INTERNATIONAL INDIAN SCHOOL – DAMMAM
SUMMATIVE ASSESSMENT - I JUNE 2013

Subject: Mathematics  Max. Time : 3 hrs
Class : VIII          Max. Marks : 90

SET – B

Instructions:
(a) Answer all the questions
However, an internal choice is given in each section except Section-A.
(b) Section A: Questions 1 – 8 carry 1 mark each.
(c) Section B: Questions 9 – 14 carry 2 marks each.
(d) Section C: Questions 15 – 24 carry 3 marks each.
(e) Section D: Questions 25-34 carry 4 marks each

SECTION - A

1. What could be the possible unit digit of the square root of 7744
   (a) 1 or 9   (b) 2 or 8   (c) 3 or 7   (d) 3 or 7

2. The rational number that does not have a reciprocal.
   (a) 0       (b) -1       (c) 1       (d) -1,1.

3. The value of \((-3)^{-4}\) is
   (a) 81     (b) -81     (c) \(\frac{1}{81}\)   (d) \(-\frac{1}{81}\)

4. If PQRS is a parallelogram then \(<P - <R is
   (a) 90°     (b) 0°       (c) 180°     (d) 360°

5. The unit digit of the cube of the number 1128 is
   (a) 7     (b) 4       (c) 2       (d) 3

6. How many rational numbers are there between -1 and -2
   (a) 10     (b) 100     (c) 0       (d) infinite.

7. How many measurements can determine a quadrilateral uniquely
   (a) 4     (b) 5       (c) 8       (d) none

8. Volume of a cube with side 3m is
   (a) 9m^3    (b) 6m^3    (c) 8m^3    (d) 27m^3

SECTION B

9. Area of a square plot is 1089sqm. Find side of the square plot.
10. Find the value of ‘x’

\[ 5^{2x-3} \times 5^{-3} = 5^4. \]

11. Represent \( \frac{-7}{6} \) and \( \frac{5}{6} \) on the number line.

12. Find the measure of each exterior angle and measure of each interior angle of a regular polygon having 6 sides.

OR

Find the number of sides of a regular polygon, the sum of whose interior angles is 1440

13. (a) Express 0.00034 in standard form.

(b) Express 2.69x10^5 in usual form.

14. Find the multiplicative inverse of \( \frac{-2}{3} \times \frac{11}{7} \)

SECTION-C

(10x3=30 marks)

15. Two adjacent angles of a parallelogram are (3x-4)° and (3x+16)°. Find the value of ‘x’ and hence find the measure of each of its angles.

16. Raj made a cuboid of plasticine of 15cm, 30cm, 15cm. How many such cuboids will he need to form a cube?

17. Find the cube root of 15625 by Prime Factorization method.

18. Find the smallest square number which is divisible by each of the numbers 6, 9 & 15.

19. Construct a Rectangle whose adjacent sides are 4cm and 5.5cm.

20. A gardener has 1300 plants. He wants to plant them in such a way that the number of rows and the number of columns remain same. Find the minimum number of plants he needs more for this.

OR

Find the greatest 4-digit number which is a perfect square.
21. List 6 rational numbers between $\frac{-2}{3}$ & $\frac{-3}{5}$

22. Construct a Rhombus whose diagonals are 8cm & 6.4cm.

23. Simplify: $(5/8)^{-7} \times (8/5)^{-5}$

24. ABCD is a parallelogram. Find the value of ‘x’ and ‘y’.

\[ \begin{array}{c}
  \text{D} \quad x+y \quad 13 \\
  x \quad A \quad B \\
  \text{C} \end{array} \]

**SECTION-D**

(10x4=40 marks)

25. Find the least number that must be subtracted from 5607 so as to get a perfect square. Also find the square root of the perfect square.

26. Using appropriate properties find the value of

\[
\frac{1}{2} \times \frac{1}{4} + \frac{-7}{18} \times \frac{15}{7} - \frac{1}{4} \times \frac{1}{3}
\]

27. Simplify using laws of exponents.

\[
\frac{7^2 \times 6^3 \times 11^{-2}}{22^{-3} \times 21^{-3}}
\]

28. Find the smallest number by which 2352 must be multiplied so as to get a perfect square number. Also find square root of the new square number.

29. Is 1188 a perfect cube number. If not by which smallest natural number should 1188 be divided so that the quotient is a perfect cube number. Also find cube root of the new cube number.

30. The angles of a quadrilateral are in the ratio of 3:4:5:6. Find all the angles of the quadrilateral.

31. Construct quadrilateral ABCD where AB=5cm, BC=6.5cm, \(<A=80^\circ\>

\(<C=105^\circ, <D=75^\circ.\)
32. Construct a quadrilateral ‘PQRS’ where PQ=3cm, QR=5cm, QS=5cm, PS=4cm and SR=4cm. Write the steps of construction.

OR

Construct a quadrilateral ‘FAST’ where FA=AS=4cm, FT=5.5cm <F=90° and <A=105°. Write the steps of construction.

33. Simplify:

(a) \((3^{-6} \div 3^{-11}) \times 3^{-5}\)

(b) \((2^0 + 2^{-1}) \times 2^{3}\)

34. Find the measure of angle x in the following figure.