

TEST ID

801


Brilliant STUDY CENTRE
PALA
QUESTION
BOOKLET CODE

G

INTEGRATED PROGRAMME CLASS IX 13-10-2019
SCREENING CUM SCHOLARSHIP TEST
(Students who are studying in Class VIII)
PHYSICS + CHEMISTRY + BIOLOGY + MATHS

Time : 120 minutes	Number of Questions : 100	Maximum Marks : 400
Name of the Candidate :		
Signature of Candidate :		
Phone Number / Mobile No. :		
Name of the School Studying :		
Class Studying :		Roll. No.
Test Centre:	Signature of Invigilator	

INSTRUCTIONS

1. Please fill in the items such as name, signature, centre etc. of the candidate in the columns given above.
2. Please ensure the given question booklet, is for your class itself.
3. This question booklet contains 100 questions. For each question, four answers are suggested and given against (A), (B), (C) and (D) of which, only one will be the **Most Appropriate Answer**. Mark the bubble containing the letter corresponding to the 'Most Appropriate Answer' in the OMR answer sheet, by using either **Blue or Black ball - point pen only**
4. Each correct answer will be awarded **FOUR** marks. **ONE** mark will be deducted for each **incorrect answer**. More than one answer marked against a question will be deemed as an incorrect response and will be negatively marked. No negative mark for unattended questions.
5. All the rough work is to be done in the blank space provided in the question paper.
6. **WARNING: Any malpractice or any attempt of malpractice, in the Examination, will DISQUALIFY THE CANDIDATE.**
7. **Return the OMR Answer sheet to the invigilator at the end of the examination.**

IMMEDIATELY AFTER OPENING THIS QUESTION BOOKLET, THE CANDIDATE SHOULD VERIFY WHETHER THE QUESTION BOOKLET ISSUED CONTAINS ALL THE 100 QUESTIONS IN SERIAL ORDER. IF NOT, REQUEST FOR REPLACEMENT

8. Weight of 5kg is
A) 5N B) 55N C) 49N D) 49dyne
9. A clinical thermometer is calibrated from
A) 35° C to 42° C B) 10° C to 100° C C) 320° C to 110° C D) 0° C to 100° C
10. Why a digital thermometer is widely used for the measurement of the temperature?
A) Analog display B) Mercury C) High accuracy D) Low accuracy
11. For the effective radiation of heat by an electric room heater, which of the following needs to be done.
A) Keep it clean B) Polish it to shine C) Paint it green D) Paint it black
12. What must be done to enable mercury in a glass thermometer to respond quickly to change in temperature?
A) The bore should be narrow B) The wall of stem should be thin
C) The bulb should contain a lot of mercury D) The wall of glass bulb should be thin
13. Why are two thin blankets piled together warmer than a single one of the same total thickness as the two?
A) Air is enclosed in between them B) The outer thin blanket transfers heat faster
C) Air act as medium to transfer the energy D) There is a decrease in the sensation of touch
14. Which of these phenomena is caused due to convection
A) Ventilation B) Trade winds C) Ocean current D) All of the above
15. Process of change of state from gaseous state to liquid state is called
A) freezing B) sublimation C) boiling D) condensation
16. Positive terminal of battery is called
A) Cathode B) Anode C) Seperator D) None of these

SPACE FOR ROUGH WORK

17. "A wire carrying an electric current possess a magneticfield around it" was concluded by
A) Charles Darwin B) Galileo Galilei C) H.C Oersted D) Albert Einstein
18. A solenoid acts as a _____ when electric current passes through it
A) Resistor B) Bar magnet C) Insulator D) Electric motor
19. The graphical representation of the intensity of seismic waves is called
A) seismograph B) seismic meter C) seismogram D) Richter scale
20. In order to be used as mirror glasses are coated with
A) silver B) copper C) Aluminium D) platinum
21. The colour that deviates least during the dispersion of white light is
A) Violet B) Green C) Red D) Orange
22. A parallel beam of rays falling on a concave lens
A) Are scattered B) Remain parallel C) Are diverged D) Are converged
23. Voice of a person is recognised by its
A) Pitch B) Quality C) Intensity D) Velocity
24. Sound of frequency below 20Hz are called
A) Infrasonic B) Ultrasonic C) Supersome D) None
25. For a given frequency the loudness is related to
A) Amplitude B) Wavelength C) Harmonics D) None
26. The annual theme for world water day in 2019 is :
A) Better water, better jobs B) Why waste water?
C) Nature for water D) Leaving no one behind

