

SAINIK SCHOOL BIJAPUR**SET - 1**CLASS: VIII
DATE: 21 Jan 2022**PERIODIC TEST - 3**MARKS : 50
TIME: 1 ½ Hrs.**MATHEMATICS****General Instructions:**

1. All questions are compulsory.
2. Write the same numbers as mentioned in the question paper.
3. Use of calculator is not permitted.
4. Question paper is divided into **four sections**. Section A consist of 20 questions of 1 mark each, Section B consists of 5 questions of 2 marks each, Section C consists of 4 questions of 3 marks each and Section D consists of 2 questions of 4 marks each.
5. Scan the answer sheet aligning it straight and make it a single pdf file and send mail to maths8abc2122@gmail.com
6. Roll Number to be written on each page.

SECTION - A

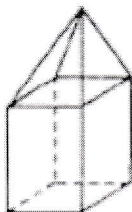
- 1 Evaluate the exponential expression $(-n)^4 \times (-n)^2$, for $n = 5$
a) 25 b) 15625 c) 3125 d) 625
- 2 The multiplicative inverse of 2^{-3} is
a) 2 b) 3 c) 3 d) 2^3
- 3 If the cost of 27 bags of paddy is Rs.9450, what is the cost of 36 bags of paddy?
a) Rs.12000 b) Rs.12600 c) Rs.16200 d) Rs.10620
- 4 Which of the following is ease of direct variation;
a) If the length of radius is increased the circumference will be increased
b) If number of students in a hostel are increased then the fixed food provision will last for less days
c) For fixed duration, more the periods, lesser will be the duration of one period
d) In case of a cylindrical vessel, lesser the diameter more is the level of water in it.
- 5 The top-view of a cuboid looks like a:
a) Circle b) Square c) Rectangle d) Triangle
- 6 6 pipes are required to fill a tank in 1 hour 20 minutes. How long will it take if only 5 pipes of the same type are used?
a) 56 minutes b) 72 minutes c) 96 minutes d) 80 minutes
- 7 What do you call solid figures with line segments as their edges?
a) Polygons b) Squares c) Cylinders d) Polyhedrons
- 8 The total surface area of a cylinder of base radius r and height h is
a) $2\pi r(r + h)$ b) $\pi r(r + h)$ c) $2\pi rh$ d) $2\pi r^2$.
- 9 A journey by bus takes 45 minutes at 40 km/hour. How fast must a car go to undertake the same journey in 25 minutes?

- a) 36 km/h b) 48 km/h c) 72 km/h d) None of these
- 10 Find the total surface area of a cube whose volume is 343 cm^3 .
a) 350 cm^2 b) 294 cm^2 c) 494 cm^2 d) 200 cm^2
- 11 The area of a rhombus is 60 cm^2 and one diagonal is 10 cm. The other diagonal is
a) 6 cm b) 12 cm c) 3 cm d) 24 cm
- 12 If the number 1×8 is divisible by 3 then X is equal to
a) 4 b) 5 c) 7 d) 6
- 13 The number $100 \times b + 10 \times c + a$ in usual form is
a) bac b) bca c) cab d) cba.
- 14 If the number $9y7$ is a multiple of 3 then $y =$
a) 4 b) 3 c) 6 d) 2 or 5 or 8
- 15 The point $(-5, 2)$ is nearer to:
a) x-axis b) y-axis c) origin d) None of the above
- 16 By joining $(-3, 2)$, $(-3, -3)$ and $(-3, 4)$, which of the following is obtained?
a) a triangle
b) A straight line not passing through origin
c) A straight line passing through origin
d) none of these.
- 17 The points $(-3, 2)$ and $(2, -3)$ represent:
a) different points b) same point c) the origin d) none of these.
- 18 Which of the following is the once of a rhombus?
a) Product of its diagonals
b) half $\times$ (sum of its diagonals)
c) 2 (Product of its diagonals)
d) 2 (Product of its diagonals)
- 19 If the edge of a cube is 1 cm then which of the following is its volume?
a) 6 m^3 b) 3 m^3 c) 1 m^3 (iv) none of these
- 20 If the parallel sides of a parallelogram are 2 cm apart and their sum is 10 cm then its area is:
a) 20 cm^2 b) 5 cm^2 c) 10 cm^2 d) none of these

SECTION-B

- 21 Solve the following: $(81)^{-4} \div (729)^{2-x} = 9^{4x}$
- 22 A loaded truck travels 168 km in 5 hours. How far can it travel in 25 minutes?

- 23 A school has 9 periods a day each of 40 minutes duration. How long would each period be, if the school has 8 periods a day, assuming the number of school-hours to be the same?
- 24 A car takes 1.5 hours to reach a destination by travelling at the speed of 80 km/h. How long will it take when the car travels at the speed of 60 km/hr?
- 25 Verify Euler's formula in the given solid



SECTION-C

- 26 Find the value of $\left\{(216)^{\frac{2}{3}}\right\}^{\frac{1}{2}}$
- 27 A godown in the form of a cuboid measures (60m x 40m x 30m). how many cuboidal boxes can be stored in it if the volume of one box is 0.8 m^3 .
- 28 Draw a 'deposit-interest' graph for the following data:
- | | | | | | |
|------------------------------------|------|------|------|------|------|
| Deposit (in Rs) | 5000 | 6000 | 7000 | 8000 | 9000 |
| Simple interest (in Rs) for 1 Year | 400 | 480 | 560 | 640 | 720 |
- From the graph, find the interest on Rs 7500 for 1 year.

- 29 Using Euler's formula find the unknown.

	(i)	(ii)	(iii)
Forces	?	5	20
Vertices	6	?	12
Edges	12	9	?

SECTION-D

- 30 The area of a quadrilateral shaped field is 252 m^2 . The perpendiculars dropped on it from the opposite corners on a diagonal are 8 m and 13 m. Find the length of a diagonal.
- 31 In a cylindrical dome there are 16 pillars. The radius of each pillar is 35 cm and height is 7 m. Find the total cost of painting the curved surface area of all pillars at the rate of Rs. 8.50 per m^2 .