

CAREERS 360

CU-CET

Sample Paper 2022 with Solutions
by Career Launcher



CUCET Mock 1 - 2022

Numerical Aptitude

- Q 1.** A train on its way took 10 seconds to cross a 100 m long bridge and 20 seconds to cross a 500 m long platform. How much time does the train require to cross a stationary man?
- A) 6 seconds B) 7.5 seconds C) 9 seconds D) 5 seconds
- Q 2.** A train, Mahabodhi Express, leaves Lucknow at 6 a.m. and two hours later another train Udyog Nagri Express leaves Lucknow. Both the trains arrive Bhopal at 4 p.m. on the same day. If the difference of their speeds is 10 km/hr, what is the speed of Udyog Nagri Express?
- A) 40 km/hr B) 50 km/hr C) 30 km/hr D) 60 km/hr
- Q 3.** The speed of a boat in still water is 11 km/h. It can go 12 km upstream and return downstream to the engine point in 2 h 45 min. What is the speed of stream?
- A) 5 km/h B) 4 km/h C) 3 km/h D) 2 km/h
- Q 4.** Nirmal could complete a certain work in 20 days, while Bob could complete the same in 50 days. If Nirmal started doing the work alone and Bob joined him after a few days such that the work was completed in 16 days, then for how many days did Bob work?
- A) 4 B) 8 C) 12 D) 10
- Q 5.** Two inlets A and B can fill a cistern in 36 and 45 hours respectively, whereas outlet C can empty the full tank in 60 hours. If all the three pipes are opened simultaneously into the cistern, then how many hours will it take to fill the tank?
- A) 24 B) 27 C) 30 D) 33
- Q 6.** A family consists of a father, mother, son and daughter. Ratio of the weight of the father to the weight of the son is 3 : 2. Ratio of the weight of the son to the weight of the mother is 5 : 6. If the weight of the daughter, which is half the weight of the father, is 37.5 kg, find the weight of the mother.
- A) 45 kg B) 60 kg C) 55 kg D) 50 kg
- Q 7.** Three persons Ashok, Munna and Lucky started a business. Four times of Lucky's investment was equal to three times of Munna's investment and two times of Ashok's investment was equal to three times of Munna's investment. At the end of the year, if the total profit was Rs. 2392, then what was the absolute difference between the share of profit of Lucky and Munna?
- A) Rs. 552 B) Rs. 736 C) Rs. 368 D) Rs. 184
- Q 8.** Marked price of an article is Rs. 200. If three successive discounts of 20%, 30% and 50% are offered, then find the selling price (in Rs.) of the article.
- A) 72 B) 96 C) 103 D) 56
- Q 9.** There is leak in the bottom of a tank. This leak can empty a full tank in 8 hours. When the tank is full, a tap is opened into the tank which admits 6 litres per hour and the tank is now emptied in 12 hours. What is the capacity of the tank ?
- A) 28.8 litres B) 36 litres C) 144 litres D) 145 litres
- Q 10.** A man is five years older than his wife, who in turn is three times as old as their son, who was 13 years old two years back. What is the present age of the man?

- A) 40 years B) 45 years C) 50 years D) 55 years

Q 11. The ratio of milk and water in a mixture is 3 : 1. What fraction of the mixture should be replaced by water so that the resultant mixture contains 50% water?

- A) $\frac{1}{10}$ B) $\frac{1}{4}$ C) $\frac{1}{3}$ D) $\frac{1}{5}$

Q 12. 3 pens cost as much as 5 pencils, 5 pencils cost as much as 10 books and 16 books cost as much as 2 geometry box. If the cost of one geometry box is Rs 48, then what is the cost of 5 pens?

- A) Rs.50 B) Rs.100 C) Rs.150 D) Rs.200

Q 13. P can build a wall in 12 days and Q can break it in 5 days. P starts the work and joined by Q after 6 days, they work together for 3 days and then Q leaves the work. In how many days would P alone build the remaining part of the wall?

- A) 12 B) 11 C) 14 D) None of these

Q 14. The price of a machine increases by 20% in a year and decreases by $16\frac{2}{3}\%$ in the following year. What is net percentage increase/decrease in the price of the machine?

- A) 1% increase B) neither increase, nor decrease C) 1% decrease D) 2% decrease

Q 15.

What is the value of $1.\overline{34} + 4.\overline{12}$?

- A) $\frac{133}{90}$
B) $\frac{371}{90}$
C) $5\frac{219}{990}$
D) $5\frac{461}{990}$

Q 16. When two students of a class, with strength of 40 students, removed, the average age of the class, which was 20 years, did not change. If one of the expelled students was 16 years old, what was the age (in years) of the second student?

- A) 24 B) 20 C) 28 D) 16

Q 17. Before 3 years, the average age of a five-member family was 17 years. A baby having been born and the average of family is now 17 years. The present age of the baby is:

- A) 3 years B) 2 years C) 1 year D) None of these

Q 18. Out of 6 Engineers and 4 Managers a committee of 3 members is to be formed. Find the probability that the committee consists at least 2 Engineers.

- A) $\frac{2}{3}$ B) $\frac{1}{3}$ C) $\frac{4}{5}$ D) None of these

Q 19. A person takes 50 minutes less, if he increases the usual speed of his car by 20 km/hr and takes 45 minutes more, if he decreases the usual speed of his car by 15 km/hr. Find the usual speed of the car.

- A) 190 km/hr B) 170 km/hr C) 250 km/hr D) 220 km/hr

Q 20. The mean of 25 observations is 36. The mean of first 13 observations is 32 and that of last 13 observations is 39. What is the value of 13th observation?

- A) 20 B) 23 C) 32 D) 40

Q 21. If the 1st day of a month, which was not January, was Wednesday and the 1st day of next month in the same year was Sunday, then what was the day on the 1st day of the 7th month of the same year?

- A) Monday B) Tuesday C) Wednesday D) Sunday

Q 22. At what time after 3:20 p.m. will the hour and minute hands of a clock make an angle of 75°?

- A) 3:22 p.m. B) 3:24 p.m. C) 3:28 p.m. D) 3:30 p.m.

Q 23. Seema invests a sum of money in a bank at a certain rate of simple interest. If the sum amounts to Rs. 1,290 at the end of the fourth year and to Rs. 1,380 at the end of the fifth year. Find the amount invested by her.

