



Ganga Education Society's

# SHRADDHA OLYMPIAD QUEST

*In pursuit of excellence...*

CLASS

9

**DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO**

**Total Questions : 50 ■ Time : 1 hr.**

Name : .....

SOQ Roll No. : ..... Contact No.: .....

## Guidelines for the Candidate

1. You will get additional 10 minutes to fill up information about yourself on the OMR sheet before the start of the exam.
2. Write your **Name, Class & Roll Number** clearly on the **OMR sheet** and do not forget to sign it. We will share your marks / result and other information related to SOQ exams on your mobile number.
3. The question paper comprises three sections:  
**Section - 1 : Physics & Chemistry (25Q). Section - 2 : Biology (15Q.)**  
**Section - 3 : Achiever's Section (10Q.)**
4. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
5. There is only ONE correct answer. Choose only one option for an answer.
6. To mark your choice of answer by darkening the circle on the OMR sheet, use **black ball point pen** only.

E.g.

**Q.16. In the water cycle condensation is the process of**

- A. Water vapour cooling down and turning into liquid    B. Ice warming up and turning into a liquid  
C. Liquid cooling down and turning into ice                      D. Liquid warming up and turning into water vapour

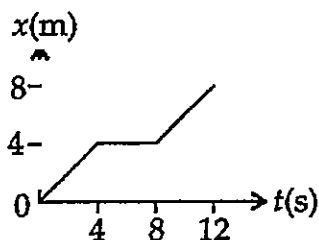
As the correct answer is option A, you must darken the circle corresponding to option A on the OMR sheet

as shown in the figure    16. ● ○ ○ ○

7. Rough work should be done in the blank space provided in the booklet
8. Return the OMR sheet to the invigilator at the end of the exam.

**SECTION - I - PHYSICS & CHEMISTRY**

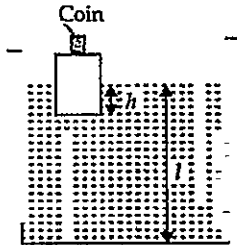
- 1) Figure shows the position – time graph of a particle of mass 5 kg. The force acting on the particle for  $0 < t < 4\text{s}$  and  $8\text{s} < t < 12\text{s}$ , respectively are.



- A) 5 N, 5 N                      B) 5 N, 7.5 N                      C) 5 N, 10 N                      D) 0 N, 0 N
- 2) When the momentum of body is increased by 100% its K.E increases by  
 A) 100%                      B) 200%                      C) 300%                      D) 400%
- 3) Two objects moving along the same straight line are leaving point A with acceleration  $a$ ,  $2a$  and initial velocity  $2u$ ,  $u$  at time  $t = 0$ . The distance moved by objects with respect to point A when one object initially behind other, overtakes the other is  
 A)  $\frac{6u^2}{a}$                       B)  $\frac{2u^2}{a}$                       C)  $\frac{4u^2}{a}$                       D)  $\frac{8u^2}{a}$
- 4) During a football match, the ball shot towards the goal struck the defender's foot at the speed of  $10\text{ m s}^{-1}$  and it bounces back at  $20\text{ m s}^{-1}$  If the time of impact was  $0.2\text{ s}$  and mass of the ball is  $\frac{1}{2}\text{ kg}$ , then average force exerted by defender on the ball is  
 A) 75N                      B) 35N                      C) 50N                      D) 40N
- 5) Two tuning forks, A and B produce notes of frequencies 258 Hz and 262 Hz. An unknown note sounded with A produces certain beats. When the same note is sounded with B, the beat frequency gets doubled. The unknown frequency is  
 A) 250Hz                      B) 252Hz                      C) 254 Hz                      D) 256Hz
- 6) Two bodies, each of the mass  $M$ , are kept fixed with separation  $2L$ . A particle of mass  $m$  is projected from the midpoint of the line joining their centres, perpendicular to the line. The gravitational constant is  $G$ . The minimum initial velocity of the mass  $m$  to escape the gravitational field of the two bodies is  
 A)  $4\sqrt{\frac{GM}{L}}$                       B)  $2\sqrt{\frac{GM}{L}}$                       C)  $\sqrt{\frac{2GM}{L}}$                       D) None of these

Space for rough work.

- 7) A wooden block, with a coin placed on its top, floats in water as shown in the figure. The distance  $l$  and  $h$  are shown there. After some time, the coin falls into the water. Then



- A)  $l$  decreases and  $h$  increases  
 B)  $l$  increases and  $h$  decreases  
 C) both  $l$  and  $h$  increases  
 D) both  $l$  and  $h$  decrease

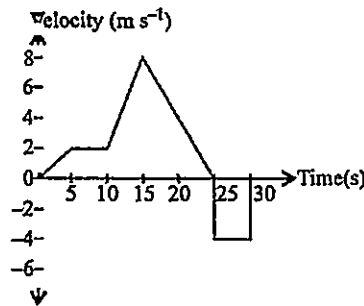
- 8) A body of mass  $m$  is raised to a height  $h$  from the surface of the earth where the acceleration due to gravity is  $g$ . If  $R$  is the radius of the earth and  $h \ll R$ , then the loss in weight due to variation in  $g$  is approximately

- A)  $\frac{2mgh}{R}$       B)  $\frac{2mgR}{h}$       C)  $\frac{mgR}{h}$       D)  $\frac{mgh}{R}$

- 9) Particles of masses  $2M$ ,  $m$  and  $M$  are respectively at points A, B and C with  $AB = 1/2$  (BC).  $m$  is much – much smaller than  $M$  and at time  $t = 0$ , they are all at rest. At subsequent times before any collision takes places.



- A)  $m$  will remain at rest.      B)  $m$  will move towards  $M$ .  
 C)  $m$  will move towards  $2M$       D)  $m$  will have oscillatory motion
- 10) A particle starts its motion from the rest under the action of a constant force. If the distance covered in first 10 s is  $S_1$  and that covered in first 20 s is  $S_2$ , then  
 A)  $S_2 = S_1$       B)  $S_2 = 2S_1$       C)  $S_2 = 3S_1$       D)  $S_2 = 4S_1$
- 11) Refer to the given graph and fill in the blanks by choosing an appropriate option.

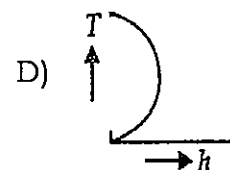
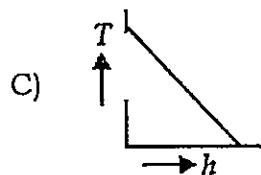
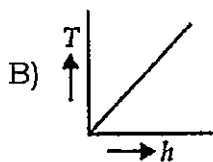
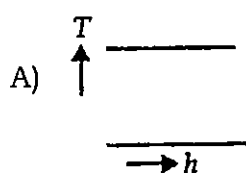


The displacement of the particle from its initial position at the end of 15 s and 30 s  
 \_\_\_ (i) \_\_\_ and (ii) \_\_\_ respectively. The average velocity of the particle between 15s  
 and 25 s and 0 s to 30 s \_\_\_ (iii) \_\_\_ and \_\_\_ (iv) \_\_\_ respectively.

Space for rough work.

	(i)	(ii)	(iii)	(iv)
A)	40 m	60 m	4 m s <sup>-1</sup>	2 m s <sup>-1</sup>
B)	40 m	100 m	2 m s <sup>-1</sup>	4 m s <sup>-1</sup>
C)	20 m	60 m	4 m s <sup>-1</sup>	4 m s <sup>-1</sup>
D)	20 m	100 m	2 m s <sup>-1</sup>	2 m s <sup>-1</sup>

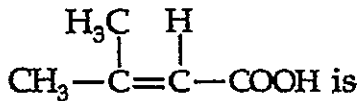
- 12) Which of the following graph best represents the total energy (T) of freely falling body and its height (h) the ground?



- 13) A drop each of two non - corrosive and non - irritating liquids A and B at temperature of 22°C are placed on the skin. Liquid A and gives a more cooling sensation than liquid B. Which of the following can be said about the liquids A and B?
- A) Liquid A has higher boiling point that that of liquid B.  
 B) Liquid A has high latent heat of vaporisation than that of liquid B.  
 C) Liquid A has low latent heat of vaporisation than that of liquid B.  
 D) The boiling points of liquids A and B are equal.
- 14) What is the mass of urea required for making 2.5 Kg of 0.25 molal a queous?  
 A) 37 g                      B) 25 g                      C) 125 g                      D) 27.5 g
- 15) Ninhydrin having molecular formula C<sub>9</sub>H<sub>6</sub>O<sub>4</sub>, is commonly used by forensic scientists to detect and analyse fingerprints. The number of molecules in 7.4 g of ninhydrin is ( Atomic mass of C = 12 u, H = 1 u, O = 16 u )  
 A) 1.5 × 10<sup>22</sup>              B) 2.5 × 10<sup>23</sup>              C) 2.5 × 10<sup>22</sup>              D) 4.2 × 10<sup>23</sup>
- 16) A has 9 protons, electrons and 10 neutrons, B has 12 protons. 12 electrons and 12 neutrons. Formula of the compound between A and B is  
 A) BA<sub>2</sub>                      B) AB<sub>2</sub>                      C) B<sub>2</sub>A<sub>3</sub>                      D) AB<sub>4</sub>
- 17) The increasing order for the values of e/m ( charge/mass) is  
 A) e,p,n,a                      B) n,p,e,a                      C) n,p,a,e                      D) n,a,p,e
- 18) Which of the following laws is followed by every balanced equation?  
 A) Law of conservation of magnetism              B) Law of conservation of momentum  
 C) Law of conservation of mass                      D) Law of conservation of motion

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 Space for rough work.

