

1. If

$$\left(\frac{3}{4}\right)^{-6} \times \left(\frac{4}{3}\right)^{-8} = \left(\frac{3}{4}\right)^n$$

then the value of n is

- (A) 1
- (B) 4
- (C) 3
- (D) More than one of the above
- (E) None of the above

2. The simplified form of

$$(4^{-1} + 8^{-1}) \div \frac{1}{\left(\frac{3}{2}\right)^{-2}}$$

is

- (A) $\frac{1}{6}$
- (B) $\frac{2}{3}$
- (C) $\frac{1}{2}$
- (D) More than one of the above
- (E) None of the above

3. If $A:B = \frac{1}{2}:\frac{3}{8}$, $B:C = \frac{1}{3}:\frac{5}{9}$ and

$C:D = \frac{5}{6}:\frac{3}{4}$, then the ratio

$A:B:C:D$ is

- (A) 6:8:9:10
- (B) 8:6:10:9
- (C) 4:6:8:10
- (D) More than one of the above
- (E) None of the above

4. Suresh and Shashi complete a work in 11 days and 17 days respectively. They received a remuneration of ₹ 5,600 after completing the work jointly. Their shares in the remuneration are respectively

- (A) ₹ 3,600 and ₹ 2,000
- (B) ₹ 3,400 and ₹ 2,200
- (C) ₹ 3,500 and ₹ 2,100
- (D) More than one of the above
- (E) None of the above

5. A's weight is 25% of B's weight and 40% of C's weight. What percentage of C's weight is B's weight?

- (A) 160
- (B) 180
- (C) 150
- (D) More than one of the above
- (E) None of the above



6. The diameter of a copper sphere is 6 cm. The sphere is melted and is drawn into a long wire of uniform circular cross-section. If the length of the wire is 36 cm, then its radius is
- (A) 0.5 cm
(B) 1.5 cm
(C) 2 cm
(D) More than one of the above
(E) None of the above
7. Two circles touch internally. The sum of their areas is $116\pi \text{ cm}^2$ and the distance between their centres is 6 cm. The radii of the circles are respectively
- (A) 16 cm and 10 cm
(B) 10 cm and 4 cm
(C) 12 cm and 6 cm
(D) More than one of the above
(E) None of the above
8. A fast train takes 3 hours less than a slow train for a journey of 600 km. If the speed of the slow train is 10 km/hr less than that of the fast train, then the speeds of the two trains are respectively
- (A) 50 km/hr and 40 km/hr
(B) 30 km/hr and 20 km/hr
(C) 40 km/hr and 30 km/hr
(D) More than one of the above
(E) None of the above
9. The value of x satisfying the equations $\frac{1}{x} + \frac{1}{y} = 8$, $\frac{1}{y} + \frac{1}{z} = 12$, $\frac{1}{z} + \frac{1}{x} = 10$ is
- (A) 3
(B) $\frac{1}{3}$
(C) $3\frac{1}{3}$
(D) More than one of the above
(E) None of the above
10. There is 50% increase in an amount in 5 years at simple interest. What will be the compound interest of ₹ 12,000 after 3 years at the same rate?
- (A) ₹ 3,972
(B) ₹ 6,240
(C) ₹ 3,120
(D) More than one of the above
(E) None of the above



11. $37\frac{1}{2}\%$ of the candidates in an examination were girls. 75% of the boys and $62\frac{1}{2}\%$ of the girls passed, and 342 girls failed. The number of boys failed was
- (A) 370
 (B) 380
 (C) 360
 (D) More than one of the above
 (E) None of the above
12. Two possible rational numbers between $-\frac{2}{3}$ and $\frac{1}{2}$ are
- (A) $\frac{2}{6}, \frac{3}{5}$
 (B) $-\frac{2}{6}, \frac{2}{6}$
 (C) $-\frac{1}{6}, \frac{4}{6}$
 (D) More than one of the above
 (E) None of the above
13. A father is five times as old as his son, but after 15 years, he will remain only twice as old as his son. What is the age of the father?
- (A) 20 years
 (B) 25 years
 (C) 30 years
 (D) More than one of the above
 (E) None of the above
14. Neelu buys lemons at the rate of 2 lemons in one rupee and sells them at the rate of 5 lemons in three rupees. Her profit is
- (A) 15%
 (B) 18%
 (C) 20%
 (D) More than one of the above
 (E) None of the above
15. In a school, every student offers either Hindi or English or both. 50.8% offer Hindi and 64.2% offer English. If the total number of students is 500, how many students offer both Hindi and English?
- (A) 60
 (B) 65
 (C) 75
 (D) More than one of the above
 (E) None of the above
16. What is the value of the following?
- $$x^{a(b-c)} \cdot x^{b(c-a)} \cdot x^{c(a-b)}$$
- (A) 0
 (B) 1
 (C) x
 (D) More than one of the above
 (E) None of the above



