Paper Code: 02

CAREER POINT STAR

Scholastic Test for Analysis and Reward

CLASS - 9th

(Class 9th Studying Students)

Duration: 2:00 hours

Maximum marks: 300

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Instructions to Candidates

1. CP Star Test paper consists of total 75 questions and has been divided in three sections as follows:

- a. Science
- b Maths
- c. Mental Ability
- 25 Questions 25 Questions 25 Questions

Que, No, 01 to 25 Que, No, 26 to 50 Que, No, 51 to 75

- 2. All questions are compulsory.
- 3. All the answers will be encircled in OMR sheet which is being provided along with this paper.
- 4. For every correct answer marked by you, **4** marks will be allotted.
- 5. For every incorrect answer marked by you, **1** marks will be deducted.
- 5. Use of calculator is not permitted in any case.
- 7. Any kind of malpractice will expel you from exam immediately.
- 8. For any confusion please talk to the invigilator in the examination hall.
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SECTION-a [SCIENCE]

- Q.1 Negative value of acceleration signifies
 - (1) the velocity is increasing.
 - (2) the velocity is decreasing.
 - (3) the velocity remains the same.
 - (4) the object comes to rest.
- **Q.2** A particle moves along circle with radius 5m and completes one revolution then its
 - (1) total distance is zero
 - (2) total displacement is zero
 - (3) distance is equal to displacement
 - (4) displacement is greater than distance
- Q.3 A body moving with a velocity of 50 cms⁻¹ undergoes a uniform acceleration of 20 cms⁻². It moves in 4 s a distance of (1) 130 cm. (2) 260 cm. (3) 530 cm. (4) 360 cm.
- Q.4 A force of 10 N gives a mass m an acceleration of 5 m s⁻² and a mass M an acceleration of 15 ms⁻². If the two masses are tied together, the acceleration will become (1) 20 m s⁻² (2) 10 m s⁻² (3) 3.75 m s^{-2} (4) 2 m s⁻²
- **Q.5** Which of the following mathematical formulations are not correct? (1) F = k m a (2) p = m v(3) F t = m v - m u (4) F / t = m (v - u)
- Q.6 A spring balance shows an initial reading of 14 gf. Then, a block is suspended from the hook of the balance and shows a final reading of 50 gf. So, the weight of the block is (1) 64 gf. (2) 44 gf. (3) 36 gf. (4) 32 gf.

- **Q.7** The value of acceleration due to gravity 'g'
 - (1) is greater at the poles than at the equator.
 - (2) is lesser at the poles than at the equator.
 - (3) varies randomly.
 - (4) remains constant at all places.
- Q.8 The distance between two objects is reduced to half. So, the force of gravitation between the two objects become
 - (1) twice of the initial force of gravitation.
 - (2) four times of the initial force of gravitation.
 - (3) one-fourth of the initial force of gravitation.
 - (4) half of the initial force of gravitation.
- Q.9 The humidity present in the air, is an example of
 - (1) gas in liquid solution.
 - (2) gas in gas solution.
 - (3) liquid in liquid solution.
 - (4) liquid in gas solution.
- Q.10 The following which has definite shape and volume is
 - (1) Water.
 (2) Ice.
 (3) Oxygen.
 (4) Steam.
- Q.11 When solution contains more amount of solute than the saturation concentration, it is called
 - (1) unsaturated solution.
 - (2) saturated solution.
 - (3) supersaturated solution.
 - (4) concentrated solution.
- Q.12 The following which diffuses faster is
 (1) a drop of ink in water.
 (2) Oxygen in nitrogen.
 (3) milk in water.
 (4) sugar in salt.

