

SAMPLE PAPER

CLASS : 7



Total Questions : 60

Duration : 2 Hrs.

Paper Pattern

Section	(A) Physics	(B) Chemistry	(C) Biology	(D) Mathematics	(E) Logical Reasoning & IQ
Number of Questions	7	6	7	30	10

Marking Scheme: +4 For Correct Answer (There is no negative for wrong answer)

Syllabus

Section A – • Heat • Motion and Time

Section B – • Fibre to fabric • Acids, bases and salts

Section C – • Nutrition in Plants • Nutrition in Animals • Weather Climate & Adaptations of Animals

Section D – • Integers • Fractions and Decimals • Data Handling • Simple Equations • Lines and Angles • The triangles and its Properties

Section E – • Series : Number, Alphabet and Letter repeating series • Direction sense • Mirror & Water Image • Ranking and Ordering
• Mathematical Operation • Paper Folding and Cutting

Instructions :

- This Booklet is your **Question Paper**. DO NOT break seal of Booklet until the invigilator instructs to do so.
- The Answer Sheet is provided to you separately which is a machine readable **Optical Response Sheet (ORS)**. You have to mark your answer in the ORS by darkening bubble, as per your answer choice, by using **Black/Blue** ball point pen only.
- If you are found involved in cheating or disturbing others then your ORS will be cancelled.
- Do not put any stain on ORS and hand it over back properly to the invigilator.
- You can take along the question paper after test over.

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MATRIX

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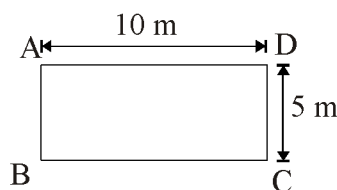
PART I : PHYSICS

This section contains 07 Multiple Choice Questions. Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

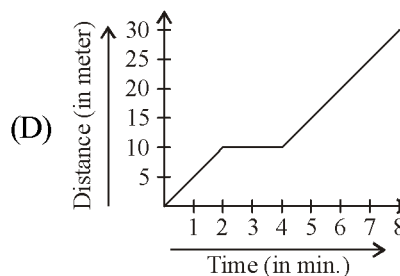
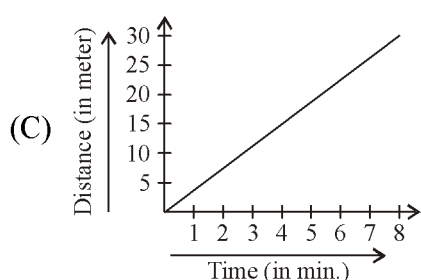
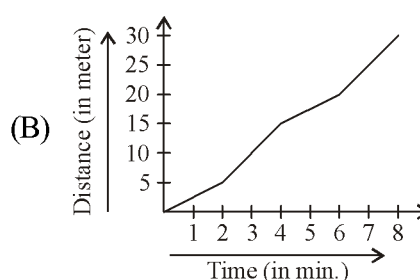
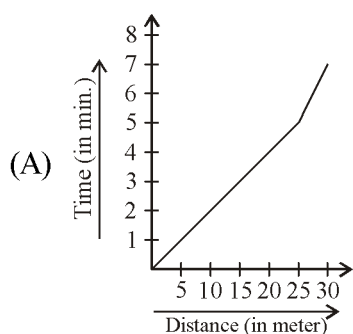
- Which of the following cannot be used for measurement of time?
 - (A) A leaking tap
 - (B) Simple pendulum
 - (C) Shadow of an object during the day
 - (D) Sleep time during night

- A spaceship travels 60,000 km in 100min, Express its speed in km/hour?
 - (A) 3600 km/hour
 - (B) 36000 km/hour
 - (C) 60000 km/hour
 - (D) 50000 km/hour

Following diagram is related to question 3 and 4 :



- Starting from A, Paheli moves along a rectangular path ABCD as shown in Figure. She takes 2 minutes to travel each side. What type of motion Paheli is moving in?
 - (A) Circular
 - (B) Translation
 - (C) Uniform
 - (D) Non - uniform
- Which of the following distance time plot will define the motion of Paheli correctly ?



