

OFFICE  
5-03-2015

INTERNATIONAL INDIAN SCHOOL DAMMAM

SUMMATIVE ASSESSMENT- II(2014-2015)

Subject: Mathematics

Time: 3 Hours

Class : 8

Max.Marks: 90

Set -A

General Instructions:

- All questions are compulsory. However internal choice has been given for one in each section.
- The question paper consists of 34 questions divided into 4 sections.
- Section A contains 8 MCQ of 1 mark each, Section B contains 6 qns of 2 marks each, Section C contains 10 qns of 3 marks each and Section D contains 10 qns of 4 marks each.

Section - A (1×8=8m)

- If 2 quantities x and y are directly proportional then  
a)  $x/y$  remains constant b)  $x \times y$  remains constant c)  $x - y$  remains constant d) None
- The point of intersection of x-axis and y-axis in the coordinate plane have co-ordinates  
a) (0,1) b) (1,0) c) (0,0) d) (-1,0)
- The probability of getting an 8, when a die is thrown  
a)  $8/6$  b)  $1/6$  c)  $0/6$  d)  $6/6$
- The solution of the equation  $4x - 8 = 2x + 6$   
a) 2 b) -2 c) 14 d) 7
- If Ahmed has Rs 1200 after spending 75% of his money then how much amount he had in the beginning.  
a) Rs 1600 b) Rs 4800 c) Rs 2400 d) Rs 2000
- Volume of a rectangular box having length  $(2ay)$  breadth  $(3ay^2)$  and height  $(5a^2y)$  is  
a)  $30a^4y^4$  b)  $10a^3y^3$  c)  $30a^2y^2$  d)  $6ay$
- The common factors of  $3x^2y^3$ ,  $10x^3y^2$  and  $6x^2y^2z$   
a)  $2xyz$  b)  $x^2y^2$  c)  $10x^3y^3z$  d)  $3x^2y^2$
- $(3a^2+5ab-2a^2-7ab)$  is a  
a) monomial b) binomial c) trinomial d) None.

**Section-B(2×6=12m)**

9. A man takes 20 steps to cover a distance of 18m. How many steps will he need to take to cover a distance of 396m ?
10. Find area of rhombus whose diagonals are 8cm and 14cm long.

OR

Find the side of a cube whose total surface area is  $486\text{cm}^2$ .

11. Factorise :  $6xy-4y+6-9x$ .
12. The following table gives the grouped frequency distribution of the marks obtained by 60 students in mathematics test.

Marks	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50
No. of students	2	10	21	19	8

- (a) What is the size of class intervals ?
- (b) How many students got marks 30 and above ?
- (c) If students getting less than 20 failed, how many students failed ?
- (d) In the class interval 20 -30, what is the upper class limit and the lower class limit?
13. Plot the following points on a graph sheet. A ( 2,3 ) , B ( 3, 4 ) , C ( 4, 1 ) and D ( 3, 2 )
14. Simplify  $3x ( 4x - 5 ) + 3$  and find its value for  $x = 3$ .

**Section-C(3×10=30m)**

15. The sum of three consecutive multiples of 7 is 777. Find the three multiples.

OR

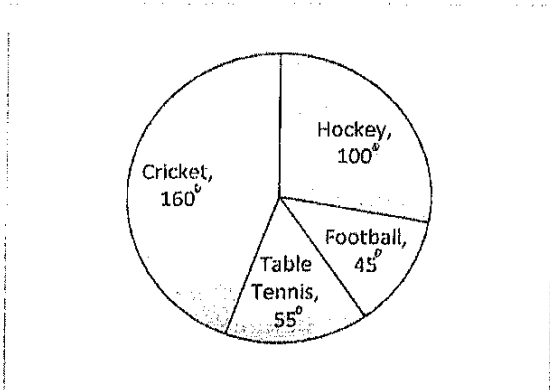
The ages of Ravi and Raj are in the ratio of 3:4. After 8 years their ages will be in the Ratio of 5:6. Find their present ages.

