## **CHAPTER**



## Venn Diagram

 Find out which of the diagrams given in the alternatives correctly represents the relationship stated in the question. Sharks, Whales, Turtles (SSC CGL 1<sup>st</sup> Sit. 2010)









 Choose the correct figure that represents the given relation: Blue eyes, females, doctors (SSC CGL 2<sup>nd</sup> Sit. 2010)

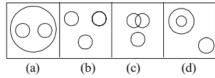








 Which of the following diagrams represents the relationship among Sun, Moon and Star? (SSC CGL 1<sup>st</sup> Sit. 2011)



4. Which one of the following diagrams represents the correct relationship among 'Judge', 'Thief' and 'Criminal'?

(SSC CGL 2nd Sit. 2011)

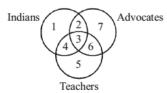








5. Which number space indicated Indian teachers who are also advocates? (SSC Sub. Ins. 2012)



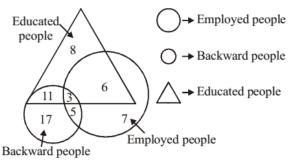
(a) 2

(b) 3

(c) 4

(d) 6

6. In the following figure, how many educated people are employed? (SSC CHSL 2012)



(a) 18 (b) 20

(c) 15

(d) 9

Which of the answer figure indicates the best relationship between milk, goat, cow, hen? (SSC CHSL 2012)

Answer figures:









 Identify the figure which best represents the relationship among Tree, Plant, and House. (SSC CHSL 2012)

Answer figures :

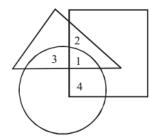








 In the given diagram, Circle represents strong men, Square represents short men and Triangle represents military officers. Which region represents military officers who are short but not strong? (SSC Multitasking 2013)



(a) 2

(b) 3

(c) 4

(d) 1

10. Which figure represents the relationship among Sun, Moon, Molecule ? (SSC CGL 1<sup>st</sup> Sit. 2013)

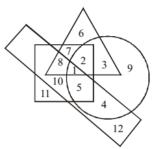


(b)





11.



In the above figure, the circle stands for employed, the square stands for social worker, the triangle stands for illiterate and the rectangle stands for truthful. Employed, truthful and illiterate social workers are indicated by which region? (SSC CGL 2<sup>nd</sup> Sit. 2013)

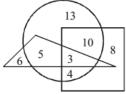
(a) 5



(c) 2

(d) 1

12.



In the above diagram, square represents women, triangle represent the sub-inspectors of police and circle represents the graduates. Which numbered area represents women graduate sub-inspectors of police?

(SSC CGL 2<sup>nd</sup> Sit. 2013)

(a) 5

(b) 3

(c)

8 (d) 13

3. Which one of the following diagrams best depicts the relationship among Earth, Sea, Sun?

(SSC CGL 1st Sit. 2013)

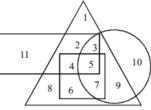


(b) (c)





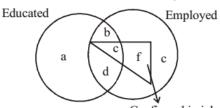
14. In the given diagram, circle represents professionals, square represents dancers, triangle represents musicians and rectangle represents Europeans. Different regions in the diagram are numbered 1 to 11. Who among the following is neither a dancer nor a musician but is professional and not a European? (SSC CGL 1st Sit. 2013)



(a) 11 (b) 1 (c) 10 (d) 8

 Read the figure and find the region representing persons who are educated and employed but not confirmed.

(SSC CGL 1st Sit. 2013)



Confirmed in job

(a) abc(b) bd(c) adc(d) ac16. Which one of the following diagrams represents the relationship among Delhi, Lucknow, Uttar Pradesh?

