

Atomic Energy Education Society
Annual Examination- 2019 – 20

Class: VIII

Time : 3 Hrs

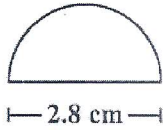
Subject : Mathematics

Marks : 80

General Instructions :

- i) All the questions are **compulsory**
- ii) The question paper consists of **30** questions divided into four sections A, B, C & D.
- iii) **Section A** consists of **6** questions of **1** mark each. **Section B** contains **6** questions of **2** marks each. **Section C** contains **10** questions of **3** marks each. **Section D** contains **8** questions of **4** marks each.
- iv) Use of **calculators** is **not** permitted.

SECTION - A

1. The HCF of $10xy$ and $5x^2$ is (1 mark)
(a) 5 (b) $5x$ (c) $5x^2$ (d) $5xy$
2. The perpendicular distance of the points A (0,3) and B (2,3) from y – axis are respectively ----- &-----(1M)
(a) 0 and 2 (b) 0 and 3 (c) 3 and 2 (d) 3 and 3
3. If a polyhedron has 8 faces and 12 edges then the number of vertices are (1 mark)
(a) 12 (b) 10 (c) 8 (d) 6
4. The perimeter of the following figure in which diameter of the semi circle is . (1 mark)
2.8 cm, -----.(Take $\pi = \frac{22}{7}$)

(a) 7.2 cm (b) 4.4 cm (c) 8.8 cm (d) 11.6 cm
5. The value of x , if $2^{x-3} = 1$ (1 mark)
(a) 1 (b) 2 (c) 3 (d) 0
6. If $5A$
 $\times A$
 $= 399$, then, the value of A is (1 mark)
(a) 3 (b) 7 (c) 9 (d) 5

SECTION - B

7. The marked price of a dress is Rs. 220. A discount of 20% is announced on sale. What is its selling price? (2 marks)
8. Simplify: $3x(x-4) - 4(x^2-5x) + x(x-8)$. (2 marks)
9. The area of a rhombus ABCD is 280 cm^2 . If AC is 20 cm, find the length of BD. (2 marks)
10. Factorize: $16x^4 - 81y^4$. (2 marks)
11. If $p = \left(\frac{4}{3}\right)^{-3} \times \left(\frac{3}{4}\right)^{-5}$ then find p^{-1} . (2 marks)
12. In the below table x and y vary directly. Find the values of a, b, c and d. (2 marks)

x	2	5	c	8	d
y	a	b	14	16	20

SECTION - C

13. In how many years will a sum of ₹ 2000 at 10% per annum compounded annually become ₹ 2662 ? (3 marks)
14. (a) Add : $ab - bc, bc - ca, ca - ab$ and subtract the sum so formed from $3abc$
(b) Subtract : $2x^2 - 3x - 4y^2 + 2$ from $4x^2 - 8x - 5y^2 - 5$ (3 marks)
15. A road roller has to make 1200 revolutions to level a stretch of a road. If the length of the roller is 1.2 m and the diameter of its circular face is 98 cm. Find the area of the road leveled. (Take $\pi = \frac{22}{7}$) (3 marks)
16. Write the coordinates of A,B,C,D,E and F from given graph. (3 marks)

