

**INTERNATIONAL INDIAN SCHOOL DAMMAM  
SUMMATIVE ASSESSMENT II – (MARCH 2016)**

SUBJECT: MATHEMATICS

TIME: 3 HOURS

CLASS: VIII

MAX. MARKS: 90

**SET B**

**Instructions:**

- I. All questions are compulsory.
- II. The question paper consists of 34 questions divided into 4 sections, section A, section B, section C and section D.
- III. Section A consists of 8 questions of 1 mark each, Section B consists of 6 questions of 2 marks each, Section C consists of 10 questions of 3 marks each and Section D consists of 10 questions of 4 marks each.
- IV. There is no overall choice. However internal choice has been given in one question each in Section B, Section C and Sections D.

**SECTION – A (1 X 8 = 8)**

1. Sum of two numbers is 60 and their ratio is 7:8. Find the numbers.
2. An item marked at ₹ 200 is sold at ₹ 160. What is discount percent given?
3. Area of trapezium is  $54 \text{ cm}^2$ . If parallel sides are 8cm and 7 cm long find the distance between them.
4. Solve :-  $(9x^2 - 6x) \div 3x$  .
5. Find the edge of the cube whose total surface area is  $24 \text{ cm}^2$
6. Find the probability of getting an even number when a die is thrown.
7. Express 0.000675 in standard form.
8. Identify the type of algebraic expression:-  
(a)  $3x+2y$   
(b)  $4p^2+5q-17$

**SECTION – B (2 X 6 = 12)**

9. Find x so that  $4^3 \times 4^{-6} = 4^{2x-1}$
10. Simplify:-  $(x^2 - 5)(x + 5) + 25$  .
11. Plot the following points on the same graph sheet. A(2 , 0) , B(2 , 4) . C(5 , 4).  
Name the type of figure formed by joining these points.

12. Simplify and write answer in positive exponential form  $(7^5 \div 7^8)^5 \times 7^{-5}$

13. Factorise:-

$$m^2 + mn + 8m + 8n$$

**OR**

$$63a^2 - 112b^2$$

14. The grouped frequency distribution table given below is daily earnings of 40 daily wage workers.

Daily earnings in Rs.	150 – 200	200 – 250	250 – 300	300 – 350	350 - 400
No. of workers	4	12	15	7	2

- How many workers get daily wages more than ₹ 300?
- If a person getting wages less than 200 daily is considered to be in poor class, then how many workers are in poor class.
- Write lower class limit of the class in which maximum workers are there.

**SECTION – C (3 X 10 = 30)**

- Raghav is 4 times as old as his son, Vikram. After 5 years Raghav will be thrice as old as his son then. What are their present ages?
- The floor of a hall has 3000 rhombus shaped tiles whose diagonals are 45 cm and 30 cm in length. Find the total cost of polishing the floor if cost is ₹ 4 per m<sup>2</sup>.

**OR**

Find the volume of a cube whose total surface area is 384 cm<sup>2</sup>.

17. Factorise :-

$$3m^2 + 9m + 6$$

18. Show that  $(9x - 5y)^2 + 180xy = (9x + 5y)^2$ .

19. Draw histogram for the table given below. And answer the following question.

Height in cm	125-130	130-135	135-140	140-145	145-150	150-155
Number of girls	1	2	3	7	4	2

i) Which group contains maximum girls?

20. Simplify:-

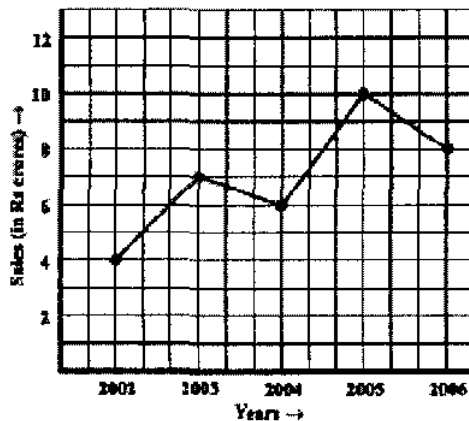
$$\frac{2^{-5} \times 6^{-3} \times 36}{3^{-4} \times 12^{-3}}$$

21. A seller 'P' offered a 20 % discount on clothes marked at ₹ 700. Another seller 'Q' offered 5 % discount on the same thing marked at ₹ 600. Which offer is better?

22. Divide:-  $x(5x^2 - 80)$  by  $5x(x + 4)$  .

23. Simplify:-  $3y(2y - 7) - 3(y - 4) - 63$  and find its value for  $y = -2$ .

24. The following line graph shows yearly sales figure for a manufacturing company.



- What were the sales in 2002 and 2006?
- Find the difference between the sales in 2003 and 2005.
- In which year was there the biggest difference between the sales as compared to its previous year?

#### SECTION – D (4 X 10 = 40)

- A shopkeeper sold two mixer grinders at ₹4950 each. He sold one at a profit of 10% and the other at a loss of 10%. Find the overall profit or loss percentage in the whole transaction.
- An oil tank in form of cylinder whose radius is 1.4 m and length is 10 m. find the capacity of the tank in litres.
  - Find height of cylinder whose radius is 7 cm and TSA is  $968 \text{ cm}^2$ .
- The sum of digits of the two digit number is 12. If the number formed by reversing the digit is greater than original number by 18. Find the original number.

28. Factorise :-

a)  $(x^2 - 2xy + y^2) - z^2$

b)  $14x^2yz - 21xy^2z + 28xyz^2$

29. Solve :-

$$\frac{3x-1}{4} - \frac{x-4}{3} = \frac{2}{3}$$

OR

The numerator of fraction is 3 less than denominator. If 2 is added to the numerator and 4 is added to the denominator, the resulting fraction becomes  $\frac{2}{3}$ . Find the fraction.

30. The population of a place increased to 54000 in 2013 at the rate of 5% per annum.

i) Find the population in 2011.

ii) What would be the population in 2015?

31. Draw a Pie chart to represent the following data

Expenditure head	Rent	Education	Entertainment	Food	Miscellaneous	Total
Amount (in ₹)	1200	900	600	700	200	3600

32. Draw a distance time graph for the following table. From the graph find (i) the time taken by it to cover distance of 75 km. (ii) the distance covered by it in  $3\frac{1}{2}$  hours.

Time (in hours)	1	2	3	4
Distance covered (in km)	30	60	90	120

33. Evaluate using suitable identity.

a.  $197 \times 203$

b.  $103 \times 98$

34. Avinash is painting the walls and ceiling of a cuboidal room with length, breadth and height of 20 m, 12 m and 10 m respectively. An area of  $80 \text{ m}^2$  is painted from each can of paint. How many cans of paint will be required to paint the room?

\*\*\*\*\*