(SSC CGL 1st Sit. 2013)



(b) OOC



(d)

17. Which one of the following diagrams represents the correct relationship among day, week, year?

(SSC CGL 1st Sit. 2013)



(b) (D)



(d)  $\bigcirc$ 

8. Which one of the following diagrams best depicts the relationship among pen, pencils, stationery?

(SSC CGL 1st Sit. 2013)

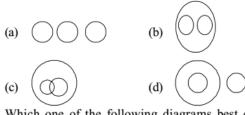


(b) (O) (O

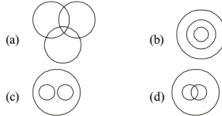


d) (d)

 Indicate which figure will best represent the relationship amongst the three: (SSC CGL 1<sup>st</sup> Sit. 2013) Legumes Seeds, Peas, Kidney Beans

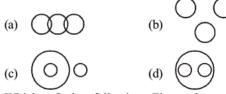


 Which one of the following diagrams best depicts the relationship among. (SSC CGL 1st Sit. 2013) Black eyed people, Brown haired people, Indian



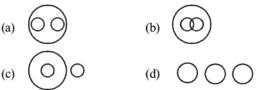
21. Which one of the following diagrams best depicts the relationship among Mammals, Cows and Crows?

(SSC Sub. Ins. 2013)

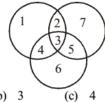


22. Which of the following Figure best represents the relationship amongst the Human being, Girl, Boy?

(SSC Sub. Ins. 2013)



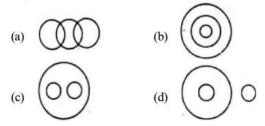
23. In the given figure, circles represent students studying three different subjects. How many students study all the three subjects? (SSC Sub. Ins. 2013)



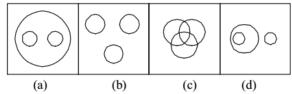
(a) 2 (b) 3

(d) 1

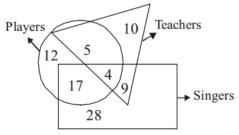
 Identify the diagram that best represents the relationship among the classes given below: (SSC CHSL 2013) Liquids, Milk, River water



25. Find out the figure which best represents the relationship among Garden, Rose and Jasmine. (SSC Steno. 2013)



 The diagram represents Teachers, Singers and Players. Study the diagram and find out how many teachers are also singers.



(SSC Steno. 2013)

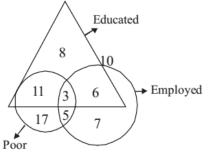
(a) 4

(b) 5

(c) 9

(d) 13

27. The figure represents three classes of youth in a village. How many educated youth are poor? (SSC Steno. 2013)

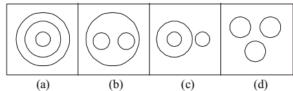


(a) 14 (b) 9

(c) 6

(d) 19

 Identify the diagram that best represents the relationship among the classes given below: (SSC Multitasking 2014) Doctors, Engineers, Lawyers



29. In a group of persons, 11 persons speak Kannada, 20 persons speak Tamil and 11 persons speak Telugu. In that group, if two persons speak two languages and one person speak all the languages, then how many persons are there in the group?

(SSC CGL 2014)