19) The correct IUPAC name of the compound



- is
- A) 2 - methylbut - 2 - enoic acid  
 B) 3 - methylbut - 3 enoic acid  
 C) 3 - methylbut - 3 - enoic acid  
 D) 2 - methylbut - 3 - enoic acid
- 20) The correct order of metallic character among the following is  
 A) Na>Mg>Al>Si    B) Na>Al>Si>Mg    C) Al>Si>Na>Mg    D) Si>Mg>Na>Al
- 21)

	List - I	List - II
P)	$\text{C}_n\text{H}_{2n+2}$	1) Alkyne
Q)	$\text{C}_n\text{H}_{2n}$	2) Alkene
R)	$\text{C}_n\text{H}_{2n-2}$	3) Alkane
S)	$\text{C}_n\text{H}_{2n-1}$	4) Alkyl group

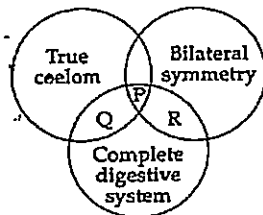
- A) P - 3, Q - 2, R - 1, S - 4    B) P - 1, Q - 2, R - 3, S - 4  
 C) P - 2, Q - 3, R - 1, S - 4    D) P - 3, Q - 1, R - 2, S - 4
- 22) Which of the following solutions has the lowest mass by mass percentage ?  
 I) 8 g of potassium chloride in 180 g of water.  
 II) 12 g of salt in 156 g of water.  
 III) 55 g of potassium permanganate in 180 g of water.  
 IV) 18 g of sodium carbonate in 80 g of water.  
 A) I    B) II    C) III    D) IV
- 23) Which of the given pairs is/are isobars?  
 I)  $^{114}_{48}\text{Cd}$  and  $^{119}_{50}\text{Sn}$     II)  $^{59}_{27}\text{Co}$  and  $^{59}_{28}\text{Ni}$   
 III)  $^{133}_{55}\text{Cs}$  and  $^{132}_{54}\text{Xe}$     IV)  $^{63}_{29}\text{Cu}$  and  $^{65}_{29}\text{Cu}$   
 A) I and IV only    B) I and III only    C) II only    D) IV only
- 24) An element, M forms the oxide  $\text{M}_2\text{O}_3$ . The valency of metal atom, M is  
 A) 3    B) 1    C) 2    D) 4
- 25) Three invisible radiations X, Y and Z are passed through an electric field. X deviates towards the positive end Y, deviates towards the negative end Z goes straight. Identify X, Y and Z.

	X	Y	Z
A)	a - Particles	b - Particles	g - Rays
B)	Electrons	Protons	Neutrons
C)	a - Particles	g - Rays	b - Particles
C)	Neutrons	Electrons	Protons

Space for rough work.

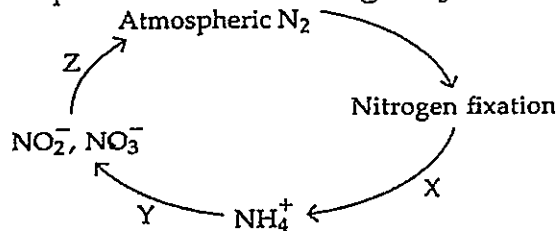
**SECTION - II - BIOLOGY**

- 26) The most primitive vascular plants are  
 A) Cycas                      B) Ferns                      C) Moss                      D) Brown algae
- 27) Which among the following has specialised tissue for conduction of water?  
 i) Thallophyta                      i) Bryophyta  
 iii) Pteridophyta                      iv) Gymnosperms  
 A) (i) and (ii) only                      B) (ii) and (iii) only  
 C) (iii) and (iv) only                      D) (i) and (iv) only
- 28) Refer to the given Venn diagram and select the correct statement regarding P, Q and R.



- A) R could be Enterobius which is parasitic in nature.  
 B) P could be Planaria which shows well marked regeneration power.  
 C) Q could be Ascaris that excretes through renette cells.  
 D) All of these.

- 29) Enrichment of soil with ammonia and nitrates by applying fertilisers is called  
 A) Industrial fixation                      B) Denitrification  
 C) Ammonification                      D) Nitrogen assimilation
- 30) Identify the correct statement for phenomenon of land breeze.  
 A) It occurs during day.  
 B) Air moves from sea to land  
 C) Air above water is warmer than air above land.  
 D) Both (A) and (C)
- 31) Study the given representation of nitrogen cycle and select the correct option



- A) Process X is ammonification in which Nitrocystis converts nitrogen into ammonia.  
 B) Process Y is nitrification in which ammonia oxidised to nitrite and the nitrates.  
 C) Process Z is denitrification and carried out by bacteria Nitrosomonas and Nitrobacter.  
 D) All of these.

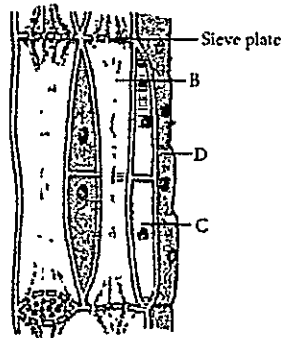
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- 32) Goitre is caused due to deficiency of  
 A) Vitamin A                      B) Fluorine                      C) Iodine                      D) Vitamin C
- 33) If you live in an overcrowded and poorly ventilated house, it is possible that you may suffer from the following disease.  
 A) Hereditary diseases                      B) Congenital diseases  
 C) Air borne diseases                      D) Water borne diseases

34)

Column - I	Column - II
A) Measles	i) Protozoa
B) Cholera	ii) Virus
C) Kala - azer	iii) Bacteria

- A) A - (i), B - (iii), C - (ii)  
 B) A - (i), B - (ii), C - (iii)  
 C) A - (ii), B - (i), C - (iii)  
 D) A - (ii), B - (iii), C - (i)
- 35) Parenchyma cells containing air cavities are called  
 A) Aerenchyma                      B) Sclerenchyma  
 C) Chlorenchyma                      D) Prosenchyma
- 36) Refer to the given figure and select the correct statement regarding B,C,D



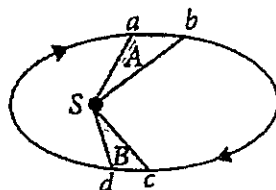
- A) B is involved in the conduction of organic food.  
 B) D is made up of non - living cells and is involved in transpiration of water.  
 C) C cells are made of dead cells and provide mechanical support to B.  
 D) None of these
- 37) Select the incorrect statement.  
 A) Tracheids are elongated dead cells having hard lignified walls.  
 B) In few cases, end walls of vessels remain intact and possess several pores.  
 C) Grape vine has simple sieve plate whereas Euphorbia royleana has compound sieve plate.  
 D) Companion cells are thin walled living cells.

Space for rough work.

- 38) Nitrogen, phosphorus and potassium are examples of  
 A) Micronutrients  
 B) Macronutrients  
 C) Fertilisers  
 D) Both (B) and (C)
- 39) Which of the following is/are the example of common irrigation systems?  
 A) Tanks  
 B) Canal system  
 C) River lift system  
 D) All of these
- 40) Find out the correct sentences about manure.  
 i) Manure contains large quantities of organic matter and small quantities of nutrients.  
 ii) Manure increases the water holding capacity of sandy soil.  
 iii) Manure helps in draining out of excess of water from clayey soil.  
 iv) Excessive use of manure pollutes environment because it is made of animal excretory waste.  
 A) (i) and (iii)      B) (i) and (ii)      C) (ii) and (iii)      D) (iii) and (iv)

**SECTION - III - ACHIEVER'S**

- 41) When sound is produced in an aeroplane with a velocity of 200 m/s horizontally its echo is heard after  $10\sqrt{5}$  seconds. If velocity of sound in air is  $300 \text{ m s}^{-1}$  the elevation of aircraft is  
 A) 250 m      B)  $250\sqrt{3}$       C) 1250 m      D) 2500 m
- 42) Figure shows the motion of a planet around the Sun S in an elliptical orbit with the Sun at the focus. The shaded areas A and B are also shown in the figure which are assumed to be equal. If  $t_1$  and  $t_2$  represent the time taken for the planet to move from a to b and c to d respectively then



- A)  $t_1 < t_2$   
 B)  $t_1 > t_2$   
 C)  $t_1 = t_2$   
 D) From the given information the relation between  $t_1$  and  $t_2$  cannot be determined.
- 43) A body travelling along a straight line transversed one – third of the total distance with velocity  $v_1$ . The remaining part of the distance was covered with velocity  $v_2$  for half the time and with velocity  $v_3$  for the other half of time. The mean velocity averaged over the whole time of motion is  
 A)  $\frac{3v_1(v_2 + v_3)}{2v_1 + v_2 + v_3}$       B)  $\frac{3v_1(v_2 + v_3)}{4v_1 + v_2 + v_3}$       C)  $\frac{v_1(v_2 + v_3)}{4v_1 + v_2 + v_3}$       D)  $\frac{v_1(v_2 + v_3)}{v_1 + v_2 + v_3}$

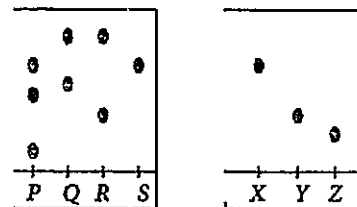
Space for rough work.



- 44) Four samples P, Q, R and S were analysed using paper chromatography to check the presence of three different additives X, Y and Z

The final chromatograms are as shown below:

Read the following statements carefully .