- 17.** Geostationary satellite rotates
- (A) at any height above the Poles
 - (B) at a fixed height
 - (C) at the height depending on mass
 - (D) More than one of the above
 - (E) None of the above
- 18.** Which colour has the maximum deviation in the dispersion of white light passing through the prism?
- (A) Green
 - (B) Red
 - (C) Violet
 - (D) More than one of the above
 - (E) None of the above
- 19.** During thunderstorm, it is safer to
- (A) carry an open umbrella
 - (B) take shelter under short tree
 - (C) stand in open field
 - (D) More than one of the above
 - (E) None of the above
- 20.** When a body falls freely towards the Earth, then its total energy
- (A) decreases
 - (B) increases
 - (C) remains constant
 - (D) More than one of the above
 - (E) None of the above
- 21.** In eye donation, which part of the donor's eye is transplanted?
- (A) Lens
 - (B) Cornea
 - (C) Whole eye
 - (D) More than one of the above
 - (E) None of the above
- 22.** What is the chemical name of vitamin B₁₂?
- (A) Thiamin
 - (B) Cobalamin
 - (C) Niacin
 - (D) More than one of the above
 - (E) None of the above
- 23.** Which of the following is an acid-base indicator?
- (A) Vinegar
 - (B) Turmeric
 - (C) Baking soda
 - (D) More than one of the above
 - (E) None of the above
- 24.** When the soil is too basic, plants do not grow in it. To improve the quality, what must be added to the soil?
- (A) Organic matter
 - (B) Quicklime
 - (C) Calamine solution
 - (D) More than one of the above
 - (E) None of the above



- 25.** What is the value of absolute zero on the Fahrenheit scale?
- (A) 0 °F
 - (B) -22 °F
 - (C) -459.4 °F
 - (D) More than one of the above
 - (E) None of the above
- 26.** Which type of waves are light waves?
- (A) Transverse waves
 - (B) Longitudinal waves
 - (C) Electromagnetic waves
 - (D) More than one of the above
 - (E) None of the above
- 27.** What is the pH value of a salt made up of a strong acid and a weak base?
- (A) More than 7
 - (B) Less than 7
 - (C) Between 10 to 14
 - (D) More than one of the above
 - (E) None of the above
- 28.** One gigabyte (GB) is equal to
- (A) 1024 KB
 - (B) 1024 MB
 - (C) 1024 GB
 - (D) More than one of the above
 - (E) None of the above
- 29.** Sodium hydroxide and hydrochloric acid react to form sodium chloride and water. Which reaction is this?
- (A) Neutralization
 - (B) Dissolution
 - (C) Combination
 - (D) More than one of the above
 - (E) None of the above
- 30.** What does the cell usually use to produce energy?
- (A) Amino acid
 - (B) Glucose
 - (C) Fatty acid
 - (D) More than one of the above
 - (E) None of the above
- 31.** What is the function of the pituitary gland?
- (A) To develop sex organs in males
 - (B) To stimulate growth in all organs
 - (C) To regulate sugar and salt levels in the body
 - (D) More than one of the above
 - (E) None of the above
- 32.** Which parts of the brain control blood pressure?
- (A) Spinal cord, skull, hypothalamus
 - (B) Spinal cord, skull, cerebrum
 - (C) Pons, medulla, cerebellum
 - (D) More than one of the above
 - (E) None of the above

