 440 b. 460 c. 480 d. None
40. The H.C.F of $x^4y - x^2y^3$ and $2x^3y - x^2y^2 - xy^3$ is
a. xy b. xy(x-y) c. (x-y) d. all
41. The root law of indices verifies
a. $\sqrt[n]{a^m} = a^{\frac{m}{n}}$ b. $\sqrt[n]{a^m} = a^{\frac{n}{m}}$ c. $a^m = b^n$ d. None
42. The value of $(3\sqrt{5} - 4\sqrt{2})(2\sqrt{5} + 3\sqrt{2})$ is
a. $6 + \sqrt{10}$ b. $6 - \sqrt{10}$ c. $7 + \sqrt{10}$ d. $9 + \sqrt{10}$
43. The area of triangle is equal to half of the area of parallelogram if they are
a. on the same base b. none c. between same parallel d. both
44. The opposite angles of a cyclic quadrilateral are
a. Complementary b. Supplementary c. Complete turn d. None
45. The angle in the circumference of a circle is called
a. Circum angle b. semi angle c. quad angle d. Inscribed angle
46. A man 1.5 m tall standing at a distance of 50m from a tree observes the angle of elevation of the top of the tree to be 45°. The height of the tree is
a. 50m b. 50.5m c. 51m d. 51.5m

47. What percent of observations are there above Q_3 of a data?
a. 25% b. 50% c. 60% d. 75%
48. Two parallelograms have equal area if they are
a. On the same base b. None c. Between same parallel d. Both
49. If two arcs of a circle subtend equal angles at the centre of the circle, then the arcs are
a. Unequal b. Equal c. Doesn't have a relation d. None
50. The probability scale of any event E is
a. $0 < P(E) < 1$ b. $1 < P(E) < 0$ c. $0 \leq P(E) \leq 1$ d. $1 \leq P(E) \leq 0$
51. The acceleration due to gravity is zero at:
a. centre of the earth b. poles c. sea level d. the equator
52. A hydraulic garage lift is based on:
a. Pascal's law b. Law of floatation c. Atmospheric pressure d. Archimedes principle
53. Which of the following is a non-renewable source of energy?
a. Coal b. Wood c. Biogas d. Wind energy
54. Which of the following is the specific heat capacity of water?
a. $4200 \text{ J/kg/}^\circ\text{C}$ b. $4100 \text{ J/kg/}^\circ\text{C}$ c. $2100 \text{ J/kg/}^\circ\text{C}$ d. $2200 \text{ J/kg/}^\circ\text{C}$
55. The image formed by a convex lens is always:
a. real and magnified b. real and diminished
c. virtual and diminished d. virtual and magnified
56. On what principle a transformer is based?
a. Electro-magnetic induction b. Motor effect
c. Mutual induction d. Magnetic effect
57. The d-block elements are also called.....
a. halogens b. inert elements c. transition elements d. alkaline earth metals
58. Nitrogen reacts with hydrogen to form ammonia gas. Out of the given necessary conditions, which one is not required?
a. UV light b. high pressure c. Iron catalyst d. high temperature
59. Plaster of paris is a salt of
a. calcium b. copper c. sodium d. potassium
60. What In an exothermic reaction:
a. heat is evolved b. heat is absorbed c. addition d. neutralization
61. What is the valency of gold?
a. 1 b. 2 c. 2 and 3 d. 1, 3
62. What is the functional group of alcohol?
a. $-\text{OH}$ b. $-\text{O}-$ c. CH_2 d. $-\text{CHO}$
63.is a biodegradable substance.
a. detergent b. soap c. plastic d. chemical fertilizer
64. In how many times does a silkworm larva moult?
a. 2 times b. 3 times c. 4 times d. 5 times
65. Which gland is also called the master gland?
a. Pituitary gland b. Thyroid gland c. Parathyroid gland d. Adrenal gland
66. Which chamber of heart is largest?
a. Right atrium b. Left atrium c. Right ventricle d. Left ventricle
67. The two chromatids of a chromosome are held together at the.....
a. telomere b. secondary constriction c. centromere d. primary constriction
68. What is the hard covering over the body of a single celled organism that forms in multiple fissions called?
a. Shell b. Cell c. Cyst d. Nematocyst
69. In F_2 generation, the genotypic ratio of pure tall, hybrid tall and pure short is:
a. 3:1 b. 2:1:2 c. 1:2:1 d. 1:3
70. The fastest spinning planet is:
a. Jupiter b. Saturn c. Uranus d. Neptune
71. What is the melting point of nichrome?
a. 900°C b. 1400° c. 1800°C d. 1000°C
72. The power of lens is -2D, its focal length is:
a. -2 m b. 0.5 m c. -0.55 cm d. -0.50 m

