

FULLY SOLVED QUESTION

1. A full set of permanent teeth consists of
(A) 30 teeth (B) 24 teeth (C) 28 teeth (D) 32 teeth
(E) 22 teeth
2. Which one of the following does not belong to the same category?
(A) Human beings (B) Elephant (C) Cow (D) Cockroach
(E) None of these
3. An earthworm has
(A) Two eyes (B) No eyes (C) Infinite number of eyes
(D) One eye (E) Three eyes
4. B.C.G. is a vaccine effective against
(A) Cancer (B) Tuberculosis (C) Diphtheria (D) Polio
(E) All of the above
5. The units of length, mass and time are called
(A) Fundamental units (B) Derived units
(C) Metric units (D) International system
(E) None of the above
6. Deficiency of Vitamin "C" causes
(A) Beriberi (B) Rickets (C) Night blindness
(D) Scurvy (E) None of these
7. Pick out the name of the scientist that is associated with Atomic Theory
(A) Robert Brown (B) Darwin (C) Dalton
(D) Isaac Newton (E) Albert Einstein
8. The average heart beat of an adult human is — per minute
(A) 60-65 (B) 70-72 (C) 75-80 (D) 65-70
(E) 80-85
9. C.V. Raman was awarded Nobel Prize for
(A) Literature (B) Chemistry (C) Physics (D) Peace
(E) Biology
10. The friend of the farmer is
(A) Round worm (B) Earthworm (C) Hook worm (D) Tape worm
(E) None of these
11. The river that flows westward and fall into the Arabian sea
(A) Mahanadi (B) Narmada (C) Godavari (D) Krishna
(E) Kaveri

12. Which is the biggest island of Japan?
(A) Kyushu (B) Shikoku (C) Honshu (D) Kyoto
(E) Yokohama
13. The longest dam in the world
(A) Bhakra Nangal (B) Hirakud
(C) Damodar Valley project (D) The Beas project
(E) Thungabhadra project
14. Rourkela steel plant is situated in
(A) Bihar (B) Bengal (C) Madhya Pradesh
(D) Orissa (E) Karnataka
15. The biggest Ocean
(A) Atlantic Ocean (B) Pacific Ocean
(C) Indian Ocean (D) Arctic Ocean
(E) Southern Ocean
16. Which day is known as World Environment Day?
(A) June 5 (B) May 1 (C) November 14 (D) September 5
(E) January 30
17. Darkest continent in the World
(A) Australia (B) Asia (C) Africa (D) South America
(E) Europe
18. Which one of the following is known as "Garden City of India"?
(A) Imphal (B) Jabalpur (C) Bangalore (D) Trivandrum
(E) Mangalore
19. Kalpakkam in Tamil Nadu is famous for
(A) Nuclear power generation (B) Hydel power generation
(C) Thermal power generation (D) Steel plant (E) None of these
20. The most important and vital organ of the U.N.
(A) The General Assembly (B) The Security Council
(C) The Economic and Social Council (D) The Trusteeship Council
(E) The Secretariat
21. Side of a square is $4x$. Its area is
(A) $16x^2$ (B) $8x$ (C) $8x^2$ (D) $16x$
(E) $64x^3$
22. Find x , if $25 : x = x : 4$
(A) 20 (B) 30 (C) 10 (D) 25
(E) 50
23. The exponent in $(2ab)^{-2.6}$ is
(A) 2.6 (B) -5.2 (C) 5.2 (D) -2.6
(E) 0
24. The length of a rectangle is 2 cms more than its width. If the perimeter is 36 cms., then the area is
(A) 80 sq. cm. (B) 72 sq. cm. (C) 90 sq. cm. (D) 120 sq. cm.
(E) 18 sq. cm.
25. If 21 cows eat equal to 15 oxen, how many cows will eat equal to 25 oxen?
(A) 30 cows (B) 32 cows (C) 35 cows (D) 38 cows
(E) None of these
26. If $3p = 5q$, then what is $p : q$?
(A) 5 : 3 (B) 3 : 5 (C) $3p : 5q$ (D) 1 : 2
(E) 2 : 1
27. If $A : B = 3 : 5$; $B : C = 4 : 7$. Find $A : B : C$?
(A) 6 : 10 : 7 (B) 12 : 20 : 35 (C) 3 : 5 : 7 (D) 20 : 12 : 35
(E) 21 : 3 : 20
28. Number of subsets of a set contains " n " elements is
(A) 3^n (B) 4^n (C) 1^n (D) 2^n
(E) None of these
29. $(2 + 3) + 5 = 2 + (3 + 5)$ obey the law of