Q.13	The presence of col	loidal particle of dust in	Q.19	To distinguish mi	croscopically between
	air imparts blue colour to the sky due to the			cheek cell and onion cell mount, one should	
	(1) absorption of light	nt.		look for the presence	
	(2) scattering of light	t.		(1) mitochondria.	(2) plastids.
	(3) reflection of light	•		(3) cell membrane.	(4) nucleus.
	(4) refraction of light	t.			
	C C		Q.20	The chemical substa	nce with water proof
Q.14	Melting points of fou	ur solids A, B, C & D are		quality in desert plants	s is
C		932^{0} C and 1238° C		(1) cutin.	(2) suberin.
	, , ,	ne which has strongest		(3) lignin.	(4) fat.
	force of attraction be	_			
	(1) A. (2) B.	(3) C. (4) D.	Q.21	A striated muscle is also called	
	(1) (1)	(3) C. (4) D.		(1) smooth muscle.	
Q.15	The constant random motion of colloidal particles in a zigzag path is called (1) Brownian motion. (2) Tyndall effect.			(2) voluntary muscle.	
Q.15				(3) cardiac muscle.	
				(4) involuntary muscle	2.
		-			
	(3) centrifugation.	(4) crystallization.	Q.22	What kind of epitheliu	
0.16	D () ()	1.1.4.		(1) cubical epithelium	
Q.16	Rate of evaporation i			(2) columnar epitheliu	
	(1) an open vessel of			(3) squamous epitheli	
	(2) an open vessel of			(4) ciliated epithelium	•
	(3) an open vessel of				
(4) an open vessel of radius 26 cm. Q.23 Notoche			Notochord, dorsal nerve chord and gill-slits		
				are features seen in su	
Q.17		nd structures of the golgi		(1) Vertebrata.	(2) Protozoa.
	apparatus are called			(3) Mollusca.	(4) Porifera.
	(1) plastids.	(2) vacuoles.			
	(3) cisternae.	(4) ribosomes.	Q.24	'Seed leaves' are	
				(1) perisperm.	(2) endosperm.
Q.18	The RER helps in			(3) radicle.	(4) cotyledons.
	(1) protein synthesis.(2) membrane abiogenesis.				
			Q.25	-	system is present in
	(3) lysis			(1) platyhelminthes.	(2) mollusca.
	(4) glycogenesis.			(3) coelentrata.	(4) annelida.
		<u> </u>			

SECTION-b [MATHS]

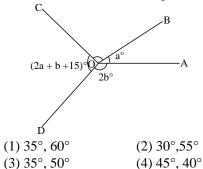
Q.26	Which parts con	ntain the	fractions	in
	ascending order ?			
	$(1) \ \frac{11}{14}, \frac{16}{19}, \frac{19}{21}$	(2) $\frac{16}{19}$,	$\frac{11}{14}, \frac{19}{21}$	
	$(3) \ \frac{19}{21}, \frac{11}{14}, \frac{16}{19}$	(4) $\frac{16}{19}$,	$\frac{19}{21}, \frac{11}{14}$	
Q.27	The rational form o	f 2.74 $\overline{35}$ is	:	
	(1) $\frac{27161}{9999}$	(2) $\frac{271}{271}$	61	
	9999	(2) $\frac{271}{999}$	90	
	$(3) \ \frac{27161}{9900}$	(4) $\frac{271}{900}$	<u>61</u> 00	
Q.28	Evaluate: $\frac{1}{2+\sqrt{5}}$ +	$-\frac{1}{\sqrt{5}+\sqrt{6}}+$	$-\frac{1}{\sqrt{6}+\sqrt{7}}$	+
	$\frac{1}{\sqrt{7}+\sqrt{8}}:$			
	(1) – 2	(2) $2\sqrt{2}$	-	
	(3) $2\sqrt{2} - 2$	(4) Non	e of these	
Q.29	The polynomials x^{2}			

- ($ax^2 - 12x - 6$ when divided by (x - 2) and (x - 3) leave remainder p and q respectively. If q - p = 10, then the value of a is :
 - (1) $a = \frac{23}{19}$ (2) $a = \frac{31}{19}$ (3) $a = \frac{27}{19}$ (4) $a = \frac{33}{19}$

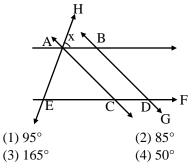
- If $x^2 4$ is a factor of $2x^3 + ax^2 + bx + 12$, Q.30 where a and b are constant. Then the values of a and b are :
 - (1) 3, 8(2) 3, 8 (4) 3, -8(3) - 3, -8
- If (x + a) is a factor of $x^2 + px + q$ and $x^2 + q$ **Q.31** mx + n, then the value of a is :
 - $(1) \ \frac{m-p}{n-q}$ (2) $\frac{n-q}{m-p}$ (3) $\frac{n+q}{m+p}$ (4) $\frac{m+p}{n+q}$
- P is the point (-5, 3) and Q is the point (-5, m). Q.32 If sum of abscissas and ordinates of both points is equal then the possible value of m is : (1) - 5(2) - 13(3) - 10(4) 3
- Q.33 Euclid divided his famous book, 'Elements' into :
 - (1) 10 chapters (2) 13 chapters (3) 11 chapters (4) 12 chapters
- Q.34 'Lines are parallel if they do not intersect' is stated in the form of : (1) an axiom (2) a definition (3) a postulate (4) a proof
- Q.35 If two interior angles on the same side of a transversal intersecting two parallel lines are in the ratio of 1:4. Then what will be the result if difference of the angles is divided by the smaller angle ? (1) 6 (2)3(3)7(4) 4