SPACE FOR ROUGH WORK

27. Wool is not yielded by
 A) Angora goat B) Alpaca C) Woolly dog D) Camel
28. How many of the following are examples of chemical changes?
 a. crushing a piece of chalk
 b. tarnishing of silver
 c. mixing water with kerosene
 d. dissolving sugar in water
 e. dissolving carbon dioxide in water
 A) 1 B) 2 C) 3 D) 4
29. Baking soda is chemically _____
 A) Sodium carbonate B) Calcium carbonate
 C) Sodium bicarbonate D) Calcium hydrogen carbonate
30. Which of the following would be bitter in taste and feel soapy on touching?
 A) Curd B) Vinegar C) Lime water D) Orange juice
31. Which of the following statements are CORRECT regarding Sorter's disease?
 1. It is an occupational hazard 2. It is related to Sorter's job
 3. It is a fatal blood disease 4. It is due to a microbial infection
 A) 1, 2 and 3 B) 1 and 3 C) 1, 3 and 4 D) 1, 2, 3 and 4
32. Match the following substances with the acid present in it :
 1. Spinach a. Tartaric acid
 2. Grapes b. Lactic acid
 3. Amla c. Oxalic acid
 4. Curd d. Ascorbic acid
 A) 1-d, 3-a, 3-b, 4-c B) 1-b, 2-c, 3-a, 4-d C) 1-c, 2-a, 3-d, 4-b D) 1-d, 2-c, 2-a, 4-b

SPACE FOR ROUGH WORK

33. International year of fresh water :
- A) 2000 B) 2019 C) 2003 D) 1993
34. Listed below are the major steps involved in the processing of fibres to wool. Arrange them in the correct sequence :
1. Sorting 2. Shearing 3. Straightening 4. Scouring
- A) 1, 2, 3, 4 B) 2, 4, 1, 3 C) 2, 3, 4, 1 D) 2, 1, 3, 4
35. Which of the following is NOT involved in sericulture?
- A) Moth pairing B) Incubation of larvae C) Cocoon formation D) Treatment of wood pulp
36. Indigestion due to acidity can be relieved by using:
- A) Aluminium hydroxide B) Glucose C) Table salt D) Soda water
37. Which of the following is INCORRECT regarding recrystallization of copper sulfate?
- A) Copper sulfate is dissolved in boiling water to get a saturated solution
- B) On cooling down, the above solution will become unsaturated
- C) Slower rate of cooling produces larger crystals
- D) Recrystallization enhances purity of the substance
38. Identify the INCORRECT statement :
- A) The amount of fresh water on the earth is about 2.5% of all water found on the earth
- B) The amount of usable ground water is about 30% of all fresh water found on the earth
- C) The amount of water available for our use is about 10% of the usable ground water found on the earth
- D) The amount of water available for our use is about 0.006% of all water found on the earth

SPACE FOR ROUGH WORK

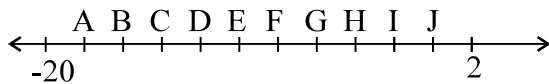
39. Which of the following activities DOES NOT involve neutralisation reaction?
- A) Addition of sulfuric acid to lime water
 - B) Rubbing of calamine solution on the skin where ant bites
 - C) Addition of organic matter to a soil that is too acidic
 - D) Addition of baking soda to vinegar
40. Which is INCORRECT regarding cocoons of domestic silk moth?
- A) It is made of continuous silk fibres
 - B) Its silk fibres are conglutinated by sericin bonding matrix
 - C) It acts as a protective covering around the developing pupa
 - D) Adult moth comes out of the cocoon without damaging the silk thread
41. How many of the following holds true when carbon dioxide is passed through lime water?
- a. Carbon dioxide gets dissolved in lime water
 - b. CaCO_3 stone is formed
 - c. Lime water turns milky
 - d. Chemical changes occur
- A) 1 B) 2 C) 3 D) 4
42. Which of the following DOES NOT cause depletion of water table?
- A) Decrease in the effective area for seepage of water
 - B) Increase in population, industrial and agricultural activities
 - C) Scanty rainfall and deforestation
 - D) Drawing as much ground water as is replenished by natural processes

