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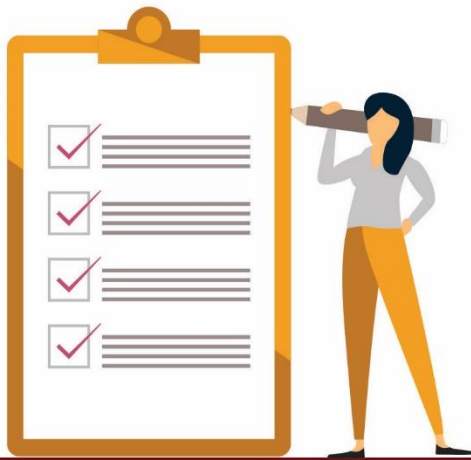


P-TQE 2024

Pinnacle Talent Quest Exam

For 6th to 11th Class Students

STAGE - 1 & STAGE - 2



Pinnacle Talent Quest Exam

SAMPLE TEST PAPER

Class 6th



6th to 11th Class Students GET READY FOR

THE MOST AWAITED & BIGGEST
TALENT QUEST EXAM
OF THE YEAR BY **PINNACLE** IS HERE!



P-TQE 2024

Pinnacle Talent Quest Exam

STAGE - 1 & STAGE - 2



UPTO
100%

SCHOLARSHIP
WORTH
₹1 Crore



Test Date

Stage-1 20th August, 2023

Stage-2 1st October, 2023

Registration Details

Register Online
at our Website

OR

Scan
QR



Free Registration



JEE / NEET / Olympiads / NTSE / Boards

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WE ARE THE

CHAMPIONS OF JEE MAIN 2023

13

Students Scored More than 99 Percentile



EXTRAORDINARY RESULTS IN NEET



TOP PERFORMANCES IN JEE MAINS & ADVANCE



KVPY RESULT

ADVANCE OLYMPIADS RESULT

NTSE RESULT

NMTC-2022

IOQM-2023



IMO-2022 RESULT



IOS - 2022 RESULT

NSO RESULT



What Makes Pinnacle Unique?

- 1 Best Faculty Team
- 2 Hi-Tech Classrooms
- 3 Customized Study material
- 4 Personal Attention
- 5 Unlimited Doubt Sessions
- 6 Best Testing Methodology



Lecture
Recording
Lab



Revision
Classes &
Self Study
Zones



Online Testing
Lab (CBT)



Smart & AC
Classrooms



Objective +
Subjective



Student
Performance
and
Analysis Report



Rich Library &
Researched
Study
Modules



Extra Support
to weaker
students



CCTV
Campus



Biometric
Attendance

Classroom Program

1 Comprehensive Classroom Lectures

All classes at Pinnacle are conducted by highly qualified and experienced faculty members, mostly IITians. Each chapter is started at the grass root level and is dealt to an extent which is the requirement of competitive examinations, with an aim of enabling the students to develop a comprehensive view of the whole chapter with a thorough understanding.



Doubt Clearance 2

"If you ask a question, you may appear fool for some time, but if you don't, you'll remain a fool for whole life." System at Pinnacle encourages all students to ask their doubts and questions.

3 Regular Tests Online and Offline

As JEE Mains and Advanced have gone completely online and NEET is in the pipeline, we have launched a dedicated online testing platform where students can practise over CBT (Computer Based Tests). The combination of online and offline testing modes based on latest JEE/NEET patterns ensure that students are at par with the recent changes. Students can check their test reports and performance analysis via a unique online login ID. Their results are also communicated to parents via SMS.



Addressing the Board Exam 4

Pinnacle has a very distinct methodology for preparing the students for competitive examinations while in full synchronization with Board Exams as well. Board level tests are conducted alongside the regular JEE/NEET tests and the copies are graded at very meticulous level by teachers. Students receive methodological tips so as to perform excellent in the board Exams as well.

Section - A Science

This section contains **30 Multiple Choice Questions**. Each question has four options out of which **ONLY ONE** is correct.