- (A) Commutative (B) Associative (C) Distributive (D) Closure
(E) None of these

30. If $n(A) = 20$; $n(B) = 8$; $n(A \cup B) = 28$, then $n(A \cap B)$ is
(A) Zero (B) 1 (C) 2 (D) 3
(E) 12
31. $7200 \div 18 \times 0.2$ is equal to
(A) 400 (B) 800 (C) 8 (D) 2000
(E) None of these
32. $3\frac{3}{4}$ of 1280 + _____ = 250% of 2000
(A) 20 (B) 100 (C) 500 (D) 200
(E) 2000
33. A train moving with a uniform speed of 60 km./hr. crosses a pole in 6 seconds. The length of the train (in metres) is
(A) 100 m. (B) 150 m. (C) 120 m. (D) 200 m.
(E) 360 m.
34. The next number of the sequence 1, 4, 10, 19, 31, _____ is
(A) 43 (B) 45 (C) 46 (D) 50
(E) 41
35. The average of three numbers is 15. If two numbers are 7 and 28 the third is
(A) 14 (B) 21 (C) 5 (D) 10
(E) None of these

36. Two poles, 15 m. and 30m. high are 36m. apart. The distance between their tops is
 (A) 45 m. (B) 40 m. (C) 39 m. (D) 36 m.
 (E) 35 m.
37. 16 men can reap a field in 30 days. In how many days will 20 men reap the field?
 (A) 25 days (B) 24 days (C) 30 days (D) 23 days
 (E) 20 days
38. If Rs. 6,000 amounts to Rs. 7,200 in 4 years, then the rate of interest is
 (A) 4% (B) 5% (C) 6% (D) 7%
 (E) 10%
39. The supplement of right angle is always
 (A) Acute angle (B) Obtuse angle (C) Right angle (D) Reflex angle
 (E) None of these
40. $x^2 - 12x + 36$ is equal to
 (A) $(x - 6)^2$ (B) $(x + 6)^2$ (C) $(6 - x)^2$ (D) $(6 + x)^2$
 (E) $(x + 6)(x - 6)$
41. The famous work "Arthashastra" was written by
 (A) Panini (B) Kalidas (C) Patanjali (D) Kautilya
 (E) None of these
42. In the Second Five Year Plan — was given the highest priority
 (A) Industries (B) Irrigation
 (C) Employment (D) Eradication of poverty
 (E) Agriculture
43. Seismograph is an instrument used for recording
 (A) Earthquake waves (B) Atmospheric pressure
 (C) Temperature (D) Sea waves
 (E) None of these
44. The Governor is appointed by
 (A) The President of India (B) Prime Minister
 (C) Chief Justice (D) Chief Minister
 (E) People
45. The highest court of Justice in a State
 (A) Supreme Court (B) High Court
 (C) District Court (D) Sub Court
 (E) Magistrate Court
46. The Secretary-General of U.N.
 (A) Nelson Mandela (B) Bill Clinton
 (C) Kofi Annan (D) Winny Mandela
 (E) None of the above
47. Who was the Chairman of the Drafting Committee that drafted the Constitution?
 (A) Dr. Rajendra Prasad (B) Jawaharlal Nehru
 (C) Dr. B.R. Ambedkar (D) Mahatma Gandhiji
 (E) Lal Bahadur Shastri
48. The Chairman of Rajya Sabha is
 (A) President of India (B) Vice President of India
 (C) Governor (D) Prime Minister
 (E) Chief Minister

