

Roll Number

TEST BOOKLET

IX

Test Booklet Series/No.

SSET

Name of the Candidate :

Signature of the Candidate :

Time: $2\frac{1}{2}$ Hours

Maximum Marks: 180

GENERAL INSTRUCTIONS FOR CANDIDATE

A single test booklet comprising of 04 sections (32 Pages) will be given to each candidate, comprising 120 Questions. **Each question carries $1\frac{1}{2}$ marks.**

- A separate OMR sheet will be provided. Candidates are required to indicate their answers at an appropriate place on the OMR sheet itself.
- Only blue/black ball point pen is to be used to write on the OMR sheet. Candidates should bring their own ball point pens. Use of Pencil is strictly prohibited.
- For each question, there are four probable answers out of which only one is correct. The candidate is required to select correct answer and darken bubble against the correct option provided against each question in the OMR sheet. For example if your answer for question No.5 is D answer like this
05. (A) (B) (C) (D)
- No change in the answer once written is allowed. Overwriting, cutting and erasing on the OMR Sheet is also not allowed.

About instruction and Examples

- The candidates must carefully read the instructions given on the cover page of the test booklet as well as those for each test / section before attempting the questions.
- About one minute may be needed to answer each question. Therefore, the candidate should not spend too much of time on a particular question. If a question is found difficult to answer he may leave it and move on to the next one. This will help him to save time.
- The total time would be 150 minutes without any break.
- There will be a bell at the half time.
 - * No changes in the answer once written is allowed.
 - * There is only one correct answer for each question, darken only one bubble for each question. If you darken more than one bubble your answer will be treated as wrong. Do not fold or deface the OMR sheet.
 - * Do not use whitener/correction fluid on OMR sheet.
 - * Rough work must not be done on the OMR sheet use the last page of the test booklet for rough work.

Section-A (Mathematics)

Total No. of questions = 50

1. What should be added to $-\frac{8}{17}$ to get $\frac{27}{629}$

a) $\frac{13}{37}$

b) $\frac{17}{37}$

c) $\frac{18}{37}$

d) $\frac{19}{37}$

2. A number consists of two digits. The digit in the tens place exceeds the digit in the units place by 4. The sum of digits is $\frac{1}{7}$ of the number. The number is

a) 27

b) 72

c) 48

d) 84

3. If $y + \frac{1}{y} = \frac{3}{8}$ then $y^2 + \frac{1}{y^2}$ is

a) $-\frac{18}{65}$

b) $\frac{17}{128}$

c) $-\frac{119}{64}$

d) $\frac{129}{64}$

4. The value of $(x+1)(x-1)(x^2+1)(x^4+1)$ is

a) x^4+8x^3+100

b) x^8-1

c) $2x^8+1$

d) $4x^8+3x^7$

5. A can do a piece of work in 20 days which B alone can do it in 12 days. Then B worked at it for 9 days then A can finish the remaining work in

a) 3 days

b) 5 days

c) 7 days

d) 11 days

6. The value of $\sqrt{6+\sqrt{6+\sqrt{6+\dots}}}$ is

a) 6

b) 9

c) 3

d) $\frac{1}{3}$

7. The value of $\left[9^{-1} - 11^{-1}\right]^{-1} - \left[13^{-1} - 15^{-1}\right]^{-1}$

a) -46

b) -48

c) 48

d) -49

8. If $\frac{a}{8} = \frac{b}{11} = \frac{c}{13}$ then $\frac{a+b+c}{a}$ is

a) 3

b) 4

c) 6

d) 8

9. A man is 32 years older than his son. After 10 years the man will be thrice as old as his son. The present age of son will be

a) 6

b) 12

c) 18

d) 14

10. The market price of an article is 15% higher than the cost price. A discount of 10% is given on the marked price. In this kind of sale, the seller.

a) Bears no loss, no gain

b) Gain 1%

c) loss 1%

d) None of the above.