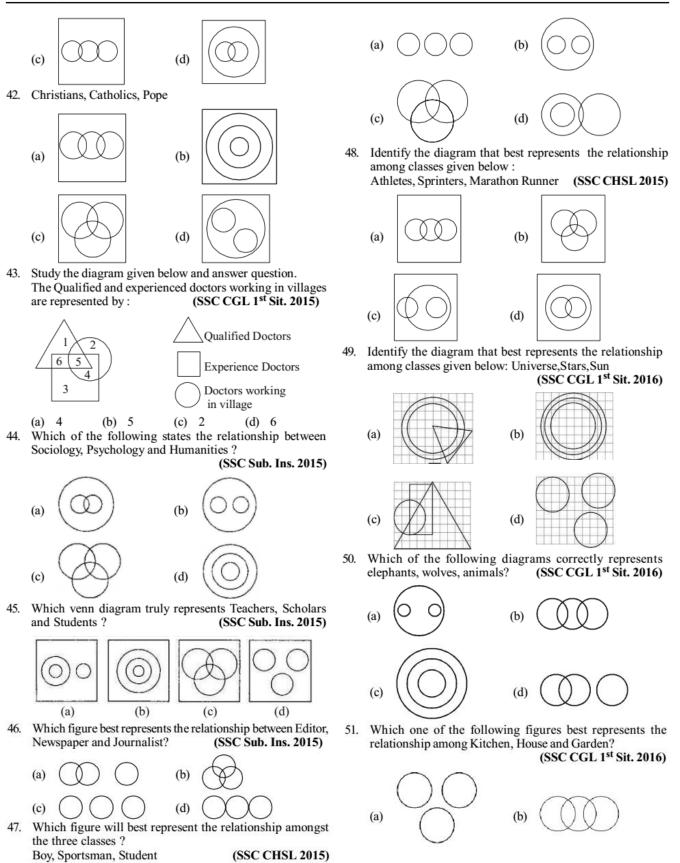
(a) 40

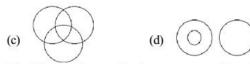
(b) 41

(c) 42

(d) 43

30.	Which one of the following diagrams best depicts the relationship among Human Society - Youth Club, Political Party and Youths?  (SSC CGL 2014)	27	(a) (b) (c) (d) (d)
31.	(c) (d) Which one of the following diagrams represent correct	3/.	In a total population of 70, if 20 drink coffee and tea, 35 drink coffee, then select the correct venn diagram that shows (1) how many drink only coffee?
	relationship among pigeon, birds, dogs ? (SSC CGL 2014)		(2) how many drink only tea? A = Coffee drinkers
	(0)000 (A)(a)		B = Tea drinkers (SSC Steno. 2014)
	(a) (b) (c) (d)		A B A B A B A B A B (15(20)35)
32.	Identify the diagram that best represents the relationship among classes given below: (SSC Sub. Ins. 2014)		
	Food, Curd, Spoons	38.	(a) (b) (c) (d)  Identify the diagram that best represents the relationship
	(a) (b) (O)		among the classes given below: (SSC CGL 1st Sit. 2015) Animals and land animals, sea animals
	(c) (d) (O)		(a) (b) (c)
33.	In the following figure, the boys who are cricketer and sober are indicated by which number? (SSC Sub. Ins. 2014)		(c) (d) (d)
	Cricketer	39.	$\bigwedge$
	Sober $ \begin{array}{ccccccccccccccccccccccccccccccccccc$		Doctors  Professors  Married People  (SSC CGL 1st Sit. 2015)  Which number indicates doctors who are not married?
	Girls 4 1	40	(a) 6 (b) 4 (c) 2 (d) 1
	(a) 6 (b) 5 (c) 4 (d) 2	40.	$\left(\begin{array}{c c} P & R & K \end{array}\right)$
	<b>RECTIONS:</b> In Question Nos. 34 and 35 which one of the owing diagrams represents the correct relationship among:		
34.	Lion, Fox and Carnivorous (SSC CHSL 2014)		In the fig. Q represents all quadrilaterals
	(a) (b) (iii)		K represents all Kites R represents all Rhombus P represents all Parallelogram (SSC CGL 1st Sit. 2015) The statement 'Rhombus is also a Kite' can be described as
	(c) (d)		<ul> <li>(a) P and K is nothing but R</li> <li>(b) P or K is nothing but R</li> <li>(c) P and R is nothing but K</li> <li>(d) P or R is nothing but K</li> </ul>
35.	Manager, Labour Union and Worker		RECTIONS (Qs. 41-42): Identify the diagram that best resents the relationship among classes given below:
	(a) (b) (b)		(SSC CGL 1 <sup>st</sup> Sit. 2015)
	(c) (d) (iii)	41.	Vegetables, Potatoes, Eatables
36.	Select the venn diagram that correctly shows the relationship. Continent, City, Country (SSC Steno. 2014)		(a) (b)

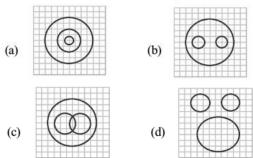




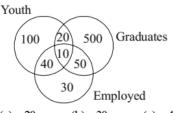
52. Identify the diagram that best represents the relationship among classes given below

Delhi, Sri Lanka, Asia

(SSC CGL 1st Sit. 2016)



53. If the number indicates the number of persons, then how many youth graduates are there? (SSC Steno. 2016)

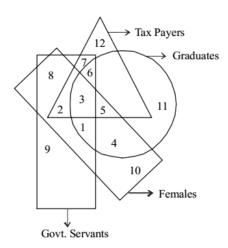


(b) 30 (c) 40 (d) 50 54. The information collected through a survey conducted

among the public is represented in the Venn diagram given below. Study the diagram and answer the question. Which of the following represents Govt. Servents who are

tax payers, but are neither females nor graduates?