SPACE FOR ROUGH WORK

43. Which is NOT true about neutralisation reaction?
A) It is the reaction between an acid and a base
B) Salt and water are the products
C) A neutral salt is always produced
D) Heat is always evolved
44. What would happen when copper wire is dipped in ferrous sulfate solution?
A) Copper wire gets coated with metallic iron B) Copper wire gets dissolved in the liquid solution
C) Green color of the solution turns colorless D) No chemical changes occur
45. How many of the following are true regarding rusting of iron?
a. Rust is chemically hydrated iron (III) oxide
b. On rusting, metallic iron undergoes a chemical change
c. For rusting, the presence of both oxygen and water are essential
d. Rusting decreases with increase in humidity
e. Presence of CO_2 enhance the rate of rusting
f. To prevent rusting, iron metal may be coated with a more reactive metal
A) 3 B) 4 C) 5 D) 6
46. Which of the following CANNOT be regarded as 'fresh water'?
A) Water in lakes and rivers B) Ground water
C) Water in oceans D) Water in iceberg
47. Identify the CORRECT observation :
A) Brine solution turns blue litmus red
B) China rose indicator turns lime water magenta
C) Sugar syrup does not turn turmeric paper bright red
D) aqueous solution of phenolphthalein is pink in color

SPACE FOR ROUGH WORK

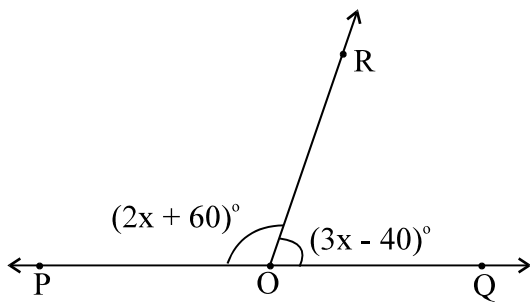
48. Acid rain is NOT due to :
- A) CO B) CO₂ C) NO₂ D) SO₂
49. Fill in the blanks suitably :
- The water found below the (i) is called ground water
- The process of seeping of water into the ground is called (ii)
- At places, the ground water is stored between layers of hard rocks below the (iii). This is known as an aquifer
- A) i-sea level, ii-infiltration, iii-water table B) i-water table, ii-percolation, iii-sea level
- C) i-water table, ii-infiltration, iii-water table D) i-sea level, ii-percolation, iii-sea level
50. Drip irrigation is related to :
- 1) Water management 2) Saving nutrients 3) Minimizing evaporative loss
- A) Only 1 B) 1 and 2 C) 1 and 3 D) 1,2 and 3
51. The sum of two integers is 116. If one of them is -79 then the other integer is:
- A) 195 B) 175 C) 115 D) 207
52. $(-10) \times [(-13) + (-10)] =$
- A) -230 B) 130 C) +230 D) +130
53. Which of the following does not represent an integer?
- A) $0 \div (-7)$ B) $20 \div (-4)$ C) $(-9) \div 3$ D) $(-12) \div 5$
54. On the following number line $(-4) \times 3$ is represented by the point.....