11. The difference between Simple & Compound interest on a sum of money put for 2 years at the rate of 10% is Rs. 40. The sum is

a) Rs. 4000

b) Rs. 5000

c) Rs. 6000

d) Rs. 7000

12. The cube root of $\sqrt[3]{\frac{729}{4913}}$ is

a) $\frac{9}{18}$

b) $\frac{9}{19}$

b) $\frac{7}{22}$

d) None of these

13. The value of $\frac{\sqrt{80} - \sqrt{112}}{\sqrt{45} - \sqrt{63}}$ is

a) $\frac{6}{7}$

b) $\frac{4}{3}$

c) $\frac{3}{4}$

d) None of these

14. If HCF of $(p^2 - p - 6)$ and $(p^3 + 3p - 18)$ is $(p - a)$ then value of a is

a) 1

b) 2

c) 3

d) None of these

15. The sum of $\frac{8}{3} + \frac{8}{3} + \dots\dots\dots 40$ times is

a) 10

b) 25

b) 32

d) None of these

16. Find the value of y if $\left(\frac{3}{7}\right)^4 \times \left(\frac{3}{7}\right)^{-8y} = \left(\frac{3}{7}\right)^{-7y}$

a) $\frac{1}{4}$

b) $\frac{3}{7}$

c) 9

d) 4

17. Simplify $\frac{27 \times y^3}{3^{-5} \times 13 \times y^{-6}}$ ($y \neq 0$)

a) $\frac{6165}{13} y^3$

b) $\frac{6615}{13} y^3$

c) $\frac{6561}{13} y^3$

d) $\frac{1656}{13} y^3$

18. How many sides does a regular polygon have where in, whose interior angle is eight times its exterior angle.

a) 17

b) 16

c) 18

d) None of these

19. The value of $(729 \times 1728)^{\frac{1}{3}}$ is

a) 100

b) 106

c) 108

c) 112

20. The sum of three consecutive multiples of 9 is 324. The smallest multiple is

a) 90

b) 99

c) 138

d) None of these

21. The sum of three consecutive even number is 132, then greatest of these number is

a) 44

b) 46

c) 42

d) 48

22. If $\frac{x^2 + y^2}{x^2 - y^2} = \frac{17}{8}$ then the value of $x : y$ is

a) 4 : 5

b) 3 : 5

c) 5 : 3

d) 5 : 8

23. A car is travelling 60 km in 2 hour then the distance travelled by the car in 6 hour if speed remains constant is

a) 60 km

b) 120 km

c) 180 km

d) 240 km

24. 30 persons can reap a field in 17 days. How many more persons should be engaged to reap the same field in 10 days

a) 17

b) 30

c) 51

d) 21

25. A man sold an article at a loss of 20%. If he had sold for Rs. 50 more, He would have gained 5% more. The cost price of article was

a) Rs. 250

b) Rs. 300

c) Rs. 200

d) Rs. 180

26. The product of two number is 120 and sum of their square is 289. The sum of the two number is

a) 23

b) 7

c) 13

d) 169

27. Find out the ratio of LCM & HCF of 270 & 405

a) 6 : 1

b) 2 : 3

c) 3 : 2

d) 1 : 6

28. If the area of the square increases by 44% then the side of the square increases by

a) 12%

b) 16%

c) 20%

d) 28%

29. If a sum doubles in 16 years. how much will it be in 8 years.

a) $1\frac{1}{2}$

b) $1\frac{1}{3}$

c) $1\frac{1}{4}$

c) None of these

30. The fourth proportion to 3, 5 & 21 is

a) 35

b) $\frac{5}{7}$

c) $\frac{7}{5}$

d) None of these

31. If 11% of a number exceeds 7% of the same by 18, the number is

a) 300

b) 450

c) 350

d) 370

32. The cost price of 19 chairs is equal to the selling price of 16 chairs. then the gain is

a) $3\frac{9}{17}\%$

b) $15\frac{15}{19}\%$

c) $10\frac{3}{4}\%$

d) None of these

33. If $a + b = 4$,
 $a^2 + b^2 = 7$ then the value of ab

a) $\frac{7}{2}$

b) $\frac{11}{2}$

c) $\frac{9}{2}$

d) $\frac{7}{4}$

34. If $8x - 3 = 25 + 17x$ then x is

a) a fraction

b) A integer

c) A rational number

d) Can not be solved

IX (2019)

35. An angle is 14° more than its complement. Then its measure is

a) 166°

b) 86°

c) 76°

d) 52°

36. The earth makes a complete rotation about its axis in 24 hour. Through what angle will it turn in 3 hour 20 min

a) 60°

b) 50°

c) 70°

d) 90°

37. If the square of the hypotenuse (in cm) of an isosceles right triangle is 200 then the length of each side will be

a) 15 cm

b) 6 cm

c) 14 cm

d) 10 cm

38. The length of a diagonal of a rectangle whose sides are 12 cm & 5 cm is

a) 17 cm

b) 13cm

c) 25 cm

d) 14 cm

39. The length of the sides of a triangles are in the ratio of 3:4:5. Its perimeter is 144 cm. The area of a triangle is

a) 684 cm^2

b) 664 cm^2

c) 764 cm^2

d) 864 cm^2

40. The length, breadth and height of room are in the ratio of 3:2:1. If the volume is 1296m^3 , its breadth is :

a) 12m

b) 18m

c) 16m

d) 24m

41. A 20 m deep well with diameter 14 m is dig up & the earth from digging is spread evenly to form a platform 22m x 14m. The height of th platform is

