



# Monthly Progressive Test

Class: VIII

Subject: PCMB



Test Booklet No.: MPT03

Test Date: 

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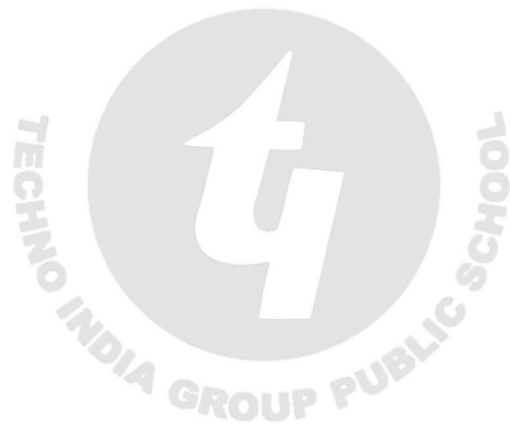
Time: 180 mins

Full Marks: 200

## Important Instructions :

1. The Test is of 180 mins duration and the Test Booklet contains 100 multiple choice questions of single correct option only. There are four sections with four subjects. You have to attempt all 100 questions (Candidates are advised to read all 100 questions). Questions 1 to 25 contain Physics, Questions 26 to 50 contain Chemistry, Questions 51 to 75 contain Mathematics, Questions 76 to 100 contain Biology.
2. Each question carries 2 marks. For each correct response, the candidate will get 2 marks. There is no negative mark for wrong response. The maximum mark is 200.
3. Use Blue / Black Ball point Pen only for writing particulars marking responses on Answer Sheet.
4. Rough work is to be done in the space provided for this purpose in the Test Booklet only.
5. On completion of the test, the candidate must handover the Answer Sheet to the invigilator before leaving the Room / Hall. The candidates are allowed to take away this Test Booklet with them.
6. The CODE for this Booklet is Off Line MPT0314062024.
7. The candidates should ensure that the Answer Sheet is not folded. Do not make any stray marks on the Answer Sheet. Do not write your UID No. anywhere else except in the specified space. Use of white fluid for correction is NOT permissible on the Answer Sheet. **Do not scribble or write on or beyond discrete bars of OMR Sheet at both sides.**
8. Each candidate must show on-demand his/her Registration document to the Invigilator.
9. No candidate, without special permission of the Centre Superintendent or Invigilator, would leave his/her seat.
10. Use of Electronic Calculator/Cellphone is prohibited.
11. The candidates are governed by all Rules and Regulations of the examination with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per Rules and Regulations of this examination.
12. No part of the Test Booklet and Answer Sheet shall be detached under any circumstances.
13. There is no scope for altering response mark in Answer Sheet.

**Space For Rough Works**



**Physics**

1. A hand is holding a tea cup. Which forces are acting on the cup?  
(A) Gravity (B) Gravity and Muscular force  
(C) Gravity and Friction (D) All the forces mentioned above
2. A body of mass 1 kg is resting on a table. Another body of mass 2 kg is placed on top of the previous body. What is the normal force the body of mass 1 kg feels from the table?  
(A) 9.8 N (B) 29.4 N (C) 19.6 N (D) 39.2 N
3. A force of 100 N is applied on a body of mass 5 kg. If friction is 50% of the normal force, find the body's acceleration. Acceleration due to gravity =  $10 \text{ m/s}^2$ .  
(A)  $20 \text{ m/s}^2$  (B)  $10 \text{ m/s}^2$  (C)  $5 \text{ m/s}^2$  (D)  $15 \text{ m/s}^2$
4. A man is carrying an empty jug of mass 1 kg. He pours water into it and the filled jug is of 2 kg. How much force the water gives to the man?  
(A) 1 N (B) 2 N (C) 9.8 N (D) None of these
5. A 1 kg weight is sinking. It is falling inside water with an acceleration of  $4.9 \text{ m/s}^2$ . What is the value of the buoyant force?  
(A) 9.8 N (B) 4.9 N (C) 2.45 N (D) None of these
6. A spring balance reading shows a force of 2 kgf. How much is the force in dyn?  
(A)  $0.2 \times 10^5$  (B)  $20 \times 10^5$  (C)  $9.8 \times 10^5$  (D)  $19.6 \times 10^5$
7. Lubricants and ball bearings are used for?  
(A) Reducing the friction (B) Increasing the friction  
(C) Nullifying friction (D) None of these
8. The effect of a force on a body  
(A) Changing the state of rest (B) Changing the state of motion  
(C) Changing the shape/size (D) All of the above
9. Example of contact force  
(A) Only muscular force (B) Only friction force  
(C) Both Muscular and Friction force (D) None of the above
10. Inertia concept is given in Newton's  
(A) First law (B) Second law (C) Third law (D) None of the above