1. The climate of a place depends on
 - (a) latitude
 - (b) altitude
 - (c) distance from the sea
 - (d) all of these
2. Fennec adapt to the desert climate with the help of
 - (a) long ears
 - (b) being nocturnal in nature
 - (c) both (A) & (B)
 - (d) none of these
3. The basic unit of speed is:
 - (a) km/min
 - (b) m/min
 - (c) km/h
 - (d) m/s
4. Which of the following relations is correct?
 - (a) Speed = Distance \times Time
 - (b) Speed = $\frac{\text{Distance}}{\text{Time}}$
 - (c) Speed = $\frac{\text{Time}}{\text{Distance}}$
 - (d) Speed = $\frac{1}{\text{Distance} \times \text{Time}}$
5. A weak current can be detected by replacing electric bulb in an electric tester with :
 - (a) LED
 - (b) A coil wound over a compass needle
 - (c) CFL
 - (d) Both (A) and (B)
6. In lateral inversion:
 - (a) Image is upside down
 - (b) Image bends laterally
 - (c) Left of an object appears right of an image
 - (d) Image gets inverted
7. Which of these does not conduct electricity?
 - (a) Brass spoon
 - (b) Silver jewellery
 - (c) Steel tumbler
 - (d) Plastic jug
8. An electric cell can generate electric current in a:
 - (a) Open circuit
 - (b) Closed circuit
 - (c) Both of these
 - (d) None of these
9. The process of returning back of light ray from a shining surface is called:
 - (a) Reflection
 - (b) Refraction
 - (c) Inversion
 - (d) Lateral inversion
10. Evaporation of water from the soil surface is due to heat from:
 - (a) Sun
 - (b) Earth
 - (c) Moon
 - (d) Fire
11. Maximum-minimum thermometer are used to measure
 - (a) humidity
 - (b) maximum and minimum temperature
 - (c) rainfall
 - (d) wind
12. Humidity is measured by using
 - (a) Thermometer
 - (b) Rain gauge
 - (c) Hygrometer
 - (d) All of these
13. Rain gauge is used to measure
 - (a) humidity
 - (b) rainfall
 - (c) temperature
 - (d) all of these
14. The process of changing water into ice is called
 - (a) Sublimation
 - (b) Evaporation
 - (c) freezing
 - (d) precipitation
15. The process of falling down of water in the form of rain, snow or hail is called
 - (a) Sublimation
 - (b) Evaporation
 - (c) Condensation
 - (d) Precipitation
16. How much water is lost approximately through transpiration by wheat plants that give one kilogram of wheat ?
 - (a) 5 litres
 - (b) 50 litres
 - (c) 500 litres
 - (d) 5000 litres
17. Water freezes at___to a solid state called snow or ice
 - (a) 0°C
 - (b) -1°C
 - (c) 1°C
 - (d) 100°C
18. A tester is used to check the conduction of electricity through two liquids, labelled A and B. It is found that the bulb of the tester glows

- brightly for liquid A while it glows very dimly for liquid B. You would conclude that
- liquid A is a better conductor than liquid B.
 - liquid B is a better conductor than liquid A.
 - both liquids are equally conducting
 - conducting properties of liquid cannot be compared in this manner.
- Silicon is a :
 - Conductor
 - Insulator
 - Semiconductor
 - Superconductor
 - Water occurs in the atmosphere in how many forms?
 - One
 - Two
 - Three
 - Four
 - What will happen when diaphragm relaxes and curves upwards?
 - Air is forced out of the lungs
 - The rib cage goes up and outward
 - The volume of the thoracic cavity increases
 - Air pressure inside the thoracic cavity decreases
 - When we inhale, we breathe in air into the lungs. What do we breathe out when we exhale?
 - Only oxygen gas
 - Only hydrogen gas
 - Air that has more oxygen than inhaled air
 - Air that has more carbon dioxide than inhaled air
 - Which one of the following structures closes the respiratory passage during ingestion of food?
 - Larynx
 - Epiglottis
 - Hard palate
 - Soft palate
 - The covering of lungs is called
 - Pericardium
 - Pleural membrane
 - Perichondrium
 - Peritoneum
 - The narrowest and most numerous tubes of lungs are termed as
 - Bronchus
 - Alveoli
 - Bronchioles
 - Hilum
 - Which of the following will lead to a reduction in the availability of ground water ?
 - Plantation
 - Rain water harvesting
 - Constructing more lakes
 - Building accrete rods
 - Cotton bolls are which part of the plant?
 - Flower
 - Fruit
 - Stem
 - Root
 - Earth worm takes oxygen from the soil through:
 - Lungs
 - Gills
 - Moist skin
 - Spiracles
 - Oxygen and carbon dioxide are replaced in nature through:
 - Photosynthesis
 - Respiration
 - Both (A) and (B)
 - None of these
 - Sugar is obtained from
 - sugarcane
 - beetroot
 - Both a and b
 - none

Section - B Mathematics

This section contains **20 Multiple Choice Questions**. Each question has four options out of which **ONLY ONE** is correct.