a) 10m

b) 15m

c) 20m

d) 25m

42. A die is thrown. What is the probability of getting 6.

a) 1

b) $\frac{1}{6}$

c) $\frac{5}{6}$

d) None of the above

43. What is the probability of choosing a vowel from the alphabets?

a) $\frac{21}{26}$

b) $\frac{9}{26}$

c) $\frac{5}{26}$

d) $\frac{8}{26}$

44. Efficiency of Kanchan is Four times to that of Hina. If they will complete the work in 24 days by working together, then in how many days can Hina alone complete the work

a) 36 days

b) 24 days

c) 144 days

d) 96 days

45. The surface area of a sphere of diameter 14 cm is

a) 166 cm^2

b) 196 cm^2

c) 661 cm^2

d) 616 cm^2

46. 72% of 25 students are good in Mathematics. How many students are not good in Mathematics?

a) 3

b) 4

c) 6

d) 7

47. The price of product A is 5000. Its price decreases by 10% in the 1st year and 5% in the 2nd year because of some reason. In the end of 2nd year the price of product A will be

a) 4225

b) 4250

c) 4275

d) 4375

48. The angles of a triangle are $4x^\circ$, $(3x^\circ - 9)$, $3x^\circ - 11$. The value of x° is

a) 20°

b) 30°

c) 40°

d) 25°

49. The internal and external diameters of a hollow hemispherical vessel are 24 cm & 25 cm respectively. The total area to be painted is

a) $\frac{13211}{7} \text{ cm}^2$

b) $\frac{26961}{14} \text{ cm}^2$

c) $\frac{6961}{14} \text{ cm}^2$

d) $\frac{16951}{14} \text{ cm}^2$

50. The mean of the first 8 observations is 18 and last 8 observations is 20. If the mean of all 15 observations is 19, then find the 8th observation

a) 19

b) 18

c) 17

d) 16

Section-B (Language)

Direction (51):- Chose the proper end mark in the following set of question

51. We are planning to go really crazy at our slumber party tonight

- (a) Full Stop (b) Question mark
(c) Exclamation mark (d) None of these

Direction (52-54):- Find the error part in the following sentence

52. Do they not feel happy here.

- (a) Do they (b) not
(c) Feel happy (d) here

53. My Cousin wanted to visit red fort.

- (a) My cousin (b) wanted
(c) to visit (d) the red fort

54. He said, " what a beautiful car it is ? "

- (a) He said (b) "What a
(c) beautiful (d) car it is ?"

Direction(55-57) :- Fill in the spaces with correct form of the verb by selecting the correct form

55. She said she..... late at the office that evening and that she home till about eleven.

- (a) is working/got (b) Was working/gets
(c) would be working/ wouldn't get (d) will be working/ was getting

56. It's a great pity you didnot come to London with us last summer. As you it before, it a wonderful holiday for you.

- (a) hadn't seen/ would have been (b) have never seen/ has been
(c) didn't see/ has been (d) haven't seen/was

57. Yesterday at a restaurant, I saw Sameera, an old friend of mine. I had not seen her for years. at first, I..... her because she..... atleast 20 kilos.

- (a) didn't recognise / lost
- (b) didn't recognise / had lost
- (c) hadn't recognised / lost
- (d) haven't recognised / had lost

Direction (58-59) :- Change the given sentences using the passive voice and keeping the same tense as given in the example. Choose from the given option.

58. People speak Portuguese in Brazil.

- (a) Portuguese is spoken in Brazil
- (b) Portuguese in being spoken in Brazil
- (c) Portuguese was spoken im Brazil
- (d) Portuguese has been spoken in Brazil

59. She must have stolen my Purse.

- (a) My purse is being stolen by she.
- (b) My purse must have been stolen by her.
- (c) My purse was stolen by her.
- (d) My purse may have been stolen by her.

Direction (60-61):- Change the following sentences into indirect speech by choosing the correct option.

60. the shopkeeper says, " prices are shooting up alarmingly."

- (a) The shopkeeper says that prices are shooting up alarmingly.
- (b) The shopkeeper said that prices are shooting up alarmingly.
- (c) The shopkeeper says that prices were shooting alarmingly.
- (d) The shopkeeper tells that prices will be shooting up alarmingly.