- A) Rs. 930 B) Rs. 1,150 C) Rs. 1,040 D) Rs. 720

Q 24. What is the value of

$$\frac{5}{6} \times \frac{2 \text{ of } \frac{5}{4}}{\frac{3}{4} \div \frac{9}{16} + \frac{3}{4} - \frac{1}{2}} = ?$$

- A) 17/27 B) 27/17 C) 19/25 D) 25/19

Q 25. The radii of seven circles are in the ratio 1 : 2 : 3 : 4 : 5 : 6 : 7. If the circumference of the smallest circle is 'cπ', find the average of the areas of the circles.

- A) 3πc² B) 4πc² C) 5πc² D) 6πc²

General Knowledge

Q 26. What is the rank of India in the UN World Happiness Report- 2020?

- A) 125 B) 127 C) 140 D) 144

Q 27. Comoros is a volcanic archipelago in:

- A) Pacific Ocean B) Arctic Ocean C) Atlantic Ocean D) Indian Ocean

Q 28. Which of the following banks relaunched its Aadhaar-based instant digital savings account facility for customers who want to open an online account using the Yono platform?

- A) Union Bank of India B) Punjab National Bank C) State Bank of India D) Canara Bank

Q 29. 'SHAKTI' scheme, sometimes appears in the news, is related to which of the following affairs?

- A) Coal B) Banking C) Skill Development D) Telecom Services

Q 30. At present, the world's largest e-waste recycling facility is located in:

- A) Dubai B) Bengaluru C) Moscow D) Doha

Q 31. Who is the first woman to win the Abel prize, sometimes called the Nobel prize of mathematics?

- A) Rehana Moldova B) Maryam Mirzakhani C) Grace Brewster Murray D) Karen Uhlenbeck

Q 32. Rupay card was launched by which among the following?

- A) RBI B) MasterCard C) Visa D) NPCI

Q 33. The famous "Crystal Award" is associated with:

- A) World Bank B) NASA C) World Economic Forum D) IMFD

Q 34. Heena Sidhu is related to which sport:

- A) Shooting B) Horse Riding C) Boxing D) Archery

Q 35. Which Indian state signed a contract to set up the first ethanol plant in country under the Public-private partnership (PPP) model?

- A) Haryana B) Gujarat C) Chhattisgarh D) Jharkhand

Q 36. Name the Chief Minister who has been conferred the Skoch Chief Minister of the Year Award recently?

- A) K. Chandrashekar Rao B) Edappadi K. Palaniswami C) Y. S. Jagan Mohan Reddy D) Yogi Adityanath

Q 37. Recently, The National Informatics Centre has launched an instant messaging platform called _____ on the lines of WhatsApp.

- A) Sandes B) Chitthi C) Aamantran D) HumsApp

Q 38. Who among the following has recently constructed a composite Digital Payments Index (DPI) to capture the extent of digitisation of payments across the country?

- A) NABARD B) SIDBI C) Reserve Bank of India D) Ministry of Finance

Q 39. Who was appointed by RBI as the head of the eight-member expert committee to comprehensively review and provide long-term solutions for revival of the micro, small and medium enterprises (MSME) sector?

- A) Uday Kotak B) NS Vishwanathan C) TS Vijayan D) U.K. Sinha

Q 40. Recently, who became the first person to hit the 250 million mark on Instagram?

- A) Lionel Messi B) Cristiano Ronaldo C) Brad Pitt D) Michael Jordan

Data Interpretation

Directions (Q. 41 to 45): Answer the questions on the basis of the information given below.

The table given below shows the populations of six cities.

City	Total Population	Percentage of adult Males	Percentage of children below 18 years of age
Gujarat	68300000	45	12
Chandigarh	42500000	53	14
Bangalore	71200000	52	13
Delhi	93500000	49	11
Chennai	54500000	41	15
Mumbai	81200000	43	16

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* Remaining are adult females

Q 41. By what percent is the number of adult males in Bangalore and Delhi more than that of adult females in the same cities?

- A) 33%** **B) 30%** **C) 35%** **D) 35.9%**

Q 42. The number of children in Mumbai is what percent of the number of adult females in the same city?

- A) 35 B) 39 C) 42 D) 43

Q 43. The difference between the number of adult females in Gujarat and Delhi is

- A) 8031000 B) 8301000 C) 8130000 D) 8231000

Q 44. What is the adult population in Chandigarh and Mumbai?

- A) 107458000 B) 104758000 C) 104458000 D) 114458000**

Q 45. What is ratio of total population of Delhi and Chennai?

- A)** 187 : 109 **B)** 187 : 119 **C)** 119 : 187 **D)** 129 : 187

English

Out of the four alternatives, choose the one which best expresses the meaning of the given word.

Q 46. NIMBLE

- A) Clamorous** **B) Scrap** **C) Agile** **D) Urbane**

Q 47. MOROSE

- A) Humble** **B) Morsel** **C) Sullen** **D) Repugnant**

Q 48. BAMBOOZLE

- A) Musical** **B) Mystify** **C) Thrash** **D) Relinquish**

Q 49. ENSCONCE

- A) To surround** **B) To promote** **C) To honour** **D) To hide**

Q 50. INGRATiate

- A)** To regret **B)** To provoke **C)** To gain favor **D)** To feel delighted

Q 51. AUGURY

- A) Dispute** **B) Altar** **C) Refuge** **D) Omen**

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Read the passage carefully and choose the best answer to each question out of the four alternatives

Passage - I

Husain explored the female form and its extension cartographically as the imagined 'Mother India' at critical junctures within the nation. Sumathi Ramaswamy analyses Husain's approach in her new book "Barefoot Across the Nation: Maqbool Fida Husain and the Idea of India". She draws historical parallels with similar images appearing in popular culture. The concept made popular from early 1920s has become integral to the historical tradition in visual art, which ironically with Husain's delineation has raised questions and aggressive behaviour from the public and others, though his iconography loops to modernist methodology of essential reductionism, with contouring of her form to fit within the Indian map.