49. The home of Bharata Natyam is
 (A) Tamil Nadu (B) Kerala (C) Karnataka (D) Andhra Pradesh
 (E) West Bengal
50. Quit India Movement started in
 (A) 1933 (B) 1946 (C) 1942 (D) 1940
 (E) 1938
51. The first woman in space is
 (A) Tamara Press (B) Sally Ride (C) Nadia Comenci
 (D) Valentina Tereshkova (E) Olga Korbut
52. The first man to reach South Pole was
 (A) Robert Walpole (B) Amundson
 (C) Robert Peary (D) Neil Armstrong (E) None of these
53. The Capital of Vietnam
 (A) Bagdad (B) Tehran (C) Hanoi (D) Seoul
 (E) Paris
54. Currency of Italy
 (A) Lira (B) Rouble (C) Yen (D) Rupee
 (E) Euro
55. The Chinese traveller Fahien visited India during the reign of
 (A) Chandra Gupta I (B) Samudra Gupta
 (C) Vikramaditya (D) Mohammed Gazni
 (E) Harsha Vardhana
56. "Satyameva Jayathe" in National Emblem is written in
 (A) Devanagari script (B) Brahmi script (C) Malayalam
 (D) Sanskrit (E) None of these
57. Brahma Samaj was founded by
 (A) Vivekananda (B) Ishwar Chandra Vidya Sagar
 (C) Swamy Dayananda Saraswathi (D) Raja Ram Mohan Roy
 (E) None of these
58. Russian Revolution is in
 (A) 1917 (B) 1789 (C) 1921 (D) 1911
 (E) 1894
59. The first war of Indian Independence began on 10th May 1857 at
 (A) Jhansi (B) Delhi (C) Gwalior (D) Barrack Pore
 (E) Meerut
60. Language of Sri Lanka
 (A) Sinhalese (B) Malayalam (C) Tamil (D) English
 (E) None of these
61. Which of the following is most important for the growth of the children upto the age of 14 ?
 (A) Protein (B) Vitamin (C) Fat (D) Milk
 (E) None of these
62. The poisonous gas that killed many people in Bhopal was
 (A) Carbon monoxide (B) Methyl isocyanide
 (C) Ethylene (D) L.P.G. (E) None of these
63. The S.I. unit of force is
 (A) Newton (B) Erg (C) Dyne (D) Ampere
 (E) Joule
64. Vaccination against Small Pox was discovered by
 (A) Alexander Fleming (B) Edward Jenner
 (C) Ronald Ross (D) Robert Koch (E) Isaac Newton
65. An example for 1st order lever is
 (A) Nut cracker (B) Fishing rod (C) A pair of pliers (D) Bottle opener
 (E) None of these
66. The standard unit of time is
 (A) Hour (B) Day (C) Minute (D) Second
 (E) Year
67. The scientist who study about earthquakes is called
 (A) Geologist (B) Ecologist (C) Pathologist (D) Seismologist

- (E) None of these
68. A person who weighs 120 kgs. on earth will weigh on the moon
 (A) 60 kgs. (B) 20 kgs. (C) 30 kgs. (D) 40 kgs.
 (E) 120 kgs.
69. The process by which solids directly change to gaseous state is
 (A) Diffusion (B) Condensation (C) Sublimation (D) Vapourisation
 (E) Distillation
70. Velocity of sound is
 (A) 330 cm./sec. (B) 330 m./sec. (C) 1.5 km./sec. (D) 300 m./sec.
 (E) 300 km./sec.
71. Blood vessels which carry blood from heart to all parts of the body are
 (A) Arteries (B) Veins (C) Capillaries (D) Nerves
 (E) None of these
72. Sound can't travel through
 (A) Solid (B) Vacuum (C) Liquid (D) Gas
 (E) None of these
73. The vitamin which helps in the coagulation of blood is
 (A) Vitamin E (B) Vitamin C (C) Vitamin A (D) Vitamin K
 (E) Vitamin B
74. One of the following is used by the motorist to see the road behind him
 (A) Concave mirror (B) Convex mirror
 (C) Concave lens (D) Convex lens (E) None of these
75. Which of the following is a chemical change?
 (A) A glass tumbler breaks
 (B) Change of season
 (C) Ice on heating changes into water
 (D) Hydrogen and oxygen combine to give water
 (E) None of these
76. Which of the following is a waterborne disease?
 (A) Typhoid (B) Measles (C) Pnumonia (D) Tuberculosis
 (E) None of these
77. Normal temperature of human body
 (A) 98° F (B) 98.4° F (C) 32° C (D) 95°
 (E) 95.4° F
78. The lens used for correcting long-sight is
 (A) Concave (B) Convex (C) Concavo-convex
 (D) Plano-concave (E) None of these
79. Temporary hardness is caused in water due to the presence of
 (A) Calcium bicarbonate (B) Calcium sulphate
 (C) Calcium hydrogen sulphate (D) Calcium hydrogen carbonate
 (E) All of the above
80. The pollutant which gives rise to acid rain is
 (A) SO₂ (B) CO (C) CO₂ (D) SO₄
 (E) N₂O₄
81. Area of a room is 400 sq. m. If the length of tile is 20 cms. and breadth is 10 cm., the number of tiles required is
 (A) 200 (B) 20 (C) 1000 (D) 20000
 (E) 2000
82. A man sold a horse for Rs. 360 losing 4 % of the cost price. How much does he pay for the horse?
 (A) Rs. 354 (B) Rs. 364 (C) Rs. 375 (D) Rs. 370
 (E) Rs. 350
83. Coefficient of y in $-3xy + 5$ is
 (A) $-3x + 1$ (B) $-3x$ (C) -3 (D) $-3x + 5$
 (E) -1

