



SET-A

QUANTUM POTENTIAL TEST

[Quality Nurturer & Mind Utilizer Test for Potential Enhancement]

(IPEC Scholarship-Cum-Admission Test)

For

CLASS-VI

(For VI to VII Moving Students)

Time : 3 Hrs.

Maximum Marks : 270

Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.

INSTRUCTIONS

1. The booklet is your Question Paper. Do not break the seal of this booklet before being instructed to do so by the invigilator.
2. Blank spaces and blank pages are provided in the question paper for your rough work. No additional sheets will be provided for rough work.
3. Blank papers, clipboards, log tables, slide rules, calculators, cameras, cellular phones, pagers and electronic gadgets are **NOT** allowed inside the examination hall.
4. The answer sheet, a machine-readable Optical Response Sheet (**ORS**), is provided separately.
5. On breaking the seal of the booklet check that it contains **10** pages and all the **50** questions.
6. A candidate has to write his / her answers in the ORS sheet by darkening the appropriate bubble with the help of **Black ball point pen** as the correct answer of the question attempted.

7. **Question Paper Format :**

This question paper consists of **Five Parts**.

Part-I: IQ (Mental Ability) - 20 Questions

Part-II: (Physics) - 20 Questions

Part-III: (Chemistry) - 20 Questions

Part - IV: (Mathematics) - 20 Questions

Part - V: (Biology) - 20 Questions

8. **Marking Scheme :**

All Questions carries +3 marks for correct answer and zero for wrong answer.

FOR ANSWER KEY VISIT OUR WEBSITE-www.ipeeciit.com

ipeC

PART - I [IQ]

[SINGLE CORRECTTYPE]

Each question has four choices (A), (B), (C) and (D) out of which only one is correct.

1. Which of the following will come in the place of question mark in the given series?
BYA, CXB, ?, EVD
(A) DVE (B) DCW (C) DXB (D) DWC

Directions: (Q.2): Complete the series using one of the alternatives.

2. Bulgaria, Ecuador, Germany, Norway,
(A) Russia (B) India (C) Afganistan (D) Africa

Directions:(Q.3 to 7): Complete the given series in each questions:

3. 50, 55, 61, 68,
(A) 81 (B) 80 (C) 75 (D) 76
4. 144, 121, 100, 81,
(A) 80 (B) 72 (C) 64 (D) 60
5. ZA13, YB15, XC17,
(A) WC19 (B) WD18 (C) WD20 (D) WD19
6. BNQ, CMR, DLS,
(A) FOT (B) EGT (C) FGT (D) EKT
7. MAHENDRA, MAHENDA, MAHEDRA
(A) MHENDRA (B) AHENDRA (C) MAHNDRA (D) MAENDRA
8. 2197, 2744, 3375, 4096,
(A) 4761 (B) 4232 (C) 4913 (D) 3291
9. Complete the series: 5, 6, 10, 19, 35,
(A) 50 (B) 60 (C) 40 (D) 70
10. 3, 15, 35, ____?____, 99, 143.
(A) 48 (B) 63 (C) 80 (D) 95
11. Select the wrong number in the series:
6, 26, 62, 123, 214, 341
(A) 26 (B) 62 (C) 123 (D) 214

(Space for rough work)

Directions: (Q.12 to 16)

Choose the odd one out:

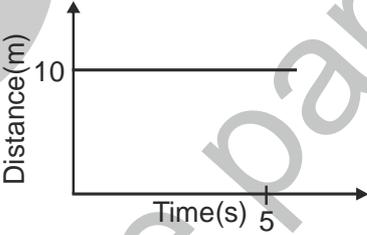
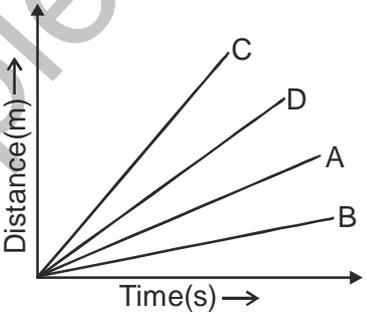
12. (A) Steel (B) Copper (C) Bronze (D) Brass
13. (A) Seismograph (B) Earthquake (C) Cyclone (D) Tsunami
14. (A) \bar{K} (B) ₹ (C) € (D) \$
15. (A) Bhopal (B) Mumbai (C) Hyderabad (D) Allahabad
16. (A) 145 (B) 120 (C) 90 (D) 105
17. (A) 67 (B) 79 (C) 69 (D) 97
18. Dipti is performing Shirshasan facing towards West. In which direction will her right shoulder be?
(A) North (B) East (C) West (D) South
19. If the positions of the 1st and the 3rd alphabets of each of the word are interchanged, which of the following would form meaningful words with the new arrangement?
(A) HID (B) SON (C) TUB (D) CAR
20. If the first half of the English alphabet is reversed and so is the 2nd half, then which letter is 7th to the right of the 12th letter the left side?
(A) S (B) U (C) R (D) T