The analysis of Husain's works through themes and subject matter which accords him the status of a "quintessential 'civilizational' artist in the Nehruvian mode" due to its iconography putting his art on trial marks the central theme of historians David Gilmartin and Barbra D. Metcalf. They have argued that Husain has searched for an underlying civilizational spirit, refusing to draw clear-cut lines between Hindu and Muslim. Both authors offer critical, nuanced reading of the 2008 Delhi High Court Judgment by Justice Kaul, which vindicated Husain's right as an Indian citizen to paint civilisational themes but also the importance of India's free construction of its own culture and national identity by its artist. Extending the idea further Kajri Jain the Art Historian, reasons and argues the recurrent attacks on Husain's works within the context of the politics of desecration in the public sphere from mid 1980s. She questions this through the "image" rendered by a minority artist making it a privileged site for Hindutva violence, in "their choice of weapons" marking Husain's detractors as grieved victims of hurt sentiments.

Q 52. What, according to the passage, is the root cause for the attacks on MF Husain's works in India?

- A) Sumathy Ramaswamy chose to write a book on Husain, a minority in India.
- B) M.F. Husain shunned the traditional method of painting and adopted the modernist methodology of essential reductionism.
- C) Husain painted Mother India in various manifestations and this hurt the sentiments of the majority.
- D) Despite belonging to a minority community in India, Husain made some remarks that hurt the sentiments of the minority.

Q 53. Which of the following is implied by the last sentence of the passage: "She questions hurt sentiments."

- A) Kajri Jain questions the legal system of the country that can try an artist in response to public outrage.
- B) Kajri Jain moans the predicament of the intellectual majority of the country.
- C) Kajri Jain accuses Husain for having experimented with the female form in India, knowing very well that it would offend the Hindu majority.
- D) Kajri Jain accuses those who believe in the ideology of Hindutva of choosing Husain's works as a weapon to cause violence to settle their religious outrage.

Q 54. Which of the following statements is in agreement with the information given in the passage about Gilmartin and Metcalf?

- A) Gilmartin and Metcalf analyse the impact Husain's art has had on the revolution of Hindutva sentiments in the country.
- B) Gilmartin and Metcalf support the 2008 Delhi High Court Judgment by Justice Kaul on Husain's work.
- C) Gilmartin and Metcalf are of the opinion that Husain has explored an underlying civilizational spirit without drawing lines between Hindus and Muslims.
- D) Gilmartin and Metcalf do not consider art to have a role in constructing culture and national identity.

Q 55. Which of the following is least likely to be inferred from the passage?

- A) The works of Husain since the 1980s have been venerated by the masses as well as the polity.

- B) In his works, M.F. Husain depicted Mother India in her various manifestations.
- C) The polity has accused Husain of blasphemy.
- D) The works of Husain since the 1980s have been attacked by the masses as well as the polity.

Q 56. The historical tradition in visual art, since 1920s, has integrated the concept of the female form _____ the depiction of prevalence and use of power at critical junctures within the nation.

Which of the following best fits the blank above?

- A) to B) into C) along with D) as

Directions for questions 57 to 61: Sentences are given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four.

Q 57. I had ____ that something terrible was going to happen.

- A) an opinion B) a thought C) a feeling D) an expectation

Q 58. By the ____ of it you have had a difficult time.

- A) sound B) noise C) tone D) tune

Q 59. He took up football as an ____ for his energies.

- A) output B) outset C) outlet D) outbreak

Q 60. She cant be very old, not more than twenty at ____.

- A) highest B) top C) most D) all

Q 61. It is not ____ to let young children cross the road alone.

- A) penurious B) plausible C) prudent D) preferable

Directions for questions 62 to 65: Four alternatives are given for the idiom/phrase underlined in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase.

Q 62. He has been working very hard trying to bring home the bacon.

- A) earn a living B) learn the art of preparing bacon at home
- C) repair his house D) make his house free from mortgage

Q 63. Hes so simple that you have to spell everything out to him.

- A) give the spellings of something B) read out something
- C) explain something in a detailed way D) give fictitious details about something

Q 64. I hate it when my sister noses around my room.

- A) touches around B) smells around C) moves cautiously D) snoops around

Q 65. That man is a rotten egg so you should try and avoid him if you can.

- A) unhygienic person B) bad influence C) someone who uses foul language
- D) someone with double standards

Directions for questions 66 to 70: In the following questions part of the sentence is underlined. Below are given alternatives to the

underlined part (A), (B) and (C), which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (D).

Q 66. Hussain dropped out of school although a farmer, his father, had a stroke and was unable to work.

- A) finally when his farmer father had a stroke and was rendered unable to work.
- B) after his father, a farmer, had a stroke and was unable to work.
- C) in lieu of his father, a farmer, who had a stroke and was unable to work.
- D) No error

Directions for questions 66 to 70: In the following questions part of the sentence is underlined. Below are given alternatives to the underlined part (A), (B) and (C), which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (D).

Q 67. He kept a watch in the building materials and slept at the construction site at night.

- A) keeps a guards watch in the building material
- B) kept an eye of a watchdog on the building materials
- C) kept an eye on the building materials
- D) No error

Directions for questions 66 to 70: In the following questions part of the sentence is underlined. Below are given alternatives to the underlined part (A), (B) and (C), which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (D).

Q 68. Gunmen suspecting of belonging to Basque separatist group ETA killed two Spanish policemen working undercover in France.

- A) suspects of belonging to Basque separatist group ETA has kill two Spanish policemen
- B) suspected of belonging to Basque separatist group ETA killed two Spanish policemen
- C) suspecting of belonging to Basque separatist group ETA being killed two Spanish policeman
- D) No error

Q 69. In order to prevent vehicular movement on arterial roads, they would have had planted explosive devices, often deep in road surfaces.

- A) they had planted explosive devices, often deep under road surfaces.
- B) they had planted explosive device, often deep in road surfaces.
- C) they planted explosive devices, particularly deep into road surfaces.
- D) No error

Q 70. The efforts that went into the setting up of booths in these troubled areas necessitated attention to detail.

- A) were taken in the setting of
- B) went into the setting-up of
- C) underwent in the setting up of
- D) No error

Directions for questions 71 to 75: Choose the word opposite in meaning to the given word.

Q 71. ABHORRENT

- A) Terse
- B) Attractive
- C) Mature
- D) Usual

Q 72. ABSTRUSE

- A) Crazy
- B) Calm
- C) Obvious
- D) Boundless

Q 73. PROFANE

- A) Sacred
- B) Artless
- C) Rigid
- D) Aspersion

Directions for questions 71 to 75: Choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

Q 74. PERTINACIOUS

- A) Irretrievable B) Insipid C) Irresolute D) Reproof

Q 75. IMPECUNIOUSNESS

- A) Smoothness B) Carefree C) Affluence D) Stability

Reasoning & General Aptitude

Directions for questions 76 to 80: In the following questions, identify the pair of words which has a relationship similar to the pair in the question.