- I) P contains three components out of which one is X.  
 II) S contains only one component which is X.  
 III) Q contains two components which are X and Z.  
 IV) R contains two components out of which one is Y.
- A) II and IV only    B) III only    C) I, II and IV only    D) I and II only
- 45) Copper (II) oxide was prepared by two different methods. In one case, 1.75 g of the metal gave 2.19 g of the oxide. In the second case 1.14 g of the metal gave 1.43 g of the oxide. These findings are in accordance with the (Given: atomic mass of Cu = 63.5 and O = 16)
- A) Law of conservation of mass    B) Law of constant proportions  
 C) Law of multiple proportions    D) None of these.
- 46) Description of a few hypothetical atom/ions is given in the table below:

Atom/Ion	P	Q	R	S
No. of protons	17	12	17	17
No. of neutrons	18	12	20	18
No. of electrons	17	10	17	18

Identify the cation, anion and pair of isotopes.

	Cation	Anion	Pair of isotopes
A)	P	Q	P, Q
B)	Q	S	P, R
C)	R	P	R, S
D)	S	S	Q, S

Space for rough work.

47) Read the given paragraph where few words have been, italicised and select the correct option regarding them.

Centrosome is found only in plant cells. It consists of three small granules called centriole. It is a solid, cylindral strucutre made up of microtubules.

- A) Plant should not be replaced as it is correctly mentioned.
- B) Solid should be replaced with hollow.
- C) Three should be replaced with two.
- D) Both (B) and (C)

48) A student observed three different cell organelles under a microspace and noted down his observation as given below.

Organelle X - Contains catalase enzyme and helps in detoxification of toxic substances

Organelle Y - Forms extensive network of membranous system

Organelle Z - Contains digestive enzymes and helps in intercellular digestion.

	X	Y	Z
A)	Peroxisome	Endoplasmic reticulum	Lysosome
B)	Vacuole	Golgi apparatus	Ribosome
C)	Centrosome	Endoplasmic reticulum	Lysosome
D)	Peroxisome	Golgi apparatus	Vacuole

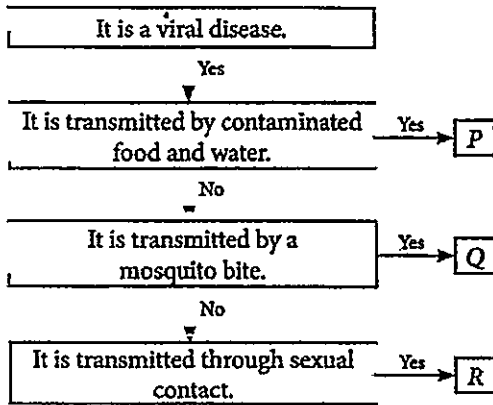
49) Read the given paragraph where few words have been italicised and select the correct option regarding it.

The plants in the group bryophyta are commonly called algae. They usually exhibit the heterotrophic mode of nutrition. Their cell wall is made up of chitin and they store food in the form of glycogen.

- A) Bryophyta should be replaced with Thallophyta.
- B) Heterotrophic should not be replaced as it is mentioned correctly.
- C) Chitin should be replaced with cellulose.
- D) Both (A) and (C).

Space for rough work.

50) Refer to the given chart and select the correct option.



- A) P could cause paralysis of skeletal muscles.
- B) Q could be caused by paramyxo virus.
- C) R could cause swollen lymph nodes.
- D) Both (A) and (C)

Space for rough work.

Space for rough work.



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CLASS : 9th

**SOQ EXAM**

DATE : 25/02/2024

TIME : 1 Hr.

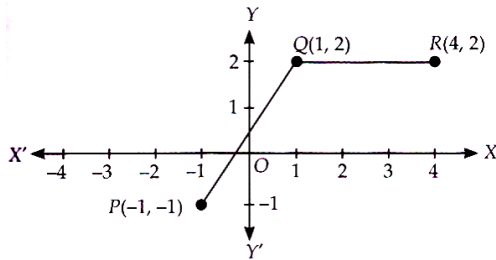
**Subject : MATHS**

MARKS : 100

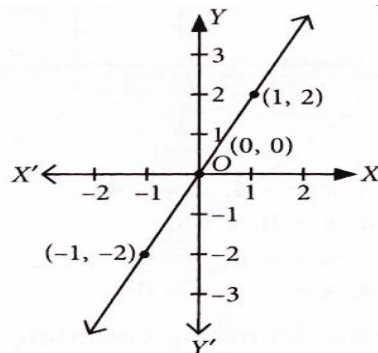
Students Name: \_\_\_\_\_

**SECTION - I**

- 1)  $0.12\bar{3}$  can be expressed in rational form as  
A)  $\frac{900}{111}$                       B)  $\frac{111}{900}$                       C)  $\frac{123}{10}$                       D)  $\frac{121}{900}$
- 2) If  $y = 3\sqrt{3} - x$  and  $x = \sqrt{9 + y^2}$ , then the value of  $x - y$  is  
A) 3                      B)  $2\sqrt{3}$                       C)  $4\sqrt{3}$                       D)  $\sqrt{3}$
- 3) What would be the coordinates of point S for points P, Q, R and S to form a parallelogram?



- A) (4, 2)                      B) (2, -1)                      C) (4, -2)                      D) (3, -1)
- 4) The equation of line shown in the graph is



- A)  $x + y = 0$                       B)  $y = 2x$                       C)  $y = x$                       D)  $y = 2x + 1$
- 5) If  $a + b + c = 21$  and  $a^2 + b^2 + c^2 = 155$ , then the value of  $ab + bc + ca$  is  
A) 127                      B) 87                      C) 143                      D) 64

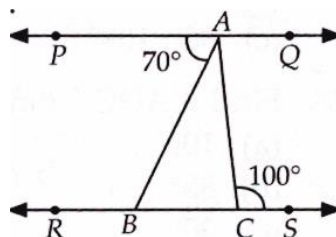
- 6) The sum of the abscissa and ordinate of a point is 3. If its ordinate is 7 more than the abscissa, then the abscissa is
- A) 4                      B) - 5                      C) 3                      D) - 2
- 7) Let  $\bar{x}$  be the mean of  $x_1, x_2, \dots, x_n$  and  $\bar{y}$  be the mean of  $y_1, y_2, \dots, y_n$ . If  $\bar{z}$  is the mean of  $x_1, x_2, \dots, x_n, y_1, y_2, \dots, y_n$ , then  $\bar{z} =$
- A)  $(\bar{x} + \bar{y})$               B)  $\frac{1}{2} (\bar{x} + \bar{y})$               C)  $\frac{1}{n} (\bar{x} + \bar{y})$               D)  $\frac{1}{2n} (\bar{x} + \bar{y})$
- 8) A number from 1 to 11 is chosen at random. What is the probability of choosing an odd number?
- A) 1/11                      B) 5/11                      C) 6/11                      D) None of these
- 9) If  $25^{x-1} = 5^{2x-1} - 100$ , then the value of x is
- A) 3                      B) 2                      C) 4                      D) 1
- 10) If  $x + y = 5$  and  $xy = 6$ , then the value of  $x^3 + y^3$  is
- A) 35                      B) 45                      C) 30                      D) 125
- 11) Find the perimeter of the figure obtained by plotting points M(4, 3), N(4, 0), O (0, 0), P(0, 3).
- A) 14 units                      B) 12 units                      C) 7 units                      D) 24 units
- 12) If (3, -1) is a solution of linear equation  $2mx + 5my = 3$ , then the value of m is
- A) - 2                      B) 3                      C) 2                      D) - 3
- 13) If A, B and C are three sets such that  $A \cap B = A \cap C$  and  $A \cup B = A \cup C$  then
- A)  $A = C$                       B)  $B = C$                       C)  $A \cap B = \phi$                       D)  $A = B$
- 14) 12 packets of salt, each marked 2 kg, actually contained the following weights (in kg) of salt:  
1.980, 2.000, 2.025, 1.985, 1.990, 2.040, 1.950, 2.050, 2.060, 1.980, 2.030, 1.970  
Out of these packets, one packet is chosen at random. What is the probability that the chosen packet contains more than 2 kg of salt?
- A) 1/2              B) 1/6                      C) 1/4                      D) 5/12
- 15) The mean of eight numbers is 40. If one number is excluded, their mean becomes 30. The excluded number is
- A) 30                      B) 130                      C) 110                      D) 138
- 16) At Middle School, 3 out of 5 students make honor roll. What is the probability (in %) that a student does not make honor roll?
- A) 65 %                      B) 40 %                      C) 60 %                      D) None of these
- 17) If ABCD is a rectangle in which the coordinate of points A, B and C are (2, 6), (2,0) and (4, 0) respectively, then the coordinates of point D are
- A) (2, 4)                      B) (4, 6)                      C) (4, 2)                      D) (6, 4)

- 18) The graph of linear equation  $2x + y = 2$  is a straight line which intersects the Y-axis at the point
- A) (2, 0)                      B) (0, 2)                      C) (0, 1)                      D) (1, 0)
- 19) If  $\frac{a^2}{bc} + \frac{b^2}{ac} + \frac{c^2}{ab} = 3$ , then the value of  $[(a + b)^2 - c^2]$  is
- A)  $a^2 + b^2 + c^2$               B) 1                      C) 0                      D)  $2c^2$
- 20) The perpendicular distance of a point (5, 8) from the y-axis is
- A) 5 units                      B) 8 units                      C) 13 units                      D) 3 units
- 21) The point (2, 3) lies on the graph of the linear equation  $3x - (a-1)y = 2a - 1$ . If the same point also lies on the graph of the linear equation  $5x + (1-2a)y = 3b$ , then find the value of b.
- A)  $\frac{1}{3}$                       B)  $\frac{1}{5}$                       C)  $\frac{1}{7}$                       D)  $\frac{2}{3}$
- 22) If  $t = 9 - 4\sqrt{5}$ , then find the value of  $\left(t + \frac{1}{t}\right)^2$
- A) 320                      B)  $45\sqrt{5}$                       C)  $36\sqrt{5}$                       D) 324
- 23) Find the product of the following.
- $$\left(\frac{2}{3}y^2 + 7\right)\left(\frac{2}{3}y^2 + 5\right)$$
- A)  $\frac{4}{3}y^4 + 8y^2 + 12$       B)  $\frac{4}{9}y^4 + 8y^2 + 35$       C)  $\frac{4}{3}y^4 + 12y^2 + 12$       D)  $\frac{4}{9}y^4 + 12y^2 + 35$
- 24) A large basket of fruits contains 3 oranges, 2 apples and 5 bananas. If a piece of fruit is chosen at random, what is the probability of getting an orange?
- A)  $\frac{4}{5}$                       B)  $\frac{1}{2}$                       C)  $\frac{7}{10}$                       D)  $\frac{3}{10}$
- 25) If the coordinates of the two points are L (-2, 3) and M(-3,5), then (abscissa of L) - (abscissa of M) is
- A) -5                      B) 1                      C) -1                      D) -2

## SECTION – II

- 26) If a point A lies in between B and C, then
- A)  $BC = \frac{1}{2} AC$               B)  $AC = 2.BC$                       C)  $AC = BC$                       D)  $AB + AC = BC$

- 27) In figure,  $PQ \parallel RS$ ,  $\angle PAB = 70^\circ$  and  $\angle ACS = 100^\circ$ . Determine  $\angle CAQ$ .



