



DELHI PUBLIC SCHOOL, CHANDIGARH

Summative Assessment-II, Session 2012-13

Class : VIII, Subject : Maths (Sample Paper)

Time : 3 hours

MM : 90

General Instructions:

- 1) All questions are compulsory.
- 2) Section A carries 6 marks, one mark for each part.
- 3) Section B carries 10 marks, one mark for each part.
- 4) Section C carries 12 marks, two marks for each question.
- 5) Section D carries 32 marks, four marks for each question.
- 6) Section E carries 30 marks, five marks for each question.

Section A

Q.1 Choose the correct option for the following:

- a) Rectangular prism is also called ____
i) cube ii) cuboid iii) cone iv) none of these
- b) $20a^2 \div 5a^2$ is equal to
i) a^4 ii) $4a^4$ iii) $20a$ iv) none of these
- c) The value of $\left(\frac{1}{2}\right)^{-1} + \left(\frac{1}{3}\right)^{-1}$ is
i) $\frac{1}{2}$ ii) $\frac{1}{3}$ iii) 5 iv) $\frac{1}{5}$
- d) The ordinate of the point (-5, -4) is
i) 5 ii) -4 iii) 1 iv) none of these
- e) The curved surface area of a cuboid whose length, breadth and height are $2a$, $2b$ and $2c$ respectively is
i) $2(ab+bc+ca)$ ii) $4(ab+bc+ca)$
iii) $8(ab+bc+ca)$ iv) none of these
- f) Tetrahedron is also called ____
i) cuboid ii) cube
iii) triangular pyramid iv) none of these

Section B

Q.2 Fill in the blanks

- a) Each flat surface of a solid is called its edge. ____ (T/F)
- b) In the factorization of $a^2 - 1$, if one of the factor is $(a-1)$ then the other factor is ____.
- c) The curved surface area of the cylinder whose radius and height is 1 unit each is ____.
- d) The greatest common factor of a^2b^3 and a^3b^2 is ____.
- e) The area of a rhombus whose diagonals are 24 cm and 16 cm is ____.
- f) The number of faces of a hexagonal prism is ____.

- g) "Sleeping and working" is a case of _____ variation .
- h) The value of $\left(\frac{4}{5} \div \frac{6}{4}\right)^0$ is _____.
- i) A polyhedron has 28 faces and 15 vertices. It has _____ number of edges.
- j) Do the points (4, 3) and (3, 4) have the same location on the graph? _____
(Yes/No)

Section C

- Q.3 Add: $2p^2q^2 - 3pq + 4, 5 + 7pq - 3p^2q^2$ and $-8pq + 5p^2q^2 - 3$.
- Q.4 Factorise: $15xy - 6x + 5y - 2$.
- Q.5 Can a polyhedron have 15 faces, 18 edges and 12 vertices?
- Q.6 Find the area of a trapezium, if its parallel sides are 10cm and 7cm and the distance between them is 4 cm.
- Q.7 If the diameter of sun and moon are 28×10^9 and 2231×10^6 respectively. Write them in the standard form and compare them.
- Q.8 A loaded truck travels 14 Km in 25 min. If the speed remains the same, how far can it travel in 5 hours?

Section D

- Q.9 Simplify using suitable Identity: 92×88
- Q.10 Find the value of 'x' if, $50x = 53^2 - 37^2$
- Q.11 Factorise: $4x^2 - 8x + 4$
- Q.12 A Swimming pool is 40 m in length, 20 m in breadth and 5 m in depth. Find the cost of cementing its four walls and floor at the rate of ₹10 per metre square.
- Q.13 Find the ratio between the curved surface area and total surface area of cylinder, if its height and radius are 14 cm and 4.2 cm.
- Q.14 Find the value of 'x' for which $5^{2x} \div 5^{-3} = 5^5$
- Q.15 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?
- Q.16 A person has money to buy 25 cycles worth ₹500 each. How many cycles he will be able to buy, if each cycle is costing ₹125 more?

Section E

- Q.17 Factorise: $49 - x^2 - y^2 + 2xy$
- Q.18 a) Simplify using suitable identity 113×87
b) Evaluate using suitable identity: $(2x^2 + 3y^2)^2$
- Q.19 The length of the cold storage is thrice its breadth. Its height is 4m. The area of four walls (including doors) is 224 m^2 . Find its volume.
- Q.20 Draw the graph of $y = 2x + 3$
- Q.21 Simplify using laws of exponents:
 $(3^{-7} \div 3^{-10}) \times 3^{-5}$
- Q.22 1000 soldiers in a fort had enough food for 20 days. But some soldiers were transferred to another fort and the food lasted for 25 days. How many soldiers were transferred?