Q 76. Sword : Fight

- A) Pen : Write B) Computer : Electricity C) Band : Dance D) Paper : Draw

Q 77. Mouth : Flute

- A) Legs : Cello B) Accordion : Hands C) Cymbal : Elbow D) Fingers : Guitar

Q 78. Weapon : War

- A) Cradle : Child B) Sickle : Harvest C) Google : Search D) Electricity : Bulb

Q 79. Car : Fuel

- A) Bomb : Dynamite B) Gun : Cartridge C) Sitar : Strings D) Band : Chorus

Q 80. Igloo : Eskimo

- A) Nest : Hen B) Bleat : Dog C) Hill : Snake D) Pen : Sheep

In the question, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

Q 81. AJC, DKF, EMI, HPL, ___ ? ___

- A) KTO B) KSP C) ITO D) ISP

Q 82. BDF, QTW, GIK, VYB, ?

- A) LNP B) NOQ C) KOO D) ADG

Q 83. Select the term that will come in place of the question mark '?' in the following series.

VTS, RPO, NLK, ?, FDC

- A) HIK B) JHG C) JIH D) JIG

Q 84. In question find the odd word / number-pair from the given alternatives.

- A) Chord B) Trapezium C) Square D) Hexagon

Q 85. In the question find the odd word / number-pair from the given alternatives.

- A) Pianist B) Guitarist C) Musician D) Drummer

Q 86. In the question find the odd word / number / number-pair from the given alternatives.

A) Wool

B) Milk

C) Pearl

D) Raisin

Q 87. Find the odd word/letters/number pair/number from the given alternatives.

A) Hockey

B) Football

C) Race

D) Table Tennis

Q 88. Find the odd word/letters/number pair/number from the given alternatives

A) Root

B) Flower

C) Fruit

D) Leaves

Q 89. Six boys are standing in a way such that they form a circle, facing the centre. Sunil is to the left of Ramesh, Pankaj is between Sunil and Amit, Naresh is between Ramesh and Kamal. Who is to the right of Kamal?

A) Amit

B) Sunil

C) Ramesh

D) Pankaj

Q 90. In a certain code, pencil is written as pen, pen is written as eraser, eraser is written as ruler, ruler is written as compass, compass is written as protractor and protractor is written as box. What is used to remove pencil marks from paper?

A) compass

B) eraser

C) pen

D) ruler

Q 91. If LPHPK is coded as 59194 and KILHI is coded as 42512, then find the code of JMPON?

A) 36789

B) 46798

C) 36987

D) 47893

Q 92. If 'DIMPLE' is coded as 'FGONNC', then how can 'FRIEND' be coded as

A) HPKCPB

B) DPJCJG

C) HTKGPF

D) DPGCKB

Q 93. Looking at a photograph Rajiv said "I have no brother or sister but that man's father is my father's son". Whose photograph was Rajiv looking at?

A) His son's

B) His uncle's

C) His nephew's

D) His own

Q 94. Choose the option which best supports the suggestion given below.

"All microfinance institutions which currently are not regulated by any official body should now come under the ambit of NABARD."

A) This would lead to better access to loans.

B) A lot of microfinance institutions have been set up in the country.

C) Since they are not regulated, they are exploiting poor people by providing loans at higher rates.

D) This would bring in foreign investment in the infrastructure sector.

Q 95. In the past, people used to look for stable jobs even if it fetched them less income. They do not want that anymore.

Choose the option which most weakens the argument given above.

A) The recent recession has changed the attitude of people drastically; they want to be well settled in a job.

B) The glamour of the corporate world has caught hold of the people.

C) Government jobs, by virtue of their job security, continue to be most sought after.

D) Nothing gives a sense of satisfaction to a middle class person the way a secured job does.

Q 96. A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

5, 3, 3, 5, 15, 69, ?

A) 339

B) 414

C) 407

D) 483

In the question select the missing number from the given responses.

Q 97. 133, 159, 182, ?, 219, 233

A) 196

B) 1991

C) 202

D) 206

In the question a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

Q 98. 6, 7, 10, 19, 46, ?

A) 87

B) 123

C) 127

D) 151

Q 99. 2, 6, 24, 120, 720, ?

A) 2520

B) 3360

C) 4260

D) 5040

In the question select the missing number from the given responses.

Q 100. 6, 24, 60, ? , 210

A) 80

B) 90

C) 110

D) 120

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1	B	2	B	3	A	4	D	5	C	6	B	7	D	8	D	9	C	10	C	11	C	12	B	13	D	14	B	15	D	16	A
17	B	18	A	19	A	20	B	21	D	22	D	23	A	24	D	25	C	26	D	27	D	28	C	29	A	30	A	31	D	32	D
33	C	34	A	35	C	36	C	37	A	38	C	39	D	40	B	41	A	42	B	43	A	44	B	45	A	46	C	47	C	48	B
49	D	50	C	51	D	52	C	53	D	54	C	55	A	56	B	57	C	58	A	59	C	60	D	61	C	62	A	63	C	64	D
65	B	66	B	67	C	68	B	69	A	70	D	71	B	72	C	73	A	74	C	75	C	76	A	77	D	78	B	79	B	80	D
81	C	82	A	83	B	84	A	85	C	86	D	87	C	88	A	89	A	90	D	91	C	92	A	93	A	94	C	95	C	96	C
97	C	98	C	99	D	100	D																								

Let the length of the train be 'L' m and speed of the train be x m/s.

$$\therefore \text{Speed of the train} = \frac{L+100}{10} = \frac{L+500}{20}$$

From the above equation, we get

$$L = 300 \text{ m and } x = 40 \text{ m/s}$$

$$\therefore \text{Time required to cross a stationary man} = \frac{300}{40} = 7.5 \text{ sec.}$$

Q 1. Ans: B Solution:

Time taken by Mahabodhi Express and Udyog Nagri Express for entire journey in 10hr and 8hr respectively.

Let the speed of Mahabodhi Express and Udyog Nagri Express be x km/hr and (x + 10) km/hr respectively.

$$\therefore 10 \times x = 8(x + 10)$$

(Distance travelled by both the train is same)

$$\Rightarrow x = 40 \text{ km/hr.}$$

Hence, speed of Udyog Nagri Express = x + 10

Q 2. Ans: B Solution: = 40 + 10 = 50 km/hr.