11. When we pull a block on horizontal rough floor, the pull is  
Ⓐ Easy                      Ⓑ Difficult                      Ⓒ No such feeling                      Ⓓ None of the above
12. When we immerse one inflated bladder inside water, it gets  
Ⓐ Compressed                      Ⓑ Expanded                      Ⓒ Remains same                      Ⓓ None of the above
13. Which is a frictional force?  
Ⓐ Static friction                      Ⓑ Sliding friction                      Ⓒ Rolling friction                      Ⓓ All of these
14. What are streamlined object?  
Ⓐ Birds                      Ⓑ Aeroplanes                      Ⓒ Ships                      Ⓓ All of these
15. The handle of cricket bat made rough, why?  
Ⓐ To increase friction                      Ⓑ To decrease friction  
Ⓒ To increase life time of bat                      Ⓓ None of these
16. The total number of types of inertia is  
Ⓐ 1                      Ⓑ 2                      Ⓒ 3                      Ⓓ 4
17. If weight of a body is 19.6 N, then the mass of the body (in kg) is  
Ⓐ 2                      Ⓑ 1.5                      Ⓒ 1                      Ⓓ 3
18. A force of 5 N acting on a body for 3 s, then value of change in linear momentum is (in Kg m/s)  
Ⓐ 10                      Ⓑ 12                      Ⓒ 15                      Ⓓ 16
19. Nature of static friction is  
Ⓐ Self-adjusting                      Ⓑ Non-adjusting  
Ⓒ Sometimes non-adjusting                      Ⓓ None of these
20. If the body is in motion, the friction opposing its motion is called  
Ⓐ Kinetic friction                      Ⓑ Sliding friction  
Ⓒ Internal friction                      Ⓓ Both Ⓐ and Ⓑ are correct
21. A body of mass  $m$  is acted upon by a single force  $F$ . The surface in contact with the body is smooth. If we make the force  $2F$ , then acceleration of the body will  
Ⓐ Increase                      Ⓑ Decrease  
Ⓒ Remain same                      Ⓓ Increase sometimes
22. A force may be  
Ⓐ Only push                      Ⓑ Only pull                      Ⓒ Push and pull                      Ⓓ We can't say

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23. A force has
- (A) Sliding effect (B) Turning effect  
(C) Sometimes deformation effect (D) All the above are correct
24. On slippery floor, walking is
- (A) easy (B) difficult  
(C) sometimes difficult (D) None of the above is correct
25. If we increase normal contact force, then limiting static friction (following the relation  $f_{\text{lim}} \propto N$ )
- (A) Increases (B) Decreases (C) May increase (D) None of these

