



IIT ASHRAM

JEE MAIN || JEE ADVANCED || MEDICAL || FOUNDATION

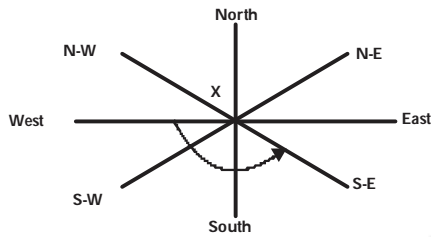
KHOJ-2019 ANSWER KEY WITH SOLUTION CLASS - 6

PART - I		PART - II		PART - III			
Q. No.	Answer	Q. No.	Answer	Q. No.	Answers	Q. No.	Answers
1	C	1	B	1	B	31	B
2	A	2	D	2	A	32	B
3	C	3	C	3	B	33	C
4	D	4	C	4	B	34	A
5	B	5	C	5	B		
6	A	6	A	6	C		
7	B	7	B	7	A		
8	B	8	C	8	B		
9	C	9	C	9	C		PART - IV
10	D	10	B	10	A	1	B
11	A	11	D	11	D	2	B
12	B	12	C	12	B	3	D
13	C	13	B	13	A	4	B
14	A	14	A	14	D	5	A
15	C	15	B	15	B	6	B
16	D	16	A	16	B	7	C
17	C	17	C	17	B	8	A
18	D	18	B	18	B	9	D
19	B	19	B	19	D	10	A
20	A	20	C	20	A	11	C
		21	B	21	B	12	B
		22	B	22	C	13	B
		23	A	23	A	14	C
		24	C	24	D	15	B
		25	C	25	B	16	B
		26	B	26	D		
		27	B	27	A		
		28	B	28	A		
		29	C	29	C		
		30	A	30	B		

PART - I

1.

Sol. (c)



2.

Sol. (a)

(b) y is missing

(c) y is missing

(d) one 'T' is missing

3.

Sol. (c) by observation

4.

Sol. (d)

By observation

5.

Sol. (b)

4 column contain 5 cubes = $4 \times 5 = 20$ 4 column contain 4 cubes = $4 \times 4 = 16$ 6 column contain 2 cubes = $6 \times 2 = 12$ total cubes = $20 + 16 + 12 = 48$

6.

Sol. (a) By observation

7.

Sol. (b)

$$\text{Missing number} = \frac{5+9+7+3}{4} = 6$$

8.

Sol. (b)

D	E	A	F
3	5	8	7

F	I	L	E
7	4	6	5

∴

I	D	E	A	L
4	3	5	8	6

9.

Sol. (c) by observation

10.

Sol. (d) Sample several she showed snakes

middle word is 'she'

11.

Sol. (a) Total horizontal lines = 6

total vertical lines = 6

so total lines = 12

12.

Sol. (b) T A C K L E

13.

Sol. (c)

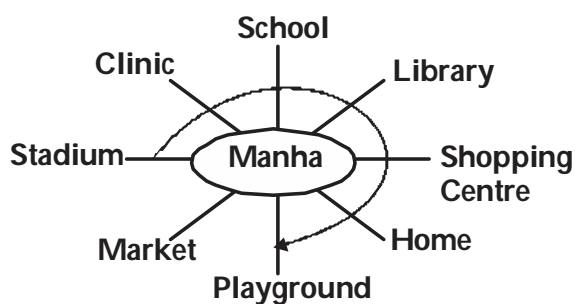
$$18 C 3 B 8 G 4 E 2$$

$$= 18 \div 3 + 8 - 4 \times 2$$

$$= 6 + 8 - 8 = 6$$

14.

Sol. (a)



15.

Sol. (c)

$$5^2 + 3^2 + 4^2 = 50$$

$$? = 7^2 + 5^2 + 6^2 = 110$$

$$6^2 + 4^2 + 5^2 = 77$$

16.

Sol. (d)

26 11 11 15 22
Z K K O V

1 16 16 12 5
A P P L E

{ sum of place value is 27}

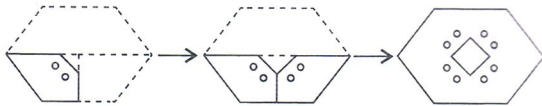
∴ 16 15 5 1 18
P O E A R

K L V Z I
11 12 22 26 9

{ sum of place value is 27}

17.

Sol. (c)



18. (d)

+3 +5 +7 +9
0, 2, 3, 5, 8, 10, 15, 17, 24, 26, 35
3 5 7 9 11

19.

Sol. (b)

$$20 - 12 \div 4 + 16 \times 5$$

$$20 - 3 + 80 = 97$$

20.