Let speed of boat, $S_1 = 11 \text{ km/h}$

and speed of stream be S_2 .

In upstream,

$$11 - S_2 = \frac{12}{t_1} \Rightarrow t_1 = \frac{12}{11 - S_2}$$

and in downstream,

$$11 + S_2 = \frac{12}{t_2} \Rightarrow t_2 = \frac{12}{11 + S_2}$$

$$\text{Also, } t_1 + t_2 = 2 + \frac{45}{60}$$

$$\therefore \frac{12}{11 - S_2} + \frac{12}{11 + S_2} = 2.75$$

$$\Rightarrow 12 \left(\frac{22}{121 - S_2^2} \right) = 2.75$$

$$\Rightarrow 121 - S_2^2 = \frac{22 \times 12}{2.75}$$

$$\Rightarrow 121 - S_2^2 = 96$$

$$\Rightarrow S_2^2 = 25$$

$$\Rightarrow S_2 = 5 \text{ km/h}$$

Q 3. Ans: A Solution:

Career
Launch

Career
Launch

Career
Launch

Career
Launcher

Career
Launch

While working alone, Nirmal requires 20 days and Bob requires 50 days to complete the same work.
Suppose, Bob worked with Nirmal for x days. Then,

$$\frac{16}{20} + \frac{x}{50} = 1 \Rightarrow x = 10$$

Q 4. Ans: D **Solution:** Hence, Bob worked with Nirmal for 10 days.

Let the capacity of the tank be $x \times \text{LCM}$
(36, 45, 60)
i.e. $180x$ units.

The number of units filled by A in an hour

$$= \frac{180x}{36} = 5x$$

The number of units filled by B in an hour

$$= \frac{180x}{45} = 4x$$

The number of units emptied by C in an

$$\text{hour} = \frac{180x}{60} = 3x$$

$$\text{Hence, the required time} = \frac{180x}{5x + 4x - 3x}$$

Q 5. Ans: C **Solution:** = 30 hours.

Let the weights (in kg) of the father, the son and the mother be x , y and z respectively.

According to the question,

$$x : y = 3 : 2 \text{ and } y : z = 5 : 6$$

$$\text{Therefore, } x : y : z = 15 : 10 : 12$$

$$\text{Weight of the father} = 2 \times 37.5 = 75 \text{ kg}$$

$$\text{Weight of the mother} = \frac{12}{15} \times 75 = 60 \text{ kg.}$$

Q 6. Ans: B **Solution:**

Let the investment of Ashok, Munna and Lucky be Rs. A, Rs. M and Rs. L respectively.

$$\therefore 4L = 3M = 2A = 12x \text{ (Say)}$$

Q 7. Ans: D **Solution:**

$$\therefore \text{Required difference} = \frac{4x - 3x}{6x + 3x + 4x} \times 2392 = \text{Rs. } 184.$$

Equivalent discount to a series of successive discounts of 20%, 30% and 50% .

$$= 100 - (0.8 \times 0.7 \times 0.5 \times 100) = 72\%.$$

Q 8. Ans: D **Solution:**

$$\therefore \text{SP} = 200(1 - 0.72) = 56.$$

Let x litres per hour be the rate at which water comes out from the leak, then

$$x \times 8 = (x - 6) \times 12$$

$$\Rightarrow x = 18$$

Q 9. Ans: C **Solution:**

Hence, capacity of the tank = $18 \times 8 = 144$ litres.

Present age of the son = $13 + 2 = 15$ years

Present age of the wife = $15 \times 3 = 45$ years

Q 10. Ans: C **Solution:** Present age of the husband = $45 + 5 = 50$ years.

Let the volume of the mixture and the amount of mixture replaced by water be ' $4x$ ' and ' a ' respectively.

$$\therefore \frac{1}{2} = \frac{3}{4} \left(1 - \frac{a}{4x} \right) \Rightarrow a = \frac{1}{3}(4x)$$

Q 11. Ans: C **Solution:**

Cost of a Geometry Box = Rs. 48. Therefore, 2 Geometry Box cost Rs. 96

⇒ Cost of 16 books = Rs. 96

⇒ Cost of a book = Rs. 6

⇒ Cost of 10 books = Rs. 60 = Cost of 5 pencils.

⇒ Cost of 1 pencil = Rs. 12

⇒ Cost of 5 pencils = Rs. 60 = Cost of 3 pens.

⇒ Cost of 1 pen = Rs. 20

⇒ Cost of 5 pens = Rs. 100.

Q 12. Ans: B Solution:

P's one day work = $\frac{1}{12}$ and

Q's one day work = $\frac{1}{5}$.

Let in x days P can complete the remaining part of the work.
Then,

$$\frac{6}{12} + \frac{3}{12} - \frac{3}{5} + \frac{x}{12} = 1$$

$$\Rightarrow \frac{9}{12} - \frac{3}{5} + \frac{x}{12} = 1$$

$$\Rightarrow \frac{3}{20} + \frac{x}{12} = 1$$

$$\Rightarrow x = \frac{17}{20} \times 12 = 10.2.$$

Q 13. Ans: D Solution:

Let the original price of the machine be Rs. 100.

Price after 20% increase = 100 + 20% of 100 = Rs. 120

Price after $16\frac{2}{3}\%$ decrease in the following ear

$$= 120 - 16\frac{2}{3}\% \text{ of } 120 = \text{Rs. } 100$$

∴ Net increase in the price of the machine = 0

Q 14. Ans: B Solution:

$$1.\overline{34} = \frac{134-1}{99} = \frac{133}{99}$$

$$\text{and } 4.\overline{12} = \frac{412-41}{90} = \frac{371}{90}$$

$$\therefore 1.\overline{34} + 4.\overline{12} = \frac{133}{99} + \frac{371}{90}$$

$$= \frac{1330+4081}{990} = \frac{5411}{990} = 5\frac{461}{990}$$

Q 15. Ans: D Solution:

As average age did not change,

∴ Sum of ages of the two removed students
= $20 \times 2 = 40$ years.

Q 16. Ans: A Solution: Hence, age of the second student = $40 - 16 = 24$ years.

Three years before, sum of the ages of all five members in the family = $17 \times 5 = 85$ years

At present, their sum of ages = $85 + 3 \times 5 = 100$ years.

But, since a baby was born, the present sum of the age of six-member family = $17 \times 6 = 102$ years.