PART II : CHEMISTRY

This section contains **06 Multiple Choice Questions**. Each question has four choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

8. Which of the following is an acid-base indicator?
- (A) Vinegar (B) Lime water
(C) Turmeric (D) Baking soda

9. Selective breeding is a process of :
- (A) Selecting the offspring with desired properties
(B) Selecting the parents with desired properties
(C) Selecting an area for breeding
(D) Selecting fine hair for good quality wool

10. Match the following columns :

Column – I	Column – II
P. Tartaric acid	1. Soap
Q. Calcium hydroxide	2. Curd
R. Formic acid	3. Unripe mangoes
S. Sodium Hydroxide	4. Ant's sting
T. Lactic acid	5. Lime water

Code :

	P	Q	R	S	T
(A)	4	1	2	5	3
(B)	3	5	4	1	2
(C)	2	3	1	4	5
(D)	4	5	3	2	1

11. What are the four stages of the silkworm?
- (A) Egg, Larva, Pupa, Adult (B) Seed, Larva, Pupa, Adult
(C) Seed, Larva, Moth, Adult (D) Egg, Pupa, Moth, Adult
12. They eat day and night and increase enormously in size are names as :
- (A) Caterpillars (B) Honeybee
(C) Butterfly (D) None of these
13. When the soil is too basic, plants do not grow well in it. To improve its quality what must be added to the soil?
- (A) Organic matter (B) Quick lime
(C) Slaked lime (D) Calamine solution

PART III : BIOLOGY

This section contains **07 Multiple Choice Questions**. Each question has four choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

14. Which of the following raw material is available in the air for photosynthesis :
- (A) Oxygen (B) Carbon dioxide
(C) Nitrogen (D) Hydrogen
15. The enzymes present in the saliva convert :
- (A) Fats into fatty acids and glycerol (B) Starch into simple sugars
(C) Both (A) and (B) (D) Proteins into amino acids
16. Pitcher plant is an example of :
- (A) Insectivorous plant (B) Leguminous plant
(C) Algae (D) Fungi
17. Elements of weather are :
- (A) Temperature (B) Humidity
(C) Rainfall (D) All of these

18. Match the following columns :

Column – I	Column – II
P. Liver	1. Acid release
Q. Stomach	2. Absorption of water
R. Salivary gland	3. Bile juice
S. Large intestine	4. Saliva secretion

Code :

	P	Q	R	S
(A)	1	2	3	4
(B)	2	1	3	4
(C)	3	1	4	2
(D)	4	1	2	3

19. Penguins are adapted to live in :
- (A) Desert climate (B) Polar region
(C) Equatorial region (D) Rain forests
20. Bile juice is stored in :
- (A) Gall bladder (B) Stomach
(C) Liver (D) Spleen

PART IV : MATHEMATICS

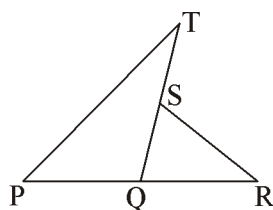
This section contains 30 Multiple Choice Questions. Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

21. The additive inverse of $[14 \div (-7)] \times (-6)$ is :
- (A) -8 (B) 8
(C) -12 (D) 12
22. Temperature of a hill station at a particular time is $+17^{\circ}\text{C}$. It falls down by 3°C every hour. What will be the temperature after 8 hours?
- (A) 41°C (B) -7°C
(C) 14°C (D) 24°C
23. Subtract the sum of (-570) and (-130) from the sum of (-1500) and 1200 :
- (A) 400 (B) -400
(C) -740 (D) -140
24. A person travelled $\left(\frac{5}{8}\right)^{\text{th}}$ of the distance by train, $\left(\frac{1}{4}\right)^{\text{th}}$ by bus and the remaining 15 km by boat. The total distance travelled by him was :
- (A) 90 km (B) 120 km
(C) 150 km (D) 180 km
25. A tanker contains 500 litre of water. Due to a small hole in the tanker, the quantity of water is decreasing at the rate of 9 litre every hour. What will be the quantity of water left in the tanker after 10 hours?
- (A) 410 litre (B) 491 litre
(C) 400 litre (D) 90 litre
26. The sum of $3\frac{4}{5} + 2\frac{7}{10} + 4\frac{8}{15}$ is :
- (A) $\frac{68}{15}$ (B) $\frac{331}{30}$
(C) $\frac{27}{10}$ (D) $\frac{325}{30}$
27. A farmer has 192 animals. $\frac{7}{16}$ of animals are cattle. $\frac{2}{3}$ of cattle are dairy cows. How many dairy cows he has?
- (A) 128 (B) 84
(C) 56 (D) 112