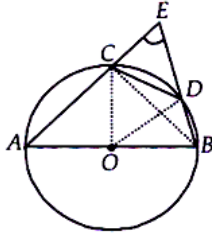
- A)  $80^\circ$   
 B)  $70^\circ$   
 C)  $30^\circ$   
 D)  $100^\circ$

28) In a  $\triangle ABC$ ,  $AB = 5$  cm,  $AC = 5$  cm and  $\angle A = 50^\circ$ , then  $\angle B =$

- A)  $35^\circ$                       B)  $65^\circ$                       C)  $80^\circ$                       D)  $40^\circ$

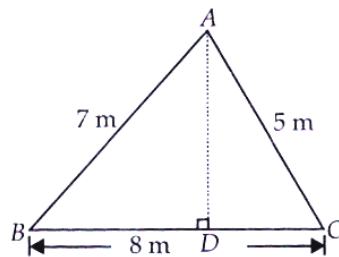
29) In the given figure,  $AB$  is the diameter of the circle,  $CD$  is the chord equal to the radius the circle.  $AC$  and  $BD$  when extended intersect at a point  $E$ . Find  $\angle AEB$

- A)  $30^\circ$   
 B)  $160^\circ$   
 C)  $60^\circ$   
 D)  $90^\circ$



30) In the given figure, there is a triangular children's park with sides  $AB = 7$  m,  $BC = 8$  m,  $AC = 5$  m and  $AD \perp BC$ . Trees are planted at  $A$ ,  $B$ ,  $C$  and  $D$ .

Find the distance between the trees at  $A$  and  $D$ .



- A)  $\frac{5}{2}$                       B)  $\frac{5\sqrt{3}}{2}$                       C)  $5\sqrt{3}$                       D) 5

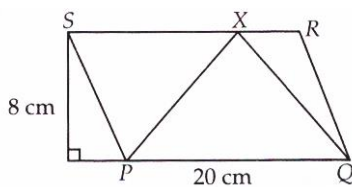
31) The external and internal diameters of a hollow hemispherical vessel are 25 cm and 24 cm respectively. The cost of painting  $1 \text{ cm}^3$  of the surface is ₹ 0.05. Find the total cost to paint the vessel all over.

- A) 96.28                      B) 100                      C) 96                      D) 95.82

32) The construction of a  $\triangle LMN$  in which  $LM = 8$  cm,  $\angle L = 45^\circ$  is possible when  $(MN + LN)$  is

- A) 6 cm                      B) 7 cm                      C) 9 cm                      D) 5 cm

33) In the given figure,  $PQRS$  is parallelogram, find the area of  $\triangle PQX$ .



- A)  $80 \text{ cm}^2$   
 B)  $40 \text{ cm}^2$   
 C)  $120 \text{ cm}^2$   
 D)  $60 \text{ cm}^2$

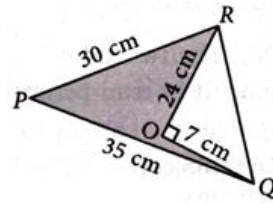
34) Euclid stated that all right angles are equal to each other in the form of

- A) An axiom                      B) A definition                      C) A postulate                      D) A proof



35) An and has a triangular plot PQR as shown in the figure. he sow some flowers in the shaded area. Find the area of shaded region.

- A)  $(150\sqrt{6} - 84) \text{ cm}^2$
- B)  $(250\sqrt{11} - 84) \text{ cm}^2$
- C)  $(200\sqrt{6} - 84) \text{ cm}^2$
- D)  $(400\sqrt{11} - 84) \text{ cm}^2$



36) A spherical lead of radius 8 cm is recast into a right circular cone of height 128 cm. Find the radius of the base of cone.

- A) 3.5 cm                      B) 6 cm                      C) 2.5 cm                      D) 4 cm

37) Arrange the following steps of construction of a  $\Delta ABC$  in which  $BC = 8 \text{ cm}$ ,  $\angle B = 60^\circ$  and the difference between the other two sides is 3 cm in correct sequence.

**Step I :** From BX cut a line segment  $BP = 3 \text{ cm}$ .

**Step II:** Draw  $BC = 8 \text{ cm}$ .

**Step III:** Construct  $\angle CBX = 60^\circ$ .

**Step IV:** Join AC. Then,  $\Delta ABC$  is the required triangle.

**Step V:** Draw the perpendicular bisector of PC, meeting PB at A.

**Step VI:** Join PC.

- A) II, III, I, VI, V, IV                      B) II, III, VI, V, IV, I
- C) II, IV, V, VI, I, III                      D) I, IV, V, VI, III, II

38) Mr. Singhania purchased a plot which is in the shape of trapezium, whose parallel sides are 16 cm and 30 cm long. If its non-parallel sides are 10 cm and 12 cm long, then the area of the plot is

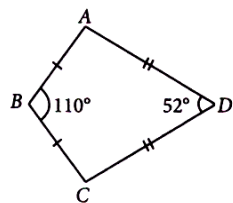
- A)  $\frac{552\sqrt{6}}{7} \text{ cm}^2$                       B)  $\frac{345\sqrt{3}}{7} \text{ cm}^2$                       C)  $\frac{478\sqrt{6}}{7} \text{ cm}^2$                       D)  $\frac{411\sqrt{3}}{7} \text{ cm}^2$

39) If h, S and V respectively denote the height, curved surface area and volume of a right circular cone, then  $3\pi Vh^3 - S^2h^2 + 9V^2$  is equal to

- A) 8                      B) 0                      C)  $4\pi$                       D)  $32\pi^2$

40) In the given figure, ABCD is a quadrilateral in which  $AB = BC$  and  $AD = DC$ . Measure of  $\angle BAD$  is

- A)  $76^\circ$
- B)  $84^\circ$
- C)  $99^\circ$
- D)  $64^\circ$



## SECTION – III (ACHIEVERS)

41) Fill in the blanks and select the correct option.

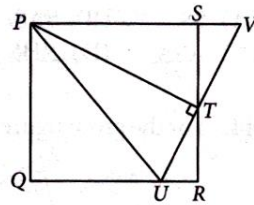
- i) The distance of point  $(-6, 8)$  from origin is **P** units  
 ii) A point whose ordinate is  $-5$  and abscissa is  $3$ , lies in **Q** quadrant.  
 iii) The point  $(-3, 0)$  lies on **R**

	<b>P</b>	<b>Q</b>	<b>R</b>
A)	14	III	Negative y-axis
B)	10	II	Negative x-axis
C)	14	IV	Negative y-axis
D)	10	IV	Negative x-axis

42) In the given figure, PQRS is a square and PS is produced to V and  $PT \perp VU$  where T is the mid-point of SR and U is a point on QR. Then,

- i) State the congruency criteria by which  $\Delta URT \cong \Delta VST$ .  
 ii)  $(SR + UR)$  equals to

	<b>(i)</b>	<b>(ii)</b>
A)	ASA	PT
B)	RHS	PU
C)	ASA	PU
D)	RHS	PT



43) Find the ratio of  $x : y : z$  from these equations

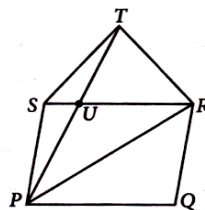
$$7x = 4y + 8z; \quad 3z = 12x + 11y$$

- A)  $4 : 3 : 5$       B)  $4 : -3 : 5$       C)  $3 : 4 : 5$       D)  $3 : -4 : 5$

44) In the given figure, PQRS is a rhombus and  $\Delta TSR$  is an equilateral triangle. If  $\angle PQR = 94^\circ$ , then find the:

- i) Measure of  $\angle SPT$ .  
 ii) Difference between  $\angle TUR$  and  $\angle TPR$ .

	<b>(i)</b>	<b>(ii)</b>
A)	$17^\circ$	$43^\circ$
B)	$13^\circ$	$33^\circ$
C)	$13^\circ$	$43^\circ$
D)	$17^\circ$	$33^\circ$



45) Fill in the blanks and select the correct option.

If  $125^x = \frac{625}{5^x}$ , then the value of  $\sqrt{\sqrt{x} + 5}$  is \_\_\_\_\_.

- A)  $\sqrt{6}$       B)  $\sqrt{7}$       C)  $\sqrt{72}$       D)  $-\sqrt{7}$

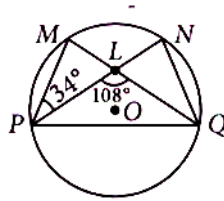
46) Read the given statement carefully and select the correct option.