## Chemistry

26. Which of these is a solid pollutant?
- (A) SPM (suspended particulate matter) (B) Carbon monoxide  
(C) Nitrogen oxides (D) Sulphur dioxide
27. Calorific value of a fuel is the heat energy produced when
- (A) Any amount of the fuel is completely burnt  
(B) One kilogram of the fuel is completely burnt  
(C) One milligram of the fuel is completely burnt  
(D) Hundred grams of the fuel is completely burn
28. **Assertion (A):** The temperature at which substance starts burning is called ignition temperature
- Reason(R):** A chemical process in which a substance react with oxygen to give of heat and light is called combustion.
- (A) Both (A) and (R) correct but R is correct explanation of A  
(B) Both (A) and (R) correct R is not correct explanation of A  
(C) (A) is true and (R) is false  
(D) (A) is false and (R) is true
29. **Assertion (A):** LPG means liquefied petroleum gas
- Reason(R):** CNG means compressed natural gas
- (A) Both (A) and (R) correct but R is correct explanation of A  
(B) Both (A) and (R) correct R is not correct explanation of A

© (A) is true and (R) is false

Ⓓ (A) is false and (R) is true

**Question no. 30 and 31 are based on the following passage. Select the correct answers. Calorific value is defined as the amount of heat energy produced on complete combustion of 1 kilo gram of a fuel it is expressed in a unit called kilo joule per kg. The higher the calorific value of a fuel, the more is its efficiency**

30. Units for calorific value

Ⓐ Gm

Ⓑ Joules

Ⓒ Both Ⓐ and Ⓑ

Ⓓ KJ/kg

31. The amount of heat energy produced by the kilogram fuel is called

Ⓐ Calorific value

Ⓑ Middle zone

Ⓒ Luminous zone

Ⓓ Outer zone

32. Which of these fuel has the highest calorific value?

Ⓐ CNG

Ⓑ Coal

Ⓒ Hydrogen gas

Ⓓ Petrol

33. Which gas is used in combustion?

Ⓐ Oxygen

Ⓑ Nitrogen

Ⓒ Carbon dioxide

Ⓓ Hydrogen

34. What is the reason behind the black colour of the smoke?

Ⓐ Unburnt carbon particles.

Ⓑ Rapid combustion.

Ⓒ High temperature.

Ⓓ None of these is correct.

35. A student lists some conditions that promote fire

A. Fuel

B. Air

C. Heat

What step can be taken to prevent material from catching fire?

Ⓐ Use oxygen cylinders to put off the fire.

Ⓑ Put cotton clothes over the combustible material.

Ⓒ Pour liquids such as kerosene over the combustible materials.

Ⓓ Use water to lower the ignition temperature of the combustible materials.

36. A student burns three substances P, Q, and R and records the observation in a table.

Substance	Observation
P	Burns quickly producing heat and light
Q	Burns at room temperature on its own
R	Burns with evolution of heat, light and sound

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Which option correctly categories substances?

- (A) All the substances are undergoing rapid combustion.
- (B) Substances P and Q are undergoing spontaneous combustion whereas substance R is undergoing rapid combustion.
- (C) Substance P is undergoing rapid combustion substance Q is undergoing spontaneous combustion whereas substance R is undergoing explosion combustion.
- (D) Substance R is undergoing rapid combustion substance Q is undergoing spontaneous combustion whereas substance P is undergoing combustion.

37. A student learns that power plants burn fossil fuels to produce energy. The combustion of these fuels produces several harmful gases such as

Carbon monoxide

Sulphur dioxide

Carbon dioxide

Nitrogen oxide

Which gas produced by the incomplete combustion of fuels at power plants and can harm a person sleeping in a room?

