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Mathematics

- 1. Fractional part of the number - 6-3 is—
 - (A) 0·3 (B) 0·7
 - (C) -0.3 (D) -0.7
- 2. Correct statement for the fractions $\frac{161}{160}$, $\frac{3201}{3200}$ is— (A) $\frac{161}{160}$, $\frac{3201}{3200}$
 - (B) $\frac{161}{160} = \frac{3201}{3200}$
 - (C) $\frac{161}{160} < \frac{3201}{3200}$
 - (D) None of these
- 3. Additive inverse of $\frac{0}{x}$, where $x \neq 0$,
- 4. 25% of 25% is equal to-

		- 28 - 27	
(A)	5%	(B)	6.25%
(C)	6.5%	(D)	7.5%

5. Income of A is 30% more than the income of B then how much income of B is less than the 8. \neq 2,500 amounts to \neq 2,875 in 1 $\frac{1}{2}$

years with simple rate of interest, then the interest rate is— (A) 10% (B) 10.5%

- (C) 11% (D) 9.5%
- 9. If at the interest rate of 9% on a certain sum the interest for 8 years is ₹ 288 more than the interest for four years, then the sum is—
 - (A) ₹ 1,000
 (B) ₹ 800
 (C) ₹ 600
 (D) ₹ 780
- 10. For the same time and same annual rate the simple interest of ₹ x is ₹ y and simple interest of ₹ y is ₹ z, then which of the following statements is correct? (A) xyz = 1 (B) $z^2 = xy$

(C)
$$y^2 = zx$$
 (D) $x^2 = yz$

(A)	₹ 600	(B) さ 625
(C)	₹ 650	(D) ₹ 675

12. If the difference between simple interest and compound interest on a certain sum is ₹ 288 for 2 years at the rate of 12%, then the sum is—

ments are 10%, -5% and -10%, then the initial price of the laptop is-

- 100 100 100 (A) ₹ 18,810 × 110 × 105 ×110 100 100 100 (B) \neq 18,810 $\times \frac{100}{110} \times$ 95 90 110 95 90 (C) ₹ 18,810 × 100 × 100 × 100 (D) $\stackrel{\textbf{*}}{\textbf{*}}$ 18,810 $\times \frac{110}{100} \times \frac{105}{100} \times \frac{110}{100}$
- If 20% loss occurs on selling an article at ₹ 480, then in order to get 20% profit the selling price will be—
 - (A) ₹ 600
 (B) ₹ 660
 (C) ₹ 720
 (D) ₹ 740
- 17. On selling 30 articles a profit is equal to selling price of 5 articles then profit per cent is—

(A)	16-6%	(B)	25%
(C)	20%	(D)	22.75%

- Ramu purchased two fans at the cost of ₹ 400 each and sold one of them at 20% profit and other at 30% loss. Profit or loss percent is—
 - (A) 5% profit (B) 5% loss
 - (C) 10% profit (D) 10% loss
- A dealer marks the price of an article by 40% more than C. P. He allows 10% commission. His profit per cent is—

income of A ?

- (A) 30% (B) 25%(C) $23\frac{1}{13}\%$ (D) $33\frac{1}{3}\%$
- 6. The difference between 2% of 100 and 100% of 2 is—
 (A) 0 (B) 2
 (C) 100 (D) 2
- 7. By increasing the numerator by 350% and denominator by 300%, a fraction becomes $\frac{9}{22}$, then the original fraction was— (A) $\frac{3}{4}$ (B) $\frac{5}{12}$
 - (C) $\frac{7}{9}$ (D) $\frac{4}{11}$

- (A) ₹ 18,000
 (B) ₹ 19,000
 (C) ₹ 20,000
 (D) ₹ 22,000
- 13. If annual rate of compound interest is 10%, then equivalent interest rate for 2 years is—
 - (A) 20%
 (B) 20.4%
 (C) 20.8%
 (D) 21%
- If at 20% annual rate of interest on a certain sum the second year's compound interest is ₹ 120, then the sum is—
 - (A) ₹ 500
 (B) ₹ 400
 (C) ₹ 600
 (D) ₹ 540
- 15. The final price of a laptop is ₹ 18,810. If the rates of incre-

- (A) 26%
 (B) 30%
 (C) 36%
 (D) 40%
- 20. The base of an isosceles triangle is 12 cm. A lateral side exceeds the altitude by 2 cm. Area of the triangle is—
 - (A) 60 cm^2 (B) 36 cm^2 (C) 24 cm^2 (D) 48 cm^2
- 21. If the parallel sides of a trapezium are 10 cm and 12 cm long and the distance between them is 8 cm, then the area of the trapezium is—
 - (A) 48 cm^2 (B) 84 cm^2 (C) 86 cm^2 (D) 88 cm^2