PART - II [Physics]**[SINGLE CORRECTTYPE]**

Each question has four choices (A), (B), (C) and (D) out of which only one is correct.

21. The standard unit of time in the SI system is -
(A) second (B) minute (C) hour (D) day
22. When an observer on earth is unable to see part of the sun, he is experiencing a _____ eclipse.
(A) full solar (B) partial solar (C) full lunar (D) partial lunar
23. Most of the planets
(A) RAadiate the light rays (B) Absorb all the light
(C) Reflect the light rays (D) Split the light rays

(Space for rough work)

24. Which of the following is not true about light?
(A) Light needs a medium to travel.
(B) The speed of light is different in different media
(C) Light takes about 8 minutes to travel from the Sun to the Earth
(D) It is a form of energy
25. How many millimetres are there in 23 cm
(A) 2300 mm (B) 230 mm (C) 2.3 mm (D) 23 mm
26. Which of the following is a non-luminous object?
(A) Sun (B) Electric bulb (C) Tube light (D) Moon
27. Number of seconds in one day is:-
(A) 24000 (B) 86400 (C) 8640 (D) 6400
28. A body moves 4m towards east and then 3m north. The distance covered by the body is
(A) 7m (B) 6m (C) 5m (D) 1m
29. The central perfectly dark portion of the shadow is called.
(A) Penumbra (B) Black body (C) Dark spot (D) Limbra
30. 25m/s is same as
(A) 90 km/hr (B) 125/18 km/hr (C) 25 km/hr (D) 50 km/hr
31. From the given distance-time graph, we can say that the speed of the particle is
(A) zero (B) 10 m/s
(C) 5 m/s (D) 2 m/s
- 
32. Four cars A, B, C and D are moving on a leveled road. Their distance versus time graphs are shown in figure. Choose the correct statement:-
(A) Car A is faster than Car D
(B) Car B is the slowest
(C) Car D is faster than Car C
(D) Car D is the slowest
- 

(Space for rough work)

33. Which type of motion is not represented by the movement of hands of a watch?
(A) Circular (B) Periodic (C) Oscillatory (D) None of these
34. A watch shows time as 3 : 25 when seen through a plane mirror, time appeared will be
(A) 8 : 35 (B) 9 : 35 (C) Oscillatory (D) None of these
35. An athlete completes one round of a circular track of radius R in 40 sec. What will be his displacement at the end of 2 min 40 sec?
(A) zero (B) 2R (C) $2\pi R$ (D) $7\pi R$
36. The speed of light is
(A) 300,000km/s (B) 300,000km/s (C) 30,000km/s (D) 30,000m/s
37. Cubit was a unit of measurement used in
(A) Egypt (B) Ancient India (C) Rome (D) Britian
38. The star which is very bright during early evening
(A) jupter (B) mercury (C) venus (D) saturn
39. Stars ae
(A) Non luminuous bodies (B) Luminuoius bodies
(C) Artificial sources of light (D) Opaque bodies
40. One of the early measure of distance was
(A) liter (B) poces (C) gram (D) stones

PART - III [Chemistry]

[SINGLE CORRECTTYPE]

Each question has four choices (A), (B), (C) and (D) out of which only one is correct.