28. By selling tickets for Rs. $52\frac{1}{2}$ each, the money collected was Rs. $5512\frac{1}{2}$. Find the numbers of tickets sold :
- (A) 105 (B) 289
(C) 106 (D) 546
29. If $\frac{11}{12} = \frac{1}{6} + \frac{x}{6} + \frac{1}{12}$, then x is :
- (A) 9 (B) 8
(C) 7 (D) 4
30. Find the reciprocal of the sum of $1\frac{7}{9}$ and $1\frac{2}{7}$:
- (A) $3\frac{4}{63}$ (B) $\frac{63}{256}$
(C) $4\frac{4}{63}$ (D) $\frac{63}{193}$
31. Runs scored by a batsman in four matches are 27, 83, 64 and 56. If he scores 75 runs in fifth match, then his average score will :
- (A) Increase by 3.5 (B) Decrease by 3.5
(C) Increase by 2 (D) Decrease by 2.5
32. The average of the marks in Maths of 100 students in a class was 72. The mean of marks for boys was 75, while their number was 70. The mean of marks of girls in the class was :
- (A) 35 (B) 65
(C) 68 (D) 86
33. From a series of 50 observations, an observation with the value of 45 is dropped, but the mean remains the same. What was the mean of 50 observations?
- (A) 50 (B) 49
(C) 45 (D) 40
34. Soni had digit cards 1, 4 and 7. She makes 2-digit numbers using each card only once. The probability that a 2-digit number chosen at random is divisible by 2 is :
- (A) $\frac{1}{3}$ (B) $\frac{2}{3}$
(C) 0 (D) $\frac{1}{2}$
35. A batsman scores 80 runs in his 6th inning and thus increases his average by 5. What is his average after 6th inning?
- (A) 66 (B) 55
(C) 56 (D) 65

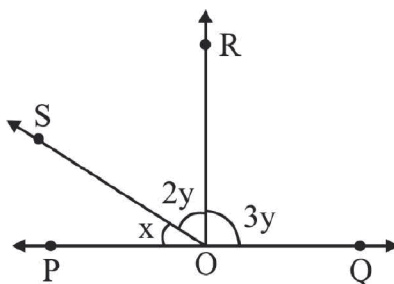
43. In the given figure, if $\angle R = 43^\circ$, $\angle RST = 94^\circ$ and $\angle T = 32^\circ$, find $\angle P$:

- (A) 21°
- (B) 62°
- (C) 51°
- (D) 19°



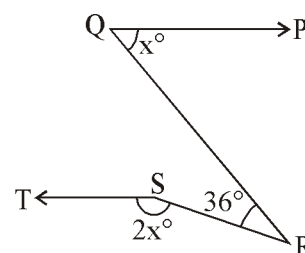
44. In the given figure, $\angle POQ$ is a line. If $x = 30^\circ$, then $\angle QOR$ is :

- (A) 90°
- (B) 30°
- (C) 150°
- (D) 60°



45. $QP \parallel TS$ and $\angle QRS = 36^\circ$, then value of $\angle PQR$ is :

- (A) 48°
- (B) 52°
- (C) 72°
- (D) 50°

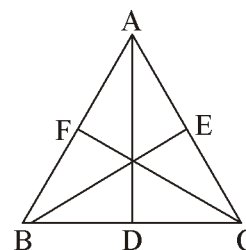


46. The three angles of a triangle are $(3y)^\circ$, $(2y + 60)^\circ$ and $(5y - 40)^\circ$. Find the value of y :

- (A) 13
- (B) 15
- (C) 16
- (D) 17

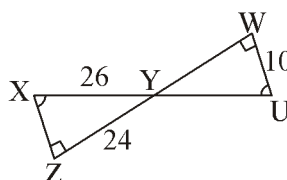
47. Perimeter of a triangle is :