**Statement-I:** The quadrilateral formed by joining the mid points of the consecutive sides of a square is a rhombus.

**Statement-II:** If the sum of a pair of opposite angles of a parallelogram is  $146^\circ$ , then the greatest angle of the parallelogram is  $107^\circ$

- A) Both Statement –I and Statement –II are true.
- B) Both Statement-I and Statement –II are false
- C) Statement – I is true but Statement-II is false.
- D) Statement – I is false but Statement- II is true.

47) In the given figure, O is the centre of the circle. If  $\angle MPN = 34^\circ$  and  $\angle PLQ = 108^\circ$ , then find the measure of  $\angle PNQ$ .



- A)  $74^\circ$
- B)  $75^\circ$
- C)  $83^\circ$
- D)  $85^\circ$

48) Read the given statements carefully and select the correct option.

**Statement-I:** The radius of a sphere is 10 cm. If the radius is increased by 5% then the ratio of surface area of two spheres will be 40: 41

**Statement-II:** A right circular cone is 5.4 cm high and radius of its base is 3 cm. If it is melted and recast into another right circular cone with radius of base 1.5 cm, then the height of the new cone is 21 cm.

- A) Statement – I is true but Statement-II is false.
- B) Statement – I is false but Statement- II is true.
- C) Both Statement –I and Statement –II are true.
- D) Both Statement-I and Statement –II are false.

49) Fill in the blanks and select the correct option.

i) The three angles of a triangle are in the ratio of 3 : 5 :4. If the difference between the greatest and the smallest angle is  $30^\circ$ , then smallest angle is **P**

ii) In a right angle triangle, the sum of two acute angles is **Q**

iii) The supplement of  $\left(47\frac{3}{4}\right)^\circ$  is **R**

	<b>P</b>	<b>Q</b>	<b>R</b>
A)	$60^\circ$	$180^\circ$	$131.25^\circ$
B)	$45^\circ$	$90^\circ$	$132.50^\circ$
C)	$60^\circ$	$180^\circ$	$131.50^\circ$
D)	$45^\circ$	$90^\circ$	$132.25^\circ$

- 50) Read the given statements carefully and state 'T' for true and 'F' for false.
- i) It is not possible to construct a triangle with sides 7.6 cm, 6.3cm, 14.2 cm.
  - ii) If in two right triangles, hypotenuse of one triangle is equal to the hypotenuse of other triangle, then the two triangles are congruent by RHS congruence rule.
  - iii) For a  $\Delta ABC$ , if  $AB = 13$  cm,  $BC = 9.7$  cm and  $AC = 14.3$  cm, then the greatest angle is  $\angle ABC$ .

	<b>(i)</b>	<b>(ii)</b>	<b>(iii)</b>
A)	F	F	T
B)	T	F	T
C)	F	T	T
D)	T	T	F



Ganga Education Society's

# SHRADDHA OLYMPIAD QUEST

*In pursuit of excellence...*

CLASS

9

**DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO**

**Total Questions : 50 ■ Time : 1 hr.**

Name : .....

SOQ Roll No. : ..... Contact No.: .....

## Guidelines for the Candidate

1. You will get additional 10 minutes to fill up information about yourself on the OMR sheet before the start of the exam.
2. Write your **Name, Class & Roll Number** clearly on the **OMR sheet** and do not forget to sign it. We will share your marks / result and other information related to SOQ exams on your mobile number.
3. The question paper comprises three sections:  
**Section - 1** : Verbal (20 Q.) **Section - 2** : Non Verbal (20 Q.) **Section 3** : Achievers Section (10 Q.)
4. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
5. There is only ONE correct answer. Choose only one option for an answer.
6. To mark your choice of answer by darkening the circle on the OMR sheet, use **Black ball point pen** only.

E.g.

**Q.16. In the water cycle condensation is the process of**

- A. Water vapour cooling down and turning into liquid    B. Ice warming up and turning into a liquid  
C. Liquid cooling down and turning into ice                      D. Liquid warming up and turning into water vapour

As the correct answer is option A, you must darken the circle corresponding to option A on the OMR sheet

as shown in the figure

16. ● ○ ○ ○

7. Rough work should be done in the blank space provided in the booklet
8. Return the OMR sheet to the invigilator at the end of the exam.

1). Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.

**3, 10, 101, ?**

(A)10101 (B)10201 (C)10202 (D)11012

2). Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.

**589654237, 89654237, 8965423, 965423, ?**

(A)58965 (B)65423 (C)89654 (D)96542

3). Given below is an analogy based on coding-decoding. Fill in the blank based on the given coding

**CHAIRS: EJCKTU :: PARROT:.....**

(A)RCTTQV (B)RCXXRT (C)QCTTRV (D)GHKKXY

4). What shall come in place of question mark (?) in the given analogy?

**? : OZKGLK :: HEAVEN : SVZEVN**

(A)MONDAY (B)DONATE (C)FUTURE (D)LAPTOP

5). If DIVINE is coded as AFSFKB, then POWERFUL is coded as

(A) MLTBDCRI (B) HLTBNCRI (C) XLHOJVIM (D) MLWBOCRI

6). Given below are capital letters in the first line and symbols in the second line. Symbols and letters are codes for each other. Choose the correct code for the word: HEIGHT

A	C	E	G	H	I	O	N	P	R	T	S	B	D	M
+	-	÷	x	=	( )	[ ]	≠		#		>	<		

(A) = ÷ ( x =|| (B) = x ( x =|| (C) = ÷ ( x || = (D) = x ( ÷ =||

-----  
 Space for rough work.

7). Pointing to a photograph, a man said, I have no brother or sister but that man's father is my father's son." Whose photograph was it?

- (A) His own (B) His son's (C) His father's (D) His nephew's

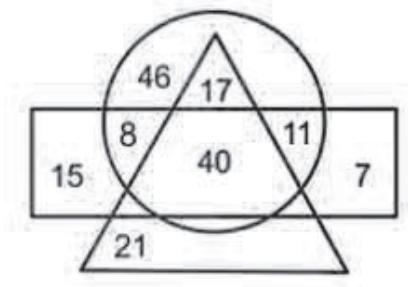
8). If  $A + B$  means A is the brother of B;  $A - B$  means A is the sister of B and  $A \times B$  means A is the father of B. Which of the following means that C is the son of M?

- (A)  $M - N \times C + F$  (B)  $F - C + N \times M$  (C)  $N + M - F \times C$  (D)  $M \times N - C + F$

9). One morning after sunrise, Vimal started to walk. During this walking he met Stephen who was coming from opposite direction. Vimal watch that the shadow of Stephen to the right of him (Vimal). To Which direction Vimal was facing?

- (A) East (B) West (C) South (D) Data inadequate

10). In the given Venn diagram, the circle represents 'PhD students', the triangle represents 'science students' and the rectangle represents 'girls'. The numbers given in the shapes represent the number of persons of that particular category. How many girls are PhD students but are NOT science students?



- (A) 18 (B) 19 (C) 20 (D) 21

Space for rough work.

11). A word arrangement machine, when given an input line of words, rearranges it in every step following a certain rule. Following is an illustration of an input line of words and various steps of rearrangement.

Input: gone are take enough brought station

Step 1: take gone are enough brought station

Step 2: take are gone enough brought station

Step 3: take are station gone enough brought

Step 4: take are station brought gone enough

And Step 4 is the last step for this input. Now, find out an appropriate step in the following question following the above rule.

**Question:**

Input: car on star quick demand fat

What will be the third step for this input?

- A) star car demand                      B) star quick car demand on fat  
     quick on fat
- C) star car quick                         D) none of these  
     demand on fat

12). In a class of 60 students where girls are twice that of boys, Laxmi ranked 27th from the top. If there are 9 boys ahead of Laxmi, how many girls are after her rank?

- A) 23            B) 21            C) 22            D) 24

13). In the below space an alpha-numeric series is present. Study the series carefully and answer the questions that follow:

**1 ! ) G 3 \* ! & B @ ) 5 & E & ^ I % # O 7 & ! \$ # &**

How many numbers are followed by an alphabet if the second half of the series is reversed?

- A) 0                      B) 2                      C) 4                      D) 1

-----  
 Space for rough work.



14). If  $26 \# 14 = 80$ ;  $5 \# 3 = 16$ ;  $6 \# 5 = 22$ ; then what is the value of  $14 \# 5$ ?

- A). 9      B). 4      C). 17      D). 38

15). If '+' means multiplication, '×' means to divided by, '-' means to add and 'to reduce' the meaning of '÷', then What answer will come from the equation?

$$20 - 8 \times 4 \div 3 + 2 = ?$$

- (A) 16                      (B)18                      (C)19                      (D)41

16). In a row of girls, Kamyra is fifth from the left and Preeti is sixth from the right. When they exchange their Positions, then Kamyra becomes thirteenth from the left. What will be Preeti's position from the right?

- (A)10<sup>th</sup>                      (B)14<sup>th</sup>                      (C)11<sup>th</sup>                      (D)18<sup>th</sup>

17). Select the odd one out.

- (A) 792      (B)198      (C)973      (D)897

18). Golu started from his house towards North. After covering a distance of 8 km. he turned towards left and covered a distance of 6 km. What is the shortest distance now from his house?

- (A)10 km.                      (B)16 km.  
(C)14 km                      (D)2 km.

19). Arrange the following words as per order in the Dictionary.

1. Continue, 2. Conscience, 3. Constance, 4. Content, 5. Conscious

- (A) 4,2,1,5,3                      (B) 5,3,4,1,2  
(C) 3,2,1,4,5                      (D) 2,5,3,4,1

20). Choose the odd one.