(SSC SI 2016)

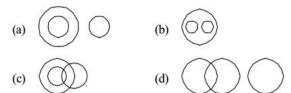


(b) 7

(c) 12

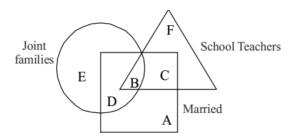
(d) 6

Which of the following diagrams represents the correct relationship between Doctors, Specialist Doctors and Patients? (SSC SI 2016)



56. Triangle represents school teachers. Square represents married persons. Circles represents persons living in joint families. Married persons living in Joint families but not working as school teachers are represented by

(SSC SI 2016)



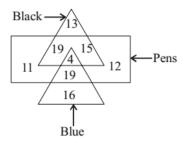
(a) D

(b) F

(c) A

(d) C

57. In the given figure, how many pens are blue? (SSC CGL 2017)



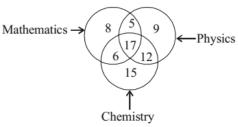
(a) 23

(b) 19

(c) 12

15

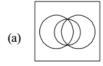
58. In the given figure, how many people study 2 subjects? (SSC CGL 2017)



(a) 11

(d) 40 (c) 12

59. Identify the diagram that best represents the relationship among the given classes. Music Instrument, Piano, Guiter (SSC CGL 2017)



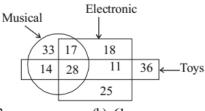






60. In the given figure, how many are musical toys?

(SSC CGL 2017)



(a) 53 (c)

(b) 61 (d) 45

Identify the diagram that best represents the relationship (SSC CHSL 2017) among the given classes.

Earth, Saturn, Planet, Star









62. Choose the correct Venn diagram which best illustrates the relationship among Hockey, Cricket, Games.

(SSC MTS 2017)

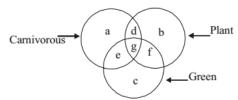








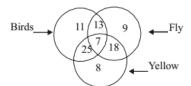
63. In the given figure, which letter represents carnivorous (SSC Sub.ins. 2017) plants which are not green?



(a) d (b) g

(c)

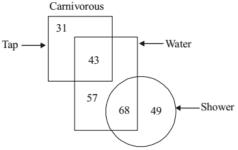
In the given figure, how many yellow birds are there? (SSC Sub.ins. 2017)



(a) 25 (c) 18

(b) 32 (d) 20

65. In the given figure, How many water are either tap or shower? (SSC Sub.ins. 2017)



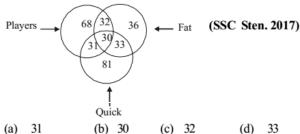
168

(b) 111

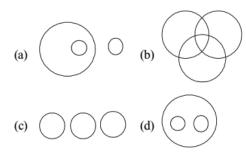
(c) 125

(d) 108

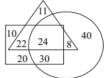
In the given figure, how many players are quick and fat?



Select the Venn diagram that best represents the relationship among the given set of classes. (SSC CGL 2018) Students, Teachers, School



In the Venn diagram shown here, the triangle represent 'students', the circle represents 'diploma holders' and the quadrilateral represents 'graduates'. The numbers given in the diagram represents number of persons of that particular category.



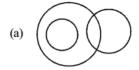
How many students are diploma holders but NOT graduates? (SSC CGL 2018)

(a) 8

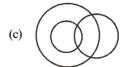
(b) 11

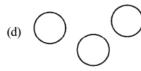
(c) 40 (d) 30

Select the Venn diagram that best illustrates the relationship (SSC CHSL 2018) between the following classes. Wools, Wood, Leather









 In the following diagram, the triangle represents 'actors', the circle represents 'instrumentalists' and the rectangle represents 'dancers'. The numbers in different segments

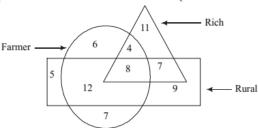
show the number of persons. (SSC Sub. Ins. 2018)

Instrumentalist

5
9
10
2
Actor
Dancer

How many dancers are instrumentalists but not actors?

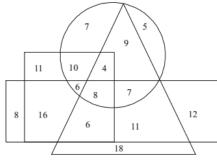
- (a) 17
- (b) 21
- (c) 12
- (d) 20
- In the following diagram, the triangle represents 'rich', the circle represents 'Farmer' and the rectangle represents 'rural'.
   The numbers in different segments show the number of persons.
   (SSC Sub. Ins. 2018)



How many rich Farmers are not rural?

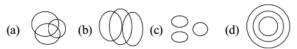
- (a) 12
- (b) 8
- (c) 7
- (d) 4
- 72. In the following diagram, the triangle represents 'actors', the circle represents 'male', the rectangle represents 'painters' and the square represents 'artists'. The numbers in different segments show the number of persons.

(SSC Sub. Ins. 2018)



How many male actors are painters but not artists?

- (a) 7
- (b) 8
- (c) 13
- (d) 15
- 73. Which Venn diagram best represents the given set of classes? Animals, Mammals, Goat (SSC Stenographer 2018)



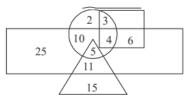
74. Which Venn diagram best represents the given set of classes? (SSC Stenographer 2018)

Bedroom, Kitchen, House



75. The given Venn diagram represents employees in an organisation: (SSC CGL 2019-20)

The triangle represents executives, the circle represents females, the rectangle represents MBAs and the square represents technical staff. The numbers given in the diagram represent the number of persons in that particular category.



How many female executives are there in the organisation?

- (a) 10 (b) 5
- (c) 11
- (d) 15

 Identify the Venn diagram that best represents the relationship between the given classes.

Painter, Lawyer, Singer

(SSC MTS 2019-20)









77. Select the Venn diagram that best represents the relationship between the following classes.

Chandigarh, India, Seoul

(SSC CHSL 2019-20)









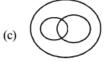
 Select the Venn diagram that best illustrates the relationship between the following classes.

Women, Mothers-in-law, Housewives

(SSC CGL 2020-21)







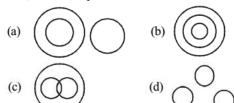


Select the set of classes the relationship among which is best illustrated by the following Venn diagram.

(SSC CHSL 2020-21)



- (a) Stationery, Pens, Pencils
- (b) Owls, Mammals, Reptiles
- (c) Mothers, Engineers, Women
- (d) Doctors, Fathers, Brothers
- Select the Venn diagram that best illustrates the relationship among the following classes. (SSC MTS 2020-21) Sun, Planets, Jupiter



 Select the Venn diagram that best illustrates the relationship between the following classes.

Eatables, Bananas, Fruits (SSC Stenographer 2020-21)









 Select the set of classes the relationship between which is best illustrated by Venn diagram given below.

(SSC Stenographer 2020-21)

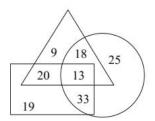


- (a) Brothers, Fathers, Uncles
- (b) Farmers, Sisters, Brothers
- (c) Farmers, Uncles, Males
- (d) Mothers, Females, Nephews
- 33. In a class of 45 students, all students participate in one or both of the two games, i.e. Chess and Badminton, 11 students participate in both the games, whereas 17 students participate only in Chess. How many total students participate in Badminton? (SSC Stenographer 2020-21)
  (a) 24 (b) 28 (c) 30 (d) 26
- 84. The given Venn diagram best represents the relationship between which set of classes given in the options?

(SSC Sub-Inspector 2020-21)



- (a) Sisters, Females, Mothers
- (b) Males, Fathers, Sons
- (c) Fathers, Males, Doctors
- (d) Engineers, Brothers. Males
- 5. In the following Venn diagram, the 'Circle' stands for 'Journalists', the 'Triangle' stands for 'Females' and the 'Rectangle' stands for 'Urban residents'. The given numbers represent the number of persons in that particular category. How many journalists are females but NOT urban residents? (SSC Sub-Inspector 2020-21)



(a) 9

(b) 13

(c) 25

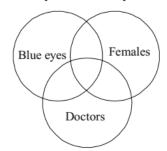
(d) 18

## **Hints & Solutions**

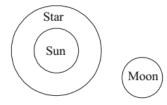
 (c) Sharks belong to class pisces. Whale is a mammal and Turtle belongs to class reptiles.

Sharks Whale Turtles

 (d) Some blue eyed may be females and vice-versa. Some females may be doctors and vice-versa. Some blue eyed. may be doctors and vice-versa. Some blue eyed females may be doctors.