Space for rough work

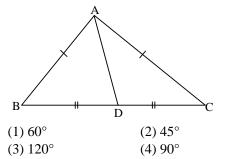
Q.36 In the given figure, $2b - a = 65^{\circ}$ and $\angle BOC = 90^{\circ}$, then the value of a and b respectively are :



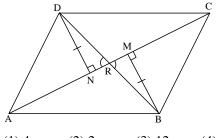
Q.37 In the given figure, AB || CD and AC || BD. If $\angle EAC = 40^\circ$, $\angle FDG = 55^\circ$, $\angle HAB = x^\circ$, then the value of x is :



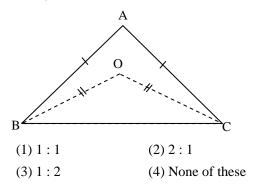
Q.38 In \triangle ABC, if AB = AC and BD = DC, then \angle ADC =



Q.39 In a quadrilateral ABCD, BM and DN are drawn perpendicular to AC such that BM = DN. If BR = 8 cm, then length of BD is :



- (1) 4 cm (2) 2 cm (3) 12 cm (4) 16 cm
- **Q.40** O is any point in the interior of \triangle ABC. Then, which of the following is true ?
 - (1) (OA + OB + OC) > (AB + BC + CA)(2) $(OA + OB + OC) > \frac{1}{2}(AB + BC + CA)$ (3) $(OA + OB + OC) < \frac{1}{2}(AB + BC + CA)$ (4) None of these
- **Q.41** In the given figure, AB = AC and OB = OC. Then, $\angle ABO : \angle ACO$ is :



- Q.42 The distance between M(-1, 5) and N(x, 5) is 8 units. The value of x is :
 - $\begin{array}{ll} (1) 9 \text{ or } 9 \\ (3) 9 \text{ or } 7 \end{array} \qquad \begin{array}{ll} (2) 7 \text{ or } 9 \\ (4) 7 \text{ or } 9 \end{array}$
- **Q.43** If P(x, y) and P'(y, x) are same points then which of the following is true ?

(1)
$$x + y = 0$$

(2) $xy = 0$
(3) $x - y = 0$
(4) $\frac{x}{y} = 0$

Q.44 Statement I : The point (1, 1) is the solution of x + y = 2

Statement II : Every point which satisfy the linear equation is a solution of the equation.

- (1) Both statements I and II are correct
- (2) Both statements I and II are incorrect
- (3) Statement I is correct and statement II is incorrect
- (4) Statement I is incorrect and statement II is correct
- Q.45 The graph of the linear equation x y = 0 passes through the point :

(1)
$$\left(\frac{-1}{2}, \frac{1}{2}\right)$$
 (2) $\left(\frac{3}{2}, \frac{-3}{2}\right)$
(3) (0, -1) (4) (1, 1)

Q.46 If a, a + 2, and a + 4 are prime numbers, then the number of possible solution for a is :

(1) three	(2) two
(3) one	(4) more than three

Q.47 If
$$2^{x} = 3^{y} = 6^{-z}$$
, then $\frac{1}{x} + \frac{1}{y} + \frac{1}{z} =$
(1) 7 (2) 0
(3) 18 (4) $\frac{25}{7}$

Q.48 Statement I : A number is irrational if and only if its decimal representation is non-terminating.

Statement II : If a and b are natural numbers, then $(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b})$ is irrational.

- (1) Both statements I and II are correct
- (2) Both statements I and II are incorrect
- (3) Statement I is correct and statement II is incorrect
- (4) Statement I is incorrect and statement II is correct

Q.49 If
$$x = \sqrt{2 + \sqrt{2}}$$
, then $x^4 + \frac{4}{x^4}$ is:
(1) $2(3 - \sqrt{2})$ (2) $6\sqrt{2} - 2$
(3) $6 - \sqrt{2}$ (4) 12

Q.50 If x and y are two positive real numbers such that $8x^3 + 27y^3 = 242$ and $2x^2y + 3xy^2 = 15$, then the value of 2x + 3y is : (1) 12 (2) 10 (3) 8 (4) 6

SECTION-C [MENTAL ABILITY]

Directions:	(Q.51 to ().52) Find the	missing term.
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Q.51	0, 6, 24, 60, 120, 210, ?			
	(1) 240	(2) 290	(3) 336	(4) 504

Q.52 4, 6, 12, 14, 28, 30, ? (1) 32(2) 60(4) 64 (3) 62

Directions: (Q.53) Find the wrong term.