∴ Present age of the baby = $102 - 100 = 2$ years.

Q 17. Ans: B Solution:

Number of ways of selecting a committee of 3 members out of 10 members = ${}^{10}C_3 = 120$.

Number of ways of selecting a committee of 3 members in which at least 2 members are Engineers

= Number of ways of selecting 2 Engineers and 1 Manager +
Number of ways of selecting 3 Engineers

$$= {}^6C_2 \times {}^4C_1 + {}^6C_3 \\ = 15 \times 4 + 20 = 80$$

Q 18. Ans: **A** **Solution:** $\therefore \text{Required probability} = \frac{80}{120} = \frac{2}{3}$.

Let us suppose that the usual speed of his car be 'x' km/hr and usual time taken by his car be 't' hrs.

Since the distance travelled in both the cases is same,

$$\text{hence, } xt = (x + 20)\left(t - \frac{50}{60}\right) = (x - 15)\left(t + \frac{45}{60}\right)$$

$$\left[\text{speed} = \frac{\text{Distance}}{\text{Time}} \right]$$

Q 19. Ans: **A** **Solution:** $\Rightarrow x = 190 \text{ km/hr}$

Q 20. Ans: **B** **Solution:** The sum of 25 observations = $25 \times 36 = 900$

The sum of first 13 observations = $13 \times 32 = 416$

The sum of last 13 observations = $13 \times 39 = 507$

Hence, 13th observation = $416 + 507 - 900$

= $923 - 900 = 23$.

The 1st day of a month was Wednesday and the 1st day of the next to next month of the same year was Sunday i.e. there were 4 odd days i.e. there were 60 days in between these two dates.

This could be possible only when there were 31 and 29 days in these two months.

As the month whose 1st day was Wednesday wasn't January, i.e. it must have been February and next month was March.

Therefore, 1st day of 7th month i.e. July was Sunday.

Q 21. Ans: **D** **Solution:**

We know that:

$$\theta = \left| 30h - \frac{11}{2}m \right|$$

Where θ is the angle between the minute and hour hands, 'h' is the position of hour hand and 'm' is the position of minute hand.

$$\Rightarrow 75^\circ = \left| 30 \times 3 - \frac{11}{2}m \right|$$

$$\Rightarrow m = \frac{30}{11} \text{ and } 30.$$

Q 22. Ans: **D** **Solution:** Hence, the required time after 3 : 20 p.m. will be 3 : 30 p.m.

Hence, Bob worked with Nirmal for 10 days.

Simple interest for 1 year = $1380 - 1290 = \text{Rs. } 90$

Simple interest for 4 years = $90 \times 4 = \text{Rs. } 360$

Q 23. Ans: **A** **Solution:** $\therefore \text{Principal} = 1290 - 360 = \text{Rs. } 930$.

$$\frac{5}{6} \times \frac{2 \times \frac{5}{4}}{\frac{3}{4} \times \frac{16}{9} + \frac{3}{4} - \frac{1}{2}} = \frac{5}{6} \times \frac{\frac{5}{2}}{\frac{4}{3} + \frac{3}{4} - \frac{1}{2}}$$

$$= \frac{5}{6} \times \frac{\frac{5}{2}}{\frac{25}{12} - \frac{1}{2}} = \frac{5}{6} \times \frac{\frac{5}{2}}{\frac{19}{12}}$$

$$= \frac{5}{6} \times \frac{60}{38} = \frac{25}{19}$$

Q 24. Ans: **D Solution:**

Let the radius of the smallest circle be r .

The circumference of smallest circle $= 2\pi r = c\pi$

$$\Rightarrow r = \frac{c}{2}$$

\therefore Average of the areas of the seven circles

$$= \frac{\pi r^2 (1^2 + 2^2 + \dots + 7^2)}{7} = 20\pi r^2 = 20\pi \left(\frac{c}{2}\right)^2 = 5\pi c^2.$$

Q 25. Ans: **C Solution:**

Q 26. Ans: **D Solution:** India previously ranked at 140 dropped to 144.

Q 27. Ans: **D Solution:** The Comoros is a volcanic archipelago off Africa's east coast, in the warm Indian Ocean waters of the Mozambique Channel.

Q 28. Ans: **C Solution:** The State Bank of India (SBI) relaunched its Aadhaar-based instant digital savings account facility for customers who want to open an online account using the Yono platform.

Q 29. Ans: **A Solution:** Cabinet Committee on Economic Affairs approved a new policy for allocation of future coal linkages in a transparent manner for power sector. This policy was christened as Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India (SHAKTI).

Q 30. Ans: **A Solution:** The world's largest e-waste recycling facility is in Dubai.

Q 31. Ans: **D Solution:** Mathematician Karen Uhlenbeck has become the first woman to win the Abel prize, sometimes called the Nobel prize of mathematics.

Q 32. Ans: **D Solution:** RuPay is an Indian domestic card scheme conceived and launched by the National Payments Corporation of India on 26 March 2012.

Q 33. Ans: **C Solution:** Deepika Padukone was the latest Indian awarded with the Crystal Award at the World Economic Forum 2020.

Q 34. Ans: **A Solution:** Heena Sidhu is an Indian sport shooter. Sidhu became the first Indian pistol shooter to reach number one in world.

Q 35. Ans: **C Solution:** Chhattisgarh government recently signed a contract execution (MoU) for the country's first ethanol plant to be set up in the state under the public-private partnership (PPP) model.

Q 36. Ans: **C Solution:** The Andhra Pradesh Chief Minister, Y. S. Jagan Mohan Reddy has been conferred the Skoch Chief Minister of the Year Award.

Q 37. Ans: **A Solution:** The National Informatics Centre has launched an instant messaging platform called Sandes on the lines of WhatsApp.

Q 38. Ans: **C Solution:** The Reserve Bank of India (RBI) has constructed a composite Digital Payments Index (DPI) to capture the extent of digitisation of payments across the country.

Q 39. Ans: **D Solution:** The RBI appointed an eight-member expert committee headed by former SEBI chairman U.K. Sinha to comprehensively review and propose long-term solutions for revival of the micro, small and medium enterprises (MSME) sector.

Q 40. Ans: **B Solution:** Juventus star forward Cristiano Ronaldo reached an impressive milestone outside the football field. Ronaldo becomes the first person to hit the 250 million mark on Instagram.

