

Discover the Star within you and Get Rewarded

Sample Paper

# CAREER POINT STAR

Scholastic Test for Analysis and Reward

**CLASS - 10<sup>th</sup>**

**(Class 10<sup>th</sup> Studying Students)**

Duration: 1:00 hours

Maximum Marks: 100

## Instructions to Candidates

- CP Star Test paper consists of total 50 questions and has been divided in three sections as follows:

|                   |              |                   |
|-------------------|--------------|-------------------|
| a. Science        | 24 Questions | Que. No. 01 to 24 |
| b. Maths          | 16 Questions | Que. No. 25 to 40 |
| c. Mental Ability | 10 Questions | Que. No. 41 to 50 |
- All questions are compulsory.
- All the answers will be encircled in OMR sheet which is being provided along with this paper.
- For every correct answer marked by you, **2** marks will be allotted.
- For every incorrect answer marked by you, **0** marks will be deducted.
- Use of calculator is not permitted in any case.
- Any kind of malpractice will expel you from exam immediately.
- For any confusion please talk to the invigilator in the examination hall.
- For any kind of suggestions or complaints send Email at [cpinfo@cpuniverse.in](mailto:cpinfo@cpuniverse.in)



# CAREER POINT

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निरीक्षक के अनुदेशों के बिना पेपर न खोलें

## SCIENCE

- Q.1** The magnification produced by a convex mirror will be :  
(1) positive and greater than unity.  
(2) negative and less than unity.  
(3) positive and less than unity.  
(4) zero.
- Q.2** The speed of light in water is  $2.25 \times 10^8$  m/s. If the speed of light in vacuum is  $3 \times 10^8$  m/s, then the refractive index of water will be :  
(1) 1.42 (2) 1.38 (3) 1.33 (4) 1.04
- Q.3** A 10 cm tall object is placed perpendicularly to the principal axis of a convex lens of focal length 20 cm. The object distance is 60 cm. The size of the image formed is  
(1) - 5 cm. (2) + 5 cm.  
(3) - 20 cm. (4) + 20 cm.
- Q.4** An object is placed beyond centre of curvature of a convex lens. The image formed will be :  
(1) diminished, virtual and erect.  
(2) diminished, real and inverted.  
(3) enlarged, virtual and erect.  
(4) enlarged, real and inverted.
- Q.5** Least distance of vision for a normal eye is :  
(1) 25 cm (2) 1 m  
(3) 25 m (4) Infinity
- Q.6** Scattering of light involves :  
(1) regular reflection of light.  
(2) refraction of light.  
(3) dispersion of light.  
(4) change in direction of light randomly.
- Q.7** Which of the following can be excluded from description of working of the human eye?  
(1) The lens system forms an image on a light sensitive screen called the retina.  
(2) Light enters the eye through a thin membrane called the cornea.  
(3) Rainbow is formed due to splitting of white light.  
(4) Iris is a dark muscular diaphragm that controls the size of the pupil for regulating the amount of light entering into the eye.
- Q.8** Ravi is unable to read the letters while writing. He is suffering from :  
(1) hypermetropia. (2) color blindness.  
(3) myopia. (4) presbyopia.
- Q.9** The colour of the chemical that changes when it is left open in sunlight is \_\_\_\_\_.  
(1)  $\text{FeSO}_4$  (s) (2)  $\text{Pb}(\text{NO}_3)_2$  (s)  
(3)  $\text{AgCl}$  (s) (4)  $\text{BaCl}_2$  (aq)
- Q.10** Foul-smelling of eatables prepared by using oil and fat is due to \_\_\_\_\_.  
(1) reaction with nitrogen in air  
(2) reaction with  $\text{CO}_2$  in air  
(3) reaction with sulphur dioxide in air  
(4) reaction with oxygen in air
- Q.11** The oxidation reaction in the following chemical changes is \_\_\_\_\_.  
(1)  $\text{Cl} + \text{e}^- \rightarrow \text{Cl}^-$   
(2)  $\text{Mg}^{+2} + 2\text{e}^- \rightarrow \text{Mg}$   
(3)  $\text{MnO}_4^- + \text{e}^- \rightarrow \text{MnO}_4^{2-}$   
(4)  $\text{Fe}^{+2} \rightarrow \text{Fe}^{+3} + \text{e}^-$
- Q.12** A non-metal used to preserve food material is \_\_\_\_\_.  
(1) carbon (2) nitrogen  
(3) sulphur (4) phosphorus