- 33.** India has announced to establish a Net Zero Innovation Virtual Centre in collaboration with which country?
- (A) Russia
(B) Britain
(C) Brazil
(D) More than one of the above
(E) None of the above
- 34.** What is the total number of seats for MPs in the newly inaugurated Parliament of India?
- (A) 888
(B) 1272
(C) 1326
(D) More than one of the above
(E) None of the above
- 35.** Which online platform has been launched by the Indian Government for farmers' insurance claims?
- (A) Kushal Platform
(B) Grain Platform
(C) DigiClaim Platform
(D) More than one of the above
(E) None of the above
- 36.** Who has been appointed as the head of 'Moon to Mars Program' of NASA?
- (A) Amit Kshatriya
(B) Sumit Kshatriya
(C) K. Sivan
(D) More than one of the above
(E) None of the above
- 37.** According to the Bihar Prohibition and Excise (Amendment) Act, 2022, the vehicles transporting liquor will be released by paying what percent of their insurance cover as penalty?
- (A) 30
(B) 50
(C) 10
(D) More than one of the above
(E) None of the above

- 38.** Which country has manufactured the passenger plane C919 to compete Airbus and Boeing?
- (A) India
 - (B) China
 - (C) Britain
 - (D) More than one of the above
 - (E) None of the above
- 39.** Kriti Raj Singh is related with which sport?
- (A) Weightlifting
 - (B) Badminton
 - (C) Cricket
 - (D) More than one of the above
 - (E) None of the above
- 40.** According to the Industrial Development Ranking, 2022, released by the Bihar Industries Department, which district has topped?
- (A) Siwan
 - (B) Gaya
 - (C) Darbhanga
 - (D) More than one of the above
 - (E) None of the above
- 41.** Which of the following can a court issue for enforcement of the Fundamental Rights?
- (A) Decree
 - (B) Writ
 - (C) Ordinance
 - (D) More than one of the above
 - (E) None of the above
- 42.** Which of the following dams is located on the Mahanadi river?
- (A) Hirakud Dam
 - (B) Dudhawa Dam
 - (C) Ghumarapadar Dam
 - (D) More than one of the above
 - (E) None of the above
- 43.** Al-Aqsa Mosque, which was in news recently, is located in which city?
- (A) Rome
 - (B) Jerusalem
 - (C) Riyadh
 - (D) More than one of the above
 - (E) None of the above

- 44.** Which of the following countries is the member of the NATO?
- (A) Belgium
 (B) Canada
 (C) Denmark
 (D) More than one of the above
 (E) None of the above
- 45.** The statement, “One Earth, One Family, One Future” is associated with
- (A) G-7
 (B) G-20
 (C) BRICS
 (D) More than one of the above
 (E) None of the above
- 46.** Which of the following statements is correct regarding QUAD?
- (A) QUAD is a strategic forum of four nations—India, US, Japan and Australia.
 (B) Its genesis was in 2004.
 (C) The intention was to enhance maritime cooperation among the four nations.
 (D) More than one of the above
 (E) None of the above
- 47.** Kautilya was a professor of Political Science and Economics at
- (A) Nalanda
 (B) Pataliputra
 (C) Takshashila
 (D) More than one of the above
 (E) None of the above
- 48.** Which of the following statements is correct about the 1781 Revolt in Bihar?
- (A) It was an uprising by the Zamindars.
 (B) It was a revolt by the farmers.
 (C) The British were able to put down the revolt without too much trouble.
 (D) More than one of the above
 (E) None of the above

49. Which of the following falls under 'Frigid Zone'?

- (A) Area lying between $66\frac{1}{2}^{\circ}$ N latitude and North Pole
- (B) Area lying between $23\frac{1}{2}^{\circ}$ and $66\frac{1}{2}^{\circ}$ latitudes in both Hemispheres
- (C) Area lying between Antarctic Circle and South Pole
- (D) More than one of the above
- (E) None of the above

50. The part of the Himalayas lying between Satluj and Kali rivers is known as which of the following?

- (A) Kumaon Himalayas
- (B) Assam Himalayas
- (C) Nepal Himalayas
- (D) More than one of the above
- (E) None of the above

51. Which of the following statements is true?

- (A) As per the 2011 Census, Sikkim has a population of 6 lakhs.
- (B) Uttar Pradesh is the largest State in India in terms of area.
- (C) India accounts for 2.6 percent of the world's area.
- (D) More than one of the above
- (E) None of the above

52. What should be the desired percent of forest area in the total geographical area of the country as outlined in the National Forest Policy of 1952 in India?