- A) D B) F C) H D) J

SPACE FOR ROUGH WORK

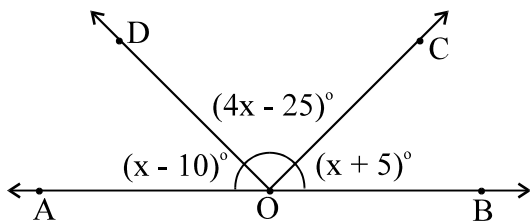
55. Sarah and Darshan went for a picnic. Their mother gave them a juice bottle of 3 litres. Sarah consumed $\frac{1}{3}$ rd of the juice, Darshan consumed the rest. What fraction of the total quantity did Darshan drink?
- A) $\frac{1}{3}$ B) 1 C) $\frac{2}{3}$ D) $\frac{1}{2}$
56. Find the perimeter of rectangle whose length is $7\frac{3}{10}$ cm and breadth is $\frac{3}{5}$ cm.
- A) $13\frac{4}{5}$ cm B) $14\frac{3}{7}$ cm C) $7\frac{3}{8}$ cm D) $15\frac{4}{5}$ cm
57. $\frac{1}{8}$ of a number equals $\frac{2}{5} \div \frac{1}{20}$. What is the number?
- A) 74 B) 64 C) 54 D) 94
58. Find the angle which is $\frac{1}{5}$ of its complement.
- A) 25° B) 35° C) 15° D) 5°
59. Find the value of 'x' in the given figure?



- A) 32 B) 36 C) 30 D) 27

SPACE FOR ROUGH WORK

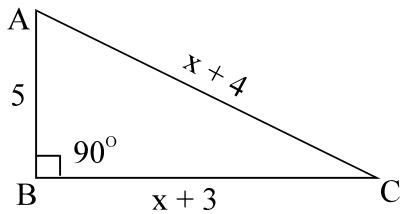
60. In the following figure, find the value of $\angle BOC$, if points A, O and B are collinear



- A) 20° B) 30° C) 40° D) 50°
61. Find the angle which is equal to its complement
 A) 75° B) 45° C) 90° D) 60°
62. Subtract $2\frac{1}{5}$ from $-3\frac{1}{6}$
 A) $5\frac{11}{30}$ B) $7\frac{13}{20}$ C) $-5\frac{11}{30}$ D) $-7\frac{13}{20}$
63. The value of $21.5 \div 5 - \frac{1}{5}$ of $[20.5 - 5.5] + 0.5 \times 8.5$
 A) 5.55 B) 4.44 C) 3.33 D) 7.77
64. In the standard form of a rational number, the common factor of numerator and denominator is always
 A) 0 B) 1 C) -2 D) 2
65. The reciprocal of $\left[\frac{1}{2} \times \frac{1}{4}\right] + \left[\frac{1}{2} \times 6\right]$ is:
 A) $\frac{25}{8}$ B) $\frac{31}{8}$ C) $\frac{8}{31}$ D) $\frac{8}{25}$
66. Which should be added to $-\frac{1}{2}$ to obtain the nearest natural number?
 A) 1 B) $\frac{1}{2}$ C) $\frac{3}{2}$ D) $\frac{2}{3}$

SPACE FOR ROUGH WORK

67. 150 students are studying English, Maths or both. 62% of the students are studying English and 68% are studying Maths. How many students are studying both?
 A) 35 B) 45 C) 40 D) 20
68. Two sides of a triangle are 4cm and 7cm. What can be the length of its third side to make the triangle possible?
 A) 2 B) 11 C) 3 D) 6
69. In the given right angled triangle ABC, $\angle B = 90^\circ$, then the value of x is:



- A) 9 B) 8 C) 3 D) 11
70. A 25 cm long stick is rested on a wall at a point 24cm high on the wall. If the stick is at a distance x cm from the wall on the ground, find the distance x.
 A) 6 cm B) 7 cm C) 9 cm D) 5 cm
71. The value of $a - [a - b] - b - [b - a]$ is:
 A) $b - a$ B) $a - b$ C) $a + b$ D) 0
72. The value of t if the value of $3x^2 + 5x - 2t$ equals to 8, when $x = -1$ is
 A) -4 B) 4 C) -5 D) 5
73. $[3^{15} \div 3^{10}] \times 3^2$ is
 A) 3^{30} B) 3^3 C) 3^7 D) 1
74. $10^3 \times 9^0 + 3^3 \times 2 + 7^0$ is
 A) 1055 B) 1010 C) 1000 D) 1

