

FOUNDATION PROGRAMME CLASS X 16-10-2021
MOCK TEST

(Students who are studying in Class IX)

PHYSICS + CHEMISTRY + BIOLOGY + MATHEMATICS

Name of the Candidate :	
Mobile No. :	
E-mail Id :	
Class & Name of the School Studying :	
Roll number :	

INSTRUCTIONS

1. Please ensure stable internet connection before the commencement of the examination.
2. As this is an online exam please ensure that you have entered the personal and exam details without fail and ensure that there are 80 questions in your format.
3. The students may attend the exam from home or any other convenient place
4. Blank paper, clipboard, slide rules etc can be used for rough work.
5. Ensure that the candidate is not communicating with any other person throughout the exam duration.
6. Electronic gadgets in any form are not allowed to be used during the exam time.
7. The steady presence of the candidate in front of the system is absolutely necessary.
8. Presence of any other person near the system will not be allowed.
9. Each question has 4 possible options, of which only one is deemed as the most appropriate.
YOU ARE ASKED TO SELECT THE MOST APPROPRIATE OPTION AS THE CORRECT ANSWER.
10. Each correct answer will be awarded **FOUR** mark each. There will be no negative marks.
11. Kindly be noted that your movements will be monitored under a proctoring suite and any malpractice will automatically result in the termination of the examination.

1. The weakest force in our universe is
 A) Nuclear force B) Electrostatic force C) Gravitational force D) Magnetic force
2. 1N = dyne.
 A) 10^4 B) 10^5 C) 10^7 D) 10^{10}
3. It is required to increase the velocity of a scooter of mass 80 kg from 5 ms^{-1} to 25 ms^{-1} in 2 second. The force required is
 A) 800N B) 80N C) 8N D) 0.8N
4. A car of mass 1000 kg is moving with a velocity of 10 ms^{-1} and is acted upon by a forward force of 1000N due to engine and retarding force of 500N. What is the velocity after 10 seconds?
 A) 15 m/s B) 25 m/s C) 10 m/s D) 5 m/s
5. What principle is used in a newton spring balance?
 A) The mass of an object depends on the density
 B) The mass of an object depends on the gravity pulling it
 C) The weight of an object is directly proportional to its mass
 D) The extension of the spring is directly proportional to the weight pulling it, and weight depends upon mass
6. An object placed on an equal-arm balance requires 12kg to balance it. When placed on a spring scale, the scale reads 120N. Everything (balance, scale, set of weights and object) is now transported to the Moon where the free-fall acceleration is one-sixth that on Earth. The new readings of the balance and spring scale (respectively) are
 A) 12kg, 12N B) 2kg, 2N C) 12kg, 20N D) 2kg, 12N
7. Pressure cannot be measured in
 A) Nm^{-2} B) bar C) Pa D) Kg wt
8. The pressure of sea water is maximum at
 A) the bottom of the sea B) the top of the sea
 C) half way the depth of the sea D) is same everywhere

SPACE FOR ROUGH WORK

9. 1 atmosphere = pascal
 A) 1.25×10^5 pascal
 B) 1.01×10^5 pascal
 C) 1.82×10^5 pascal
 D) 1.39×10^5 pascal
10. If the pressure produced by a force over an area of 100cm^2 is 30Pa , then calculate the force applied
 A) 0.5N
 B) 0.7N
 C) 0.8N
 D) 0.3N
11. Atmospheric pressure is measured by
 A) Mercury manometer
 B) Mercury barometer
 C) Mercury galvanometer
 D) Mercury thermometer
12. Speed of sound in air is directly proportional to:
 A) Square root of temperature of the medium
 B) Density of the medium
 C) Both A & B
 D) None of these
13. If the speed of sound in air at 0°C is 345 m/s then its speed at 27°C will be?
 A) 345 m/s
 B) 361 m/s
 C) 368 m/s
 D) 363 m/s
14. SI unit of intensity of sound is:
 A) joule s^{-1}
 B) $\text{joule s}^{-1} \text{m}^{-1}$
 C) $\text{joule s}^{-1} \text{m}^{-2}$
 D) joule sm^2
15. Voice of a person is recognised by its:
 A) Pitch
 B) Quality
 C) Intensity
 D) Velocity
16. The speed of wave is 340 ms^{-1} . What is the wavelength of the wave if its frequency is 500 Hz .
 A) 0.68m
 B) 6.8 m
 C) 68m
 D) 0.68 cm
17. For an oscillating pendulum of fixed length, which of the following is true?
 A) Frequency depends on amplitude of oscillation
 B) Frequency and time period are not related
 C) Time period depends on amplitude of oscillation
 D) Frequency and time period are related and do not depend on amplitude of oscillation