- Solve : $2^{x+1} = 8^x$
 - 1
 - 3
 - $\frac{-1}{3}$
 - $\frac{1}{2}$
- Which of the following is not equal to y^6 ?
 - $[y^{2/3}]^9$
 - $[\sqrt{y^6}]^2$

- (c) $\sqrt[3]{y^{18}}$
 (d) $\left[y^{1/3}\right]^{12}$
33. $16^{\frac{5}{2}} \div 16^{\frac{1}{2}} = ?$
 (a) 250
 (b) 256
 (c) 255
 (d) 200
34. Find the value of p so that $\left(\frac{4}{5}\right)^3 \div \left(\frac{4}{5}\right)^{-3} = \left(\frac{4}{5}\right)^{3p}$.
 (a) 3
 (b) 0
 (c) 2
 (d) 1
35. The value of $3\sqrt[3]{2} \times 7\sqrt[3]{6} \times 5\sqrt[3]{18}$
 (a) 545
 (b) 500
 (c) 630
 (d) 400
36. The value of $\left(\frac{x^{a^2}}{x^{b^2}}\right)^{\frac{1}{a+b}} \cdot \left(\frac{x^{b^2}}{x^{c^2}}\right)^{\frac{1}{b+c}} \cdot \left(\frac{x^{c^2}}{x^{a^2}}\right)^{\frac{1}{c+a}}$ is
 (a) 0
 (b) 1
 (c) 2
 (d) 3
37. Given that $-0.3k + 2.1 = 0.4k$, the value of k =
 (a) 21
 (b) 7
 (c) 3
 (d) -1
38. If $\frac{1}{7} + \frac{x}{7} = 3$, then the value of x =
 (a) 20
 (b) 7
 (c) 3
 (d) 1
39. Three-fourths of a number is 60 more than its one-third. The number is
 (a) 108
 (b) 84
 (c) 144
 (d) 116
40. If 20 is added to four times a certain number, the result is 5 less than five times the number. The number is
 (a) 10
 (b) 15
 (c) 20
 (d) 25

Section – C
Mental Ability

This section contains **10 Multiple Choice Questions**. Each question has four options out of which **ONLY ONE** is correct.

Part-I (Logical Puzzles)

Directions (Q.No. 1 to 4): Study the following information carefully and answer the questions given below:

In a certain code '6 2 5' is written as 'art is beauty', '4 6 8' is written as 'thou art good', '4 3 1 7' is written as 'colour good and bad' and '2 0 9 3' is written as 'it is colour effect'

41. What is the code for 'effect'?
- (a) 0 (b) 4 (c) 9 (d) Either 0 or 9
42. If '1' is the code for 'bad', then what is the code for 'and'?
- (a) 4 (b) 7 (c) 3 (d) 6
43. What is the code for 'thou colour beauty'?
- (a) 9 8 5 (b) 2 5 4 (c) 8 3 5 (d) Can't be determined
44. What is the code for 'art'?
- (a) 6 (b) 2 (c) 5 (d) 8

Directions (Q.No. 5 to 6): Study the following information carefully and answer the questions given below:

Person A walked 25m towards south and then took a left turn and walked 45m. Again he took a left turn and walked 25 m. Finally he turned to his right and walked 20 m and stopped.

45. How far is he from the starting point?
- (a) 45 m (b) 50 m (c) 65 m (d) 20 m
46. In which direction is A from his starting point?
- (a) East (b) West (c) South (d) North

Directions (Q.No. 7 to 11): Study the following information carefully and answer the questions given below:

Mr. Goyals fitness schedule consists of Running, Swimming, Gymnastics, Jogging and Skipping from Monday to Saturday. Each workout is on one day each and one day is a rest day.