- 22. If the perimeters of two concentric
- circles are 88 cm and 132 cm, then the area of the ring between them is—
 - (A) 335 cm² (B) 154 cm²
 - (C) 770 cm² (D) 616 cm²
- 23. If the area of a square is increased by 44%, then the increase in its each side is-
 - (A) 12%
 (B) 16%
 (C) 20%
 (D) 28%
- 24. If diameter of a cylinder is equal to its height, then its volume is-

(A)
$$\pi r^2 h$$
 (B) $\frac{\pi h^3}{4}$
(C) $\frac{1}{8}\pi r^2 h$ (D) $\frac{\pi^3 r}{16}$

- 25. If the length is increased by 10%, breadth is decreased by 20% and height is increased by 25% of a cuboid, then the per cent increase/decrease in its volume is—
 - (A) 10% increase
 - (B) 10% decrease
 - (C) 15% increase
 - (D) 15% decrease
- 26. After melting a sphere of diameter 6 cm, a wire of radius 1 mm is

32. A lady is a owner of $\frac{4}{5}$ part of a property. She equally distributes it into her three children. Part of each child is—

(A)
$$\frac{12}{27}$$
 (B) $\frac{1}{3}$
(C) $\frac{1}{15}$ (D) $\frac{4}{15}$

33. When a number is divided by 342 the remainder is 47, the same number is divided by 18 then the remainder is—

	(A)	11	(B) 17
	(C)	2	(D) 0
34.	Valu	le of	$(8+8+8) \div 8$ 6+6+6÷6 is
	(A)	17 13	(B) 1
	(C)	3 13	(D) 3 11

- 35. The square of an odd number greater than 1 is divided by 8, the remainder is—
 - (A) 0
 - (B) 1
 - (C) Odd number > 1
 - (D) 7
- 36. Vulgar fraction of 0-235 is-235 _____ 233

obtained on adding 4 to the numerator of the same fraction, then the fraction is—

 $\begin{array}{c} (A) & \frac{4}{9} & (B) & \frac{6}{15} \\ (C) & \frac{7}{18} & (D) & \frac{5}{12} \end{array} \end{array}$

General Knowledge

- 41. Who had assassinated the last Mauryan King Brihadrath?
 - (A) Kanishka
 - (B) Bhaskar Varman I
 - (C) Pushyamitra Sung
 - (D) Harshavardhan
- 42. Who was the first President of Indian National Congress ?
 - (A) Surendra Nath
 - (B) A. O. Hume
 - (C) W. C. Bannarji
 - (D) Badruddin Tayyabji
- 43. Who among the following was appointed as temporary President of Constituent Assembly on 9th December, 1946 ?
 - (A) Dr. Rajendra Prasad
 - (B) Sardar Patel

made up, then the length of the wire is—

- (A) 18 metre (B) 26 metre
- (C) 32 metre (D) 36 metre
- 27. If the radius of a cylinder is doubled and the height is halved, then the ratio between the new volume and the previous volume is—
 - (A) 4:1
 (B) 2:1
 (C) 1:4
 (D) 1:2
- 28. Value of 1993 × 1993 is-(A) 3772049 (B) 3972049
 - (C) 3972019 (D) 3772149
- 29. For 7¹⁰⁵, digit at unit's place is-
 - (A) 5 (B) 7 (C) 9 (D) 1
- 30. Value of 440 × (16 + 12) is—
 - (A) 11440(B) 170520(C) 12880(D) 12320
- 31. Value of 502 \times 503 \times 504 is—
 - (A) 127263024
 - (B) 172513024
 - (C) 127253024
 - (D) 127513024

(A)	1000	(B) 990
(C)	235	(D) 233
	999	(D) 1000

- 37. Non-terminating and non-repeating decimal numbers are called—
 - (A) Natural numbers
 - (B) Whole numbers
 - (C) Rational numbers
 - (D) Irrational numbers
- 38. Which of the following rational numbers is a non-terminating decimal ?