Percentage of females in Bangaore = $100 - 52 - 13 = 35$

$$\text{Adult males} = 71200000 \times \frac{52}{100}$$

$$\text{Adult females} = \frac{71200000 \times 35}{100} = 24920000$$

Percentage of females in Delhi = 40

$$\text{Adult males} = \frac{93500000 \times 49}{100} = 45815000$$

$$\text{Adult females} = \frac{93500000 \times 40}{100} = 37400000$$

$$\text{Difference} = 37024000 + 45815000 - 24920000 - 37400000 = 20519000$$

$$\text{Hence, required percentage} = \frac{20519000}{62320000} \times 100 = 33.$$

Q 41. Ans: **A** **Solution:**

$$\text{Required percentage} = \frac{16}{41} \times 100 = 39.$$

Q 42. Ans: **B** **Solution:**

Females :

$$\text{Gujarat} = \frac{68300000 \times 43}{100} = 29369000$$

$$\text{Delhi} = 37400000$$

$$\text{Difference} = 37400000 - 29369000 = 8031000.$$

Q 43. Ans: **A** **Solution:**

Adult population :

$$\text{Chandigarh} = \frac{42500000 \times 86}{100} = 365500000$$

$$\text{Mumbai} = \frac{81200000 \times 84}{100} = 68208000$$

$$\text{Total population} = 365500000 + 68208000$$

Q 44. Ans: **B** **Solution:** = 104758000.

Q 45. Ans: **A** **Solution:** Required ratio = $93500000 : 54500000 = 935 : 545 = 187 : 109$

Q 46. Ans: **C** **Solution:** Nimble means able to move quickly and lightly. Thus, agile is correct.

Q 47. Ans: **C** **Solution:** Morose means bad-tempered, and not saying much to other people

Q 48. Ans: **B** **Solution:** Bamboozle means to cheat, hoodwink or deceive someone.

Q 49. Ans: **D** **Solution:** Ensconce means to establish or settle (someone) in a comfortable, safe place.

Q 50. Ans: **C** **Solution:** Ingratiate means to make yourself liked by doing or saying things that will please people, especially people who might be useful to you

Q 51. Ans: **D** **Solution:** Augury refers to a sign of what will happen in the future; an omen.

Q 52. Ans: **C** **Solution:** The passage supports option (C). It's mentioned that the concept of exploring the female form and its extension "cartographically" as Mother India was made popular in the 1920s. However, when Husain used the same concept in his work, he had to face aggression and criticism.

Q 53. Ans: **D** **Solution:** Option (D) is implied by the last sentence of the passage. No other option is implied or hinted at, in the given passage.

Q 54. Ans: **C** **Solution:** It follows from the passage that the historians Gilmartin and Metcalf offer "critical, nuanced reading" of Justice Kaul's judgment and its implications for "India's free construction of its own culture and national identity by its artist." It also follows that they believe that Husain "has searched for a underlying civilizational spirit, refusing to draw Muslim." Only option (C) is in line with these opinions.

Q 55. Ans: **A** **Solution:** Option (A) runs contrary to what is mentioned in the passage. So, it is least likely to be inferred from the given paragraph. The rest of the options can be derived from the passage.

Q 56. Ans: **B** **Solution:** The correct answer is (B) because an entity X can either 'integrate' with or 'integrate' into an entity Y. No other

preposition can fit in the given context.

Q 57. Ans: **C** **Solution:** The sentence suggests that the blank should be filled by a synonym of hunch. Options (A) and (D) do not logically fit into the sentence. Option (B) is negated because thought refers to an idea or opinion, which is also incorrect in the given context.

Q 58. Ans: **A** **Solution:** The phrase by the sound of something refers to the idea or impression conveyed by someone/something from what somebody says or what you read.

Q 59. Ans: **C** **Solution:** An outlet refers to something that people use to express their emotions or talents. Output refers to something that is produced by someone/something; outset means the start or beginning of something and outbreak refers to a sudden start or increase of fighting or disease.

Q 60. Ans: **D** **Solution:** Option (B) is negated because the phrase is at the top and not at top. Moreover, at the top refers to the highest level, which would be incorrect in the given context. At most means not more than and hence, would be repetitive. At all means in any way, which would seem the most apt in the given context. She does not look more than 20 in any way.

Q 61. Ans: **C** **Solution:** Prudent is something that shows good judgment. Penurious means very poor and plausible means probably true or realistic. Feasible means possible to do.

Q 62. Ans: **A** **Solution:** Bring home the bacon means to gain success.

Q 63. Ans: **C** **Solution:** To spell out everything means to explain in a detailed way.

Q 64. Ans: **D** **Solution:** Nose around means to search for something (such as private or hidden information) in usually a quiet or secret way.

Q 65. Ans: **B** **Solution:** Someone who is thoroughly, intrinsically inclined to behave badly and cause trouble is termed a rotten egg.

Q 66. Ans: **B** **Solution:** The sentence tries to establish a sequence of events. Thus, option B is correct.

Q 67. Ans: **C** **Solution:** Keep a watch/eye should be followed by the preposition on and not in. Keep an eye of a watchdog is incorrect.

Q 68. Ans: **B** **Solution:** The other options have tense inconsistency.

Q 69. Ans: **A** **Solution:** The other options either have a tense inconsistency or a subject-verb disagreement.

Q 70. Ans: **D** **Solution:** Setting-up is an incorrect usage. Here, the sentence will take set up, which means to assemble the parts of and erect in position. Underwent in is grammatically incorrect.

Q 71. Ans: **B** **Solution:** Abhorrent means causing or deserving strong dislike or hatred.

Q 72. Ans: **C** **Solution:** Abstruse means difficult to understand, obscure.

Q 73. Ans: **A** **Solution:** Profane means to treat (something sacred) with abuse, irreverence, or contempt : desecrate.

Q 74. Ans: **C** **Solution:** Pertinacious means holding firmly to an opinion or a course of action.

Q 75. Ans: **C** **Solution:** Impecuniousness means having very little or no money usually habitually : penniless.

Q 76. Ans: **A** **Solution:** Just like a 'sword' is used for 'fighting', a 'pen' is used for 'writing'.

Q 77. Ans: **D** **Solution:** The relationship given between the elements of the given pair is that of the body part used to play the instrument and the instrument i.e. mouth and flute. A similar relationship is presented by option (D) – fingers and guitar. Options (A) is incorrect as 'cello' is played with hands and not legs. Options (B) and (C) are incorrect because the positioning of the elements (i.e. instrument : body part used to play it) is opposite to the pair in question (i.e. body part used to play the instrument : instrument).