41. Identify the compound
(A) Milk (B) Oil (C) Ink (D) Sugar
42. Which of the following is not a solution
(A) Copper sulphate + water (B) Zinc sulphate + water
(C) Iron + water (D) Sugar + water
43. Copper is a material
(A) Non-magnetic (B) Magnetic (C) Both (A) and (B) (D) None of these

(Space for rough work)

44. Dry ice is the solid form of
 (A) Ammonia (B) Water (C) Nitrogen (D) Carbon dioxide
45. The natural fibre which has most water absorption capacity is
 (A) Jute (B) Cotton (C) Silk (D) Wool
46. True statement among the following is
 (A) Air is a good conductor of heat (B) Non-metals are malleable
 (C) Glass is a transparent material (D) Metals are poor conductor of heat
47. Which is not true for mixtures?
 (A) Its constituents may be in any ratio
 (B) Its constituents retain their properties
 (C) It can be homogeneous or heterogeneous
 (D) Its constituents cannot be separated by simple means
48. Fabrics are made by two processes namely
 (A) Spinning and weaving (B) Spinning and knitting
 (C) Weaving and knitting (D) Ginning and spinning
49. Alloys are
 (A) Solid-liquid mixtures (B) Liquid-liquid mixtures
 (C) Solid-solid mixtures (D) Solid-gas mixtures
50. Which is an irreversible chemical change?
 (A) Formation of water (B) Formation of clouds
 (C) Formation of rust (D) Formation of ozone
51. Match the column I with column II

Column - I		Column - II	
(p)	Evaporation	(i)	To remove lighter particles
(q)	Winnowing	(ii)	To remove fine and insoluble particles
(r)	Condensation	(iii)	To get back the salt
(s)	Sedimentation	(iv)	To get a pure form of water
(t)	Filtration	(v)	To remove heavy and insoluble particles

- (A) p → (ii); q → (iv); r → (iii); s → (i), t → (v) (B) p → (iv); q → (v); r → (iii); s → (ii), t → (i)
 (C) p → (iii); q → (i); r → (iv); s → (v), t → (ii) (D) p → (iii); q → (iv); r → (ii); s → (v), t → (i)

(Space for rough work)

52. Sieving is done to separate particles of
(A) Different colours (B) Different sizes
(C) Different densities (D) Different states
53. We can increase solubility of sugar in water by
(A) Increase in temperature (B) Decrease in temperature
(C) Increase the amount of sugar (D) Not possible
54. Which process is a chemical change
(A) Evaporation of sea water to form water vapour
(B) Mixing of pure substances to form an impure substance
(C) Formation of ammonia gas from H₂ & N₂ gas under pressure
(D) Glowing of bulb
55. Pick out the wrong pair
(A) Inflation of a balloon - Irreversible physical change
(B) Photosynthesis - Reversible chemical change
(C) Clotting of blood - Irreversible chemical change
(D) Melting of ice - Reversible physical change
56. What kind of mixtures are alloys
(A) solid - gas (B) liquid - liquid (C) gas - gas (D) solid - solid
57. When ammonium chloride is dissolved in water ____ is absorbed
(A) Mass (B) Heat (C) Time (D) Salt
58. Which of the following change is non-periodic
(A) Heartbeat (B) Earthquake
(C) occurrence of day & light (D) Oscillation of a pendulum
59. Changes in which heat is liberated are called
(A) Exothermic changes (B) Endothermic changes
(C) Rapid changes (D) None of these
60.
What could the mixture be
(A) water + sand + glass (B) oxygen + hydrogen + salt
(C) stones + rice + water (D) chalk powder + sugar + water

(Space for rough work)

PART - IV [Mathematics]

[SINGLE CORRECTTYPE]

Each question has four choices (A), (B), (C) and (D) out of which only one is correct.