SPACE FOR ROUGH WORK

18. Loudness of sound is directly proportional to the
A) Amplitude of the wave
B) Distance from the source and sound
C) Frequency of the wave
D) Wavelength of the wave
19. Which of the following is a non luminous source of light?
A) Sun
B) Stars
C) Moon
D) Lanterns
20. A collection of rays of light is called :
A) beam
B) radiation
C) propagation
D) None
21. Example of diffused reflection is reflection from
A) a plane mirror
B) a concave mirror
C) a news paper
D) none
22. Light is :
A) an electromagnetic radiation
B) Mechanical wave
C) Longitudinal wave
D) All of these
23. An object is placed at a distance x from a convex mirror of focal length 15cm when an image is formed at distance of 6cm behind the mirror. The value of x is
A) -15cm
B) -10cm
C) -25cm
D) None of the above
24. Light travels from air into glass of refractive index 1.5. The time taken by the light to travel through a piece of glass of 50cm thickness is
A) 2.25s
B) 2.25×10^{-7} s
C) 2.25×10^{-8} s
D) 2.50×10^{-9} s
25. The danger signals installed at the top of tall buildings are red in colour. These can be easily seen from a distance because among all other colours, the red light
A) is scattered the most by smoke or fog
B) is scattered the least by smoke or fog
C) is absorbed the most by smoke of fog
D) moves fastest in air
26. Which of the following are natural fibres?
A) Nylon, Polyesters and spandex
B) Hide of animals
C) Wool, silk and hemp
D) Petroleum, coal and natural gas

SPACE FOR ROUGH WORK

27. Which of the following is not a synthetic fibre?
 A) Angora B) Rayon C) Nylon D) Polyester
28. Which of these fabrics will you prefer on a hot and humid day?
 A) Nylon B) Silk C) Cotton D) Wool
29. Which of these is not a fibre?
 A) Leather B) Cotton C) Nylon D) Jute
30. Jute fibres is obtained from the of jute plant
 A) Leaves B) Seeds C) Roots D) Stem
31. Removing the wool from a sheep is called
 A) Sericulture B) Shearing C) Spuning D) Ginning
32. Cotton is obtained from
 A) Larva of silkworm B) Hair of sheep
 C) Bolls of flowers D) Patsun
33. Which nations were the first to cultivate cotton?
 A) Chinese B) Americans
 C) Indians D) Greeks
34. Scientific name of mulberry is
 A) Morus alba B) Triticum aestivum C) Zea maize D) Cocos nucifera
35. Which of the following synthetic fibre is good absorbent
 A) Nylon B) Rayon C) Polyester D) Acrylic
36. The metal used to built bridges is
 A) Gold B) Silver C) Platinum D) iron
37. Rusting of iron can be prevented by
 A) Alloying B) Painting C) Galvanising D) All of these

SPACE FOR ROUGH WORK

38. Metals can be obtained economically from
 A) Minerals B) Ores C) Earth's crust D) None
39. The only non-metals that has luster is
 A) Sulphur B) Phosphorous C) Silicon D) Iodine
40. Non-metals generally form
 A) Basic oxides B) Acidic oxide C) Neutral oxide D) None
41. Which of the following is a liquid metal?
 A) Mercury B) Bromine C) Water D) Sodium
42. The correct order of metal in the activity series is
 A) $\text{Cu} > \text{Zn} > \text{Mg} > \text{Ca}$ B) $\text{Ca} > \text{Zn} > \text{Cu} > \text{Mg}$
 C) $\text{Zn} > \text{Mg} > \text{Cu} > \text{Ca}$ D) $\text{Ca} > \text{Mg} > \text{Zn} > \text{Cu}$
43. Antimony and arsenic can be classified as
 A) Metals B) Non - metals C) Metalloids D) None
44. When a metal is added to dil. HCl solution, there is no evolution of gas metal is
 A) K B) Na C) Ag D) Zn
45. The best malleable metal is :
 A) Aluminium B) Silver C) Gold D) lead
46. White phosphorous is stored
 A) In air B) under water C) under kerosene D) under CS_2
47. Which type of coal has highest percentage of carbon
 A) Anthracite B) Bituminous C) Peat D) Lignite
48. Coal gas is a mixture of
 A) $\text{CH}_4 + \text{H}_2 + \text{CO}$ B) $\text{C}_4\text{H}_{10} + \text{H}_2$ C) $\text{C}_4\text{H}_{10} + \text{H}_2\text{O}$ D) $\text{C}_2\text{H}_6 + \text{H}_2 + \text{O}_2$