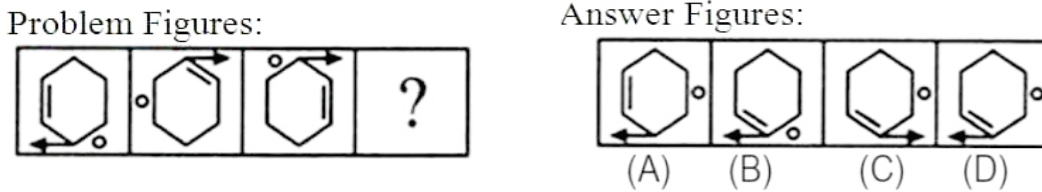
- (A) OE3      (B) XD6      (C) JB5      (D) PH3

-----  
Space for rough work.

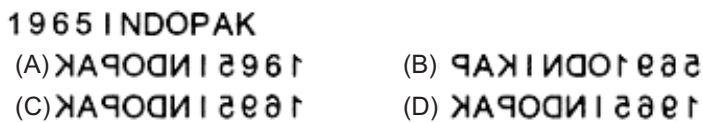
21). Which suitable figure will complete the question mark in the below figure.



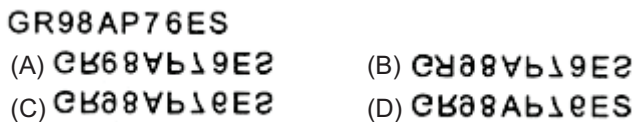
22). Select a suitable figure from the Answer Figures that would replace the question mark (?).



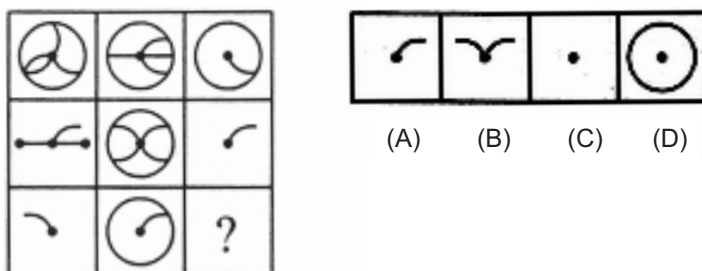
23). Choose the alternative which is closely resembles the mirror image of the given combination.



24). Choose the alternative which is closely resembles the water-image of the given combination.

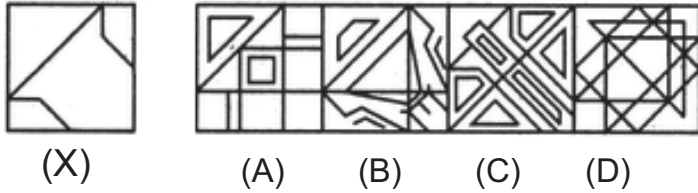


25). Select a suitable figure from the four alternatives that would complete the figure matrix.

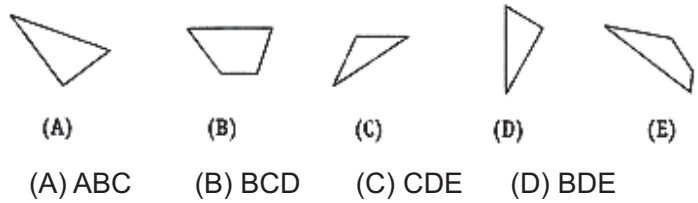


Space for rough work.

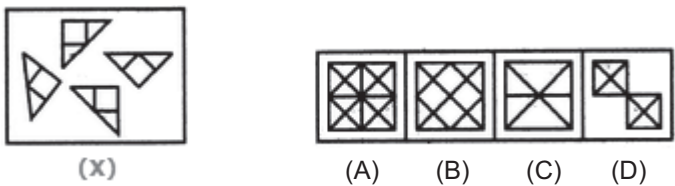
26). Find out the alternative figure which contains figure (X) as its part.



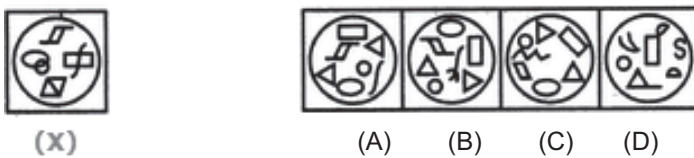
27). In the following question, five figures are given. Out of them, find the three figures that can be joined to form an **equilateral triangle**.



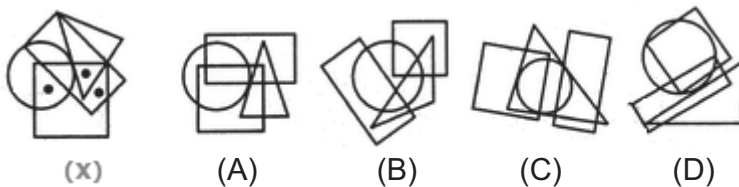
28). Find out which of the option figure can be formed from the pieces given in figure (X).



29). Select the alternative in which the specified components of the key figure (X) are found.



30). Select the figure which satisfies the same conditions of placement of the dots as in Figure-X.



Space for rough work.

31). Select a figure from the options which does not satisfy the same condition of placement of dots as in Fig.(X).

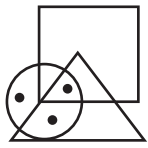
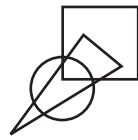


Fig. X



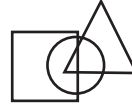
A)



B)

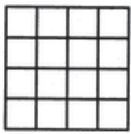


C)



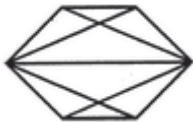
D)

32). Count the number of squares in the given figure.



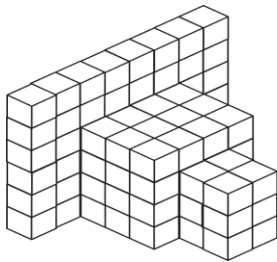
- (A)32      (B)30      (C)29      (D)28

33). Find the number of quadrilaterals in the given figure.



- (A) 6      (B) 7      (C) 9      (D) 11

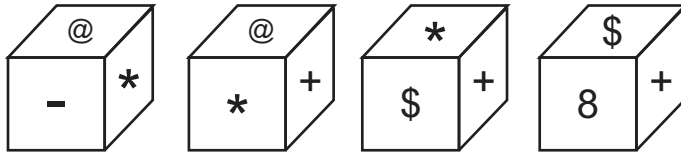
34). Count the number of cubes in the given figure.



- (A)108      (B)110      (C)112      (D)100

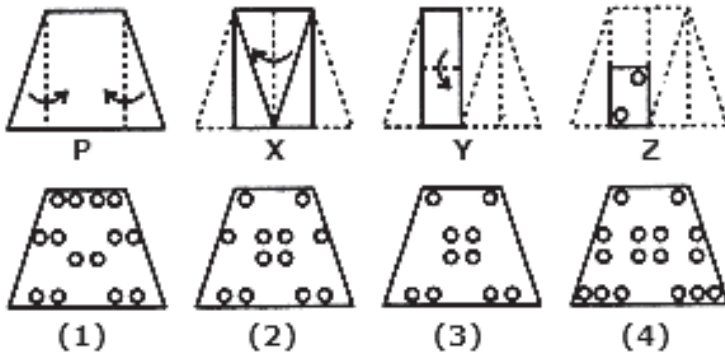
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 Space for rough work.

35). Which symbol will be on the face opposite to the face with symbol \* ?



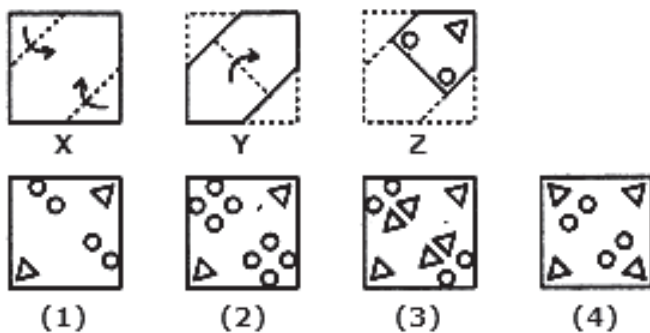
- (A)@ (B)\$ (C)8 (D)+

36) Choose a figure which would most closely resemble the unfolded form of Figure (Z).



- (A)1 (B)2 (C)3 (D)4

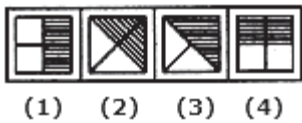
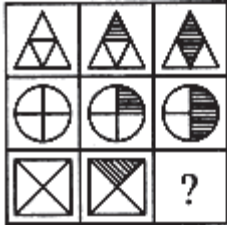
37). Choose a figure which would most closely resemble the unfolded form of Figure (Z).



- (A)1 (B)2 (C)3 (D)4

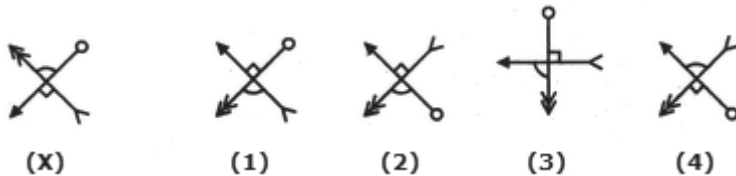
Space for rough work.

38). Select a suitable figure from the four alternatives that would complete the figure matrix.



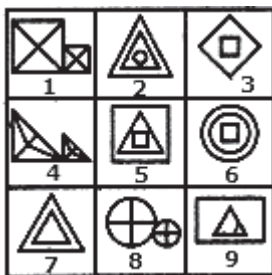
(A)1      (B)2      (C)3      (D)4

39). Choose the correct water image of the given figure (X) from amongst the four alternatives.



(A)1      (B)2      (C)3      (D)4

40). Group the given figures into three classes using each figure only once.



(A)1,3,7 ; 2,4,6 ; 5,8,9      (B)1,4,6 ; 2,5,7 ; 3,8,9  
 (C)1,4,8 ; 2,5,6 ; 3,7,9      (D)1,4,8 ; 2,7,9 ; 3,5,6

-----  
 Space for rough work.