3. (d) Sun is a star. Moon is a satellite.



(c) Judge is different from both the thief and criminal.
 The thief comes under the class criminal.



- 5. (b) The number '3' space represents Indian teachers who are also advocates as this number is common to given condition.
- 6. (d) 3+6=9

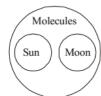
- 7. (c) Milk (Cow) Goat (Hen)
- 8. (c) Tree Plant House
- 9. (a)
  Military

  3 1

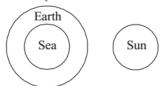
  Strong

Hence, darken portion in above diagram represents that there are 2 military officers who are short but not strong.

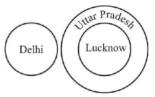
 (d) Every thing is composed of molecules. Sun is different from Moon.



- 11. (d) Employed, truthful and illiterate social workers would be indicated by the region common to all the four geometrical figures. Such region is marked '1'.
- 12. (b) Women graduate sub-inspectors of police can be represented by the region common to all the three geometrical figures. Such region is marked '3'.
- 13. (c) Sea is a part of Earth. Sun is the star.



- 14. (c) The required region should be present only in circle. Such region is marked '10'.
- 15. (b) The letters 'b' and 'd' are present in both the circles.
- 16. (c)

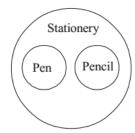


Delhi is separate state while Lucknow is part of Uttar Pradesh.

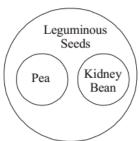
17. (a)



18. (c) Pen is different from Pencil. But both are stationery



(b) Pea is different from kidney bean. But both are Leguminous seeds.



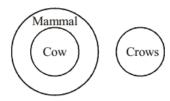
 (a) Some black eyed people may be brown haired and viceversa.

Some black eyed people may be Indians and vice-versa. Some brown haired people may be Indians and vice-versa.

Some black eyed and brown haried people may be Indians and vice-versa.



21. (c) Crows come under the class Aves. Cow is a mammal.

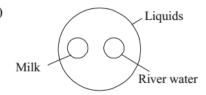


22. (a) Girl is different from boy but both are human beings.

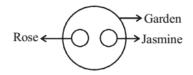


23. (b) The number '3' is common to all the three circles.

24. (c)



25. (a) Best representation of the relationship is:



26. (c)

Persons	Numbers								
1 CISOIIS	4	5	9	10	12	17	28		
O Players	✓	<b>✓</b>	×	×	✓	✓	×		
△ Teachers	✓	✓	✓	✓	×	×	×		
☐ Singers	✓		✓	×	×	✓	✓		

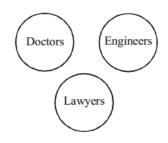
Number of teachers who are also singers = 9

27. (a)

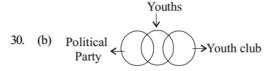
Persons	Numbers								
	3	5	6	7	8	11	17		
Educated	✓	×	✓	×	✓	✓	×		
Employed	✓	✓	✓	✓	×	×	×		
Poor	✓	✓	✓	×	×	✓	✓		

Number of educated youth are poor = 11 + 3 = 14

28. (d)



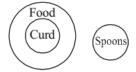
29. (c) 19+1+1+1+10+10=42 persons



31. (a)



32. (d)



33. (d)

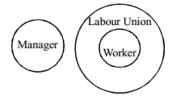
Regions	1	2	4	6	7	8	9	10
Persons								
Boys	✓	✓	×	×	×	×	✓	×
Girls	×	×	✓	×	×	✓	×	×
Sober	×	✓	✓	✓	✓	×	×	×
Cricketer	✓	✓	×	✓	×	×	×	✓

Region 2 presents the boys who are cricketer and sober.

34. (c)



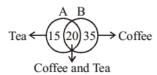
35. (a)



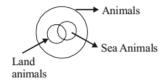
36. (d)



37. (d)



38. (d)

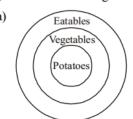


39. (d)

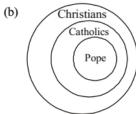
Persons	Numbers								
	1	2	3	4	5	6			
△Doctors	✓	✓	×	×	✓	✓			
O Professors	×	×	×	✓	✓	✓			
□ Married	×	✓	✓	×	×	✓			

Number 1 indicates doctors who are not married 40. (a) P and K is nothing but R.