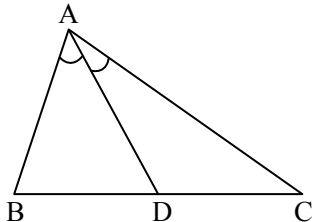
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- Q.13** The poisonous effect of acid present in stings of bees and ants can be neutralized by use of a solution that contains-  
 (1) acetic acid (2) formic acid  
 (3) sodium bicarbonate (4) sodium chloride
- Q.14** The pH of gastric juice that is released during digestion is-  
 (1) more than 7 (2) 7  
 (3) less than 7 (4) can't be predicted
- Q.15** Which of the following compounds is neutral to litmus?  
 (1)  $\text{NaNO}_3$  (2)  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$   
 (3)  $\text{NaHCO}_3$  (4)  $\text{Ca(OH)}_2$
- Q.16** Select the reaction that is called 'slaking of lime'-  
 (1)  $\text{CaCO}_3 \longrightarrow \text{CaO} + \text{CO}_2$   
 (2)  $\text{CaO} + 2\text{HCl} \longrightarrow \text{CaCl}_2 + \text{H}_2\text{O}$   
 (3)  $\text{CaCO}_3 + \text{H}_2\text{O} \longrightarrow \text{Ca(OH)}_2 + \text{CO}_2$   
 (4)  $\text{CaO} + \text{H}_2\text{O} \longrightarrow \text{Ca(OH)}_2$
- Q.17** In amoeba, food is digested in the:  
 (1) food vacuole (2) mitochondria  
 (3) pseudopodia (4) chloroplast
- Q.18** Name the pores in a leaf through which respiratory exchange of gases takes place.  
 (1) Lenticels (2) Vacuoles  
 (3) Xylem (4) Stomata
- Q.19** A blood vessel which pumps the blood from the heart to the entire body:  
 (1) artery (2) capillary  
 (3) Vein (4) Haemoglobin
- Q.20** \_\_\_\_\_ is considered as the basic functional unit of the human kidney  
 (1) Urethra (2) Nephron  
 (3) Neuron (4) Ureter
- Q.21** The longest fibre arising from the cell body of a neuron is called  
 (1) sheath (2) cytoplasm  
 (3) axon (4) dendrites
- Q.22** The brain is protected by  
 (1) cranium. (2) cerebrum.  
 (3) cartilage. (4) cerebellum.
- Q.23** The main function of abscisic acid in plants is to :  
 (1) increase the length of cells  
 (2) promote cell division  
 (3) inhibit growth  
 (4) promote growth of stem
- Q.24** A diabetic patient suffers from deficiency of which hormone?  
 (1) Thyroxine (2) Testosterone  
 (3) Oestrogen (4) Insulin

## MATHEMATICS

- Q.25** If H.C.F.  $(a, b) = 12$  and  $a \times b = 1800$ , then L.C.M.  $(a, b) =$   
 (1) 3600 (2) 900 (3) 150 (4) 90
- Q.26** The sum of three non-zero prime numbers is 100. One of them exceeds the other by 36. Find the largest number.  
 (1) 73 (2) 91 (3) 67 (4) 57
- Q.27** Degree of polynomial  $y^3 - 2y^2 - \sqrt{3}y + \frac{1}{2}$  is :  
 (1)  $\frac{1}{2}$  (2) 2 (3) 3 (4) 4