- (A) 25
- (B) 33
- (C) 39
- (D) More than one of the above
- (E) None of the above

53. Which of the following is the local name of 'Jhumming'?

- (A) Bewar
- (B) Dahiya
- (C) Podu
- (D) More than one of the above
- (E) None of the above

54. What is the name given to a large apartment in Amazon basin having a steeply slanting roof?

- (A) Manioc
- (B) Maloca
- (C) Cassava
- (D) More than one of the above
- (E) None of the above

55. The historical Dakshinapath region is situated in between

- (A) Vindhyachal range and Krishna river
- (B) Vindhyachal range and Cauvery river
- (C) Satpura range and Nilgiri
- (D) More than one of the above
- (E) None of the above

56. The major water divides between Arabian Sea and Bay of Bengal drainage are

- (A) Delhi ridge, Malwa plateau and Bundelkhand
- (B) Delhi ridge, Aravalli range, Sahyadri and Amarkantak hills
- (C) Delhi ridge, Malwa plateau and Chota Nagpur plateau
- (D) More than one of the above
- (E) None of the above

57. The place of origin of Western Disturbances active in North-Western India in winter season is

- (A) Asia Minor
- (B) Western Asia
- (C) Mediterranean coastal area of Western Asia
- (D) More than one of the above
- (E) None of the above

58. According to G. T. Trewartha, the area of Am type climate in India is

- (A) Meghalaya plateau
- (B) Western Ghats
- (C) Coromandel coastal region
- (D) More than one of the above
- (E) None of the above

59. The local names of rice crops produced in Northern India in winter are

- (A) Aman, Aghani and Aus
- (B) Aman, Sali and Aghani
- (C) Aman, Aus and Sali
- (D) More than one of the above
- (E) None of the above

60. Which of the following is **not** a peculiarity of middle Gangetic plain agroclimatic region?

- (A) Located in Ganga and its tributaries' drainage area
- (B) Extended in more than two States
- (C) Receives more than 100 cm rain annually
- (D) More than one of the above
- (E) None of the above

- 61.** Who among the following was associated with the newspaper, *New India* ?
- (A) Mahatma Gandhi
(B) Annie Besant
(C) Surendranath Banerjee
(D) More than one of the above
(E) None of the above
- 62.** Who organized the 'Swadesh Bandhav Samiti' during the Indian Freedom Struggle?
- (A) Ashwini Kumar Dutta
(B) Batukeshwar Dutta
(C) Surya Sen
(D) More than one of the above
(E) None of the above
- 63.** Who accompanied Mahatma Gandhi during the Champaran Indigo Movement?
- (A) Narhari Parikh
(B) Mahadev Desai
(C) Abdul Bari
(D) More than one of the above
(E) None of the above
- 64.** On which date Linlithgow ordered to fire on the mob of Patna and its surrounding during the August Revolution, 1942?
- (A) 5th August
(B) 15th August
(C) 25th August
(D) More than one of the above
(E) None of the above
- 65.** In which year was the 'Bihar Prantiya Kisan Sabha' established?
- (A) 1920
(B) 1924
(C) 1929
(D) More than one of the above
(E) None of the above
- 66.** Which of the following revolts took place due to the imposition of tax on keeping of long beard?
- (A) Faraizi
(B) Pagalpanti
(C) Wahabi
(D) More than one of the above
(E) None of the above