- (A) nitrogen oxide
- (B) carbon dioxide
- (C) sulphur dioxide
- (D) carbon monoxide

38. Acid rain can be caused by the burning of

- (A) Petrol
- (B) CNG
- (C) Diesel
- (D) Coal

39. Good fuels have

- (A) Low ignition temperature and high calorific value
- (B) Low ignition temperature and low calorific value
- (C) High calorific value and high ignition temperature
- (D) High ignition temperature and low calorific value

40. Which of the following is a non-combustible substance?

- (A) Paper
- (B) Sand
- (C) Charcoal
- (D) Petrol

41. The slow process of conversion of dead vegetations into coal is called

- (A) Carbon dating
- (B) Coalization
- (C) Carbonization
- (D) None of these

42. The stepwise stages for formation of coal
- Ⓐ Wood—Peat—Lignite—Bituminous coal—Anthracite coal
  - Ⓑ Wood—Peat—Bituminous coal—Lignite—Anthracite coal
  - Ⓒ Wood—Bituminous coal—Peat—Lignite—Anthracite coal
  - Ⓓ Wood—Peat—Lignite—Anthracite coal—Bituminous coal
43. The hottest zone of a candle flame is
- Ⓐ Non-luminous zone
  - Ⓑ Luminous zone
  - Ⓒ Dark zone
  - Ⓓ Blue zone at the base of the wick
44. Which is used to wick stoves?
- Ⓐ Diesel
  - Ⓑ Petrol
  - Ⓒ Kerosene
  - Ⓓ Lubricating oil
45. Kerosene, alcohol and diesel are
- Ⓐ Solid fuels
  - Ⓑ Liquid fuels
  - Ⓒ Gaseous fuels
  - Ⓓ Semi liquid fuels
46. Shyam was cooking potato curry on a chulha. To his surprise, he observed that the copper vessel was getting blackened from outside. It may be due to
- Ⓐ proper combustion of fuel
  - Ⓑ improper cooking of potato curry
  - Ⓒ improper combustion of the fuel
  - Ⓓ burning of copper vessel
47. Which one among the following is considered as the cleanest fuel?
- Ⓐ cowdung cake
  - Ⓑ petrol
  - Ⓒ kerosene
  - Ⓓ Hydrogen gas
48. In villages, people use wood as fuel because
- Ⓐ it is considered to be an ideal fuel
  - Ⓑ of its easy availability and low cost
  - Ⓒ it is environment friendly
  - Ⓓ it catches fire easily
49. If a person's clothes catch fire, the best way to extinguish the fire is to
- Ⓐ throw water on the clothes
  - Ⓑ use fire extinguisher
  - Ⓒ cover the person with a woolen blanket
  - Ⓓ cover the person with a polythene sheet
50. The substance that does not burn with flame is
- Ⓐ LPG
  - Ⓑ Camphor
  - Ⓒ Dry grass
  - Ⓓ Charcoal



**Mathematics**

51. If  $34x6$  is exactly divisible by 3, then the least value of  $x$  is  
(A) 1 (B) 2 (C) 5 (D) 8
52. If  $7y8x3$  is exactly divisible by 9, then the least value of  $x + y$  is  
(A) 0 (B) 9 (C) 3 (D) 4
53. If  $45x7y$  is exactly divisible by 3, then the least value of  $(x + y)$  is  
(A) 3 (B) 2 (C) 0 (D) 1
54. The least value of  $x$  so that  $348x2$  is divisible by 4 is  
(A) 0 (B) 2 (C) 1 (D) 3
55. If  $214y5$  is a multiple of 9, then the value of  $y$  is  
(A) 6 (B) 5 (C) 0 (D) 2
56. Number of different values of  $x$  so that  $24x$  is divisible by 3 is  
(A) 2 (B) 3 (C) 4 (D) 1
57. If  $A$  is divisible by 3 and  $B$  is divisible by 9, then  $A + B$  is divisible by  
(A) 3 (B) 9 (C) 3 and 9 (D) Cannot say
58. The general form of  $abc$  is  
(A)  $100a + 10b + c$  (B)  $100b + 10c + a$  (C)  $100c + 10a + b$  (D) None of these
59. The usual form of  $100 \times 7 + 10 \times 1 + 8$  is  
(A) 108 (B) 708 (C) 718 (D) 170
60. Which of the following numbers is not divisible by 5?  
(A) 20 (B) 202 (C) 125 (D) 50
61. The number 28221 is divisible by which of the following?  
(A) 2 (B) 3 (C) 6 (D) 9
62. If  $M$  is a number such that  $M \div 5$  gives a remainder of 1, then which of the following is the ones-digit of  $M$ ?  
(A) 1 (B) 1 or 6 (C) 6 (D) none of these
63. The number 15287 is divisible by:  
(A) 3 (B) 7 (C) 9 (D) none of these

