

MULTIPLE CHOICE QUESTIONS

1. The number 27 is divisible by
(a) 5 (b) 2 (c) 3 (d) 7
2. Shashi invested Rs. 5000 in a bank for 1 year at end of 1 year she receives Rs. 6000 as the amount. What is the interest she received ?
(a) Rs. 500 (b) Rs. 6000 (c) Rs. 1000 (d) Rs. 500
3. The formula of volume of cuboid is:-
(a) $L \times L \times L$ (b) $L \times B \times H$ (c) $L + B + H$ (d) $L \times B \times B$
4. The marked price of a book is ₹ 100. The shopkeeper gave 25% discount on it. Then, the sale price of the book is
(a) ₹ 100 (b) ₹ 25 (c) ₹ 125 (d) ₹ 75
5. Number of terms in the expression $5 - 3xy$ has
(a) 1 (b) 2 (c) 3 (d) 4
6. The common factor of $14ab$ and $35a$ is
(a) $7a$ (b) $35ab$ (c) $14ab$ (d) a
7. A point whose y-coordinate is zero and x-coordinate is 5 will lie on
(a) y-axis (b) x-axis (c) origin (d) None of these

Two Marker Questions

8. Find the value of $(216)^2$
9. Write the degree of the polynomial, $p^2(1 + p + p^2 + p^3)$
10. Find the value of y , if $(100)^2 \times (10)^5 = (1000)^y$
11. Find the value of $\{(4)^{-1} - (2)^{-1}\} \times 3^{-1}$
12. Using factor method, divide the polynomial $(z^2 + 11z + 24)$ by $(z + 3)$

13. If Santosh borrowed Rs. 7000 from the bank at 7% interest for 3 years, find the simple interest and the amount she had to pay.
14. Find the compound interest on Rs.1000 at 10% p.a. for 2 years, compounded annually.
15. In a motor factory, five varieties of vehicles were manufactured in one year whose break up is given below:-

Motorbikes	Cars	Pick-up	Vans	Mini Trucks
900	600	1200	500	400

Represent this data as a pie chart.

16. Find the value of y , if $(100)^2 \times (10)^5 = (1000)^y$
17. A machine in a soft drink factory fills 840 bottles in six hours. How many bottles will it fill in five hours?
18. Factorize: $15pq + 15 + 9q + 25p$
19. If $31z5$ is a multiple of 9, where 'z' is a digit, what is the value of z?
20. Using Euler's formula, find the number of edges in a polyhedron if the number of faces is 20 and the number of vertices is 12.

Three Marker Questions

21. Draw a pie chart showing the following information. The table shows the colours preferred by a group of people.

COLOURS	NUMBER OF PEOPLE
Blue	18
Green	9
Red	6
Yellow	3
TOTAL	36

22. Find:

(a) Add: $2x(z-x-y)$ and $2y(z-y-x)$

(b) Subtract: $3l(l-4m+5n)$ from $4l(10n-3m+2l)$

23. If a box of sweets is divided among 24 children, they will get 5 sweets each. How many would each get, if the number of the children is reduced by 4?

24. Divide:

(i) $9x^2y(3z-24) \div 27xy(z-8)$

(ii) $(y^2 + 7y + 10) \div (y + 5)$

25. Find the values of the letters A, B and C and give reasons for the steps involved.

$$\begin{array}{r} 4A \\ + \underline{98} \\ \hline \underline{CB3} \end{array}$$

26. A road roller takes 750 complete revolutions to move over to level a road. Find the area of the road if the diameter of a road roller is 84 cm and length is 1 m.

27. Which of these number are divisible by 2, 3 and 5? Give reason also.

(i) 918

(ii) 108

OR

Which of these number are divisible by 9 and 10 ? Give reason also.

(i) 270

(ii) 600

28. A sum of money invested at compound interest of 8% p.a. compounded annually, amounted to Rs.7290 in 2 years, find the sum invested.

29. Weight of 20 students in a class in kilograms.

40, 41, 43, 48, 49, 50, 54, 52, 54, 50, 53, 42, 48, 50, 48, 52, 53, 51, 52, 50
Group the given data and represent it as a bar graph.

30. Find the cost of painting a tank of dimensions $3m \times 2m \times 1.5m$ at Rs. 20 per square metre.

OR

A rectangular tank's capacity is 189 kilolitres. It is 7m long and 4.5m high. Find its breadth.

Four Marker Questions

31. In how many years will a sum of Rs. 6400 compounded semi-annually at 5% p.a amount to Rs. 6560 ?

32. The population of a town increases at the rate of 7% every year. If the present population is 90000, what will it be after 2 years ?

33. If x varies directly as y and $x=7$ when $y=28$, find x , when y is 84.

34. Draw a histogram to represent the following data :

Years	Exports in crores of Rs
1997-1998	6
1998-1999	8
1999-2000	10
2000-2001	5

35. A pillar in the shape of a cylinder has 21cm radius and 3m height. Find the curved surface area and the volume of the pillar.

36. The floor of a building consists of 3000 tiles which are rhombus shaped and each of its diagonals are 45 cm and 30 cm in length. Find the total cost of polishing the floor, if the cost per m is ₹ 4.

37. Draw the graph for the following table of values, with suitable scales on the axes.
Distance travelled by a car

Time (in hours)	6 a.m.	7 a.m.	8 a.m.	9 a.m.
Distance (in KM)	40	80	120	160

38. How much distance did the car cover during the period 7.30 a.m. to 8 a.m.? What was the time when the car had covered a distance of 100 Km since its start?

39. A VCR and TV were bought for ₹ 8000 each. The shopkeeper made a loss of 4% on the VCR and a profit of 8% on the TV. Find the gain or loss percent on the whole transaction.

OR

Fabina borrows ₹ 12500 at 12% per annum for 3 years at simple interest and Radha borrows the same amount for the same period at 10 % per annum, compounded annually. Who pays more interest and by how much?

40. The difference between S.I. and C.I. on a certain sum of money for 2 years at 4% p.a. is ₹ 20. Find the sum.

OR

The simple interest on a certain sum of money for three years at the rate of 5% p.a. is ₹ 600. What will be the compound interest on that sum at the same rate and for the same time period, if the interest is compounded annually.