61. The difference between the length and breadth of a rectangle is 26 m. If its perimeter is 208 m, then area is
(A) 2540 (B) 2535 (C) 5075 (D) 2050
62. Find the side of the square, whose perimeter is 24 cm
(A) 4 cm (B) 10 cm (C) 12 cm (D) 6 cm
63. A boy wants to cover the floor of a room 5 m wide and 8 m long by squared tiles. If each square tile is of side 0.4 m, then find the number of tiles required to cover the floor of the room.
(A) 80 (B) 102 (C) 100 (D) 108
64. Which of the following are co-prime
(A) 2 and 4 (B) 3 and 9 (C) 4 and 6 (D) 4 and 5
65. The sides of a triangle are in the ratio 2 : 3 : 4. If its perimeter is 180 cm, then the length of its smallest side is
(A) 40 cm (B) 20 cm (C) 60 cm (D) 10 cm
66. Find the LCM of 27, 42 and 63.
(A) 372 (B) 376 (C) 378 (D) 379
67. Find the HCF of the following
(i) 8, 12 and 16 (ii) 18, 57 and 81
(A) 3 and 4 (B) 4 and 3 (C) 1 and 4 (D) 3 and 1
68. If $\frac{a}{3} = \frac{b}{4} = \frac{c}{5} = \frac{d}{7}$, then $(a + b + c + d) : c$ is
(A) 19 : 5 (B) 17 : 5 (C) 4 : 19 (D) 5 : 19
69. In a work shop of 45 students, the number of girls student is $\frac{1}{4}$ times the number of boys student. Then the number of boys and girls are
(A) 10 and 37 (B) 8 and 35 (C) 36 and 9 (D) None of these
70. The value of $\underbrace{2^{2015} + 2^{2015} + \dots + 2^{2015}}_{256 \text{ terms}}$ divides by 2^{2015} is
(A) 256 (B) 2^{73} (C) 2^{2015} (D) 2015

(Space for rough work)

71. Unit place digit in the number 5^{5555} is
(A) 4 (B) 7 (C) 6 (D) 5
72. The unit place digit in $5^{55} + 6^{66}$ is
(A) 2 (B) 3 (C) 5 (D) 1
73. If $x^2 + \frac{1}{x^2} = 7$, the value of $x + \frac{1}{x}$ is
(A) 3 (B) -3 (C) ± 3 (D) None of these
74. Find the value of $(25)^{0.5} + (16)^{0.25}$
(A) 5 (B) 7 (C) 9 (D) 13
75. Find the value of $\frac{2 - 2 + 2 - 2 + \dots - 2}{2013 \text{ terms}}$
(A) 2 (B) 0 (C) 4 (D) -2
76. If $125 + 50 = \frac{a}{5}$, then $a - 675$ is
(A) 200 (B) 100 (C) 300 (D) 400
77. The number of 2571231 is divisible by
(A) 2 (B) 7 (C) 5 (D) 3
78. The number of faces in triangular pyramid is
(A) 4 (B) 3 (C) 5 (D) 2
79. If $5 - P = W$, where P is the prime number and W is the whole numbers then find the sum of all possible values of P
(A) 8 (B) 7 (C) 9 (D) 10
80. Which of the following figures is pentagon?



(Space for rough work)

PART - V [Biology]

[SINGLE CORRECTTYPE]

Each question has four choices (A), (B), (C) and (D) out of which only one is correct.

81. Leaf is attached to tree via:
(A) Lamina (B) Petiole (C) Perianth (D) Petal
82. Which vitamin gets easily destroyed by heat during cooking?
(A) Vitamin A (B) Vitamin D (C) Vitamin E (D) Vitamin C
83. Which one is not a part of flower?
(A) Sepals (B) Petals (C) Petiole (D) Pistil
84. Body building material is
(A) Fats (B) Protein (C) Sugar (D) All of these
85. Humans are
(A) Herbivores (B) Carnivores (C) Omnivores (D) None of these
86. Plants with weak stems that cannot stand upright are called
(A) Tendrils (B) Creeper (C) Stolon (D) Runner
87. Plants with green and tender stems, usually short and may not have many branched are called
(A) Herbs (B) Shrubs (C) Trees (D) Pluvinus
88. Iodine solution change the colour of starch to
(A) Blue and black (B) Violet (C) Oily patch (D) Indigo
89. Liberation of oxygen occurs in the process of
(A) Photosynthesis (B) Transpiration (C) Excretion (D) Transaction
90. If the design made by vein is net like on both sides of midrib, the venation is
(A) Reticulate venation (B) Parallel venation
(C) Ampho venation (D) Bay Venation

(Space for rough work)