84. The ratio of the number of male and female teachers in a school is found to be 2 : 3.

If there are 20 male teachers, the number of female teachers are

- (A) 30 (B) 28 (C) 50 (D) 41
(E) 80.

85. Write the smallest whole number

- (A) 1 (B) 0 (C) 2 (D) -1
(E) 3

86. Write the degree of the polynomial $x^2yz - 3xy^2z^2$

- (A) 1st (B) 2nd (C) 3rd (D) 6th
(E) 7th

87. The decimal notation of

$$1 \times \frac{1}{10^2} + 2 \times \frac{1}{10^3} + 5 \times \frac{1}{10^4} \text{ is}$$

- (A) 0.125 (B) 1.25 (C) 0.0125 (D) 12.5
(E) 0.00125

88. Find the value of $(-1)^{99} (1)^{99}$

- (A) +1 (B) 50 (C) 100 (D) -49
(E) -1

89. $8^8 \times 7^7 =$ _____

- (A) 1 (B) 0 (C) 7 (D) 56
(E) 7.5

90. Diameter of a circle is

- (A) A chord of the circle (B) The longest chord of the circle
(C) Segment of the circle (D) A line passing through the centre
(E) All of these

91. $0.06 \times \sqrt{0.00049}$

- (A) 0.22 (B) 222 (C) 2.22 (D) 21
(E) None of these

92. 19, 31, 46, 64, _____

- (A) 85 (B) 86 (C) 82 (D) 83
(E) None of these

93. The sides of two squares are in the ratio 3 : 4. The ratio of their areas is

- (A) 3 : 4 (B) 6 : 7 (C) 9 : 16 (D) 6 : 8
(E) 1 : 1

94. There are 50 children in a village out of 450 people, the part of adult is

- (A) $\frac{1}{9}$ (B) $\frac{8}{9}$ (C) $\frac{9}{10}$ (D) $\frac{9}{8}$
(E) None of these