- ⌚ Skipping is done before Gymnastics but after rest day.
- ⌚ Skipping and Jogging are done with two days' gap between them.
- ⌚ Gymnastics is done neither on the first day nor on the last day but is done earlier than Swimming.
- ⌚ Running is done on the previous day of the rest day.
- ⌚ Jogging is done on the next day of the Swimming day

47. On which of the following days is Skipping done?

- (a) Tuesday (b) Thursday (c) Friday (d) Wednesday

48. There is a gap of how many day(s) between Running and Swimming?

- (a) One (b) Two (c) Three (d) Four

49. Which of the following day is Rest day?

- (a) Monday (b) Tuesday (c) Friday (d) Thursday

50. Jogging is done on which of the following days?

- (a) Saturday (b) Wednesday (c) Monday (d) Can't be determined

Part-II (Mathematical Puzzles)

51. A few monkeys are moving. The 1st monkey says. "There are 8 monkeys behind me". The last monkey says, "There are 8 monkeys in front of me". The monkey in the middle says, "There are 8 monkeys in front of me and 8 monkeys behind me". How many monkeys are moving?
52. Mr. & Mrs. Khan live happily with their 4 sons and each son has 3 sisters. There is no one else in the family. Every child of Khan family shakes hand with each of his/her brothers and sisters. How many total handshakes have been performed?
53. You have six 8's and you may use any of the (+, ., -, /, ×) as many times as you like. How many arithmetical expressions which use the six 8's to form 1000 are possible?
54. On a dark night, 11 soldiers and 2 boys are on one side of a bridge which they need to cross. The soldiers weigh 80 kg each and the boys weigh 40 kg each. The bridge can bear a maximum load of 80 kg. It is mandatory for at least one person to carry a torch. Unfortunately, they have only 1 torch between them and the bridge is long so that they cannot throw the torch to the other side of it. All the 13 people take exactly 1 minute to cross the bridge. What is the minimum possible time in which all 13 of them can cross the bridge? (Assume the weight of the torch to be negligible)?
55. In an India –Pakistan T20 Match, Sachin Tendulkar faces the 1st ball. Let the maximum number of runs that he can score in the match are Y. Then what is the value of $Y/39$. (Assume there are no wides, no no-balls, no overthrows and the batsman can take a maximum of only 3 runs while running).

56. Read the following information and answer the questions that follow.

There are 70 clerks working with M/s. Jha Lal Khanna & Co. chartered accountant, of which 30 are female.

- I. 30 clerks are married.
- II. 24 clerks are above 25 years of age
- III. 18 Married clerks are above 25 years of age; among them 7 are males.
- IV. 12 males are above 25 years of age

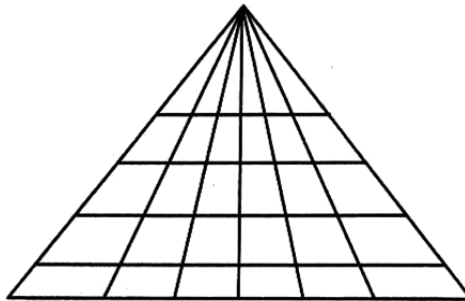
How many unmarried girls are there above 25?

57. A shopkeeper wants to measure all the integral weights from 1 kg to 100 kg using a common balance only once. He can keep the weights on only one side of the balance. For ex. If a customer comes and asks for 35kg sugar, he should be able to put some combination of weights on one side of the balance such that total of these weights becomes 35. Similarly he should be able to measure 1kg, 2kg, 3kg,..... 99kg and 100 kg. What is the minimum number of weights needed?

58. Sam bought a box which contained some bananas for his 5 friends. None of his friends knew how many bananas are there. Sam asked them to guess the number of bananas in the box. Their guesses were 33, 37, 41, 51 and 39 but none of the guesses were correct. Sam then told them that their guesses deviated from the actual number of bananas by 5, 9, 1, 9 and 3 in no particular order. Can you tell the number of bananas in the box?

59. You have 8 black socks, 14 white socks and 18 grey socks in your drawer. The room is completely dark and you have no source of artificial light. What is the minimum number of socks that you'll have to pick up to ensure that you have a correct pair (a pair of same coloured socks)?

60. Let the no of triangles in the figure given below is X. Then find the value of X-20.





SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK