



**SAMPLE PAPER**

**Class 11**

**(Based on Class 11 Syllabus)**

**For Students in the Commerce Stream**

**Time Allowed : 3 hrs**

**Maximum Marks : 100**

**MATHEMATICS**

**Q1.**  $\sqrt{-3} \times \sqrt{-3} = ?$

- (a) 3      (b) -3      (c) 3i      (d) -3i

Answer : (a)

**Q2.**  $\frac{d}{dx} b^x = ?$

- (a)  $b^x$       (b)  $b_x$       (c)  $b^x \ln b$       (d)  $b^x \ln x$

Answer : (c)

**Q3.** If  $A = \begin{bmatrix} a & \dots & -b \\ \vdots & \ddots & \vdots \\ c & \dots & d \end{bmatrix}$  then  $A^{-1} = ?$

- (a)  $ad + bc$       (b)  $\frac{1}{ad-bc} \begin{bmatrix} a & \dots & b \\ \vdots & \ddots & \vdots \\ -c & \dots & d \end{bmatrix}$

- (b)  $\frac{1}{ad-bc} \begin{bmatrix} d & \dots & -b \\ \vdots & \ddots & \vdots \\ -c & \dots & a \end{bmatrix}$       (d)  $\frac{1}{ad-bc} \begin{bmatrix} d & \dots & b \\ \vdots & \ddots & \vdots \\ -c & \dots & a \end{bmatrix}$

Answer : (c)

**Q4. Find the values of x and y from the following equations.**

$$3x-2y=4, (x+y=2)$$

- (a)  $x=2$  and  $y=4$       (b)  $x=4$  and  $y=6$       (c)  $x=\frac{3}{2}$  and  $y=3\frac{2}{3}$       (d)  $x=\frac{3}{5}$  and  $y=\frac{2}{5}$

Answer : (d)

**Q5. If  $f(x) = \frac{x+2}{3}$  then  $f^{-1}(x) = ?$**

- (a)  $3x-2$       (b)  $2x-3$       (c)  $\frac{3}{x+2}$       (d) does not match

Answer : (c)

**Q6. Matrix A has 4 rows and 3 columns and matrix B has 3 rows and 2 columns. The matrix AB will have ?**

- (a) 4 rows and 2 columns      (b) 5 rows and 3 columns  
(c) 2 rows and 4 columns      (d) 3 rows and 5 columns

Answer : (a)

**Q7. Given that the matrix  $\begin{bmatrix} 2 & \dots & -3 \\ \vdots & \ddots & \vdots \\ 4 & \dots & a \end{bmatrix}$  is singular. Find out the value of a ?**

- (a) 2      (b) -2      (c) 6      (d) -6

Answer : (d)

**Q8.  $(1+i)^4 = ?$**

- (a) 2      (b) 2i      (c) -4      (d) 4i

Answer : (c)

**Q9. The straight line  $2x+3y+4=0$  touches the x axis at ?**

- (a)  $x=-2$       (b)  $x=2$       (c)  $x=1$       (d)  $x=-1$

Answer : (a)

**Q10.  $\frac{0.05 \times 0.004}{0.02} = ?$**

- (a) 0.001      (b) 0.01      (c) 0.1      (d) 0.2

Answer : (b)

**Q11. A gardener brought 5 rabbits. After 2 months, the rabbits became 10, and after 4 months, they became 20. If the growth continues in the same ratio, how many rabbits would be there after one year ?**

- (a) 320      (b) 425      (c) 535      (d) 635

Answer : (a)

**Q12. Find distance of a straight line from point a (-3,0) to b (0,1) ?**

- (a)  $\sqrt{5}$       (b) 5      (c)  $\sqrt{10}$       (d) 10

Answer : (c)

**Q13. There are 6 blacks, 4 red and 2 white balls in a box. A ball is drawn at random. What is the probability that the ball is red ?**

- (a) 1/2      (b) 1/3      (c) 1/4      (d) 2/3

Answer : (b)

**Q14. If the product of two numbers is 10 and the sum of the two numbers is 7, the larger of the two numbers is**

- (a) -2      (b) 2      (c)  $1\frac{1}{4}$       (d) 5

Answer : (d)

**Q15. What are the values of x and y if  $2x-3y=4$  and  $3y-8x-2=0$**

- (a)  $x=1$  and  $y=2$       (b)  $x=-1$  and  $y=-2$       (c)  $x=-1$  and  $y=2$       (d)  $x=1$  and  $y=-2$

Answer : (c)

**Q16. If  $A = \begin{bmatrix} 1 & 2 & 3 \\ 0 & 5 & 7 \\ 0 & 0 & 4 \end{bmatrix}$  then  $|A| = ?$**

- (a) 5      (b) 10      (c) 15      (d) 20

Answer : (d)

**Q17. If the first term of an arithmetic progression is 6 and the 11<sup>th</sup> term is 76. What is the 5<sup>th</sup> term ?**

- (a) 31      (b) 32      (c) 33      (d) 34

Answer : (d)

**Q18. If  $\int_{\frac{\pi}{2}}^a \sin x \, dx = \frac{1}{2}$  then  $a = ?$**

- (a) 0            (b) 1            (c)  $-\frac{\pi}{2}$             (d)  $-\frac{\pi}{3}$

Answer : (d)

**Q19.  $(\log_x xy) (\log_{xy} x^y) = ?$**

- (a) 1            (b) x            (c) y            (d) xy

Answer : (d)

**Q20. Find the value of x from  $\log_8 81 = -4$**

- (a) 3            (b) -3            (c)  $\frac{1}{2}$             (d) 4

Answer : (d)

**Q21.  $(-2)^4 x - 2^4 = ?$**

- (a) 0            (b) 1            (c) 256            (d) -256

Answer : (c)

**Q22. If  $f$  is continuous on  $[5,2]$ , and if  $f$  is an anti derivative of  $f$  on  $[5,2]$ , where  $f(2) = \frac{3}{2}$**

**and  $f(5) = \frac{4}{3}$ . Then  $\int_5^2 f(x) dx = ?$**

- (a)  $\frac{2}{3}$             (b)  $\frac{5}{7}$             (c)  $-\frac{17}{6}$             (d)  $-\frac{13}{6}$

Answer : (c)

**Q23. If  $y = \ln \frac{1}{x}$ , then  $\frac{dy}{dx} = ?$**

- (a) x            (b) -x            (c)  $\frac{1}{x}$             (d)  $-\frac{1}{x}$

Answer : (a)

**Q24.  $\int_0^2 |x-1| dx = ?$**

- (a) 0            (b) 1            (c) 2            (d) 4

Answer : (a)

**Q25.  $-4 \leq 3(x-2) < 9$  is equivalent to ?**

- (a) (2,10)            (b) (-2,10)            (c)  $(\frac{2}{3}, 10)$             (d)  $(\frac{2}{3}, 15)$

Answer : (b)

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## BUSINESS STUDIES

**Q26. Which one of the following may not be a factor behind starting a business?**

- a) Size of the firm
- b) Finance
- c) Routine workload
- d) Location of the business

Ans-c-Routine workload

**Q27. The possibilities of inadequate profits or even losses due to uncertainties are known as \_\_\_\_\_.**

- a) Business contingencies
- b) Business risks
- c) Business ventures
- d) None of these

Ans-b-Business Risks

**Q28. Commerce includes activities relating to trade and \_\_\_\_\_ to trade.**

- a) Supporting
- b) subsidiaries
- c) auxiliaries
- d) none of these

Ans-c-auxiliaries

**Q29. Dividend is paid only on \_\_\_\_\_.**

- a) Loans
- b) Shares
- c) Debentures
- d) Bonds

Ans-b-Shares

**Q30. ABC Ltd, a company manufacturing LED lights has come out with an issue of NCDs. What is the full form of NCDs ?**

- a) New Company Debentures
- b) National Commodity Debt
- c) Non Convertible Debentures
- d) None of these

Ans-c- Non Convertible Debentures

**Q31. Name the two broad categories of business activities.**

- a) Trade and commerce

- b) trade and industry
- c) industry and commerce
- d) none of these

Ans – c- Industry and commerce

**Q32. 'Earning of profit is considered to be the subsidiary objective of business.' The given statement is \_\_\_\_\_.**

- a) True
- b) false
- c) depends on business objective
- d) cannot say

Ans-b-False

**Q33. Which of the following is a commercial bank?**

- a) Bank of Baroda
- b) State Bank of India
- c) Syndicate Bank
- d) All of these

Ans-d-All are commercial Banks

**Q34. \_\_\_\_\_ was the first company in India to issue convertible zero interest debentures in January 1990.**

- a) Reliance Limited
- b) Mahindra & Mahindra
- c) Tata Motors
- d) Infosys

Ans-b- Mahindra & Mahindra

**Q35. Following are the characteristics of business risks. One of them is not correct. Please identify it.**

- a) Loss is the reward for risk bearing
- b) Business risks are due to uncertainties
- c) Risk is an essential component of every business
- d) Degree of risk depends mainly upon the nature and size of business

Ans-a- Loss is the reward for risk bearing

**Q36. Transfer of interest exists in the case of which of the following?**

- a) Profession
- b) Employment

- c) Business
- d) None of these

Ans-c-Business

**Q37. In which of the following there is a separation of ownership and management as per law ?**

- a) Sole proprietorship
- b) Partnership
- c) Company
- d) All of these

Ans-c-Company

**Q38. Economic activities may be classified into business, \_\_\_\_\_ and employment.**

- a) Profession
- b) occupation
- c) vocation
- d) work

Ans-a-Profession

**Q39. The karta in Joint Hindu family business has \_\_\_\_\_.**

- a) Joint Liability
- b) No liability
- c) Limited liability
- d) Unlimited Liability

Ans-d- Unlimited Liability

**Q40. In a cooperative society the principle followed is :**

- a) No vote for anyone
- b) One man one vote
- c) Multiple votes
- d) One share one vote

Ans-b- One man one vote

**Q41. The board of directors of a joint stock company are elected by**

- a) SEBI
- b) The general public
- c) Its shareholders





d)None of these

Ans- d-None of these

DTH is an acronym for 'Direct to Home' service. It is a service for broadcasting of satellite channels directly on our televisions.

**Q48.The benefits of public warehousing includes\_\_\_\_\_.**

- a)Dealer relationship
- b)Control
- c)Flexibility
- d)None of the above

Ans-c- Flexibility

**Q49. Which of the following is not applicable in life insurance contract?**

- a) Unilateral contract
- b) Conditional contract
- c) Indemnity contract
- d)All of these

Ans-c- Indemnity Contract

**Q50.Which of the following is not a function of insurance?**

- a)Risk Sharing
- b)Assistance in Capital Formation
- c)Lending of Funds
- d)None of these

Ans-c-Lending of funds

## **GENERAL KNOWLEDGE**

**Q51.The United Nations was founded on \_\_\_\_\_.**

- (a)March 24, 1945
- (b)October 24, 1945
- (c) March 24, 1949
- (d) October 24, 1950

Answer - b

**Q52.Which country from the following is NOT the member of UNO?**

- (a)Vatican City
- (b)Afghanistan
- (c)North Korea
- (d)Vietnam

Answer-a

**Q53.The International Court of Justice is located in \_\_\_\_\_.**

(b)New York (b)Washigton (c)Geneva (d)The Hague

Answer-d

**Q54.There are \_\_\_\_\_ members of SAARC.**

(a)5 (b)6 (c)7 (d)8

Answer - d

**Q55.Organization of Islamic Cooperation (OIC) has \_\_\_\_\_ official languages.**

(a)1 (b)2 (c)3 (d)4

Answer - c

**Q57.There are \_\_\_\_\_ non-permanent members of the security council.**

(a)5 (B)7 (c)10 (d)15

Answer – c

**Q58.The currency of Indonesia is \_\_\_\_\_.**

(a)rupiah (b)dinar (c)rangit (d)riyal

Answer- a

**Q59.The D-8 is an organization of eight \_\_\_\_\_ countries.**

(a)developed (b)developing (c)Asian (d)African

Answer- b

**Q60.The European Union's working capital is in \_\_\_\_\_.**

(a)London (b)Lisbon (c)Austria (d)Brussels

Answer- d

**Q61.The headquarter of NATO is located in \_\_\_\_\_.**

(a)New York (b)Paris (c)Geneva (d)Brussels

Answer- d

**Q62.The motto of UNO is \_\_\_\_\_.**

(a)It's your world! (b)Life for All! (c)Peace! (d)Love and Peace!

Answer- a

**Q63. The world's highest mountain is in \_\_\_\_\_.**

- (a)China (b)Pakistan (c)Nepal (d)India

Answer- c

**Q64. The headquarter of Red Cross is in \_\_\_\_\_.**

- (a)New York (b)Washington (c)Geneva (d)The Hague

Answer- c

**Q65. World Trade Organization was established in \_\_\_\_\_.**

- (a)1980 (b)1985 (c)1990 (d)1995

Answer - d

**Q66. The North Atlantic treaty (NATO) was signed in \_\_\_\_\_.**

- (a)1945 (b)1947 (c)1949 (d)1951

Answer- c

**Q67. Which country, on the map of world, appears as "Long Shoe"?**

- (a)Portugal (b)Greece (c)Hungary (d)Italy

Answer- d

**Q68. The headquarters of Amnesty International is in \_\_\_\_\_.**

- (a)Amserdam (b)Geneva (c)London (d)Berlin

Answer –c

**Q69. Yellow Sea lies between \_\_\_\_\_.**

- (a)America and Canada (b)England and France  
(c)China and Korea (d)Norway and Sweden

Answer -c

**Q70. The smallest Sea of the World is \_\_\_\_\_.**

- (a)Dead Sea (b)Red Sea (c)Baltic Sea (d)Arabian Sea

Answer-c

**Q71.**World's famous bridge "Golden Gate" is in \_\_\_\_\_.

- (a)San Francisco                      (b)New Delhi                      (c)France                      (d)Sydney

Answer -a

**Q72.**Which from the following countries is NOT a member of D-8?

- (a)India                      (b)Pakistan                      (c)Nigeria                      (d)Turkey

Answer-a

**Q73.**The largest ocean of the world is \_\_\_\_\_.

- (a)Atlantic                      (b)Pacific                      (c)Indian                      (d)None of these

Answer- b

**Q74.**The lowest part of the Earth is \_\_\_\_\_ .

- (a)Dead Sea                      (b)Mariana Trench                      (c)South Africa                      (d)South Pole

Answer -b

**Q75.**The FIFA football world cup in 2018 is being hosted by which country ?

- (a)Qatar                      (b) Russia                      (c) Brazil                      (d) Italy

Answer-b

## MENTAL ABILITY

**Q.76 .**If INTROVERT : EXTROVERT ,then which of the following follow the same relationship –

- (a) ANGLE : TANGENT    (b) EXTREME : INTERIM  
(c) AGAINST : FAVOUR    (d) ACTION : LAW

Answer (c)

The words are opposites of each other.

**Q.77.**\_\_\_\_\_ is to Dusk as Summer is to Monsoon.

- (a) Noon (b) Dawn (c) Night (d) Evening

Answer (d)

Summer is immediately followed by Monsoon. Similarly, after evening, comes dusk.

**Q.78 .Shoot is to revolver as Eat is to \_\_\_\_\_.**

- (a) Thirst (b) Hunger (c) Fruit (d) Dinner

Answer (c)

The relation between Shoot and Revolver is : Shoot is the action while Revolver is the object by which one can shoot. Similarly, Eat is the action while Fruit is the object that you eat.

**Q.79 .If Water : Swimming Pool ,then Spectators : \_\_\_\_\_.**

- (a) Mountain (b) Building (c) Stadium (d) Mountain

Answer (c)

Water is required to fill a swimming pool and Spectators are required to fill an auditorium.

**Q.80 .If Evaporation : Cloud : Rain represents a certain relationship, then which of the following is similar:**

- (a) Sneezing : Cough : Cold (b) Accident : Injury : Pain  
(c) Tanning : Purse : Leather (d) Bud : Fragrance: Flower

Answer (b)

The first causes the second, the second leads to the third.

**Q.81. If in a certain code, CORPORATIONS is written as PROCTAROSNOI, then how will you write JUDICIAL in the same code ?**

- (a) IDUJLAIC (b) UJIDLAIC (c) UJIDICLA (d) IDUJICLA

Answer : a – IDUJLAIC

→ C O R P is P R O C

→ O R A T is T A R O

→ I O N S is S N O I

C O R P O R A T I O N S

P R O C T A R O S N O I

i.e. The code is each set of 4 letters in written in reverse. Hence JUDICIAL will be

→ J U D I is I O U J

→ C I A L is L A I C

Hence, IDUJLAIC

**Q.82 .If PARTNER is coded as TRAPREN ,then in the same code,how will FOUNDER be coded.**

- (a) FOUNRED (b) NUOFRED (c) NOUFDER (d) OFNEUDR

Answer (b)

On dividing the word PARTNER into two ie PART and NER.Now if we reverse the letters in each : ie TRAP and REN ,we then get TRAPREN.

Do the same with FOUNDER : FOUN and DER.Reverse them : NUOF and RED.

Hence FOUNDER in the same code will be NUOFRED.

**Q.83.If TWENTY is coded as 863985 ,and ELEVEN is coded as 323039 ,then how will TWELVE be coded .**

- (a) 683563 (b) 203863 (c) 863651 (d) 863203

Answer (d)

T	W	E	N	T	Y
8	6	3	9	8	5

E	L	E	V	E	N
3	2	3	0	3	9

Based on the above ,TWELVE will be coded as 863203

**Q.84 .In a certain code ,RECTANGLE is coded as TGEVCPING ,then using the same code,how will you code RHOMBUS.**

- (a) UVWTJON (b) TJOQDWV (c) TJQODWU (d) TAMBUSO

Answer (c)

Each letter of the word REGTANGLE has been moved forward by two alphabets to obtain the code.For example,R becomes T , E becomes G and so on.

Therefore,RHOMBUS will be coded as : TJQODWU

**Q.85 .If CARROM is written as MORRAC ,then using the same code,which word represents the word coded as TIBBAR.**

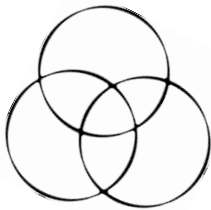
- (a) BARTIB (b) TIBTAB (c) RIBBAN (d) RABBIT

Answer (d)

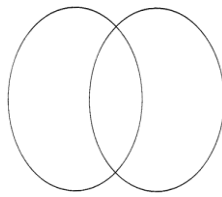
MORRAC is the reverse of CARROM.Hence ,TIBBAR is reverse of RABBIT.

**Q.86 . Some of the cricket players are tennis players, some tennis players are hockey players, no cricket player is a hockey player. Which diagram correctly represents the above statements?**

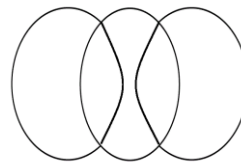
(a)



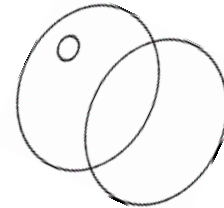
(b)



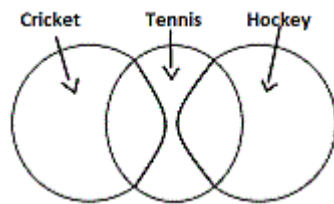
(c)



(d)



Answer : c



**Q.87. Aniket is 7 ranks ahead of Vijay in a class of 39. If Vijay's rank is seventeenth from the last, what is Aniket's rank from the start.**

- (a) 18th (b) 15th (c) 16th (d) 19th

Answer (c)

Vijay is 17<sup>th</sup> from the last and Aniket is 7 ranks ahead of Vijay. So Aniket is 24<sup>th</sup> from the last.

Therefore, Aniket's rank from the start is  $39 + 1 - 24$  ie 16<sup>th</sup>.

**Q88. Today is Tarun's birthday. One year from today, he will be twice as old as he was 12 years ago. How old is Tarun today ?**

- (a) 18 yrs (b) 21 yrs (c) 22 yrs (d) 25 yrs

Answer : d – 25 yrs

Suppose Tarun's age today = X yrs

Then Tarun's age after 1 year = (X + 1) yrs

Therefore,  $X + 1 = 2(X - 12)$

$$X + 1 = 2x - 24$$

$$X - 2X = -24 - 1$$

$$-X = -25$$

$$\text{Or } X = 25$$

**Q.89 . If the first and second digits in the sequence 5981327438 are interchanged .Also the third and fourth digits,the fifth and sixth digits and so on ,the which digit will be the seventh counting to your left.**

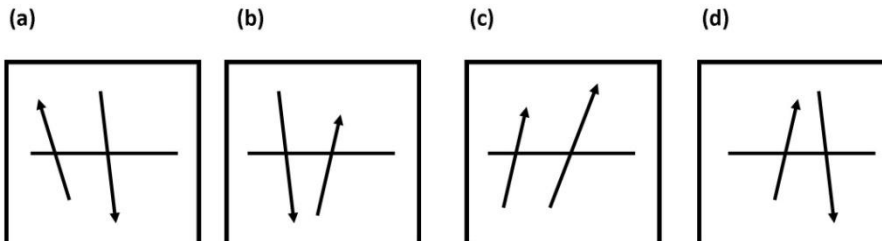
(a) 1 (b) 4 (c) 6 (d) 8

Answer (d)

The new sequence will be : 9518234783 .

The seventh digit counting to your left is 8.

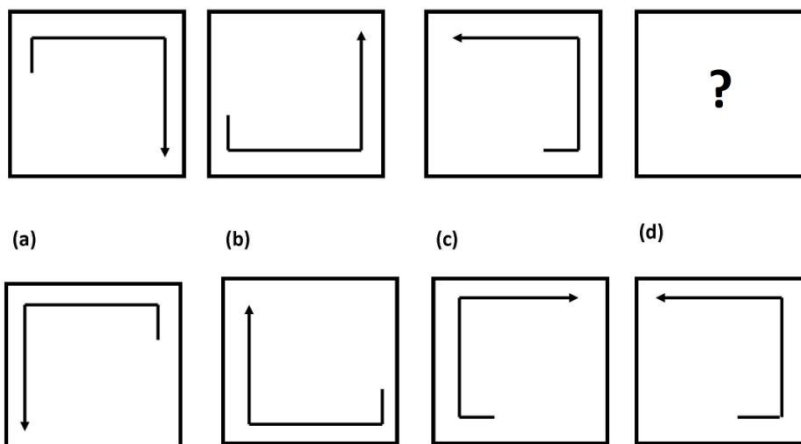
**Q.90 .Choose the figure that is different from the others :**



Answer (c)

Both the arrow heads are in the same direction. In all others they are in opposite directions, hence (c) is the figure which is different.

**Q.91 . What will come in the last box.**



Answer (c)

The figure gets turned to the other side by rotating about the main line joining the arrow with the small line segment.

**Q.92. What will be the value of L where  $L + M = 3$**

(a) 1 (b) 2 (c) 6 (d) Either 1 or 2

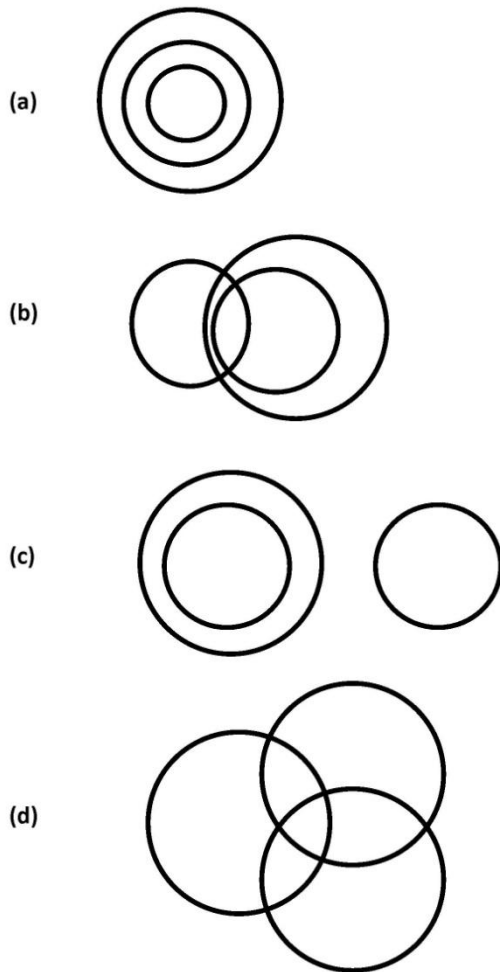
Answer (d)

Since  $L + M = 3$ , L can be either 1 or 2. Similarly M can also be either 1 or 2. Therefore, (d) is the right answer.

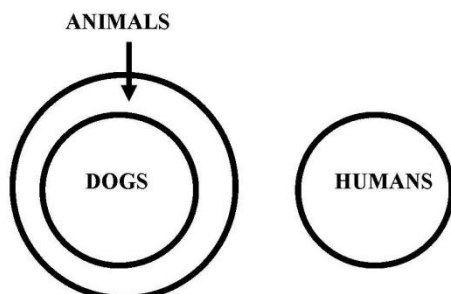


**Q.93 . Which of the following diagrams represent the relation between the following correctly :**

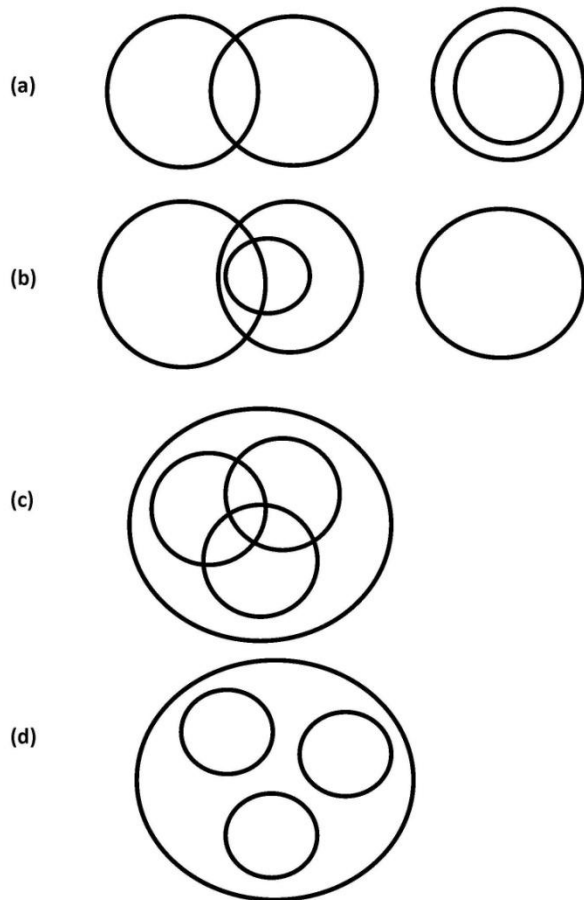
**Dogs, Humans and Animals**



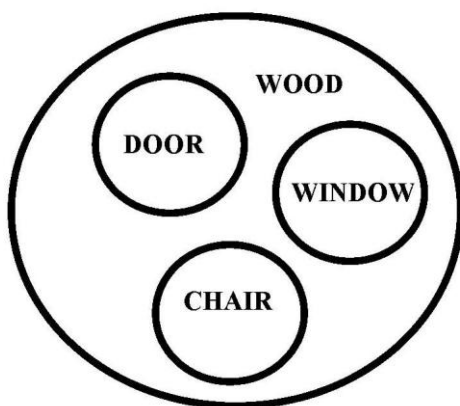
Answer (c)



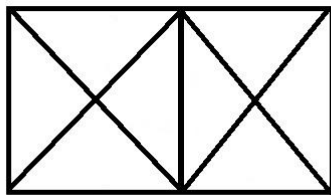
Q.94 . Which of the following diagrams represent the relation between the following correctly :



Answer (d)