95. If $\sqrt{7744} = 88$, find the value of $\sqrt{0.007744}$

- (A) 0.09 (B) 88.1 (C) 0.088 (D) 88.8
(E) 0.88

96. The longest bone in the human body

- (A) Stirrup (B) Backbone (C) Thigh bone (D) Gullet
(E) None of these

97. Which of the following is not a herbivorous animal?

- (A) Squirrel (B) Camel (C) Hippopotamus (D) Cow
(E) Vulture

98. Which of the following is a renewable source of energy?

- (A) Diesel (B) Sunlight (C) Coal (D) Petrol
(E) None of these

99. Which of the following has the highest percentage in air?

- (A) Oxygen (B) Carbon dioxide (C) Nitrogen (D) Water vapour
(E) Hydrogen

100. A ray of light falls on a plane mirror with an angle of incidence equal to 60° . The angle of reflection is

- (A) 50° (B) 45° (C) 70° (D) 60°
(E) 120°

ANSWERS : FULLY SOLVED PSC QUESTION PAPER

- (D) Milk teeth appear by the age of 7 months, adult teeth appear from 6th year onwards and wisdom teeth appear between the age of 17-30 years.
- (D) Others are mammals.
- (B) Earthworms have no eyes and ears but they have mouth and sense heat, light and touch. An earthworm is a hermaphrodite; that is an animal that has both male and female reproductive organs.
- (B) Bacillus Calmette Guerin (BCG) was discovered by Albert Calmette and Camille Guerin in 1922. Tuberculosis is a disease that spreads through air. The Vaccine, triple antigen is given to children to immunise them against Diphtheria, Pertussia (whooping cough) and Tetanus.
- (A) Units derived from fundamental units are derived units.
- (D) Deficiency of vitamin 'B' or Thiamine causes Beriberi. Deficiency of vitamin 'D' causes Rickets. Deficiency of vitamin 'A' causes Night blindness.
- (C) The Theory of Organic Evolution was discovered by Charles Darwin. General Theory of Relativity and Photo Electric Effect were discovered by Albert

Einstein. Isaac Newton discovered Laws of Gravitation.

8. (B) The normal heart beat is 70-72 per minute in males and 78-82 per minute in females.
9. (C) First Asian and Indian to win Nobel Prize for Physics is Sir C.V. Raman in 1930.
10. (B) Earthworms contribute for the growth of plants. So it is called farmer's friend.
11. (B) Narmada and Tapi are the two major west flowing rivers of India. They drain at Gulf of Cambay in the Arabian sea.
12. (C) Out of 1000 islands Honshu is the largest. Hokkaida is the second largest.
13. (B) Hirakud is on Mahanadi in Orissa.
14. (D) ▶ The three important steel plants of India were built during the Second Five Year Plan period. They are Durgapur (West Bengal) with British help, Bhilai (Madhya Pradesh) with Russian help and Rourkela (Orissa) with German help.
15. (B) Both largest and deepest ocean is Pacific Ocean.
Smallest Ocean is Arctic Ocean.
16. (A) ▶ November 14 - World Diabetes Day.
September 5 - Teacher's Day (India)
January 30 - Martyr's Day (India)
17. (C) ▶ Largest continent is Asia. Smallest continent is Australia.
18. (C) ▶ Garden of India is Kashmir.
19. (A) ▶ Koodankulam is the second Nuclear Power Station being built in Tamil Nadu.
20. (B) UN Security Council at present has 15 members; 5 permanent members and 10 non permanent members.
21. (A) Area of a square = a^2
 $a^2 = 4x \times 4x = 16x^2$
22. (C) $x^2 = 25 \times 4$
 $x = \sqrt{25 \times 4} = 5 \times 2 = 10$
23. (D)
24. (A) Width = x
So length = $x + 2$
Perimeter = $2(1 + b)$
 $= 2(x + 2 + x) = 36$
 $4 + 4x = 36$
 $x = \frac{32}{4} = 8$
Area = $l \times b = 10 \times 8 = 80$ sq. cm.
25. (C) 21 cows = 15 oxen

$$7 \text{ cows} = 5 \text{ oxen}$$

$$1 \text{ oxen} = \frac{7}{5}, 25 \text{ oxen} = \frac{7}{5} \times 35$$

26. (A)
27. (B) A : B = 3 : 5
B : C = 4 : 7. So A : B : C = 12 : 20 : 35
28. (D)
29. (B)
30. (A)
31. (E) Answer is 80.
32. (D)
33. (A) 60 km/hr changed in to m/sec.
Length = Speed \times Time
 $60 \times \frac{5}{18} \times 6 = 100m$
34. (C) $1^{-3} 4^{-6} 10^{-9} 19^{-12} 31^{-15} 46$
35. (D) Total = $15 \times 3 = 45$
 $\therefore 7 + 28 + ? = 45$
 $? = 10$
36. (C) $\sqrt{36^2 + 15^2} = \sqrt{1521} = 39m$
37. (B) $\frac{16 \times 30}{20} = 24$ days
38. (B)
- $$R = \frac{I \times 100}{PN} = \frac{1200 \times 100}{6000 \times 4} = 5\%$$
39. (C)
40. (A)
41. (D) Kautilya also known as Chanakya was the Prime Minister of Chandragupta Maurya. He wrote *Arthashastra*, a treatise on statecraft. His real name was Vishnu Gupta.
42. (A) ▶ 1st plan gave priority to agriculture
43. (A)
44. (A) All important officials like Prime Minister, Other Union Ministers, Attorney - General, Comptroller and Auditor General, Judges of the Supreme Court and High Courts, Governor of a state, UPSC Chairman, Chief Election Commis-

sioner are appointed by the President.

