Q17. The value of $1.999\ldots$ in the form of p/q, where p and q are integers and $q \neq 0$ is :-

a. 2 b. 1 c. 8 d. 9

Q18. When we will subtract $(3\sqrt{2}+7\sqrt{3})$ from $(\sqrt{2}-5\sqrt{3})$, we get :-

a. $2\sqrt{2}-12\sqrt{3}$ b. $-2\sqrt{2}-12\sqrt{3}$ c. $2\sqrt{2}+12$ d. $\sqrt{2}+3$

Q19. On simplify, $(\sqrt{11}-\sqrt{5})^2$, we get :-

a. $16-2\sqrt{55}$ b. $16+2\sqrt{55}$ c. $16+\sqrt{55}$ d. $\sqrt{55}$

Q20. If $x=2\sqrt{3}+\sqrt{3}$ and $y=2\sqrt{5}-\sqrt{3}$, then x^2+y^2 is :-

a. 40 b. 20 c. 16 d. 46

Q21. Every rational no. is :-

a. Whole no. b. Natural no c. Integer d. Real no.

Q22. Which of the following is an irrational number :-

a. $\sqrt{16}$ b. $\sqrt{\frac{12}{3}}$ c. $\sqrt{12}$ d. $\sqrt{100}$

Q23. $\left(\frac{256}{81}\right)^{1/4}$ is equal to :-

a. $\frac{16}{3}$ b. $\frac{4}{3}$ c. $\frac{4}{9}$ d. $\frac{2}{3}$

Q24. The product of rational and irrational no. is always :-

a. Rational b. Irrational c. Integer d. Can be either rational or irrational

Q25. Which of the following is an irrational no :-

a. 3.14 b. 3.141414... c. 3.14444... d. 3.1411411411114...

Q26. The rationalisation factor of $\sqrt{3}$ is :-

a. $-\sqrt{3}$ b. $\frac{1}{\sqrt{3}}$ c. $2\sqrt{3}$ d. $-2\sqrt{3}$

Q27. Which of the decimal expansion represents the fraction $\frac{7}{8}$:-

a. 0.785 b. 0.875 c. 0.778 d. 0.58

Q28. The value of $[(10001)^2]^0$ is :-

a. 21 b. 10000001 c. 0 d. -1000

Q29. $\sqrt{3} \times 5$ is a/an _____ number :-

a. Rational b. Irrational c. Whole d. Natural

Q30. What is the value of $(2+\sqrt{3})(2-\sqrt{3})$:-

a. 1 b. 2 c. 3 d. 4

NOTE BOOK

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1. Decimal representation of a rational number can not be :-
a. Terminating b. Non-terminating c. Non-terminating repeating (d.) Non-terminating non repeating.

2. Which of the following is rational ?
a. $\sqrt{3}$ b. π c. $\frac{4}{0}$ (d) $\frac{0}{4}$

3. $5\sqrt{6} \times 5\sqrt{6}$ is equals to :-
a. $5\sqrt{36}$ b. $5\sqrt{6\times 0}$ c. $5\sqrt{6}$ d. $5\sqrt{12}$

4. If $\frac{\sqrt{3}-1}{\sqrt{3}+1} = a - b\sqrt{3}$ then :-
(a.) $a=2, b=1$ b. $a=2, b=-1$ c. $a=-2, b=1$ d. $a=b=1$

5. If $x = \sqrt{5}+2$ then $(x - \frac{1}{x})$ equals to :-
a. $2\sqrt{5}$ (b.) 4 c. 2 d. $\sqrt{5}$

6. The value of $64^{-\frac{1}{3}}(64^{\frac{1}{3}} - 64^{\frac{2}{3}})$ is :
a. 1 b. $\frac{1}{3}$ (c.) -3 d. -2

7. When simplified $(\frac{-1}{27})^{-\frac{2}{3}}$ is :-
(a.) 9 b. -9 c. $\frac{1}{9}$ d. $-\frac{1}{9}$

8. $\frac{1}{\sqrt{9}-\sqrt{8}}$ is equal to :-
(a.) $3+2\sqrt{2}$ b. $\frac{1}{3+2\sqrt{2}}$ c. $3-2\sqrt{2}$ d. $\frac{3}{2}-\sqrt{2}$

9. The simplest rationalising factor of $\sqrt{3}+\sqrt{5}$ is
a. $\sqrt{3}-5$ b. $3-\sqrt{5}$ (c.) $\sqrt{3}-\sqrt{5}$ (d.) $\sqrt{3}+\sqrt{5}$

10. The square root of 64 divided by cube root of 64 is :-
a. 64 (b.) 2 c. $\frac{1}{2}$ d. $64^{\frac{2}{3}}$

11. $\sqrt{10} \times \sqrt{15}$ is equals to :-
a. $6\sqrt{5}$ (b.) $5\sqrt{6}$ c. $\sqrt{25}$ d. $10\sqrt{5}$

12. After rationalising the denominator of $\frac{7}{3\sqrt{3}-2\sqrt{2}}$, we get :-
a. 13 (b.) 19 c. 5 d. 35

13. If $\sqrt{2} = 1.4142$, then the value of $\sqrt{\frac{\sqrt{2}-1}{\sqrt{2}+1}}$ is :-
a. 1.4142 b. 2.4142 (c.) 0.4142 d. 3.4142

14. Value of $\sqrt[4]{(81)^{-2}}$ is :-
(a.) $\frac{1}{9}$ b. $\frac{1}{3}$ c. 9 d. $\frac{1}{81}$

15. If $5^{x-3} = 125$, then the value of x is :
a. 3 b. 4 c. 5 (d.) 6

16. $\sqrt[4]{\sqrt[3]{x^2}}$ is equal to :-
a. $x^{\frac{1}{4}}$ b. $x^{\frac{1}{12}}$ (c.) $x^{\frac{1}{6}}$ d. $x^{\frac{1}{3}}$

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