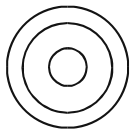
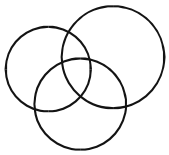
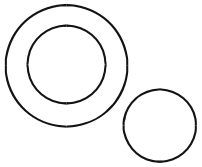
Practice Test-8

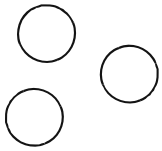
Number of questions: 30 **Time Allowed: 30 mins.**

Directions for questions 1 to 6: Choose the Venn diagram which best illustrates the relationship between three given classes in each of the following questions :

(a) 

(b) 

(c) 

(d) 

1. Son, Father, Grandfather
2. Car, Train, Aeroplane
3. Males, Father, Mother
4. Birds, Feathers, Cows
5. Mothers, Widows, Doctors
6. Flowers, Petals, Fruits.

Directions for questions 7 and 8: In each of the following questions, find the number which does not belong to the given number sequence which follows a certain pattern.

7. 91, 27, 36, 18, 54.
   (a) 91 (b) 36
   (c) 18 (d) 27
8. 25, 15, 85, 58, 65.
   (a) 58 (b) 15
   (c) 65 (d) 85
9. Ajay started moving facing east. He travelled 10m and took a left turn. After that, he moved another 15m and took a right turn. He moved another 50m and took a right turn. He moved another 25m and took a left turn then he moved again 20m and took another right turn before stopping. Which direction is he facing now?
   (a) South east (b) North west
   (c) South (d) South west
10. Pawan facing north moved 15 m straight, then he took a left turn and moved another 20 m. After that he took a left turn and moved another 25 m. After that he took a right turn and moved another 30 m and stopped. He is presently in which direction with respect to the starting point?
    (a) North-East (b) South-West
    (c) North-West (d) South-East
11. A is the Grandfather of P. Q is the wife of D whereas D is the brother of X. D and P are brother and sister. How is A related to X?
    (a) Father (b) Uncle
    (c) Grandfather (d) Son
12. Seeta said, "Mohan's father is the only son of my father." How is Seeta related to Mohan?
    (a) Sister (b) Mother
    (c) Brother (d) Aunt

Directions for questions 13 and 14: Some relationships have been expressed through symbols which are explained below.

'$\div$' Stands for 'equal to'
'$\times$' Stands for 'not greater than'
'$+$' Stands for 'less than'
'$\varnothing$' Stands for 'not less than'
'o' Stands for 'greater than'

Bearing the symbolic representation in mind pick the correct answer for each of the following questions.

13. If $a \phi b$ o $c + d$, then which of the following conclusion is true?
    (a) a o c (b) $b \div d$
    (c) d + a (d) b o d
14. If $d \times c + b$ and $a \phi b$, then which of the following conclusion is true?
    (a) c o d (b) $a \phi d$
    (c) d + a (d) $a \div b$

Directions for questions 15 to 19: Arrange the following sentences in a logical order to make a coherent paragraph.

15. A. Fusion, you would say, is a relatively new term.
    B. Amassed by Sheikha Hussah and Sheikh Naser-al-Sabah of Kuwait over a period of 25 years, the 297 fine art pieces on view since May 18 depict the cultural, political and religious influences of society at an important time in history.

C. Most of the pieces date back to the 17th century.

D. But when you walk into the British Museum and saunter through the collection of jewels and jewelled artifacts from Islamic India, you know the phenomenon could not be all that new.

(a) ADBC (b) ABCD

(c) BACD (d) CADB

16. A. It is a perfect showcase of the fusion of Islamic and Indian creative ideas along with the European artistic influences that shaped Mughal art as we know it today.

B. The exhibition, 'Treasury of the World', put together by curator Manuel Keene is on till September 2.

C. The art objects on display underline how flexible Indian craftsmen were in the 17th century in adapting and using foreign techniques.

