BINOMIAL THEOREM

4

1m	2m	3m	4m	5m	6m	Total
–	–	–	1(U)	1(U)	–	–

4 MARK QUESTIONS

(Application)

1. Evaluate $(1.02)^6$ using Binomial theorem, upto 4 places of decimals.
2. Evaluate $(102)^6$ using Binomial theorem, upto 4 places of decimals.
3. Evaluate $(98)^4$ using Binomial theorem, upto 4 places of decimals.
4. Using binomial theorem find the value of $(1.01)^5$ correcte upto four decimal places.
5. Using binomial theorem find the value of $(99)^5$.
6. Find the value of $(0.99)^5$upto 4 places of decimal using binomial theorem.
7. Find the value of $(1.2)^5$ using Binomial theorem upto 4 places of decimals.
8. Evaluate $(1.01)^5$ using Binomial theorem, upto 4 places of decimals.
9. Evaluate $(99)^5$ using Binomial theorem, upto 4 places of decimals.

5 MARK QUESTIONS

(Understanding)

1. Simplify $\left(2+\sqrt{3}\right)^5+\left(2-\sqrt{3}\right)^5$
2. Simplify $\left(3+\sqrt{2}\right)^6-\left(3-\sqrt{2}\right)^6$
3. Simplify $\left(3+\sqrt{2}\right)^4+\left(3-\sqrt{2}\right)^4$
4. Simplify $\left(\sqrt{2}+1\right)^6-\left(\sqrt{2}-1\right)^6$
5. Find the middle terms in the expansion of $\left(2x^2-\frac{1}{\sqrt{x}}\right)^{11}$
6. Find the middle terms in the expansion of $\left(2x-\frac{1}{x}\right)^{17}$

7. Find the middle terms in the $\left(\frac{2x^2}{3}-\frac{3}{2x}\right)^{10}$.

8. Find the Coefficient of x^{-7} in $\left(\sqrt{x}-\frac{4}{x^3}\right)^{21}$

9. Find the Coefficient of x^8 in $\left(3x^2-\frac{1}{2x}\right)^{10}$

10. Find the Constant term in the expansion of $\left(2x^2-\frac{3}{x^3}\right)^{25}$

11. Find the middle term in the expansion of $\left(x-\frac{1}{2y}\right)^{10}$

12. Find the middle term in the expansion of $\left(\frac{2a}{3}-\frac{3}{2a}\right)^{6}$

13. Find the middle terms in the expansion of $\left(\frac{x}{2}+\frac{3}{x^2}\right)^{19}$

14. Find the coefficient of x^{-11} in $\left(\sqrt{x}-\frac{2}{x}\right)^{17}$

15. Find the coefficient of x^5 in $\left(x+\frac{1}{x^2}\right)^{17}$

16. Find the coefficient of x^{18} in $\left(x^2+\frac{3a}{x}\right)^{15}$

17. Find the term independent of x in $\left(\sqrt{x}+\frac{1}{3x^2}\right)^{10}$

18. Find the term independent of x in $\left(x^2-\frac{2}{x^3}\right)^{5}$

19. Find the term independent of x in $\left(\sqrt{x}-\frac{2}{x^2}\right)^{20}$

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