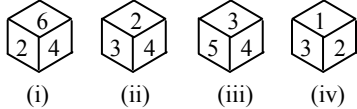
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- Q.28** The sum and product of the zeroes of a quadratic polynomial are 2 and -15 respectively. The quadratic polynomial is :  
 (1)  $x^2 - 2x + 15$  (2)  $x^2 - 2x - 15$   
 (3)  $x^2 + 2x - 15$  (4)  $x^2 + 2x + 15$
- Q.29** For what value of k, the pair of linear equations  $2x - y - 3 = 0$ ,  $2kx + 7y - 5 = 0$  has a unique solution  $x = 1$ ,  $y = -1$ ?  
 (1) 3 (2) 4 (3) 6 (4) -6
- Q.30** The pair of linear equations  $x + 2y = 5$  and  $3x + 12y = 10$  has :  
 (1) unique solution  
 (2) no solution  
 (3) more than two solutions  
 (4) infinitely many solutions
- Q.31** Find the values of p and q for which the following system has infinitely many solutions  
 $2x + 3y = 7$   
 $(p + q)x + (2p - q)y = 21$ .  
 (1)  $p = 4$ ,  $q = 3$  (2)  $p = 1$ ,  $q = 5$   
 (3)  $p = 5$ ,  $q = 1$  (4)  $p = 3$ ,  $q = 4$
- Q.32** If  $x = k$  be a solution of the quadratic equation  $x^2 + 4x + 3 = 0$ , then  $k = -1$  and .....  
 (1) 2 (2) -3 (3) 3 (4) -2
- Q.33** The roots of the equation  $x^2 - 2\sqrt{2}x + 1 = 0$  are:  
 (1) real and distinct (2) not real  
 (3) real and equal (4) rational and distinct
- Q.34** If the roots of  $(b - c)x^2 + (c - a)x + (a - b) = 0$  are real and equal, then which of the following is true?  
 (1)  $2b = a + c$  (2)  $2a = b + c$   
 (3)  $2c = a + b$  (4)  $2b = a - c$
- Q.35** If a,  $(a - 2)$  and  $3a$  are in A.P., then the value of a is :  
 (1) -3 (2) -2 (3) 3 (4) 2
- Q.36** If  $m^{\text{th}}$  term of an A.P. is  $\frac{1}{n}$  and  $n^{\text{th}}$  term is  $\frac{1}{m}$ , then the sum of first  $mn$  terms is :  
 (1)  $mn + 1$  (2)  $\frac{mn + 1}{2}$   
 (3)  $\frac{mn - 1}{2}$  (4)  $\frac{mn - 1}{3}$
- Q.37** The digits of a positive integer, having three digits are in A.P. and their sum is 15. The number obtained by reversing the digits is 594 less than the original number. The number is :  
 (1) 594 (2) 852 (3) 849 (4) 952
- Q.38** In  $\triangle ABC$ , AD is the internal bisector of  $\angle A$ . If  $BD = 5$  cm,  $BC = 7.5$  cm, then  $AB : AC =$
- 
- (1) 2 : 1 (2) 1 : 2 (3) 4 : 5 (4) 3 : 5
- Q.39**  $\triangle ABC \sim \triangle DEF$  and the perimeters of  $\triangle ABC$  and  $\triangle DEF$  are 30 cm and 18 cm respectively. If  $BC = 9$  cm, then  $EF =$   
 (1) 6.3 cm (2) 5.4 cm  
 (3) 7.2 cm (4) 4.5 cm
- Q.40** ABC is an isosceles triangle with  $AC = BC$ . If  $AB^2 = 2AC^2$ , then  $\triangle ABC$  is right angled at :  
 (1)  $\angle A$  (2)  $\angle B$   
 (3)  $\angle C$  (4) None of these

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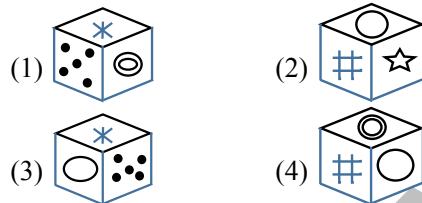
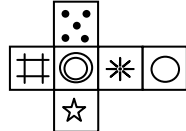
# MAT

- Q.41** If a dice thrown four times and different forms of dice are shown below. In this dice which digit will be on the surface opposite to the digit 2 ?

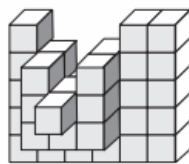


- (1) 6 (2) 3 (3) 5 (4) 4

- Q.42** Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure ?



- Q.43** Count the number of cubes in the given figures.



- (1) 25 (2) 35 (3) 32 (4) 34

- Q.44** One hundred and twentyfive cubes of the same size are arranged in the form of a cube on a table. Then a column of five cubes is removed from each of the four corners. All the faces of the rest of the solid are coloured red. Now, answer these questions based on the above statement :

How many small cubes are there in the solid after the removal of the columns ?

- (1) 120 (2) 110 (3) 105 (4) 100

- Q.45** If 23rd February of 2008 was Saturday, what will be the day on 3rd November of the same year?

- (1) Sunday (2) Tuesday  
(3) Wednesday (4) Monday

- Q.46** In a month of 31 days, the third Wednesday falls on the 15th. What will be the last day of the month?

- (1) Fourth Friday (2) Fifth Wednesday  
(3) Fifth Thursday (4) Fifth Friday

- Q.47** How many times are the hands of a clock at right angles in a day?

- (1) 22 (2) 44 (3) 11 (4) 24

- Q.48** A clock is set right at 8 a.m. the clock uniformly loses 24 minutes in a day. What will be the right time when the clock indicates 4 pm on the next day?

- (1) 4.50 pm (2) 4.32 pm  
(3) 4.50 am (4) 4.32 am

- Q.49** Arrange the following words in a meaningful sequence.

1. Infection 2. Consultation  
3. Doctor 4. Treatment  
5. Recovery  
(1) 1, 3, 4, 5, 2 (2) 1, 3, 2, 4, 5  
(3) 1, 2, 3, 4, 5 (4) 2, 3, 5, 1, 4

- Q.50** In the following question, arrange the given words in a meaningful sequence and then choose the most appropriate sequence from the options given below in the question.

1. Mother 2. Cry  
3. Milk 4. Smile  
5. Child  
(1) 5, 2, 1, 3, 4 (2) 1, 5, 4, 3, 2  
(3) 1, 4, 3, 2, 5 (4) 4, 2, 3, 5, 1

*Space for rough work*



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