41). Two cars start from the opposite places of a main road, 150 km apart. First car runs for 25 km and takes a right turn and then runs 15 km. It then turns left and then runs for another 25 km and then takes the direction back to reach the main road. In the mean time, due to minor break down the other car has run only 35 km along the main road. What would be the distance between two cars at this point?

- (A)65 km              (B)75 km              (C)80 km              (D)85 km

42). There is a family of six persons A, B, C, D, E and F. They are Lawyer, Doctor, Teacher, Salesman, Engineer and Accountant. There are two married couples in the family. D, the Salesman is married to the Lady Teacher. The Doctor is married to the Lawyer. F, the Accountant is the son of B and brother of E. C, the Lawyer is the daughter-in-law of A. E is the unmarried Engineer. A is the grandmother of F. How is E related to F?

- A) Brother                              B) Sister  
C) Cousin                              D) Cannot be determined

43). In a town of 500 people, 285 read Hindu and 212 read Indian Express and 127 read Times of India, 20 read Hindu and Times of India and 29 read Hindu and Indian Express and 35 read Times of India and Indian express. 50 read no newspaper. Then how many read only one paper?

- A) 123                              B) 231  
C) 312                              D) 321

---

Space for rough work.

44). In the following questions, the symbols  $\delta$ , @,  $\odot$ , %, and  $\star$  are used with the meaning as indicated below.

- 'P  $\odot$  Q' means 'P is not smaller than Q'.
- 'P % Q' means 'P is neither smaller than nor equal to Q'
- 'P  $\star$  Q' means 'P is neither greater than nor equal to Q'.
- 'P  $\delta$  Q' means 'P is not greater than Q'.
- 'P @ Q' means 'P is neither greater than nor smaller than Q'.

Now, in each of the following questions assuming the given statements to be true, find which of the four conclusions I, II, III and IV given below them is/are definitely true, give your answer accordingly.

**Statements** J @ F, F  $\delta$  N, N % H, H  $\odot$  G

**Conclusions** I. G  $\star$  N II. N  $\odot$  J  
III. F  $\star$  J IV. J  $\delta$  G

- (A) I and II are true (B) I, II and III are true  
(C) I, III and IV are true (D) All I, II, III and IV are true

45). Eight people A, B, C, D, E, F and H are sitting around a circular table facing the centre, with equal distance between each other but not necessarily in the same order. A sits third to the left of C. Only one person sits between A and G. E sits second to the right of F. F is neither an immediate neighbour of A nor G. Only one person sits between B and E. E is not an immediate neighbour of D.

Who is sitting to the right of G?

- (A)D (B)C (C)H (D)B

---

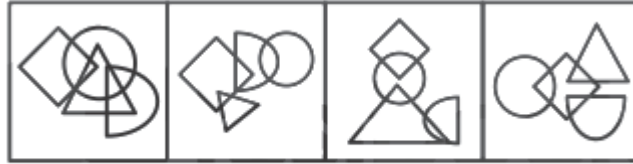
Space for rough work.



46) Select the figure which satisfies the same conditions of placement of the dots as in Figure-X



(X)



a)

b)

c)

d)

(A) Both a and b

(B) Both c and d

(C) Both a and c

(D) Both b and c

47). Find the number of triangles in the given figure.



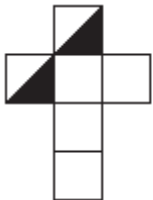
(A) 22

(B) 24

(C) 26

(D) 28

48). The figure given on the left hand side in each of the following questions is folded to form a box. Choose from the alternatives (1), (2), (3) and (4) the boxes that is similar to the box formed.



(A)



(B)



(C)



(D)

(A) 1, 2 and 4 only

(B) 3 and 4 only

(C) 1 and 2 only

(D) 1, 2 and 3 only

49). A cube is painted red along all its faces and then divided into 64 smaller identical pieces. How many of the resultant pieces will have no face painted?

(A) 24

(B) 8

(C) 1

(D) 0

Space for rough work.

50). The water image of mirror image of given figure (X) is



(X)

(A)



(B)



(C)



(D)




---

Space for rough work.

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Space for rough work.

Space for rough work.



SHRADDHA OLYMPIAD QUEST

**MATHS**

For Std. 3, 4, 5, 6, 7, 8, 9



SHRADDHA OLYMPIAD QUEST

**SCIENCE**

For Std. 3, 4, 5, 6, 7, 8, 9



SHRADDHA OLYMPIAD QUEST

**ENGLISH**

For Std. 3, 4, 5, 6, 7, 8, 9



SHRADDHA OLYMPIAD QUEST

**MAT**

For Std. 3, 4, 5, 6, 7, 8, 9



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# SHRADDHA OLYMPIAD QUEST

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CLASS

9

**DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO**

**Total Questions : 50 ■ Time : 1 hr.**

Name : .....

SOQ Roll No. : ..... Contact No.: .....

## Guidelines for the Candidate

1. You will get additional 10 minutes to fill up information about yourself on the OMR sheet before the start of the exam.
2. Write your **Name, Class & Roll Number** clearly on the **OMR sheet** and do not forget to sign it. We will share your marks / result and other information related to SOQ exams on your mobile number.
3. The question paper comprises three sections:  
**Section - 1** : Grammar & Vocabulary (20 Q.) **Section - 2** : Comprehension (20 Q.) **Section 3** : Achievers Section (10 Q.)
4. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
5. There is only ONE correct answer. Choose only one option for an answer.
6. To mark your choice of answer by darkening the circle on the OMR sheet, use **Black ball point pen** only.

E.g.

**Q.16. In the water cycle condensation is the process of**

- A. Water vapour cooling down and turning into liquid    B. Ice warming up and turning into a liquid  
C. Liquid cooling down and turning into ice                      D. Liquid warming up and turning into water vapour

As the correct answer is option A, you must darken the circle corresponding to option A on the OMR sheet as shown in the figure

16. ● ○ ○ ○

7. Rough work should be done in the blank space provided in the booklet
8. Return the OMR sheet to the invigilator at the end of the exam.

**SECTION – I – GRAMMAR AND VOCABULARY**

1. Tom and I \_\_\_\_\_ pizza last week. (Choose the appropriate verb)  
 A. Eat                                      B. Ate                                      C. Eating                                      D. Ated
  
2. I always keep \_\_\_\_\_ money for emergencies. (Choose the appropriate determiner)  
 A. Few                                      B. Many                                      C. Some                                      D. None of these
  
3. Open the door, \_\_\_\_\_? (Add a question tag)  
 A. Will you                                      B. Isn't he                                      C. Don't I                                      D. None of these
  
4. Robert was an unwise king; he was the king of seven kingdoms. What function of pronoun is found in this sentence?  
 A. Object                                      B. Subject                                      C. Not clear                                      D. None of these
  
5. The Prime Minister with all his cabinets \_\_\_\_\_ arrived. (Choose the appropriate auxiliary verb)  
 A. Are                                      B. Have                                      C. Has                                      D. Is
  
6. Which of the words given below can be placed after the word earth to form a compound word?  
 A. Ground                                      B. Current                                      C. Quake                                      D. Man
  
7. The cloth merchant has purchased two \_\_\_\_\_ of cloth. (Choose the appropriate word)  
 A. Bials                                      B. Bales                                      C. Bails                                      D. None of these
  
8. We will go for a walk when dad ..... (Choose the correct option)  
 A. will arrive                                      B. arrive                                      C. arrives                                      D. has arrived

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 Space for rough work.

9. Bronson scored a goal. Yes, a goal \_\_\_\_\_ by Bronson. (Choose the correct option)  
A. Was scored                      B. Will be scored                      C. Is scored                      D. Scored
10. The fire \_\_\_\_\_ an electric fault. (Choose the correct option)  
A. Caused by                      B. Was caused by                      C. Was caused for                      D. Is caused
11. You don't need to wind the watch. (Change the voice)  
A. This watch need not to be wound.                      B. This watch does not wind.  
C. This watch need not be wounded.                      D. This watch need not be binded up.
12. She says, "I am in tenth class." (Change into indirect speech)  
A. She said that she was in tenth class.  
B. She told that she was in tenth class.  
C. She said that she has been in tenth class.  
D. She says that she is in tenth class.
13. I remember my sister taking me to the museum. (Change the voice)  
A. I remember I was taken to the museum by my sister.  
B. I remember being taken to the museum by my sister.  
C. I remember myself being taken to the museum by my sister.  
D. I remember taken to the museum by my sister.
14. The teacher told us (A)/ that we should remain (B)/ in the hostel (C)/ if it rains (D). (Identify the error in the sentence)  
A. No error                      B. B                      C. C                      D. D
15. That chocolate is not as sweet as this one. (Transform the given sentence into comparative)  
A. The chocolates vary in their sweetness.  
B. This chocolate is sweeter than that chocolate.  
C. This chocolate is not sweeter than that chocolate.  
D. This chocolate is sweeter than that one.

---

Space for rough work.

16. She said, "May you live long!" (Change the speech)  
A. She says that I may live long.  
B. She prayed that I might live long.  
C. She wished that she might live long.  
D. She prayed that my life may be longer.
17. He said, "Oh! Enough!" (Change the speech)  
A. He exclaimed with disgust that it was enough.  
B. He exclaimed with disgust if it was enough.  
C. He told with surprise that it was enough.  
D. He shouted that it is enough.
18. You \_\_\_\_ a doctor as soon as you \_\_\_\_\_ this irritating headache.  
A. Should have visited / felt  
B. Had to visit / feel  
C. Might visit / felt  
D. Ought to have visited / would feel
19. \_\_\_\_\_ is your father? Has he recovered fully?  
A. Who                      B. What                      C. How                      D. When
20. Our task had been completed.  
A. We completed our task before the sunset.  
B. We have completed our task before the sunset.  
C. We complete our task before sunset.  
D. We had completed our task before sunset.