	2	3 1	24
	5 '	7 ' 10	' 25
(A)	2 5	((B) ³ ₇
(C)	1 10	((D) ²⁴ 25

- 39. The decimal form of 7/8 is—
 (A) 0.785 (B) 0.885
 (C) 0.875 (D) 0.857
- 40. If $\frac{1}{3}$ is obtained on adding 3 to the denominator of a fraction and $\frac{3}{4}$ is

- (C) Sachchidanand Sinha
- (D) J. L. Nehru
- 44. In which year Lucknow Pact was signed ?
 - (A) 1914(B) 1915(C) 1916(D) 1917
- 45. Who was the Chairman of Nehru Committee, 1928 ?
 - (A) Moti Lal Nehru
 - (B) Jawahar Lal Nehru
 - (C) Arun Nehru
 - (D) B. K. Nehru
- 46. Which of the following is not a Union Territory ?
 - (A) Chandigarh
 - (B) Lakshadweep
 - (C) Goa
 - (D) Andaman Nicobar Islands
- 47. Which place does not have a Nuclear Power Plant?
 - (A) Lucknow (B) Kakarapar
 - (C) Tarapur (D) Kalpakkam

- 48. In which year India became the 58. For which fields contribution
 - member of United Nations **Organisation**?
 - (A) 1944 (B) 1945 (C) 1946 (D) 1947
- 49. In which year Chhattisgarh separated from Madhya was Pradesh?
 - (A) 1998 (B) 1999
 - (D) 2001 (C) 2000
- 50. Who among the following never remained Chief Minister of Madhya Pradesh?
 - (A) Kailash Joshi
 - Virendra Saklecha (B)
 - (C) Uma Bharti
 - (D) Subhash Yadav
- 51. Approximately how old the Sun is?
 - 4700 million years (A)
 - 4-6 billion years (B)
 - 4800 million years (C)
 - 4900 million years (D)
- 52. What was the name of the first person to visit outerspace ?
 - (A) Yuri Gagrin
 - Alan Shepard (B)
 - (C) John Glenn
 - (D) Alexei Leonov

- Borlog Award is given ?
- (A) Journalism
- (B) Social service
- Agriculture (C)
- (D) Sports
- 59. Which atomic mineral is mainly found in India ?
 - (A) Radium (B) Thorium
 - (D) Plutonium (C) Uranium
- 60. By which instrument purity of milk is measured?
 - (A) Altimeter
 - Lactometer **(B)**
 - Fathometer (C)
 - (D) Hygrometer
- 61. Who is called as the father of **Political Science?**
 - (A) Plato (B) Aquinas
 - (C) Aristotle (D) Machiavelli
- 62. In which year last Lok Sabha Elections were held in India ?
 - (A) 2008 (B) 2009 (C) 2010 (D) 2011
- 63. Who had propounded the principle of class struggle ?
 - (A) Darwin (B) Weber
 - (C) Marx (D) Hegel

- 68. Which State is having Vijay Bahuguna as its Chief Minister ?
 - (A) Jharkhand
 - Meghalaya (B)
 - Arunachal Pradesh (C)
 - (D) Uttarakhand
- 69. Which country is not a member of SAARC ?
 - (A) China (B) Afghanistan
 - Bhutan (D) Maldives (C)
- 70. In which State of India generally Dalai Lama resides ?
 - (A) Himachal Pradesh
 - (B) Sikkim
 - Arunachal Pradesh (C)
 - Jammu and Kashmir (D)

- which country Spacecraft 53. To 'MIR' belonged?
 - (A) United States of America
 - Former Soviet Union (B)
 - (C) France
 - (D) England
- 54. To which country scientist Newton belonged?
 - (A) France (B) Germany
 - (C) England (D) Italy
- 55. How many protons are there in the nucleus of Uranium-235?
 - (A) 90 (B) 91
 - (D) 93 (C) 92
- 56. Where does the protein digestion start ?
 - (B) Mouth (A) Stomach
 - (C) Liver (D) Kidney
- 57. Who is the inventor of Television?
 - (A) Volta
 - Pascal (B)
 - (C) Graham Bell
 - (D) J. L. Baird

- 64. Who was the author of the book 'Discovery of India' ?
 - (A) Mahatma Gandhi
 - J. L. Nehru (B)
 - (C) S. C. Bose
 - (D) Sardar Patel
- 65. Which of the following is not a Fundamental Right in Indian **Constitution**?
 - Right to Equality (A)
 - **Right to Freedom** (B)
 - **Right against Exploitation** (C)
 - **Right to Property** (D)
- 66. Who among the following is not a member of Anna Hazare Team ?
 - (A) Arvind Kejariwal
 - Prashant Bhushan (B)
 - Swami Agnivesh (C)
 - (D) Kiran Bedi
- 67. Which country is not a member of BRIC ?
 - (A) Britain (B) Russia
 - (C) India (D) China