- (A) Less than sum of its three medians
- (B) Greater than sum of its three medians
- (C) Equal to sum of its three medians
- (D) None of these

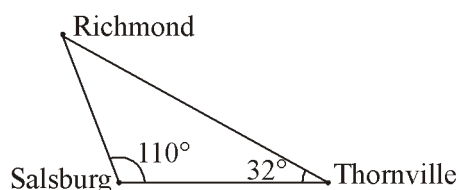


48. Find the measure of \overline{UY} if $\triangle XYZ \cong \triangle UYW$:

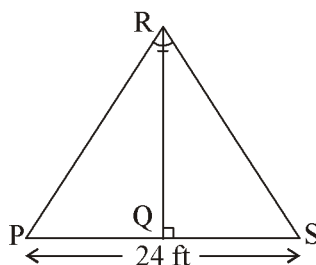
- (A) 10
- (B) 20
- (C) 24
- (D) 26



49. Refer to the figure shown. Bob lives in Salsburg, does his grocery shopping in Richmond, and sees a doctor in Thornville, what is the measure of the angle formed when Bob travels from Salsburg to Richmond and then to Thornville?



- (A) 28° (B) 48°
(C) 38° (D) 180°
50. Guy wires create two congruent triangles ΔPQR and ΔSQR . Find the length of \overline{QS} :




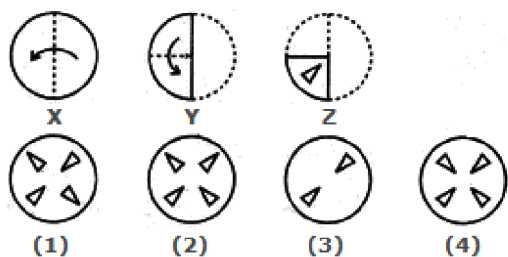
- (A) 12 ft
(B) 24 ft
(C) 48 ft
(D) 65 ft

PART V : LOGICAL REASONING & IQ

This section contains 10 Multiple Choice Questions. Each question has four choices (A), (B), (C) and (D) out of which ONLY ONE is correct.

51. Find the missing number :
3, 6, 18, 72, ?
(A) 300 (B) 360
(C) 216 (D) 288
52. Find the next term :
BG, EJ, HM, KP,
(A) NS (B) NM
(C) LO (D) MN

53. Rahul ranked 15th from the top and 31th from the bottom in a class. How many students are there in the class?
 (A) 45 (B) 47
 (C) 48 (D) 46
54. Sunil ranked 9th from the left in a class of 30 students. What is the rank of sunil from right ?
 (A) 23th (B) 22th
 (C) 20th (D) 24th
55. A watch reads 5 : 45. If the minute-hand point to South, in which direction does the hour-hand point?
 (A) South-West (B) North-East
 (C) West (D) South
56. If – means \div , + means \times , \div means – and \times means +, the $52 \div 4 + 5 \times 8 - 2 = ?$
 (A) 46 (B) 30
 (C) 36 (D) 42
57. If P means +, Q means –, R means \times , and S means \div , then which of following equations is correct ?
 (A) $16 R 12 Q 6 S 2 P 17 = 206$ (B) $16 P 12 Q 6 R 2 S 17 = 300$
 (C) $16 Q 12 P 6 R 2 S 17 = 279$ (D) $16 S 12 Q 6 R 2 P 17 = 315$
58. Find the mirror image :
 MONSTER 
 (A) MON2TERЯ (B) ЯET2NOM
 (C) ЯETSNOМ (D) MON2TER
59. Find the water image -
 BETWEEN
 (A) BETWEEN (B) NEEWTEB
 (C) BELMEEИ (D) BELMEEИ
60. Choose a figure which most closely resemble the unfolded from of figure (Z).



- (A) 1 (B) 2
 (C) 3 (D) 4