

KENDRIYA VIDYALAYA SANGHATHAN
BENGALURU REGION
SUMMATIVE ASSESSMENT -II (MARCH 2014)

Class: VII
SUB: MATHEMATICS

Time: $2\frac{1}{2}$ hrs
Max. Marks :60

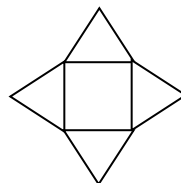
General Instructions

- 1) All questions are compulsory.
 - 2) This question paper consists of 26 questions divided into 4 sections A, B, C and D. Section- A comprises of 8 questions of 1 mark each, section – B comprises of 6 questions of 2 marks each, Section C comprises of 8 questions of 3 marks each and section D comprises of 4 questions of 4 marks each.
 - 3) Questions 1 to 8 are multiple choice questions you are to select the correct option out of the given four.
-

Section – A

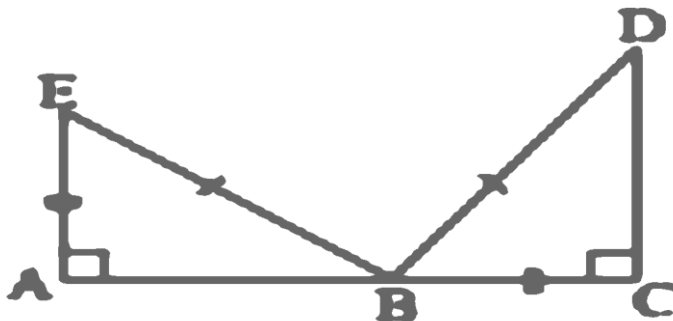
- 1) The sum of a rational number and its additive inverse is
a) 0 b) 1 c) (-1) d) none of these
- 2) The value of $1^0 + 2^0 + 3^0$ is
a) 0 b) 1 c) 3 d) 6
- 3) If $\Delta ABC \cong \Delta PQR$, then
a) $AB = QR$ b) $AB = PR$ c) $AB = PQ$ d) $AB = RP$
- 4) The ratio of 3km to 300m
a) 100: 1 b) 1 : 10 c) 10 :1 d) 1 : 100
- 5) The circumference of a circle of diameter d cm is
a) $2\pi d$ cm b) πd cm c) πr cm d) none of these
- 6) The number of lines of symmetry of an isosceles triangle is
a) 0 b) 1 c) 2 d) 3
- 7) Name the triangle which does not exhibit line of symmetry.
Equilateral triangle b) isosceles triangle c) scalene triangle d) right triangle
- 8) The given figure represents the net of

- (a) cylinder (b) cube (c) pyramid d) cuboid

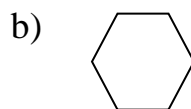
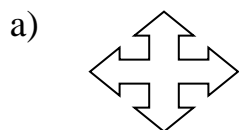


Section – B

- 9) The following triangles are congruent. State the three corresponding congruent parts and name the criterion used.



- 10) Represent $(-\frac{3}{4})$ on the number line.
- 11) Convert each part of the ratio 2:3 to percentage.
- 12) Express 1000 as a product of powers of prime factors.
- 13) Give the order and angle of rotational symmetry for the following figures.



- 14) Find the value of the expression $a^2 + ab + b^2$ when $a=3$ and $b=-2$.

Section – C

- 15) Rohit bought a car for Rs 3, 50, 000 /-. The next year, the price went upto Rs. 3,70, 000/- . What was the percentage of price increase?

- 16) Find.

$$-2\frac{1}{3} + 4\frac{3}{5}$$

- 17) From the sum of $3x - y + 11$ and $-y + 11$, subtract $3x - y - 11$.

- 18) Simplify the expression and find the value if x is equal to 2.

$$4(2x - 1) + 3x + 10$$

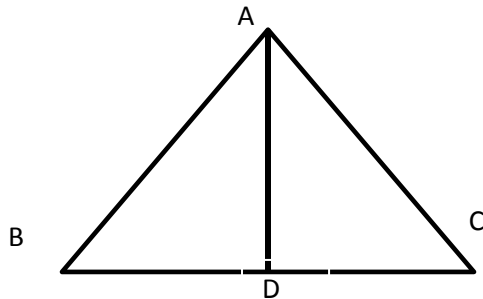
- 19) Simplify using the laws of exponents

$$\frac{3 \times 7^2 \times 11^8}{21 \times 11^3}$$

20) What cross-section do you get when you give a vertical cut to the following objects?

- (a) A round lemon (b) A dice (c) A cone ice-cream

21) In the given figure $AB=AC$ and D is the mid-point of BC .



(a) State the three pairs of congruent parts in $\triangle ADB$ and $\triangle ADC$

(b) Is $\triangle ADB \cong \triangle ADC$? Give reason.

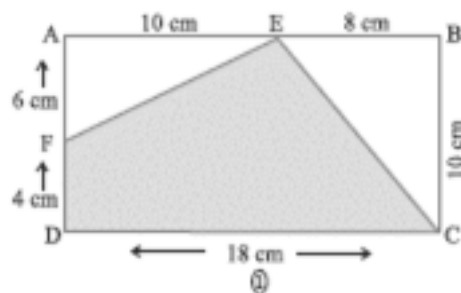
22) Diameter of a circular garden is 9.8 m. Find its area.

Section – D (4 x 4 = 16)

23) David borrowed Rs 9500 from a Bank. Find the amount to be paid by him at the end of 4 years at the rate of 7% annum simple interest.

24) A path 5m wide runs along inside a square park of side 100m. Find the area of the path. Also find the cost of cementing it at the rate of Rs .250 per $10m^2$.

25) Find the area of the shaded portion



26) Simplify and express in the exponential form:

a) $[(5^2)^3 \times 5^4] \div 5^7$ b) $\frac{2^8 \times a^5}{4^3 \times a^3}$