67. In which conspiracy case, three Englishmen were detained on conspiracy charges?
- (A) Nasik Conspiracy Case
(B) Kanpur Conspiracy Case
(C) Meerut Conspiracy Case
(D) More than one of the above
(E) None of the above
68. The Poona Pact aimed at
- (A) formation of federation with Princely States
(B) women representation in the Indian National Congress
(C) political representation of depressed class
(D) More than one of the above
(E) None of the above
69. Where was the first All India Congress Socialist Conference held?
- (A) Patna
(B) Bhagalpur
(C) Muzaffarpur
(D) More than one of the above
(E) None of the above
70. Who was the author of *Biography of Kunwar Singh and Amar Singh* ?
- (A) M. N. Roy
(B) Kalikinkar Datta
(C) Jawaharlal Nehru
(D) More than one of the above
(E) None of the above
71. Subhas Chandra Bose became the President of the Indian National Congress in Tripuri Session by defeating
- (A) Pattabhi Sitaramayya
(B) Rash Behari Bose
(C) Jawaharlal Nehru
(D) More than one of the above
(E) None of the above
72. Which of the following is true about Dr. B. R. Ambedkar?
- (A) He published *Mooknayak*.
(B) He founded 'Bahishkrit Hitakarini Sabha'.
(C) He passed away in 1956.
(D) More than one of the above
(E) None of the above

73. Match List-I with List-II and select the correct answer using the codes given below the Lists :

<i>List—I</i> (Names of movements)	<i>List—II</i> (Their related important centres)
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- | | |
|--|------------------|
| a. Movement of Indigo Planters | 1. Ahmedabad |
| b. Peasant Satyagraha | 2. Champaran |
| c. Cotton Mill Workers Satyagraha | 3. Khera |
| d. Movement to cut off the Non-Cooperation | 4. Chauri Chaura |

Codes :

- (A) a b c d
 1 2 3 4
- (B) a b c d
 3 4 2 1
- (C) a b c d
 2 3 1 4
- (D) More than one of the above
- (E) None of the above

74. Freedom of Press in India is available to the people because

- (A) it is available to the people under the Law of the Parliament
- (B) it is specially provided in the Constitution of India
- (C) it is implied in the Right to Freedom of Expression
- (D) More than one of the above
- (E) None of the above

75. Match List-I with List-II and select the correct answer using the codes given below the Lists :

<i>List—I</i> (Available resources in some provinces)	<i>List—II</i> (Names of the related provinces)
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- | | |
|--|----------------------|
| a. Rich in mineral resources but lacks industrialization | 1. Jharkhand |
| b. Rich in water resources but lacks infrastructure development | 2. Arunachal Pradesh |
| c. Rich in solar and wind energy but lacks water resources | 3. Rajasthan |
| d. Rich in mineral resources but lacks the means of transportation and communication | 4. Ladakh |

Codes :

- (A) a b c d
 3 4 1 2
- (B) a b c d
 1 2 3 4
- (C) a b c d
 2 1 4 3
- (D) More than one of the above
- (E) None of the above

- 76.** A medicinal plant named 'Himalayan yew' is found in which of the following provinces of India?
- (A) Himachal Pradesh and Arunachal Pradesh
 (B) Uttarakhand and Madhya Pradesh
 (C) Jammu & Kashmir and Assam
 (D) More than one of the above
 (E) None of the above
- 77.** The 'Overseas Indian Citizenship (OIC) Scheme' was introduced by which of the following Acts in India?
- (A) The Citizenship (Amendment) Act, 2003
 (B) The Citizenship Act, 1955
 (C) The Citizenship (Amendment) Act, 2019
 (D) More than one of the above
 (E) None of the above
- 78.** Which of the following may be known as the main cause of disappearing the rigid caste system in India?
- (A) The Constitution and its basic structure
 (B) The social reforms and economic development
 (C) The growth of literacy and education
 (D) More than one of the above
 (E) None of the above
- 79.** The Ministry of Panchayati Raj was created in the Central Government of India in which of the following years?
- (A) 2002–2003
 (B) 2004
 (C) 2005–2006
 (D) More than one of the above
 (E) None of the above
- 80.** Who among the following believed that "a communist society was the natural society of the future"?
- (A) Karl Marx
 (B) Friedrich Engels
 (C) Robert Owen
 (D) More than one of the above
 (E) None of the above
- 81.** Who among the following is the author of the book, *The Social Contract*?
- (A) Thomas Hobbes
 (B) John Locke
 (C) Jean-Jacques Rousseau
 (D) More than one of the above
 (E) None of the above