SPACE FOR ROUGH WORK

49. Incomplete combustion of methane forms
 A) $\text{CO}_2 + \text{H}_2\text{O}$ B) $\text{CO} + \text{H}_2\text{O}$ C) $\text{CO}_2 + \text{H}_2$ D) $\text{CO} + \text{O}_2$
50. The fuel having lowest calorific value is
 A) H_2 B) $\text{C}_6\text{H}_{12}\text{O}_6$ C) Kerosene D) CH_4
51. Smut of bajra is an example for
 A) Seed born disease B) Soil born disease C) Air born disease D) Water born disease
52. Cassia plant prevents the growth of
 A) Parthenium B) Plantain C) Aquatic weed D) Eichhornia
53. i) These are the connecting links between living or non-living
 ii) They containing DNA or RNA
 iii) They are nucleoproteins
 iv) Infectious sub-microscopic particles
 All the statements are true about
 A) Bacteria B) Mycoplasma C) Virus D) Prions
54. The invagination found in bacterial plasma membrane, which function similar to mitochondria?
 A) Capsule B) Mesosome C) Ribosome D) Cell inclusions
55. Sleeping sickness causative organism
 A) Paramecium B) Entamoeba
 C) Trypanosoma D) Euglena
56. The best known nitrogen fixing symbiotic bacterium is
 A) Azetobacter B) Clostridium
 C) *Rizhobium eguminosarum* D) Nitrosomonas

SPACE FOR ROUGH WORK

57. Yellow-vein mosaic of bhendidisease
 A) Virus B) Bacteria C) Fungi D) Insect
58. The species which are found in exclusively in particular area such species are known as
 A) Threatened B) Endangered C) Vulnerable D) Endemic
59. Sal, wild mango are two examples of the endemic flora of the
 A) Kaziranga B) Keoladeo C) Pachmarhi D) Pariyar
60. Cell theory was expanded by
 A) Schleiden B) R Virchow C) Brown D) Grew
61. A prokaryotic cell is characterized by
 i) Absence of membrane bound organelles
 ii) Cellulose cell wall
 iii) Double membrane bound mitochondria
 iv) Absence of histone
 A) i only B) Both (ii) and (iii) C) (i) and (iv) D) iv only
62. Exception of cell theory is
 A) Bacteria B) Protists C) Virus D) Algae
63. Function of nucleolus
 A) Protein synthesis B) rRNA and ribosome synthesis
 C) Help in cell division D) Hereditary information
64. In plant cell, nucleus is enclosed by
 A) Non porous single membrane B) Non porous double membrane
 C) Porous single membrane D) Porous double membrane

SPACE FOR ROUGH WORK

65. What is common between chloroplasts, chromoplasts and leucoplasts?
 A) Presence of pigments
 B) Possession of thylakoid and grana
 C) Storage of starch, protein and lipids
 D) Ability to multiply by a fission like process
66. Cristae help to
 A) respiration
 B) transpiration
 C) photosynthesis
 D) photo-oxidation
67. In most mammals, testes are located in scrotal sacs for
 A) sex differentiation
 B) sperm development in cooler condition
 C) independent functioning of kidneys
 D) more space to visceral organ
68. Select incorrect pair from the following
 A) Mercury - Minamata disease
 B) Cadmium - Itai-Itai disease
 C) Fluoride - Black foot disease
 D) Plant nutrients - Eutrophication
69. Incomplete combustion of carbon forms
 A) CO₂
 B) H₂O vapours
 C) Carbon
 D) CO
70. Which of the following hormones controls amount of water released through urine?
 A) Adrenaline
 B) Insulin
 C) Thyroxine
 D) ADH
71. Metamorphosis is controlled by
 A) Thyroxine
 B) Adrenaline
 C) Glucagon
 D) Insulin
72. i) Stimulate thyroxine production
 ii) Controls growth
 iii) Also called master gland
 iv) Controls the activity of other endocrine gland
 All above statements are related with
 A) Thyroid
 B) Adrenal
 C) Pancreas
 D) Pituitary