D. At the same time, however, they had the creativity to move beyond imitation and develop their own, unique style.

(a) ABCD (b) ADCB

(c) BACD (d) ACDB

17. A. The exhibition begins by laying out the various types of stone settings.

B. The naturally lit line within the agate creates a border around the large agate in the center of the ornament.

C. The 'channel settings' are remarkable as they allow the gemstones to retain their natural lines without breaking the pattern.

D. An example of how the natural beauty of the stones has been enhanced is an elegant diamond and agate upper armband made of gold and worked in the *kundan* technique.

(a) ABCD (b) DACB

(c) BCDA (d) ACDB

18. A. A considerable number of European jewellers may have been employed in India during the Mughal period especially under the rule of Emperor Aurangzeb (1658 – 1707).

B. A large section of the current exhibition is devoted to the influence of enamel on Mughal art.

C. And they may have been instrumental in the development of the enamel work technique.

D. Enamel was used extensively from the 16th century till the 19th century.

(a) BADC (b) ABCD

(c) DABC (d) ACBD

19. A. The East-West blend in jewellery cannot be missed.

B. Rings with gold linear designs connect to white enamel shapes.

C. Without a doubt, they are Indian, but their decoration is distinctly European.

D. Even in the early Mughal period, thumb-protecting archery rings in India sported definite European features.

E. But Indians turned the technique to their own use for making dagger handles out of jade with enamel, for instance.

(a) DCABE (b) ABCDE

(c) CADBE (d) BDACE

Directions for questions 20 and 21: Each question is followed by two statements, I and II. Answer the questions using the following instructions:

(a) If the question can be answered by one of the statements alone, but cannot be answered by using the other statement alone.

(b) If the question can be answered by using either statement alone.

(c) If the question can be answered by using both the statements together, but cannot be answered by using either statement alone.

(d) If the question cannot be answered even by using both the statements together.

20. A, B and C are points on a circle. What is the angle ACB?

I. Segment AB divides the circle into two equal halves.

II. $\angle ABC = 35°$

21. What is the distance of the point (x, y) from the origin?

I. $x^2 + y^2 = 9$

II. $x = 3, y = 0$

Directions for questions 22 to 25: In the following questions, there are two statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read the conclusions and then decide which of them logically follows.

Mark answer:

(a) If only conclusion I follows

(b) If only conclusion II follows

(c) If both conclusions I and II follow

(d) If neither conclusion I nor II follows

22. **Statements:**

All hard workers are fools.

Some fools are brilliant.

Conclusions:

I. Some fools are not brilliant.

II. Some fools are hard workers.

23. **Statements:**

No champion is healthy.

All healthy are obese.

Conclusions:

I. Some obese are not champions.

II. Some healthy are not champions.

24. **Statements:**

Some seniors are juniors.

No junior is bad.

Conclusions:

I. Some seniors are bad.

II. Some seniors are not bad.

25. **Statements:**

No boy is girl.

Some girls are cultured.

Conclusions:

I. Some cultured are not boys.

II. No girl is a boy.

Directions for questions 26 to 30: Answer the questions based on the information given below.

On rolling 6 dice, it is found that:

I. three of the dice show the same number. The rest show different numbers.

II. only one die shows 6.

III. not more than 3 dice show 4 or more.

26. What is the minimum possible total of numbers on the faces if the three dice having same number show 2?

(a) 14 (b) 21

(c) 16 (d) 9

27. What is the maximum total if 4 of the dice show less than 4?

(a) 29 (b) 23

(c) 17 (d) 22

28. What would be the maximum total if 3 dice are faulty and have only 5 on all faces? (Condition III is waived.)

(a) 31 (b) 28

(c) 34 (d) 44

29. If only 1 die shows 1, what is the maximum number of dice with numbers greater than 4?

(a) 3 (b) 1

(c) 2 (d) 4

30. What is the maximum number that can be on the face of the 3 dice which show the same number?

(a) 2 (b) 4

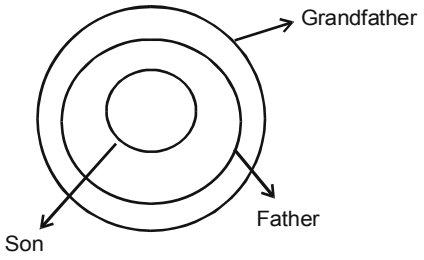
(c) 3 (d) 5

Answer Key

1. (a)	**2.** (d)	**3.** (c)	**4.** (c)	**5.** (b)	**6.** (c)	**7.** (a)	**8.** (a)	**9.** (a)	**10.** (b)
11. (c)	**12.** (d)	**13.** (a)	**14.** (c)	**15.** (a)	**16.** (c)	**17.** (d)	**18.** (d)	**19.** (b)	**20.** (b)
21. (a)	**22.** (b)	**23.** (c)	**24.** (b)	**25.** (c)	**26.** (b)	**27.** (d)	**28.** (a)	**29.** (b)	**30.** (c)

Explanations

1. a Here we have the relation.



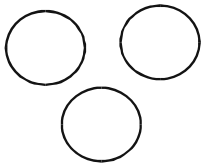
2. d All three are of different categories.

Car runs on road.

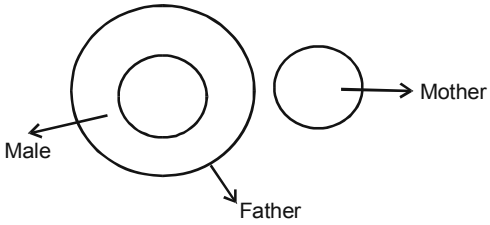
Train runs on rail.

Aeroplane flies.

Thus, the best diagramatic relationship is



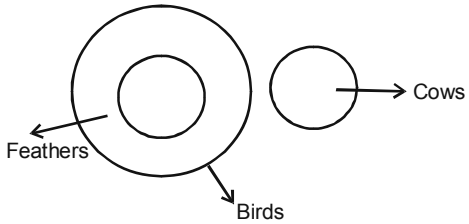
3. c Father comes under male gender. Mother comes under female gender which is not given. Thus, the best Venn diagram is



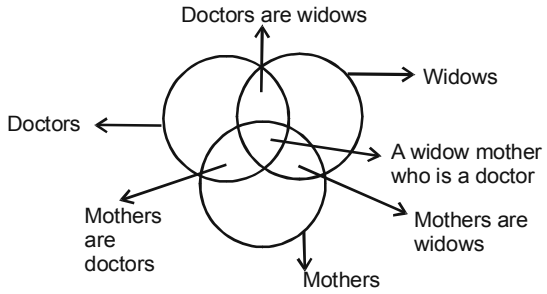
4. c Birds is a common category.

Feathers are related to birds but cow comes under animal category.

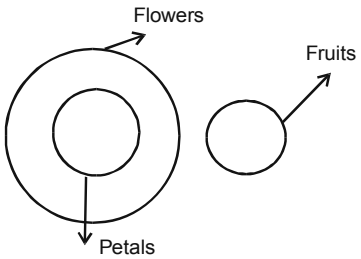
$\therefore$ The best venn diagram is



5. b Mother can be widow, a widow can be a doctor. Also, a mother can be a doctor. And a widow mother can be a doctor. Thus, the best Venn diagram is



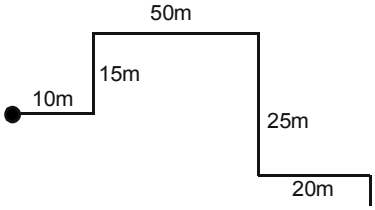
6. c Flowers have petals, thus considering flower as a wider category, petals are the parts of flower. The Venn diagram that represents best is



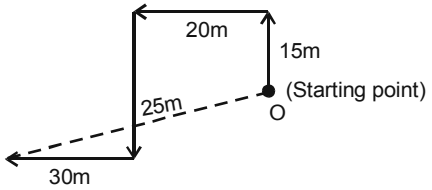
7. a All the terms are multiples of 3 except 91.