16. The marked price of an article is Rs 1300. If a discount of 15% is given find the discount and the selling price.
17. Show that  $(4pq + 3q)^2 - (4pq - 3q)^2 = 48pq^2$  using suitable identities.
18. A camp of 200 people has sufficient food for 15 days. Due to arrival of some new people , the food lasts for 12 days only. How many more people arrived?
19. Factorise the expression and divide  $4y(x^2 + 5x + 6) \div 2y(x+3)$
20. Area of a trapezium is  $400\text{m}^2$  . One of its parallel sides is 20m longer than the other and height is 10m. Find its two parallel sides.
21. A car is moving at a uniform speed of 54km per hour.
- a) How far will it travel in 20 minutes .
- b) Find the time required to cover a distance of 648 km?

22. Simplify  $(2a + b)(1 + 4a + 3b) - 6a(a + b)$

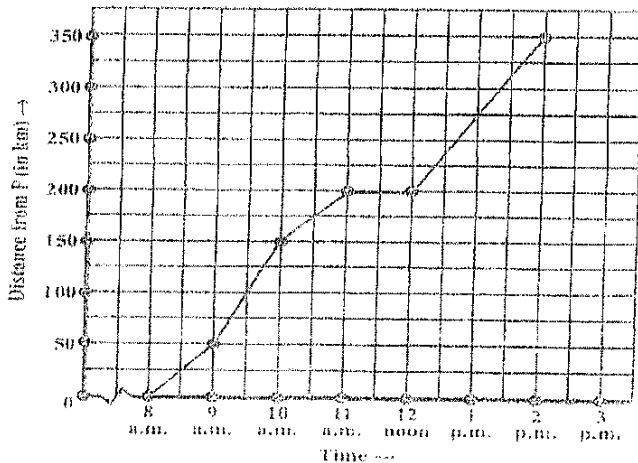
23. The given pie chart represents the money spent on different sports in a school and the central angle for each is given. If money spent on football is Rs 9000

- a) What is the total amount spent on sports ?
- b) What is the amount spent on **Cricket** and **Hockey**?



24. The given graph describes the distances of a car from city P at different times when it is travelling from city P to city Q, which is 350km apart. Study the graph and answer the following:

- a) When did the car begin its journey?
- b) How far did the car go during (i) first hour (ii) 2<sup>nd</sup> hour?
- c) Was the speed same during the first two hours?
- d) Did the car stop for some duration at any? If yes between what time?
- e) When did the car reach city Q ?



**SECTION-D(4×10=40m)**

25. The length, breadth and height of cuboidal room are 13m , 10m and 6m respectively.  
Find the cost of whitewashing all the 4 walls of the room and the ceiling at the rate of Rs 7 per m<sup>2</sup>.
26. Pradeep sold two items for Rs 9900 each. On one he gains 10% and on the other he loses 10%. Find his gain or loss percent in the whole transaction.
27. Evaluate using suitable identity.
- i)  $101^2 - 99^2$   
ii)  $96 \times 103$
28. Sum of the digits of a two digit number is 8. When we interchange the digits, it is found that the resulting new number is greater than the original number by 36. What is the original number ?
29. Fatima borrows Rs 12500 at the rate of 10% p.a for 3 years at simple interest and Hena borrows the same sum for the same time period at 10% p.a compounded annually. Who pays more interest and by how much.
30. Factorise a)  $x^4 - y^4$       b)  $9a^2 - 12ab + 4b^2$

OR

Factorise:  $x^4 - (x - z)^4$  completely.

31. Solve  $\frac{(x-1)}{4} - \frac{(2x-3)}{3} = \frac{-1}{12}$

32. a) A milk tank is in the shape of a cylinder of radius 1.5m and length 7m. Find the quantity of milk in litres , which can be stored in the tank.  
b) If edge of a cube is doubled, how many times will its volume increases.
33. The average of a car is 60km/hr. Draw a linear graph and find the time it takes to cover 270 km.

Time(in hours)	1	2	3	4	5
Distance covered (in kms)	60	120	180	240	300

34. Represent the following frequency distribution by means of a Histogram.

Marks	0 -20	20 -40	40 -60	60 -80	80 -100
No.of students	8	12	25	40	15