SPACE FOR ROUGH WORK

73. Dinosaurs can be included in which of the following category?
 A) Threatened B) Extinct C) Endangered D) Vulnerable
74. Which of the following hormone is a modified amino acid?
 A) Prostaglandin B) Estrogen C) Epinephrine D) Progesterone
75. Hormone secreting cells called neurosecretory cells are abundant in the
 A) hypothalamus B) pons C) cerebral corny D) Medulla oblongata
76. Find the value of $\frac{-2}{5} \times \frac{5}{8} + \frac{5}{9} \times \frac{9}{10} - \frac{1}{3} \times \frac{-3}{4}$
 A) $-\frac{1}{2}$ B) $\frac{1}{2}$ C) $\frac{1}{4}$ D) 0
77. The number of zeroes at the end of the cube root of the cube number 1000 is
 A) 1 B) 2 C) 3 D) 4
78. If $\sqrt{m} = 24$ then find the value of $2m + 1$
 A) 25 B) 1, 153 C) 12 D) 1, 150
79. The smallest number by which 32 should be multiplied so as to get a perfect square is
 A) 2 B) 3 C) 4 D) 8
80. What is the product of reciprocal of $\frac{9}{11}$ and reciprocal of $\frac{5}{7}$?
 A) $\frac{45}{77}$ B) $\frac{77}{45}$ C) $\frac{63}{55}$ D) $\frac{55}{63}$
81. Two adjacent angles of a quadrilateral measure are 130° and 40° . The sum of the remaining two angles is
 A) 180° B) 360° C) 190° D) 90°

SPACE FOR ROUGH WORK

82. The ages of sreeraj and Rahul are in the ratio 5 : 7. Four years later the sum of their ages will be 56 years. Then their present ages are
 A) 18 and 30 B) 22 and 26 C) 20 and 28 D) 21 and 27
83. Find the smallest number by which the number 375 must be divided to obtain a perfect cube
 A) 2 B) 3 C) 5 D) 4
84. If you subtract $\frac{1}{2}$ from a number and multiply the result by $\frac{1}{2}$, you get $\frac{1}{8}$. Then the number is
 A) $\frac{4}{3}$ B) $\frac{1}{3}$ C) $\frac{3}{4}$ D) $\frac{1}{4}$
85. Twice a number is as much greater than 30 as the three times of the number less than 60. The number is
 A) 6 B) 9 C) 18 D) 12
86. The coefficient of xy^2z in $-7x^2y^3z$ is
 A) $-7xy$ B) $7xy$ C) $-xy$ D) xy
87. If x is the ones digit and y is tens digit of a two digit number, then the cube of the number will be
 A) $(10y + x)^3$ B) $(10x + y)^3$ C) $(x + y)^3$ D) $(x)^3$
88. Evaluate $\left[\left[24^2 + 7^2 \right]^{\frac{1}{2}} \right]^3$
 A) 45, 625 B) 18625 C) 35625 D) 15, 625
89. The largest number of the three consecutive numbers is $x + 1$. Then the smallest number is
 A) $x + 2$ B) $x + 1$ C) x D) $x - 1$
90. If the 3-digit number $72x$ is divisible by 9, Then the smallest value of x is
 A) 9 B) 18 C) 3 D) 0

SPACE FOR ROUGH WORK

99. Which of the following is the simplified form of $2 + pq + 3p^2 - 4(pq + 8) + 5(p^2 + pq)$

A) $30 - 2pq + 8p^2$

B) $30 + 2pq - 8p^2$

C) $-30 + 2pq - 8p^2$

D) $-30 + 2pq + 8p^2$

100. The value of $x^2 - 2yx + y^2$ when $x = 1$, $y = 2$ is

A) -1

B) 1

C) 2

D) -2

SPACE FOR ROUGH WORK

FOUNDATION MOCK TEST- CLASS X (STUDYING -IX)- KEY

PHYSICS

1. C
2. B
3. A
4. A
5. D
6. C
7. D
8. A
9. B
10. D
11. B
12. A
13. B
14. C
15. B
16. A
17. D
18. A
19. C
20. A
21. C
22. A
23. B
24. D
25. B

CHEMISTRY

26. C
27. A
28. C
29. A
30. D
31. B
32. C
33. C
34. A
35. B
36. D
37. D
38. B
39. D
40. B
41. A
42. D
43. C
44. C
45. C
46. B
47. A
48. A
49. B
50. B

BIOLOGY

51. B
52. A
53. C
54. B
55. C
56. C
57. A
58. D
59. C
60. B
61. C
62. C
63. B
64. D
65. C
66. A
67. B
68. C
69. D
70. D
71. A
72. D
73. B
74. C
75. A

MATHEMATICS

76. B
77. A
78. B
79. A
80. B
81. C
82. C
83. B
84. C
85. C
86. A
87. A
88. D
89. D
90. D
91. C
92. B
93. B
94. C
95. A
96. B
97. A
98. D
99. D
100. B