Swotters Academy

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Test / Exam Name: Ch5 - Square And Square Roots **Standard: 8th** **Subject: Mathematics**

Student Name: ..... **Section:** ..... **Roll No.:** .....

Questions: 26 | **Time: 01:45 hh:mm** | **Marks: 50**

Instructions

1. Rough work on the right side and new section from new page
2. New section on new page
3. Honesty is the best policy. Good Luck.

SECTION-A

Q1. Tick (✓) the correct answer of the following: **1 Mark**
Which of the following numbers is not a perfect square?
Hint: The number 1843 ends in 3.

A 1843 **B** 3721 **C** 1024 **D** 1296

Q2. The smallest number by which 54 should be multiplied so as to get a perfect square is: **1 Mark**

A 2 **B** 3 **C** 4 **D** 6

Q3. The value of $1+\sqrt{\frac{0.01}{1}}-\sqrt{0.01}$ is close to: **1 Mark**

A 0.6 **B** 1.7 **C** 1.1 **D** 1.6

Q4. Which of the following numbers would have digit 6 at unit place? **1 Mark**

A 19^2 **B** 25^2 **C** 28^2 **D** 26^2

Q5. Which of 1322, 872, 722 and 2092 would end with digit 1? **1 Mark**

A 1322 **B** 872 **C** 722 **D** 2092

Q6. The number of digits in the square root of 441 is: **1 Mark**

A 1 **B** 2 **C** 3 **D** 4

Q7. Express 121 as the sum of 11 odd numbers. **1 Mark**

Q8. A number having 7 at its ones place will have 3 at the ones place of its cube. **1 Mark**

Q9. The product of two perfect squares is a perfect square. **1 Mark**

Q10. Which of the following are squares of even numbers? **1 Mark**
900

Q11. Ones digit in the cube of 38 is _____. **1 Mark**

Q12. Fill in the blank: **1 Mark**
The square of an even number is _____.

Q13. There are _____ perfect squares between 1 and 100. **1 Mark**

SECTION-B

Q14. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **2 Marks**
Assertion (A): The number of zeroes in the square of the number 9000 is 6.
Reason (R): The number of zeroes at the end of the number obtained, by multiplying the number from 1 to 100 will be.

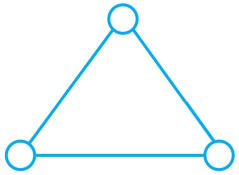
A Both A and R are true and R is the correct explanation of A. **B** Both A and R are true but R is not the correct explanation of A.
C A is true but R is false. **D** A is false but R is true.

Q15. Write a Pythagorean triplet whose one member is. **2 Marks**
18

Q16. Observe the following pattern, **2 Marks**
$1 + 3 = 2^2$
$1 + 3 + 5 = 3^2$
$1 + 3 + 5 + 7 = 4^2$
and write the value of $1 + 3 + 5 + 7 + 9 +$ ..... upto n terms.

Q17. Evaluate: **2 Marks**
$\sqrt{19600}$

Q18. Put three different numbers in the circles so that when you add the numbers at the end of each line you always get a perfect square. **2 Marks**



Q19. Which of the following triplets are pythagorean? **2 Marks**
(14, 35, 38)

Q20. Find the number of coins, 1.5cm in diameter and 0.2cm thick, to be melted to form a right circular cylinder with a height of 10cm and a diameter of 4.5cm. **3 Marks**

Q21. In a right triangle ABC, ÐB = 90°. **3 Marks**
If AB = 6 cm, BC = 8 cm, find AC

Q22. Evaluate: **3 Marks**
$\sqrt{4\frac{73}{324}}$

Q23. Simplify: **3 Marks**
$\frac{\sqrt{0.2304}+\sqrt{0.1764}}{\sqrt{0.2304}-\sqrt{0.1764}}$

SECTION-C

Q24. The area of a square field is 60025m^2. A man cycles along its boundary at 18km/hr. In how much time will he return at the starting point? **4 Marks**

Q25. Observe the following pattern, **4 Marks**
$(1\times 2)+(2\times 3)=\frac{2\times 3\times 4}{3}$
$(1\times 2)+(2\times 3)+(3\times 4)=\frac{3\times 4\times 5}{3}$
$(1\times 2)+(2\times 3)+(3\times 4)+(4\times 5)=\frac{4\times 5\times 6}{3}$
and find the value of,
$(1\times 2)+(2\times 3)+(3\times 4)+(4\times 5)$

Q26. A society collected Rs. 92.16. Each member collected as many paise as there were members. How many members were there and how much did each contribute? **5 Marks**