Q.53	10, 100, 1100, 11000, 111000, 1210000.		
	(1) 1210000	(2) 11000	
	(3) 100	(4) 111000	

- What terms will come next? Q.54 Z, X, V, T, R, ?, ? (1) O, K (2) N, M(3) K, S (4) P, N
- Q.55 What will be the next term in BDF, CFI, DHL,?
 - (1) CJM (2) EIM (3) EJO (4) EMI
- Q.56 Which term will replace the question mark in the series : ABD, DGK, HMS, MTB, SBL, ?

(1) ZKW (2) ZKU

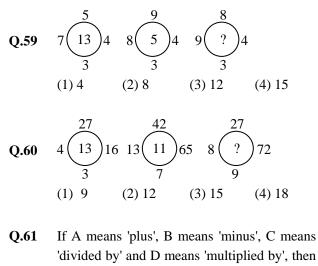
(3) ZAB (4) XKW Directions: (Q.57 to Q.58) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?

Q.57	abccbcacca	ı baab c
	(1) ababc	(2) abcaa
	(3) accab	(4) bacaa
Q.58	b b bb bb	b bb b
	(1) bbbbba	(2) bbaaab

(3) ababab

(4) aabaab

Directions: (Q.59 to Q.60) Find the missing term.



18 A 12 C 6 D 2 B 5	= ?
(1) 15	(2) 25
(3) 27	(4) None of these

(4) None of these

- **Q.62** If \times stands for -, \div stands for +, + stands for \div and - stands for \times , which one of the following equation is correct ?
 - (1) $15-5 \div 5 \times 20 + 10 = 6$ (2) $8 \div 10 - 3 + 5 \times 6 = 8$ (3) $6 \times 2 + 3 \div 12 - 3 = 15$ (4) $3 \div 27 - 5 \times 10 + 3 = 10$
- **Q.63** Which letter will be the sixth to the right of the nineteenth letter from the right end of the following alphabets ?

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

(1) N	(2) M
(3) Y	(4) F

- **Q.64** If all the vowels are removed from the alphabet, which letter will be the seventh to the right of the fifth letter from the left?
 - (1) L (2) M (3) N (4) P
- Q.65 If in any code language CLERK is coded as
 AHYJA how is JOB coded in that language (1) HKW (2) HKV
 (3) HKU (4) None
- Q.66 If in a certain code MANISH is written as NZMRHS, then how will RANJITA be written in the same code ?
 (1) IZMQRGZ (2) IZMPRGZ
 (3) IZMQRHZ (4) IZMORIZ

Q.67 Mohan started from his house, walked 2 km North, then 3 km West, then 6 km South. How far away from his house was he then ?

(1) 5 km	(2) 3 km
(3) 6 km	(4) 7 km

Q.68 A man is facing North-West. He turns 90° in the clockwise direction and then 135° in the anticlockwise direction. Which direction is he facing now ?
(1) East (2) West (3) North (4) South

Directions : (Q.69 to Q.70) Five friends, A, B, C, D, and E are sitting on a bench in a park
(a) A is sitting next to B.
(b) C is sitting next to D.
(c) D is not sitting with E.
(d) A is to the right of B and E.
(e) E is at the left end of the bench.
(f) C is at the second position from the right.
(g) A and C are sitting together.

Q.69	Who are sitting on either side of C?		
	(1) A and E	(2) A and D	
	(3) B and D	(4) D and E	
Q.70	What is the position	of B?	

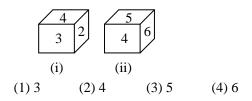
2.10	what is the position of D .	
	(1) Extreme left	(2) Centre
	(3) Second from left	(4) Second from right

Q.71 Pointing to a man in a photograph, a woman said, "The father of his brother is the only son of my grandfather." How is the woman related to the man in the photograph ?
(1) Mother (2) Aunt
(3) Daughter (4) Sister

- Q.72 If S T means, S is wife of T S + T means, S is daughter of T $S \div T$ means S is son of T then $M + J \div K$ means. (1) K is father of M (2) M is grand daughter of K (3) K and M are brothers (4) Lie wife of K
 - (4) J is wife of K
- **Q.73** Three of the following four are alike in a certain way and so form a group. Which one does not belong to that group?

(1) Ears	(2) Hands
(3) Fingers	(4) Eyes

- **Q.74** Three of the following four are alike in a certain way and so form a group. Which one does not belong to that group?
 - (1) Bud (2) Branch
 - (3) Leaf (4) Plant
- **Q.75** The figures given below show the two different positions of a dice. Which number will appear opposite to number 3.



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