73. Change of velocity in unit time is called what?
 a. velocity b. speed c. acceleration d. all are wrong
74. Every action has equal and opposite reaction. This is Newton's which law.
 a. second law b. first law c. third law d. fifth law
75. Which one is wrong?
 a. $2\text{NaOH} + \text{CO}_2 \longrightarrow \text{Na}_2\text{CO}_3 + \text{H}_2\text{O}$ b. $\text{FeCl}_3 + 3\text{NH}_4\text{OH} \longrightarrow \text{Fe}(\text{OH})_3 + 4\text{NH}_4\text{Cl}$
 c. $\text{CuSO}_4 + 2\text{NaOH} \longrightarrow \text{Cu}(\text{OH})_2 + \text{Na}_2\text{SO}_4$ d. $\text{NaOH} + \text{HCl} \longrightarrow \text{NaCl} + \text{H}_2\text{O}$
76. If litmus is a indicator, and if it is used for acid then which colour change occur ?
 a. blue b. red c. neutral d. all are wrong
77. Where does mosquito lay egg ?
 a. soil b. air c. water d. wet sand
78. Which gland of the following is the mixed gland?
 a. Tear gland b. Pancreas c. Adrenal gland d. Liver
79. Which disease is not due to mosquito?
 a. malaria b. dengue c. kala-azar d. yellow fever
80. Xylem and phloem are what kind of tissue in plant ?
 a. special tissue b. complex tissue c. simple tissue d. none of above
81. If $\left[a - \left(\frac{1}{a}\right)^2\right] - 6\left\{a - \left(\frac{1}{a}\right)\right\} = -8$, then which of the following is the value of ' $a - \frac{1}{a}$ '?
 a. 2,4 b. 1,4 c. 2,5 d. None of the above
82. Which term of the A.P. 3, 8, 13, 18, is 78?
 a. 12th b. 13th c. 15th d. 16th
83. If $f: \mathbb{R} \rightarrow \mathbb{R}$; $g: \mathbb{R} \rightarrow \mathbb{R}$ are defined by $f(x) = 2x$ and $g(x) = 3x + 4$ and $(g \circ f)(x) = 22$, find the value of x.
 a. 1 b. 2 c. 3 d. 4
84. If $\sin A = \frac{3}{5}$, the value of $\cos 2A$ is
 a. $\frac{5}{24}$ b. $\frac{7}{25}$ c. $\frac{3}{16}$ d. none of the above
85. The value of $\sin 75^\circ + \sin 15^\circ$ is
 a. $\frac{\sqrt{3}}{2}$ b. $\sqrt{\frac{3}{2}}$ c. $\frac{3}{2}$ d. none of the above
86. $\sin 2A = 2 \sin A$ is true when $A =$
 a. 30° b. 45° c. 0° d. 60°
87. The abscissa of the point of intersection of the less than type and of the more than type cumulative frequency curves of a grouped data gives its
 a. Mean b. median c. mode d. all of the above
88. The empirical relationship between the three measures of central tendency is
 a. $3 \text{ Median} = \text{Mode} + 2 \text{ Mean}$ b. $2 \text{ Median} = \text{Mode} + 2 \text{ Mean}$
 c. $3 \text{ Median} = \text{Mode} + \text{Mean}$ d. $3 \text{ Median} = \text{Mode} - 2 \text{ Mean}$
89. If the mean of first n natural numbers is $3n/5$, then the value of n is:
 a. 3 b. 4 c. 5 d. 6
90. If $|\vec{a} \times \vec{b}| = 4$, $|\vec{a} \cdot \vec{b}| = 2$, then $|\vec{a}|^2 |\vec{b}|^2$ is
 a. 6 b. 2 c. 20 d. 8
91. If $|\vec{a} + \vec{b}| = |\vec{a} - \vec{b}|$, then
 a. $|\vec{a}| = |\vec{b}|$ b. $\vec{a} \perp \vec{b}$ c. $\vec{a} \parallel \vec{b}$ d. none
92. What is the statement "Quadratic and polynomial functions are continuous at each point in their domain"?
 a. True b. False c. Not possible d. None
93. Which of the following is an indeterminate form?
 a. ∞^0 b. $\frac{0}{0}$ c. $\frac{\infty}{\infty}$ d. All of the above
94. A square matrix P is said to be skew-symmetric if
 a. $A^T = A$ b. $A^T \neq A$ c. $A^T + A = 0$ d. None of the above
95. The value of $(A^{-1})^{-1}$ is equal to
 a. A b. 2A c. 3A d. 4A
96. The distance of point A (2, 4) from the x-axis is
 a. 2 units b. 4 units c. -2 units d. -4 units

97. If $O(\frac{p}{3}, 4)$ is the midpoint of the line segment joining the points $P(-6, 5)$ and $Q(-2, 3)$, the value of p is:
 a. $\frac{7}{2}$ b. -12 c. 4 d. -4
98. The ratio in which the line segment joining the points $P(-3, 10)$ and $Q(6, -8)$ is divided by $O(-1, 6)$ is:
 a. 1:3 b. 3:4 c. 2:7 d. 2:5
99. If $E_1 = [(0,0), k_1]$ and $E_2 = [(0,0), k_2]$ are two enlargements, the combined enlargement is given by
 a. $E = [(0,0), k_1 k_2]$ b. $E = [(0,0), k_1 k_1]$
 c. $E = [(0,0), k_2 k_2]$ d. None of the above
100. The transformation matrix for reflection x- axis is
 a. $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ b. $\begin{bmatrix} 1 & 0 \\ 0 & -1 \end{bmatrix}$ c. $\begin{bmatrix} -1 & 0 \\ 0 & 1 \end{bmatrix}$ d. $\begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix}$

ANSWER KEY - SCIENCE

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