- 82.** Which of the following movements was launched against multipurpose projects in India?
- (A) Narmada Bachao Andolan
(B) Tehri Dam Andolan
(C) Chipko Andolan
(D) More than one of the above
(E) None of the above
- 83.** Which of the following is the Fundamental Duty under the Constitution of India?
- (A) To uphold the unity and integrity of India
(B) To protect the natural environment
(C) To provide educational opportunities to own child
(D) More than one of the above
(E) None of the above
- 84.** Who wrote *Pakistan or the Partition of India*?
- (A) Muhammad Iqbal
(B) Muhammad Ali Jinnah
(C) Dr. Bhimrao Ramji Ambedkar
(D) More than one of the above
(E) None of the above
- 85.** When was Ireland forcibly incorporated into the United Kingdom?
- (A) 1707
(B) 1798
(C) 1801
(D) More than one of the above
(E) None of the above
- 86.** Who started 'Sarva Shiksha Abhiyan'?
- (A) Indira Gandhi
(B) Narasimha Rao
(C) Atal Bihari Vajpayee
(D) More than one of the above
(E) None of the above
- 87.** When did Sri Lanka become independent?
- (A) 1945
(B) 1947
(C) 1948
(D) More than one of the above
(E) None of the above
- 88.** 'Annapurna Yojana' ration card is for
- (A) older and poor people above 65 years
(B) above poverty line families
(C) below poverty line families
(D) More than one of the above
(E) None of the above

- 89.** Y-shaped energy flow model in ecosystem was proposed by
- (A) Odum
 - (B) Lindeman
 - (C) Clements
 - (D) More than one of the above
 - (E) None of the above
- 90.** SO₂ pollution is indicated by
- (A) orchids
 - (B) mangroves
 - (C) lichens
 - (D) More than one of the above
 - (E) None of the above
- 91.** The Salim Ali Bird Sanctuary is located in
- (A) Uttar Pradesh
 - (B) Madhya Pradesh
 - (C) West Bengal
 - (D) More than one of the above
 - (E) None of the above
- 92.** The IUCN Headquarters is in
- (A) Switzerland
 - (B) France
 - (C) Australia
 - (D) More than one of the above
 - (E) None of the above
- 93.** How much energy is consumed from one trophic level to another trophic level?
- (A) 5%
 - (B) 10%
 - (C) 15%
 - (D) More than one of the above
 - (E) None of the above
- 94.** Pneumatophores are present in
- (A) hydrophytes
 - (B) xerophytes
 - (C) halophytes
 - (D) More than one of the above
 - (E) None of the above
- 95.** Which of the following is a secondary pollutant?
- (A) PAN
 - (B) SO₂
 - (C) Ozone
 - (D) More than one of the above
 - (E) None of the above
- 96.** The 10% law of energy flow in ecosystem was proposed by
- (A) Lindeman
 - (B) Hückel
 - (C) Elton
 - (D) More than one of the above
 - (E) None of the above

97. In India, tropical rain forests are found in
- (A) Karnataka
 - (B) Himachal Pradesh
 - (C) Kerala
 - (D) More than one of the above
 - (E) None of the above
98. The major source of methane in India is
- (A) wheat field
 - (B) sugarcane field
 - (C) rice field
 - (D) More than one of the above
 - (E) None of the above
99. The layer of atmosphere having lowest temperature is
- (A) stratosphere
 - (B) troposphere
 - (C) mesosphere
 - (D) More than one of the above
 - (E) None of the above
100. The increase in concentration of toxic substances in successive trophic level is referred to as
- (A) eutrophication
 - (B) biomagnification
 - (C) bioaccumulation
 - (D) More than one of the above
 - (E) None of the above
101. Which of the following acts as a pioneer species in a xerarch succession?
- (A) Lichen
 - (B) Human
 - (C) Herb
 - (D) More than one of the above
 - (E) None of the above
102. The Ramsar Convention is associated with the conservation of
- (A) drylands
 - (B) wetlands
 - (C) forests
 - (D) More than one of the above
 - (E) None of the above
103. Itai-itai disease is caused by
- (A) mercury
 - (B) iron
 - (C) cadmium
 - (D) More than one of the above
 - (E) None of the above
104. Which one of the following is **not** included under *in situ* conservation?
- (A) Botanical Garden
 - (B) National Park
 - (C) Wildlife Sanctuary
 - (D) More than one of the above
 - (E) None of the above