8. a All the terms are multiples of 5 except 58.

9. a

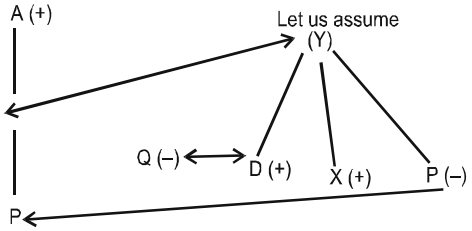


10. b On the basis of the directions given in the question, we arrive at the following diagram with the help of which the question can be solved easily.



As per the diagram, Pawan is in the South-West direction with respect to the starting point.

11. c



Obviously from the diagram it is clear that A is the grandfather of x.

12. d From the question, only son of Seeta's father is Seeta's brother, therefore son of Seeta's brother. Mohan is Seeta's nephew or Seeta is aunt of Mohan.

13. a After changing the given symbols to their appropriate meaning we get $a \geq b > c$ and $d > c$. Among the given options only option (a) is true.

14. c After changing the given symbols to their appropriate meaning we get $a \geq b > c \geq d$. Among the given options only option (c) is true.

15. a 'new' connects A to D. 'pieces' connect B to C. Hence, 'ADBC' is the correct sequence.

16. c 'It' in A refers to 'exhibition' in B. C provides reference to 'foreign' techniques, while D refers to 'unique styles'. Hence, 'BACD' is the correct sequence.

17. d Th word 'settings' links A to C. And 'agate' links D to B.

18. d 'they' in C refer to 'jewellers' in A. enamel connects B to D. Hence, 'ACBD' is the correct answer.

19. b 'they' in C refer to the 'rings' in B. 'European' in D links to 'Indians… own use' in E.

20. b Angle in a semicircle is right angle.

21. a (i) $x^2 + y^2 = 3^2$

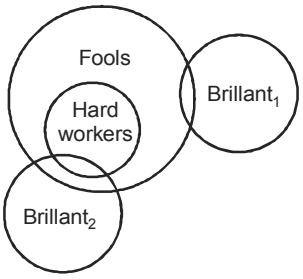
The circle is equidistant from the origin (0, 0), so the radius will be 3.

So distance of point (x, y) from origin is 3.

(ii) Distance of point (x, y) = (3, 0) from origin is 3.

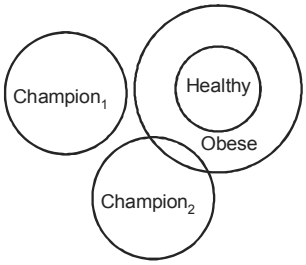
For questions 22 to 25 :

22. b



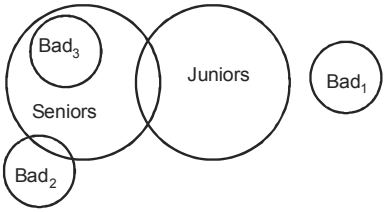
Only conclusion II follows.

23. c



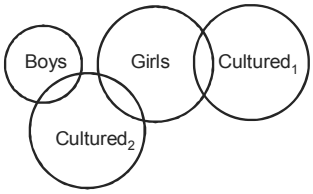
From the given venn diagram we can conclude that both I and II follow.

24. d



Neither conclusion I nor II definitely follow.

25. c



Both conclusion I and II follow.

For questions 26 to 30: Based on rules II and III, we can say that the 3 dice with the same number either show 1 or 2 or 3.

26. b 2 + 2 + 2 + 6 + 5 + 4 = 21

27. d 3 + 3 + 3 + 6 + 2 + 5 = 22

28. a 5 + 5 + 5 + 6 + 5 + 5 = 31

29. b 2 because 1 die shows 6, one shows 1 and 3 are $\leq$ 3. Hence, one more can be greater than 4.

30. c One die should show 6. But there cannot be more than 3 dice showing 4 or more than 4. The maximum number that 3 dice can show is 3.