

St. Xavier's Sr. Sec. School Delhi-54

Summative Assessment II MATHEMATICS – Std. 8

M. Marks : 90	
Time: 3 hrs.	

Total printed pages :	02
Total printed questions :	31

3-3-2017

Roll No:

General Instructions:

- 1. All questions are compulsory.
- 2 This question paper consists of 31 questions divided into four sections A, B, C and D.
- 3. Section A comprises of 4 sections of 1 mark each, section B comprises of 6 questions of 2 marks each, section C comprises of 10 questions of 3 marks each and section D comprises of 11 questions of 4 marks each.

Section – A

- 1. Find the volume of a cube with side 9 cm.
- 2. What is the upper limit of the class interval 150 225?
- 3. Factorise: 7x 49
- 4. Find the area of a rhombus whose diagonals are 10cm and 12cm.

Section – B

 $(2 \times 6 = 12 \text{ marks})$

 $(1 \times 4 = 4 \text{ marks})$

- 5. Verify Euler's formula for a cube.
- Without plotting points determine in which quadrant the following points lie.
 a) (3, 4)
 b) (-2, -3)

c) (-3, 5)

- 7. Solve: $\frac{3y-4}{2y+1} = \frac{2}{5}$
- 8. Two coins are tossed simultaneously, what are the possible outcomes? Find the probability to get one head and one tail.

d)

(5, -3)

- 9. Factorise: $25p^2 49q^2$
- 10. The price of 1kg tomato increased from Rs. 10 to Rs. 16. Find the increase percentage.



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Section – C

 $(3 \times 10 = 30 \text{ marks})$

- 11. A road roller takes 700 complete revolutions to level a playground. If the diameter of the roller is 84cm and its length is 1m, find the area of the play ground. 12.
 - A dice is thrown once. Find the probability to get
 - an odd number a multiple of 2 a) b)
 - c) a prime number
- If 12 people can do a work in 12 hours, how long will it take for only 8 people to do the same? 13.
- 14. A rectangular piece of paper 11cm × 4cm folded without overlapping to make a cylinder of height 4cm. Find the volume of the cylinder.
- Simplify : $(x^2 + 9x + 20) \div (x + 5)$ 15.
- 16. Anu paid Rs. 55000 for a TV including sales tax of 10%. Find the list price of the TV.
- Solve: $\frac{k-5}{4} \frac{k-3}{2} = -3$ 17.
- 18. Name the graph that is used to
 - Compare parts of a whole a)
 - b) Show comparison of among categories
 - c) Represent data that changes continuously over a period of time
- 19. Find the compound interest on Rs. 12600 for 2 years at 10% per annum compounded annually.
- $(2x + 5)^2 (2x 5)^2$ b) $(ab + bc)^2 - 2ab^2c$ a) 20. Simplify:
 - Section D

 $(4 \times 11 = 44 \text{ marks})$

- 21. Show that :
 - (a+b)(a-b) + (b-c)(b+c) + (c-a)(c+a) = 0a)
 - $(5a + 4b)^2 80ab = (5a 4b)^2$ b)
- 22. The cost of a scooter is Rs. 60000. Its price is depreciating at the rate of 10% per annum. What will be its price after two years?



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23. The following table gives choice of food for a group of people. Represent it using a pie chart.

FOOD	NO. OF PEOPLE		
North Indian	30		
South Indian	40		
Chinese	20		
Continental	20		
Others	10		
Total	120		

- 24. The length, breadth and height of a room are 15m, 12m and 10m. Fid the cost of painting its four walls and ceiling at the rate of Rs. $40/m^2$.
- 25. The following table gives daily wages of some workers in a factory:

WAGES (Rs.)	NO. OF WORKERS
200 – 300	4
300 – 400	8
400 – 500	14
500 - 600	6
600 - 700	3

Draw a histogram to represent it.

- 26. A train is moving at a uniform speed of 75km/hr.
 - a) How far will it travel in 20 minutes?
 - b) Find the time required to travel a distance of 250km.
- 27. Factorise : a) $m^2 256$ b) $y^2 4y 12$
- 28. Calculate the amount and CI on Rs. 62500 for 1½ years at 8% per annum compounded half yearly.
- 29. A godown is in the form of a cuboid of measure $60m \times 40m \times 30m$. How many cubical boxes of side 2m can be stored in it?
- 30. Evaluate using identities:
 - a) (998)² b) 303 x 298
- 31. The following table gives the principal amount and the interest on it for one year. Draw a graph to represent it. From the graph find the interest on Rs. 6000.

PRINCIPAL (Rs)	1000	2000	4000	7000	8000
INTEREST (Rs.)	80	160	320	560	640

-X-X-X-X-X-X-