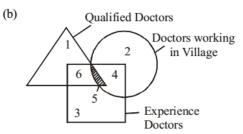
41. (a)



42.

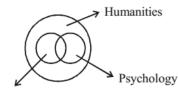


43. (



Hence, shaded portion in above diagram represents. Qualified Experienced Doctors working in village i.e. 5.

44. (a)

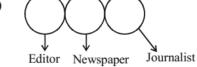


Sociology

45. (a)

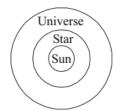


46. (d)

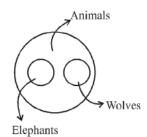


- 47. (c) Some boys are sportsmen, some boys are students some sportsmen are students.
- 48. (d) Sprinters and Marathon Runner both are athletes. Some Sprinters can be Marathon Runners also.

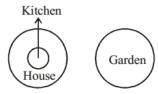
49. (b)



50. (a)

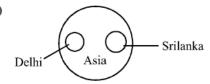


51. (d)



As kitchen is in house and Garden is outside the house.

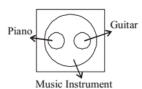
52. (b)



Delhi and Srilanka both are in Asia.

- 53. (a) 20 youth are graduates
- (b) '7' represents Govt. servants who are tax payers, but are neither females nor graduates.
- (b) Option (b) is correct.
- (a) Married persons living in joint families but not working as school teachers are represented by 'D'.
- 57. (a) Total number of pens are blue = 19 + 4 = 23.
- 58. (b) Total number of peoples, who study only 2 subjects  $\Rightarrow$  5 + 12 + 6 = 23

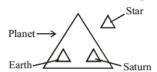
59. (b)



Piano and guitar are two different music instruments.

60. (c) Total number of musical toys = 14 + 28 = 42.

61. (c)



- 62. (b) Both hockey and cricket are games but different from each other.
- (a) According to figure,
   'd' letter represents carnivorous plants which are not green.

64. (b) According to question,

Total number of yellow birds = (25 + 7) = 32.

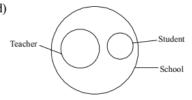
65. (b) According to figure,

Total number of water are either tap or shower

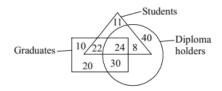
= (43 + 68) = 111.

66. (b) Total number of players are quick and fat = 30.

67. (d)



68. (a)



Diploma holder students, but not graduate is the number inside circle and triangle but not in rectangle and that number is '8'.

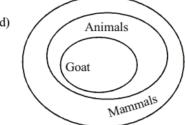
69. (d)



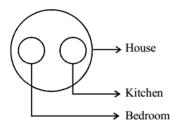
All are different

- (a) According to Venn diagram.
   Total number of dancers who are instrumentalists but not actors = (8+9) = 17
- 71. (d) Total number of rich farmers who are not rural = 4
- 72. (a) Total number of male actors who are painters but not artists = 7

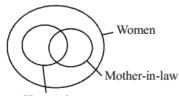
73. (d)



74. (b) As,



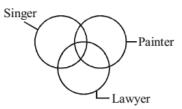
75. (c)



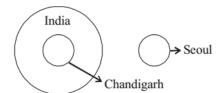
Housewives

76. (b) According to venn diagram, Only five females executives are there in the organisation.

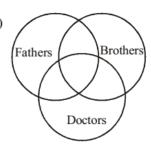
77. (a)



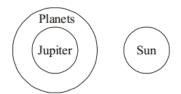
(b) Option (b) represent the relationship between Chandigarh, India, Seoul. As, Chandigarh is the part of India but Seoul is the part of Japan.



79. (d)



80. (a)

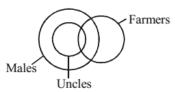


Jupiter is a planet and Sun is a star.

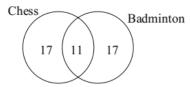
81. (d)



82. (c)

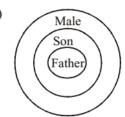


(b) Total students = 45 83.



Total sutdents participate in Badminton = 17 + 11 = 28

84. (b)



(d) 18 Journalists are female but not urban residents.