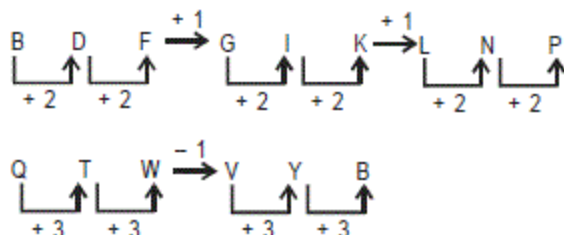
Q 78. Ans: **B** **Solution:** Just like a 'weapon' is used as an equipment during war; similarly a 'sickle' is used as an equipment for harvesting. Option (D) is incorrect because electricity is not an equipment. Option (B) is the correct answer.

Q 79. Ans: **B** **Solution:** Just like 'fuel' is necessary for a car to fulfill its function similarly a 'cartridge' is necessary for a 'gun' to fulfill its function.

Q 80. Ans: **D** **Solution:** Just like an 'Eskimo' lives in an 'igloo', similarly a 'sheep' lives in a 'pen'. A 'hen' lives in a 'coop', a 'dog' lives in a kennel and a 'snake' lives in a 'burrow'.

Q 81. Ans: **C** **Solution:** Position number of first letter of each term increases by 3 and 1 in alternate terms. Position number of middle letter of each term increases by 1, 2, 3, 4, 5,...and so on. Position number of third letter of each term increases by 3.

Hence, the missing term is **ITO**.



Q 82. Ans: **A** **Solution:**

V → R → N → J → F
 T → P → L → H → D
 S → O → K → G → C

Q 83. Ans: **B** **Solution:**

Q 84. Ans: **A** **Solution:** Except Chord, rest all are polygons.

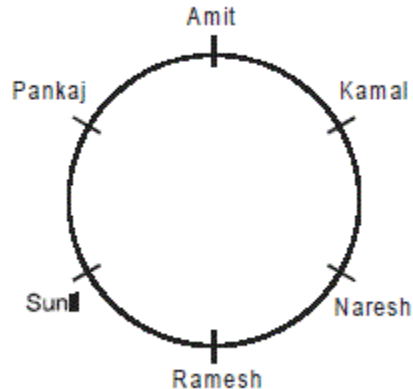
Q 85. Ans: **C** **Solution:** Option (C) is the correct answer since a musician can play any instrument whereas pianist, guitarist and drummer are specialist in their respective instruments.

Q 86. Ans: **D** **Solution:** Options (A), (B) and (C) are obtained from animals. Option (D), raisins, are obtained from trees and hence, is the answer.

Q 87. Ans: **C** **Solution:** Except Race, in all other games, ball is used to play.

Q 88. Ans: **A** **Solution:** Except Root, all the parts of a tree can be seen.

The final seating arrangement will be:

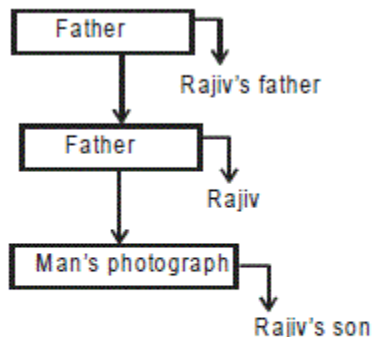


Q 89. Ans: **A** **Solution:** Hence, Amit is to the right of Kamal.

Q 90. Ans: **D** **Solution:** The required answer is ruler.

Q 91. Ans: **C** **Solution:** In coding language, each letter is written as a number 7 less than the position number of that letter. Hence, JMPON is coded as 36987.

Q 92. Ans: **A** **Solution:** In coding language, alternate letters are replaced by second next and second previous letter starting from left. Hence, the code for FRIEND is HPKCPB.



Since Rajiv does not have any brother or sister, it means Rajiv's father's son is Rajiv himself. Therefore, the man in the photograph is Rajiv's son. Hence, the answer is option (A).

Q 93. Ans: **A** **Solution:**

Q 94. Ans: **C** **Solution:** Only option (C) provides a plausible reason for the advice that microfinance institutions should come under the ambit of NABARD. Accessibility to loan is improved by setting up more branches of microfinance institutions and not by regulating them. Option (B) doesn't support the suggestion in any way. Infrastructure sector as mentioned in option (D) is out of context.

Q 95. Ans: **C** **Solution:** The argument states that in the past, people preferred stable jobs even if it fetched them less income. But things have changed now; that is, for people, income has become more important a criterion as compared to the stability of job. This is weakened by the statement given in option (C). The fact that government jobs are in demand because of their promise of job security weakens the argument as it means that people still value stability over income. Option (A) is just the opposite of the argument but doesn't weaken the argument. Option (B) is unrelated and doesn't affect the argument. The

sense of satisfaction talked about in option (D) doesn't tell us whether people actually seek it by foregoing extra income.

Hence, option (C) is the correct answer.

Q 96. Ans: **C** **Solution:** $5 \times 1 - 2 = 3$

$$3 \times 2 - 3 = 3$$

$$3 \times 3 - 4 = 5$$

$$5 \times 4 - 5 = 15$$

$$15 \times 5 - 6 = 69$$

$$69 \times 6 - 7 = 407...$$

The pattern followed in the series is:

$$133 + 26 = 159$$

$$159 + 23 = 182$$

$$182 + 20 = 202$$

$$202 + 17 = 219$$

$$219 + 14 = 233$$

\therefore The missing term is 202.

Q 97. Ans: **C** **Solution:**

$$6 + 3^0 = 7$$

$$7 + 3^1 = 10$$

$$10 + 3^2 = 19$$

$$19 + 3^3 = 46$$

$$46 + 3^4 = 127.$$

Q 98. Ans: **C** **Solution:**

$$2 \times 3 = 6$$

$$6 \times 4 = 24$$

$$24 \times 5 = 120$$

$$120 \times 6 = 720$$

$$720 \times 7 = 5040.$$

Q 99. Ans: **D** **Solution:**

Q 100. Ans: **D** **Solution:** $2^3 - 2 = 6$

$$3^3 - 3 = 24$$

$$4^3 - 4 = 60$$

$$5^3 - 5 = 120$$

$$6^3 - 6 = 210$$