**SECTION – II – COMPREHENSION**

**Read the given passage and answer the questions from 21-25.**

The sun was shining brightly in the clear blue sky as Jenny and her friends gathered at the park for a picnic. They spread out a colorful blanket under the shade of a big oak tree and unpacked their delicious lunch. The air was filled with laughter and the aroma of sandwiches, fruits, and freshly baked cookies.

As they enjoyed their meal, Jenny noticed a group of butterflies fluttering around a

-----  
Space for rough work.



patch of wildflowers nearby. Intrigued, she decided to explore and get a closer look. The vibrant colors of the butterflies and the sweet scent of the flowers captivated her. Jenny felt a sense of wonder as she watched the delicate creatures dance from one flower to another.

After spending some time with the butterflies, Jenny rejoined her friends, and they decided to play a game of Frisbee. The excitement filled the air as the colorful disc flew back and forth between them. Everyone cheered and clapped, thoroughly enjoying the friendly competition.

After a fun-filled afternoon, the friends decided to pack up and head home. They left the park with happy memories of laughter, nature, and friendship. Jenny couldn't help but feel grateful for the simple joys that a sunny day, good company, and the beauty of nature brought into her life.

21. What did Jenny and her friends do at the park?
- A. Played video games                      B. Had a picnic  
C. Watched a movie                         D. Went shopping
22. What caught Jenny's attention during the picnic?
- A. Birds flying in the sky                      B. Group of butterflies  
C. Squirrels playing on the ground                      D. Dogs running around
23. What did Jenny feel as she watched the butterflies?
- A. Boredom                                      B. Fear  
C. Wonder                                        D. Frustration
24. What game did Jenny and her friends play after lunch?
- A. Chess                                         B. Soccer  
C. Frisbee                                        D. Hide and seek
25. How did the friends feel as they left the park?
- A. Sad and disappointed                      B. Angry and frustrated  
C. Grateful and happy                         D. Tired and bored

---

Space for rough work.

**Read the given passage and answer the questions from 26-30.**

In the heart of the dense Amazon rainforest, lies an ecosystem teeming with life and mystery. The vibrant biodiversity of this region astounds scientists and explorers alike, as they unravel the secrets hidden within its emerald green canopy. The Amazon rainforest, often referred to as the "lungs of the Earth," plays a crucial role in regulating the global climate. This lush expanse is home to countless species of plants, animals, and indigenous communities, each contributing to the delicate balance of this ecological marvel.

Amidst the towering trees and meandering rivers, the rainforest shelters elusive creatures such as jaguars, poison dart frogs, and vibrant macaws. The indigenous people, deeply connected to their surroundings, rely on the rich resources provided by the rainforest for their survival. Unfortunately, human activities, such as deforestation and illegal logging, pose a severe threat to this natural wonder. The delicate harmony that exists within the Amazon ecosystem is at risk, and urgent conservation efforts are needed to safeguard its future.

26. What is the Amazon rainforest often called?

- A. Desert of the Earth
- B. Lungs of the Earth
- C. Heart of the Earth
- D. Oasis of the Earth

27. Which of the following is a threat to the Amazon rainforest?

- A. Afforestation
- B. Illegal logging
- C. Conservation efforts
- D. Indigenous practices

28. What is the role of the Amazon rainforest in regulating the global climate?

- A. Creating deserts
- B. Cooling the atmosphere
- C. Melting glaciers
- D. Increasing pollution

29. Which elusive creature is mentioned in the passage?

- A. Penguins
- B. Jaguars
- C. Polar bears
- D. Koalas

30. What threatens the delicate harmony of the Amazon ecosystem?

- A. Conservation efforts
- B. Afforestation
- C. Human activities like deforestation
- D. Indigenous communities

---

Space for rough work.

**Read the given passage and answer the questions from 31-35.**

Once upon a time in a small village, there lived a young boy named Raj. Raj loved reading books. His favorite place in the whole world was the village library. Every day after school, he would rush to the library and lose himself in the magical world of stories.

Raj's favorite book was about a brave knight who went on exciting adventures to save the kingdom from a fearsome dragon. As he turned the pages, Raj could feel the thrill of the knight's journey, and his imagination soared to new heights. Reading was not just a hobby for Raj; it was a passport to different worlds and a source of endless joy.

One day, Raj discovered a dusty old book hidden in the corner of the library. Curiosity sparked, he opened its pages to find a collection of folk tales. Each story was a treasure trove of wisdom and entertainment. Raj realized that reading was not only fun but also a way to learn valuable lessons about life.

31. What is the passage about?

- A. Raj's love for reading
- B. Cooking in a village
- C. A dragon in a village
- D. A dusty library

32. Where did Raj like to spend his time?

- A. Playground
- B. Market
- C. School cafeteria
- D. Library

33. What was Raj's favorite book about?

- A. Cooking recipes
- B. Space exploration
- C. A brave knight and a dragon
- D. Village politics

34. What did Raj find in the dusty old book?

- A. Cooking tips
- B. A map
- C. Folk tales
- D. A love story

---

Space for rough work.

35. According to the passage, what did Raj learn from reading?

- A. How to cook  
B. Valuable life lessons  
C. How to play chess  
D. Village traditions

**Read the given passage and answer the questions from 36-40.**

In the rapidly evolving landscape of the 21st century, technology plays a pivotal role in shaping the way we live, work, and communicate. The integration of technology into various aspects of our lives has brought about significant changes, both positive and negative. This passage aims to explore the multifaceted impact of technology on modern society.

Technology has revolutionized communication, breaking down geographical barriers and enabling instant connectivity. Social media platforms have become ubiquitous, fostering global connections and facilitating the exchange of ideas. However, this interconnectedness also raises concerns about privacy and the potential for misuse of personal information.

In the realm of education, technology has transformed traditional teaching methods. Online learning platforms offer flexibility and accessibility, but questions arise about the effectiveness of virtual education compared to traditional classroom settings. Additionally, the digital divide highlights disparities in access to technology, affecting marginalized communities.

The workplace has undergone a paradigm shift with the advent of automation and artificial intelligence. While these technologies enhance efficiency, they also raise concerns about job displacement and the need for upskilling.

36. What is the primary focus of the passage?

- A. Impact of climate change  
B. Role of technology in modern society  
C. Historical developments  
D. Cultural diversity

37. How has technology affected communication?

- A. Strengthened geographical barriers  
B. Hindered global connections  
C. Facilitated instant connectivity  
D. Promoted isolation

---

Space for rough work.

38. What concern is raised about online learning platforms?

- A. Lack of flexibility
- B. Accessibility issues
- C. Overemphasis on traditional methods
- D. Effectiveness compared to classrooms

39. What does the digital divide refer to?

- A. Gap in generational preferences
- B. Disparities in access to technology
- C. Technological advancements
- D. Equal distribution of resources

40. What is a potential drawback of automation in the workplace?

- A. Increased job opportunities
- B. Enhanced job security
- C. Job displacement concerns
- D. Reduced need for upskilling

**SECTION – III – ACHIEVER'S**

**Read the given passage and answer the questions from 41-45.**

In the vast expanse of the cosmos, a tapestry of celestial wonders unfolds, captivating the human imagination and challenging the limits of our understanding. The cosmos, an intricately woven fabric of galaxies, stars, and nebulae, beckons us to explore its mysteries. As we gaze into the night sky, we are confronted with the enigma of the universe, a cosmic ballet where time and space intertwine in an intricate dance.

Within this cosmic orchestra, galaxies serve as the building blocks of the universe, each containing billions of stars and countless mysteries. The universe, expanding at an accelerating pace, propels us into an uncharted territory of cosmological exploration. Dark matter and dark energy, the elusive forces shaping the cosmos, remain as enigmatic as the voids they occupy.

As we contemplate the vastness of the cosmos, we confront questions that transcend our terrestrial existence. Are we alone in the universe, or is life a phenomenon scattered across distant planets? The cosmic microwave background radiation, a faint echo of the Big Bang, provides us with glimpses into the universe's infancy, while cosmic inflation theories stretch the boundaries of our comprehension.

---

Space for rough work.





47. What term describes the phenomenon when a speaker unintentionally substitutes a similar-sounding word for the correct one?

- A. Spoonerism
- B. Mondegreen
- C. Malapropism
- D. Portmanteau

48. Choose the sentence with the correct use of parallel structure:

- A. She likes hiking, swimming, and to run in the evenings.
- B. The project requires creativity, dedication, and working collaboratively.
- C. Reading books is a hobby I enjoy, and writing stories brings me joy.
- D. Not only he is a talented musician, but also an accomplished painter.

49. Identify the correct interpretation of the tone in the following spoken expression:

Speaker: "Oh, fantastic! Another brilliant idea from the genius in the room."

- A. Sarcasm
- B. Genuine enthusiasm
- C. Mockery
- D. Indifference

50. In the context of spoken discourse, what term refers to the phenomenon where speakers adjust their language to match that of their conversation partner, leading to smoother and more effective communication?

- A. Synchronicity
- B. Symbiosis
- C. Code-switching
- D. Linguistic convergence

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Space for rough work.

Space for rough work.



SHRADDHA OLYMPIAD QUEST

**MATHS**

For Std. 3, 4, 5, 6, 7, 8, 9



SHRADDHA OLYMPIAD QUEST

**SCIENCE**

For Std. 3, 4, 5, 6, 7, 8, 9



SHRADDHA OLYMPIAD QUEST

**ENGLISH**

For Std. 3, 4, 5, 6, 7, 8, 9



SHRADDHA OLYMPIAD QUEST

**MAT**

For Std. 3, 4, 5, 6, 7, 8, 9



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