Pabna Cadet College

Fortnightly Examination - 2021

Subject: Mathematics

Class: VII

Time: 3 hours Full Marks: 80

Answer all the questions

1. Square root of $\frac{196}{289}$

a. $\frac{14}{19}$
b. $\frac{17}{19}$
c. $\frac{14}{17}$
d. $\frac{13}{19}$

Answer: c. $\frac{14}{17}$

2. Which digits in the unit place do make numbers with 4 in unit place?

a. 2, 4
b. 6, 8
c. 4, 6
d. 2, 8

Answer: d. 2, 8

3. Which of the following is an irrational number?

a. $\sqrt{8}$
b. $\sqrt{9}$
c. $\frac{20}{7}$
d. $\sqrt{9}$

Answer: a. $\sqrt{8}$

4. Which number is the greatest?

a. 0.02
b. 0.02^2
c. $\sqrt{0.02}$
d. $\frac{2}{100}$

Answer: c. $\sqrt{0.02}$

5. $[2\{(1+1)-2\}] =?$

a. 2
b. 4
c. 0
d. -2

Answer: a. 2

6. $\frac{a^{-3}}{a} =?$

a. a^{-2}
b. a^{-4}
c. a^{-3}
d. a^2

Answer: b. a^{-4}

7. $x^7 \div x^{-2} =?$

a. x^5
b. x^9
c. x^{-14}
d. x^{-9}

Answer: b. x^9

8. If $x = 2 and y = 4, (p^x)^y =?$

a. p^6
b. p^2
c. p^8
d. p^4

Answer: c. p^8

9. What is the value of $x^3 + 2x^2$, if $x = 2$

a. 16
b. 10
c. 12
d. 8

Answer: a. 16

10. $x^1 + x^0 + x^{-1} =?$

a. $\frac{x^2+x}{x}$
b. $\frac{x^2+1}{x}$
c. $\frac{x^2+x+1}{x}$
d. $\frac{x+1}{x^2}$

Answer: c. $\frac{x^2+x+1}{x}$

11. $\frac{85x^3y^5}{17y^2} =$

a. $5xy^3$
b. $5x^3y^{10}$
c. $5xy^3$
d. $5(xy)^3$

Answer: d. $5(xy)^3$

12. The product of $7ab^3$ and $5a^4b^{-3}$

a. $35a^5$
b. $5a^5$
c. $35a^5b^{-9}$
d. $35a^5b^3$

Answer: a. $35a^5$

13. $m + n = 2$ and $m - n = 5$. What is the value of $m^2 - n^2$?

a. 10
b. -3
c. 3
d. 7

Answer: a. 10

14. The value of $(c+d)^2-(2c+2d)(c-d)+(c-d)^2=?$

a. $2c^2$
b. 0
c. $2d^2$
d. $\{2(c+d)\}^2$

Answer: b. 0

15. What is the value if ax^2+b is multiplied with ax^2-b

a. $a^4x^2+b^2$
b. $a^2x^4-b^4$
c. $a^2x^4+b^2$
d. $a^2x^4-b^2$

Answer:

16. What is the result of the product $(2g+f)(2g-f)((4g^2+f^2))$?

a. $16g^4-f^2$
b. $12g^2-f^4$
c. $16g^4-f^4$
d. $16g^2-f^4$

Answer: c. $16g^2-f^4$

17. If $m^2-2m=-1$, what is the value of $m^4+\frac{1}{m^4}$?

a. 2
b. 4
c. 5
d. 6

Answer: a. 2

18. Which of the following is not a part of a construction of a geometric proposition?

a. Data
b. Steps of Construction
c. General and Particular Enunciaton
d. Proof

Answer: c. General and Particular Enunciaton