Sol. (a)

The rule followed is : $(2 \times 1) + 1 = 3$ and $(12 \times 9) + 9 = 117$

Similar, $(14 \times 7) + 7 = 105$

PART - II

1. (b)

Sol. The given pattern is increasing 1000 in each preceding term

2345678, 2346678, 2347678, 2348678

2. (d)

Sol. L – XXXIX

$$50 - 39 = 11 = \text{XI}$$

3. (c)

Sol. $19 - 17 + 17 - 15 + 15 - 13 + 13 - 11$

$$19 - 11 = 8$$

4. (c)

$$6 \times 100000 + 2 \times 1000 + 5 = 6,02,005$$

5. (c)

$$\text{Other number} = \frac{\text{LCM} \times \text{HCF}}{\text{first number}} = \frac{4 \times 48}{16} = 12$$

6. (a)

Sol. $\frac{2}{5}$ & $\frac{6}{15}$ are proper fraction and also equivalent fraction.

7. (b)

Sol. Part of red marbles is = $\frac{\text{Number of red marbles}}{\text{Total marbles}} = \frac{3}{15}$

8. (c)

$$\text{Sol. } 0.6395 \times 1000 = 639.5$$

9. (c)

Sol. 0.7, 2.81, 4.903 are unlike decimals

10. (b)

Sol. Cost of 5 soaps = 60

$$1 \text{ soaps} = \frac{60}{5}$$

$$24 \text{ soaps} = \frac{60}{5} \times 24 = \text{Rs.}288$$

11. (d)

Sol. Diver is 20 m below sea level = - 20

Further down by 10 m = - 10m

 \therefore New position = (- 20) + (- 10) = - 30

12. (c)

Sol. Reflex angle is greater than 180° and less than 360°

13. (b)

Sol. $\angle 1$ & $\angle 5$ are corresponding angle

14. (a)

Sol. Perimeter of rectangle = $2(l + b)$

$$= 2(20 + 12) = 64 \text{ m}$$

15. (b)

$$AC = \text{Perimeter} - AB - BC$$

$$= 48 - 18 - 16$$

$$= 14 \text{ m}$$

16. (a)

Sol. $C = 65$

$$C = A - 17$$

$$A = C + 17 \Rightarrow 65 + 17 \Rightarrow 82$$

$$\text{and } A = 2B$$

$$B = \frac{A}{2} = \frac{82}{2} = 41$$

17. (c)

Sol. Beads used for 1 necklaces = $\frac{2040}{85} = 24$ Beads needed for 5 necklaces = $24 \times 5 = 120$

9 beads left in box

 \therefore required beads = $120 - 9 = 111$

18. (b)

Sol. Shaded fraction = $\frac{8}{16} = \frac{1}{2}$

19. (b)

Cakes sold on Tuesday = 278

Cakes sold on Monday = $278 - 39 = 239$

Cakes sold on Wednesday = $2 \times 278 = 556$

Total cakes sold in 3 days = $278 + 239 + 556 = 1073$

20. (c)

Sol. Let A, B, C are three collinear points

Line segments are AB, BC, AC

21. (b)

Sol. $60 < M < 90$

When M is divided by 4 remainder 3

∴ Possible value of M is

63, 67, 71, 75, 79, 83, 87

When M is divided by 5 remainder is 3

63, 68, 73, 78, 83, 88

∴ M is 83

22. (b)

Sol. Number of people sit around 100

such tables is = $n + 2$

$$= 100 + 2 = 102$$

23. (a)

Sol. 29 → is prime number

29 April

24. (c)

Sol. Area of shaded region = area of square – area of triangle

$$= 8 \times 8 - \frac{1}{2} \times 8 \times 3 \Rightarrow 64 - 12 \Rightarrow 52 \text{ cm}^2$$

25. (c)

Sol. unknown length $x = 12 + 13 + 13 = 38 \text{ cm}$

$$y = \frac{22}{2} = 11 \text{ cm}$$

26. (b)

$$\text{Sol. shaded region} = \frac{13}{25} = \frac{13 \times 4}{25 \times 4} = \frac{52}{100} = 0.52$$

27. (b)

$$\text{Sol. } \begin{array}{c} \text{bell} \\ \times \\ \text{bell} \end{array} = 100$$

$$\therefore \begin{array}{c} \text{bell} \\ = 10 \end{array}$$

$$\begin{array}{c} \text{bell} \\ \times \\ \text{tomato} \end{array} = 300$$

$$\therefore \text{tomato} = 30$$

$$\therefore \begin{array}{c} \text{tomato} \\ + \\ \text{tomato} \end{array} = 30 + 30 = 60$$

28. (b)

Sol.

$$\star = \frac{16284}{3} = 5428$$

$$\square = \star - 4383 = 5428 - 4383 = 1045$$

$$\square + \square = 1045 + 1045 = 2090 .$$

29. (c)

$$A : B = 4 : 5, \quad B : C = 2 : 3$$

$$\begin{array}{ccc} A & : & B & : & C \\ 4 & & 5 & & \\ & & 2 & & 3 \end{array}$$

$$\therefore 8 : 10 : 15$$

$$\text{Now } A = 8x = 800$$

$$x = 100$$

$$\therefore C = 15x = 15 \times 100 = 1500$$

30. (a)

$$\text{Sol. Total number of tiles} = \frac{1150 \times 630}{23 \times 9} = 3500 \text{ tiles}$$

PART - III

1.