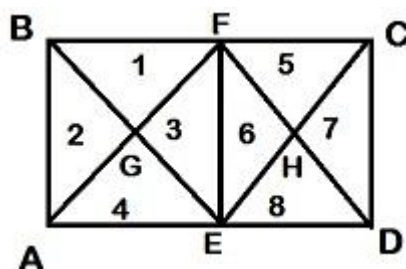


**Q.95. How many triangles does the following figure have ?**



- (a) 12 (b) 18 (c) 15 (d) 20

Answer : b i.e. 18



Simplest Triangles – 8

FBE, FEA, EAB, ABF, FCD, CDE, DEF, EFC – 08

AFD and BEC – 2

Total = 8+8+2 = 18

**Q.96. How many independent meaningful words can be made from the word “LAPAROSCOPY”. The words must be made without changing the order of letters and using each letter only once ?**

- (a) 2 (b) 3 (c) 1 (d) 4

Answer : a – 2 : LAP and COPY

**Q .97. Identify the missing Character.**

<b>11</b>	<b>3</b>	<b>49</b>
<b>5</b>	<b>19</b>	<b>?</b>
<b>7</b>	<b>13</b>	<b>100</b>

- (a) 96 (b) 120 (c) 144 (d) 100

Answer (c)

In a row the third number is the square of the average of the first two numbers.

Row 1 :  $11 + 3 = 14$  , Average is 7.Square of 7 is 49.

Row 3 :  $7 + 13 = 20$  ,Average is 10 ,Square of 10 is 100.

Therefore Row 2 :  $5 + 19 = 24$  ,Average is 12 ,Square of 12 is 144.

**Q.98 . Identify the missing value ?**

<b>3C</b>	<b>24D</b>	<b>8E</b>
<b>7I</b>	<b>21K</b>	<b>3M</b>
<b>4D</b>	<b>?</b>	<b>7J</b>

(a) 10 F (b) 28 G (c) 45 H (d) 48 B

Answer (b)

In the first row,the letters are consecutive ,ie CDE.

In the second row,the letters are one step forward (+1) ie I ,the leaving one,K,then leaving one ,M.

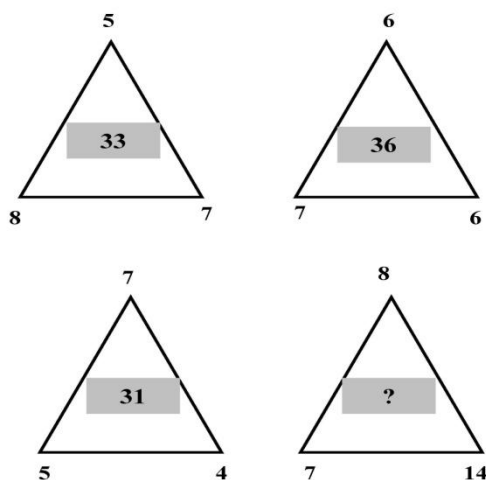
In the third row,the letters are +2 forward ,Hence D , **G** , J

The middle number in each row is the product of the first and third numbers.Ie  $3 \times 8 = 24$  ;

$7 \times 3 = 21$  ,Hence  $4 \times 7 = \mathbf{28}$

**Therefore : 28 G**

**Q.99.Which number should replace the question mark ?**



(a) 32 (b) 42 (c) 38 (d) 30

Answer (b)

$$(5 \times 8) - 7 = 33$$

$$(6 \times 7) - 6 = 36$$

$$(7 \times 5) - 4 = 31$$

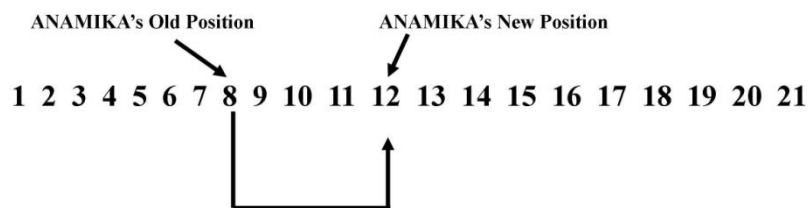
$$(8 \times 7) - 14 = 42$$

**Q.100.** In a row of 21 girls, when Anamika was shifted by four places towards the right, she became 12<sup>th</sup> from the left end .What was her earlier position from the right end of the row ?

- (a) 12<sup>th</sup> (b) 11<sup>th</sup> (c) 10<sup>th</sup> (d) 14<sup>th</sup>

Answer (d)

The change of place of Anamika as given below :



Therefore her earlier position was clearly 14<sup>th</sup> from the right end.