64. 49032 is divisible by 24, then it is divisible by 3 and .....
- (A) 5                      (B) 6                      (C) 7                      (D) 8
65. Find the value of  $A, B$  in the following:
- $$\begin{array}{r} A \quad 1 \\ + 2 \quad B \\ \hline B \quad 0 \end{array}$$
- (A) 6, 9                      (B) 6, 6                      (C) 9, 6                      (D) 9, 9
66. The value of  $(1)^{-1} + \left(\frac{1}{2}\right)^{-1} + \left(\frac{1}{3}\right)^{-1}$  is
- (A) -6                      (B) 1                      (C) 6                      (D) 0
67. 3430000 in standard form is
- (A)  $3.43 \times 10^6$                       (B)  $34.3 \times 10^5$                       (C)  $343 \times 10^4$                       (D)  $3430 \times 10^3$
68. Find the value of following expression  $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \frac{-14}{9}$
- (A)  $\frac{1}{2}$                       (B)  $\frac{1}{4}$                       (C)  $\frac{1}{3}$                       (D)  $\frac{3}{4}$
69. Which of the following is a pythagorean triplet?
- (A) 2,3,4                      (B) 6,8,10                      (C) 5,7,9                      (D) None of these
70. The value of  $\sqrt[3]{343} \times \sqrt[3]{-64}$  is
- (A) -18                      (B) -28                      (C) -16                      (D) -14
71. In a two digit number the units digit is 2 times the tens digit and the sum of the digits is 3. Find the number.
- (A) 12                      (B) 21                      (C) 13                      (D) 15
72. Find two numbers whose product is a 1-digit number and the sum is a 2-digit number.
- (A) 6, 1                      (B) 7, 2                      (C) 8, 1                      (D) 9, 1
73. What value should be given to \* so that the number  $653^*47$  is divisible by 11:
- (A) 1                      (B) 6                      (C) 2                      (D) 9
74. Which of the following is divisible by 12?
- (A) 284382                      (B) 624876                      (C) 926248                      (D) 746174

75.  $N$  is a 5-digit number divisible by 5. If  $N$  is bigger than 10000 and smaller than 10010, what is the value of  $N$ ?

- (A) 10001                      (B) 10005                      (C) 10010                      (D) 10002

### Biology

76. Meat is the \_\_\_\_\_ of animals consumed as food.

- (A) Eggs                      (B) Flesh                      (C) Skin                      (D) All of the above

77. Lamb meat is obtained from \_\_\_\_\_

- (A) Sheep                      (B) Cow                      (C) Buffalo                      (D) Chicken

78. Meat is a rich source of—

- (A) Protein                      (B) Vitamin  
(C) Minerals                      (D) All of the above

79. Cheese, yoghurt and cream are commonly called \_\_\_\_\_

- (A) Poultry products                      (B) Agricultural produce  
(C) Dairy products                      (D) Sea food

80. Poultry gives us

- (A) Meat                      (B) Eggs                      (C) Milk                      (D) Both (A) and (B)

81. Rohu, Catla and Hilsa are—

- (A) Edible fishes                      (B) Edible molluscs  
(C) Poultry products                      (D) Cattle meat

82. For bone health, we require

- (A) Dairy products                      (B) Meat  
(C) Molluscs                      (D) All of the above

83. Which set contains food products we get only from animals?

- (A) Milk, meat and vegetables                      (B) Fish, meat and fruits  
(C) Milk, meat and eggs                      (D) None of these