105. How many 4-digit numbers can be formed using the digits 0, 1, 2, 3, 4 without repetition?

- (A) 120
- (B) 5^4
- (C) 4^5
- (D) More than one of the above
- (E) None of the above

106. If the word HEIGHT is coded as 96108921 and LOOSE is coded as 131616206, then the code for MOBILE, in the same language, is

- (A) 1416310136
- (B) 1416411136
- (C) 1416312136
- (D) More than one of the above
- (E) None of the above

107. Arrange the following words in logical order :

1. Associate Professor
2. Professor
3. Assistant Professor

Select the correct answer using the codes given below.

- (A) 2, 3, 1
- (B) 2, 1, 3
- (C) 1, 2, 3
- (D) More than one of the above
- (E) None of the above

108. A person divides some items among four children. The first child gets $\frac{1}{2}$ of the total items and the second child gets $\frac{1}{4}$ of the first child. The third child gets $\frac{3}{4}$ of the first child. The fraction of the items the fourth child gets is

- (A) $\frac{3}{4}$ of the total items
- (B) $\frac{3}{8}$ of the total items
- (C) $\frac{1}{4}$ of the total items
- (D) More than one of the above
- (E) None of the above

109. If the area of a square is equal to the area of an equilateral triangle, the ratio of the side of the square and the side of the equilateral triangle is

- (A) 1:1
- (B) 2:1
- (C) $\sqrt{3}:2$
- (D) More than one of the above
- (E) None of the above

110. Find the wrong number in the series given below :

3, 8, 13, 21, 31, 43

- (A) 21
- (B) 31
- (C) 8
- (D) More than one of the above
- (E) None of the above

111. Find the wrong number from the table given below :

2	4	1	5
6	12	3	15
18	36	9	45
54	108	27	100

- (A) 9
- (B) 36
- (C) 100
- (D) More than one of the above
- (E) None of the above

112. Let $a=10$ cm, $b=3$ cm and $c=6$ cm. Which of the following is true?

- (A) a , b and c are the sides of a triangle.
- (B) a , b and c form right-angled triangle.
- (C) a , b and c form isosceles triangle.
- (D) More than one of the above
- (E) None of the above

113. Madan's brother's uncle is Karan's father's brother. What can be the relationship between Madan and Karan?

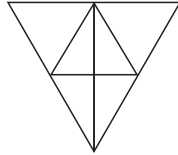
- (A) Madan is Karan's uncle
- (B) Madan is Karan's brother
- (C) Madan is Karan's son
- (D) More than one of the above
- (E) None of the above

114. Find the missing letters in the series given below :

Y, T, O, _____, _____

- (A) J, E
- (B) J, D
- (C) K, F
- (D) More than one of the above
- (E) None of the above

115. How many triangles are there in the figure given below?



- (A) 13
(B) 11
(C) 15
(D) More than one of the above
(E) None of the above
116. Asha walks 3 km southward and then turns right and walks 2 km. She again turns right and walks 3 km, and then turns towards her left and starts walking straight. In which direction is she walking now?
- (A) North
(B) West
(C) East
(D) More than one of the above
(E) None of the above
117. Find the wrong number in the series given below :
- 28, 84, 112, 196, 308, 504, 872
- (A) 112
(B) 308
(C) 872
(D) More than one of the above
(E) None of the above

118. In a certain code, '256' means 'you are good'; '637' means 'we are bad' and '358' means 'good and bad'. Which of the following digits represents 'and' in that code?

- (A) 2
(B) 5
(C) 8
(D) More than one of the above
(E) None of the above

119. Six roads lead to a country. They may be indicated by the letters X, Y, Z and the digits 1, 2, 3. When there is a storm, Y is blocked. When there are floods, X, 1 and 2 will be affected. When road 1 is blocked, Z is also blocked. At a time, when there are floods and a storm also blows, which road can be used?

- (A) 3
(B) Y
(C) Z
(D) More than one of the above
(E) None of the above

120. In a certain code, DELHI is written as CCIDD. How is BOMBAY written in that code?

- (A) AJMTVT
(B) MJXVSU
(C) AMJXVS
(D) More than one of the above
(E) None of the above