SPACE FOR ROUGH WORK

75. If $\frac{x}{y} = \left[\frac{3}{2}\right]^2 \div \left[\frac{5}{7}\right]^0$ then the value of $\left[\frac{y}{x}\right]^3$ is:
- A) $\frac{125}{729}$ B) $\frac{64}{729}$ C) $\frac{1331}{1000}$ D) $\frac{343}{125}$
76. Fat is completely digested in the
- A) Stomach B) Mouth
C) Small intestine D) Large intestine
77. Match the items of Column I with suitable items in Column II
- | Column I | Column II |
|--------------------|--------------------------------|
| a) Salivary gland | i) Bile juice secretion |
| b) Stomach | ii) Storage of undigested food |
| c) Liver | iii) Saliva secretion |
| d) Rectum | iv) Acid release |
| e) Small intestine | v) Digestion is completed |
| f) Large intestine | vi) Absorption of water |
| | vii) Release of faeces |
- A) a-iii, b-iv, c-i, d-ii, e-v, f-vi B) a-iii, b-iv, c-i, d-vii, e-ii, f-vi
C) a-iv, b-vi, c-ii, d-vii, e-v, f-i D) a-vi, b-iii, c-iv, d-v, e-ii
78. The breakdown of complex components of food into simpler substances is called
- A) Digestion B) Nutrition C) Breathing D) Respiration
79. Diarrhoea is caused due to :
- A) Infection B) Poisoning C) Indigestion D) All of the above
80. Plenty of boiled water mixed with a pinch of salt and sugar dissolved in it is called
- A) An acid B) A base
C) An indicator D) Oral Rehydration solution
81. Seeds that are dispersed by animals have spiny seeds with hooks is :
- A) Madar B) Urena C) Drumstick D) Grass
82. The bacterium which provides nitrogen to the leguminous plants is:
- A) Rhizobium B) Yeast C) Fungi D) Lichens

SPACE FOR ROUGH WORK

83. Pitcher is an example of
 A) Insectivorous plant B) Leguminous plant C) Algae D) Fungi
84. Some organisms live together and share shelter and nutrients. This is called
 A) Predation B) Symbiotic relationship C) Autotrophs D) Heterotrophs
85. The average weather pattern taken over a long time is called the
 A) Climate of the place B) Temperature of the place
 C) Humidity of the place D) Rainfall of the place
86. The tropical climate is such that
 A) Duration of days and nights are almost equal B) Duration of day is more than that of night
 C) Duration of day is less than that of the night D) Duration of day and night both is less
87. The temperature in polar regions in winter will be as low as
 A) -40°C B) 34°C C) 45°C D) -37°C
88. A carnivore with stripes on its body moves very fast while catching its prey. It is likely to be found in
 A) Polar regions B) Deserts C) Oceans D) Tropical rainforests
89. The small openings in the body of a cockroach are called
 A) Holes B) spiracles C) Tracheae D) Gills
90. During heavy exercise, we get cramps in the legs due to the accumulation of
 A) Carbon dioxide B) Lactic acid C) Alcohol D) Fattyacid
91. Percentage of oxygen present in exhaled air is :
 A) 21% B) 0.04 % C) 16.4% D) 4.4 %
92. Match items in Column I with those in Column II :
- | Column I | Column II |
|------------------|------------------|
| a) Bud | i) Maple |
| b) Eyes | ii) Spirogyra |
| c) Fragmentation | iii) Yeast |
| d) Wings | iv) Bread mould |
| e) Spores | v) Potato |
| | vi) Coconut |
- A) a-v, b-vi, c-iii, d-ii, e-i B) a-iii, b-v, c-ii, d-i, e-iv
 C) a-iii, b-vi, c-i, d-i, e-ii D) a-vi, b-iii, c-ii, d-iv, e-i

SPACE FOR ROUGH WORK

PHYSICS

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

CHEMISTRY

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

MATHEMATICS

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

BIOLOGY

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