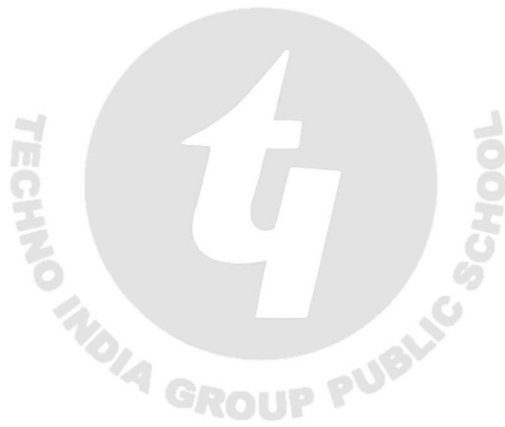
84. Animal products have more \_\_\_\_\_ in them

- (A) Carbohydrate and vitamins                      (B) Carbohydrate and minerals  
(C) Proteins and vitamins                      (D) Carbohydrate and proteins

85. Animals sources of proteins are more preferred as—  
Ⓐ They have more glucose in them  
Ⓑ They have more fats in them  
Ⓒ They have more essential amino acids in them  
Ⓓ None of these
86. The problem with animal food products is—  
Ⓐ They have more proteins in them      Ⓑ They have more carbohydrates in them  
Ⓒ They have more vitamins in them      Ⓓ They have more fats in them
87. A milk producing animal is—  
Ⓐ Cow      Ⓑ Buffalo  
Ⓒ Goat      Ⓓ All of the above
88. Which is an ideal food?  
Ⓐ Meat      Ⓑ Vegetables      Ⓒ Milk      Ⓓ Fish
89. The term 'poultry' is related with  
Ⓐ Birds      Ⓑ Fishes  
Ⓒ Honey bees      Ⓓ None of these
90. The most popular poultry bird is—  
Ⓐ Chicken      Ⓑ Ducks      Ⓒ Turkeys      Ⓓ Quails
91. Select the food crop among the following  
Ⓐ Rice      Ⓑ Wheat  
Ⓒ Maize      Ⓓ All of the above
92. Unwanted plants growing in the fields are called  
Ⓐ Crops      Ⓑ Pests      Ⓒ Weeds      Ⓓ None
93. Which of the following is the primary purpose of irrigation in agriculture?  
Ⓐ Controlling pests      Ⓑ Providing water to crops  
Ⓒ Harvesting crops      Ⓓ Adding nutrients to soil
94. Overuse of chemical fertilizer may lead to—  
Ⓐ Decrease in soil fertility      Ⓑ Increase in the soil fertility  
Ⓒ Increase in the crop yield      Ⓓ Enhancement of biodiversity

- 95.** Which agricultural practice involves growing different crops in a specific succession in the same field?
- (A) Monoculture    (B) Polyculture  
 (C) Crop rotation    (D) Intercropping
- 96.** If seeds are sown too far from each other, then—
- (A) Seeds do not get enough water to germinate  
 (B) The shoots of the saplings compete with each other for space  
 (C) The roots do not get enough space to grow  
 (D) There is unnecessary wastage of space
- 97.** Turning and loosening the soil—
- (A) Bring the nutrient rich layers to the top  
 (B) Helps in creating air spaces in the soil  
 (C) Loose soil helps in easy penetration of roots  
 (D) All of the above
- 98.** The cutting and gathering of crops after they mature is called—
- (A) Harvesting              (B) Threshing              (C) Winnowing              (D) Weeding
- 99.** What mode of irrigation will you suggest on a land which is uneven, where sufficient water is not available?
- (A) Drip irrigation    (B) Sprinkler irrigation  
 (C) Basin irrigation    (D) Furrow irrigation
- 100.** A silo is used for—
- (A) Storing fruits and vegetables    (B) Storing fish  
 (C) Storing dairy products    (D) Storing grains

**Space For Rough Works**



**Space For Rough Works**