Sol. (b)

1 km = 100000 cm

Then 50 km = 5000000 cm

2.

Sol. (a)

Study of universe is known as cosmology

3.

Sol. (b)Angle of deviation = $180^\circ - 2i = 180^\circ - 60^\circ = 120^\circ$

4.

Sol. (b)Speed of light in vacuum is 3×10^5 km/s

5.

Sol. (b)

Ozone is present in stratosphere

6.

Sol. (c)

Venus is known as Earth's twin

7.

Sol. (a)

Moon is natural satellite

8.

Sol. (b)

Asteroids are found between the orbits of Mars and Jupiters

9.

Sol. (c)

It has both kinetic energy and potential energy

10.

Sol. (a)

Potential energy = mgh

so, it increases when height increases

11.

Sol. (d)

The source of sun's energy is nuclear reactions.

12.

Sol. (b) $1\text{\AA} = 10^{-10}$ meter

13.

Sol. (a)

Scale : 100 cm = 15,000 km

15,000 km = 100 cm

$$1 \text{ km} = \frac{100}{15,000} \text{ cm}$$

$$1500 \text{ km} = \frac{100 \times 1500}{15,000} \text{ cm}$$

$$= 10 \text{ cm}$$

14.

Sol. (d)

It uses the principle of rectilinear propagation.

15.

Sol. (b)

$$\text{Speed} = \frac{\text{Distance}}{\text{time}}$$

Then

$$\text{Time} = \frac{\text{Distance}}{\text{time}}$$

$$= \frac{20}{60} = \frac{1}{3} \text{ hour} = 20 \text{ minute}$$

16.

Sol. (b)

It is curvilinear motion

17.

Sol. (b)

$$\text{Speed} = \frac{\text{distance}}{\text{time}} = \frac{800}{160} = 5 \text{ m/s}$$

18.

Sol. (b)

Metals have the property to expand under the effect of heat. Expansion is a physical change.

19. **(d)**

The reaction between baking soda (sodium bicarbonate) and vinegar (acetic acid) generates carbon dioxide gas.

20.

Sol. (a)

If a solution has the maximum amount of solute that can be dissolved, it is said to be saturated.

21.

Sol. (b)

Winnowing is the method in which heavier components of the mixture are separated from the lighter substances with the help of wind.

22.

Sol. (c)

Filtration is the process of separating suspended solid matter from a liquid, by causing the latter to pass through the pores of some substance, called a filter.

23.

Sol. (a)

Light and heavy substances (X and Y) can be separated by winnowing and iron pieces (Z) can be separated by magnetic separation.

24. **(d)**

Jute is a natural fibre, which grows well in alluvial soil. Stem of jute plant is rotten to obtain fibre.

25.

Sol. (b)

Burning is a chemical change.

26.

Sol. (d)

Pure water is colorless and tasteless.

27.

Sol. (a)

The sun's energy heats up the water bodies water present in them and some of the water evaporates as vapour into the air.

28.

Sol. (a)

Sponge is a soft material.

29.

Sol. (c)

Boiling of an egg is chemical, irreversible as well as slow change.

30.

Sol. (b)

A new substance, Patina is formed from copper so it is a chemical change.

31.

Sol. (b)

Burning cotton or cotton clothes smells like a burning paper.

32.

Sol. (b)

fibers are spun to make the yarn and yarns are woven or knitted to make a fabric.

33.

Sol. (c)

Wood is not lustrous substance, it does not have a specific shine.

34.

Sol. (a)

When cement is mixed with water, chemical change take place, which results in the formation of number of compounds. This process is known as hardening of cement.

PART - IV

1.

Sol. (b) Rest options are viral diseases

2.

Sol. (b) leaves are site of photosynthesis

3.

Sol. (d) All are roots

4.

Sol. (b) Biggest flower

5.

Sol. (a) mosquitoes are able to detect concentration of CO_2

6. (b) these are symptoms of vit A deficiency

7.

sol. (c) Pipe like structure that carries urine to bladder

8.

Sol. (a) mosquito is carrier of malaria

9.

Sol. (d) these plants are found in mountains

10.

Sol. (a) By process of photosynthesis plants convert CO_2 to O_2

11.

Sol. (c) Black alluvial soil

12.

Sol. (b) skull joints are permanent

13.

Sol. (b) Natural surrounding is known as habitat

14

Sol. (c) shell is hard covering

15.

Sol. (b) leaves arise from node

16.

Sol. (b) Biotic means living