45. (B) ▶ The High Court of Kerala is situated at Ernakulam.
46. (E) ▶ The Present Secretary - General of U.N. - Banki Moon.
47. (C) Dr. B.R. Ambedkar is also known as "The Architect of Indian Constitution".
48. (B) Vice-President is elected by an electoral college of members of the two Houses (Rajya Sabha and Lok Sabha).
49. (A) Kuchipudi-Andhra Pradesh Yakshagana-Karnataka. Kathakali, Mohiniyattam and Ottanthullal are the popular dance forms of Kerala.
50. (C)
51. (D) Valentina Tereshkova went to space in June 1963. ▶ First man to go to space was Yuri Gagarin of USSR. He orbited the earth on board Vostok-I on April 12, 1961.
52. (B) ▶ First man to reach the North Pole was Robert Peary (USA).
53. (C)

Country	Capital
Iraq	Baghdad
Iran	Tehran
France	Paris
South Korea	Seoul

54. (E) Euro. Lira was the currency till 2002 January 1.
55. (C) Chandragupta II is popularly known as 'Vikramaditya'. Fahein, visited during his time.
▶ Hieun-Tsang, the Chinese traveller, visited India during the reign of Harsha Vardhana.
56. (A) ▶ The National Emblem of India is an adaptation from the Saranath Lion Capital of Ashoka as preserved in the Saranath Museum. The words 'Satyameva Jayate' from the Mundaka Upanishad are inscribed below the emblem in Devanagari script.
57. (D) Raja Ram Mohan Roy founded Brahma Samaj in the year 1828.
58. (A) ▶ 1789 - French Revolution.
1911 - Chinese Revolution.
59. (E) Mangal Pande was the first soldier to revolt in 1857.
60. (A)
61. (A) Proteins are needed for growth and development of human body. Rich sources of proteins are milk, fish, meat, eggs and nuts.
62. (B) This incident was occurred in 1984.
63. (A)
64. (B) ▶ Rabies vaccine was discovered by Louis Pasteur. Polio Vaccine (injectable) was discovered by Jonas E. Salk. Oral Polio Vaccine was discovered by Albert Sabin.
65. (c) Levers are of three types.
I order, II order and III order according to the position of effort E (ഘർമ്മം).

resistance R (അടയാ) and fulcrum F (അപ്രാപ്തം). Point of rotation of lever is called fulcrum (F), the force applied to the lever is called effort (E) and load or force overcome by the lever is called resistance (R). If F is between R and E, that type of levers are called *first order levers*.

e.g., *Common balance, see-saw, scissors, pliers, spanners, nail puller, etc.*

If R is between F and E that type of levers are called *second order levers*.

e.g., *Nut crackers, Bottle opener, lime squeezer, wheel barrow, etc.*

If E is between R and F that type of levers are called *third order levers*.

e.g., *Fire tongs, ice tongs, forceps, fishing rod, etc.*

66. (D)

67. (D)

68. (B) ▶ An object will have $\frac{1}{6}$ th of earth's weight in moon.

69. (C)

70. (B)

71. (A)

72. (B) Sound waves need a medium to travel

73. (D)

74. (B)

75. (D)

76. (A) ▶ Cholera, Typhoid, Dysentery and Diarrhoea are waterborne diseases.

77. (B) Normal temperature of human body is 98.4° F or 36.9°C.

78. (B) ▶ In long sightedness (hyper-metropia) a person cannot see nearby objects since the image is formed behind the retina.

79. (A) ▶ Temporary hardness of water is due to the bicarbonates of calcium and magnesium. It can be removed by boiling or adding lime. Permanent hardness is due to the presence of sulphates and chlorides of calcium and magnesium. It can be removed by adding washing soda or by distillation.

80. (A)

81. (D) Area of 1 tile = $20 \times 10 = 200\text{cm}^2$

∴ No. of tiles required

$$= \frac{400 \times 10^4}{200} = 20000$$

82. (C) 83. (B) 84. (A) 85. (B) 86. (B) 87. (C) 88. (E) 89. (C) 90. (E)

91. (E) 92. (A) 93. (C) 94. (B) 95. (C) 96. (C) 97. (E) 98. (B) 99. (C)

100. (D)