61. Tanya said, " I Went bungee jumping two weeks ago"

- (a) Tanya said that she went bungee jumping two weeks before
- (b) Tanya said that she went bungee jumping two weeks ago.
- (c) Tanya said that she had gone bungee jumping two weeks earlier
- (d) Tanya told that I went bungee jumping two weeks ago

Direction(62-65):- In each of the following questions, arrange that four parts of a sentence given below in the correct order to make a meaningful sentence and select the correct option accordingly.

62. A. do your friends
B. afternoon every day
C. playground in the
D. play in the

(a) ADBC
(c) DCBA

(b) CBDA
(d) ADCB

63. A. bus because she
B. arrives late at her shop
C. Raveena sometimes
D. misses the school

(a) CABD
(c) BCAD

(b) CDAB
(d) ABDB

64. Can/ treated/with/many/ be/ a / course/ of/ drugs/ illnesses

- (a) Many illnesses with a course of drugs can be treated.
(b) Can be treated many illnesses with a course of drugs.
(c) Many illnesses can be treated with a course of drugs.
(d) Illnesses many can be treated with a course of drugs.

65. Necessary / are/ growth/ of / sports/ for/ body/ the

- (a) For the body growth of sports are necessary.
(b) Sports are necessary for growth of the body.
(c) Necessary are sports for growth of the body.
(d) The growth of body are necessary for sports.

Direction (66-67) :- Select the, most suitable meaning of the phrase given below.

66. Pick someone to pieces

- (a) to start a fight
(b) to praise some one
(c) to criticize some one
(d) to call someone

67. Kick up row

- (a) to start a fight
- (b) to stop a fight
- (c) to help the poor
- (d) to kick a football

Direction (68-69) :- In the following question select the most suitable option.

68. The suitable Suffix for the word 'private' is

- (a) ity
- (b) y
- (c) acy
- (d) ness

69. The noun form of the adjective 'noble' is

- (a) disnoble
- (b) nobleness
- (c) judgement
- (d) nobleful

PASSAGE

Read the passage carefully and answer the questions that follow. For each question four probable options have been given only one is correct. You are required to select the correct answer.

Most of us use the products of science railways, aeroplanes, electricity, wireless and thousands of others-without thinking how did they come into existence. We take them for granted, as if we were entitled to them as a matter of right. And we are very proud of the fact that we live in an advanced age and act ourselves very advanced. Now, there is no doubt that our age is a very different one from previous ages and I think it is perfectly correct to say that it is far more advanced. But that is a different thing from saying that we as individuals or groups are more advanced. It would be the height of absurdity to say that because an engine driver can run an engine and Plato or Socrates could not, the engine driver is more advanced than, or is superior to, Plato or Socrates. But it would be perfectly correct to say that the engine itself is a more advanced method of locomotion than Plato's chariot was.

70. Which one of the following statements is correct?

- (a) An engine driver cannot be compared to Plato or Socrates
- (b) Plato or Socrates is in no way inferior to the engine driver
- (c) Plato or Socrates surpassed the engine driver in every respect
- (d) An engine driver is cleverer than Plato or Socrates

71. People today are very proud because they

- (a) live in a philosophically advanced age
- (b) live in a spiritually advanced age
- (c) enjoy digital communications
- (d) live in a scientifically advanced age

72. Many of us make use of Machines

- (a) with full knowledge of their genesis
- (b) without knowing how were they invented
- (c) with very little knowledge of their mechanism
- (d) without any knowledge of their historical significance

73. In this passage, the writer mentions Plato and Socrates to emphasize that

- (a) they had a great respect for learning
- (b) they were men of great scholarship
- (c) people as individuals in the modern age are not more advanced than their predecessors
- (d) the engine is a better mode of locomotion than Plato's chariot

74. Which is not the product of science?

- (a) Wireless
- (b) Aeroplanes
- (c) Electricity
- (d) Wood

Section-C (S. Science & G. Science)

75. Who led the revolt in Delhi?

(a) Kunwar Singh

(b) Ahmad Shah

(c) Laxmi Bai

(d) Bahadur Shah II and General Bakht Khan

76. Ram Krishna Mission was founded in

(a) 1897

(b) 1898

(c) 1899

(d) 1896

77. The first Muslim President of INC was

(a) Rahmatullah Sayani

(b) Maulana Abdul Kalam

(c) Hakim Ajmal Khan

(d) Badruddin Tayyabji

78. First Civil Disobedience Act by Gandhiji was in

(a) Champaran

(b) Ahmedabad

(c) Kheda

(d) Mungar

79. Who gave the term Pakistan in 1933?

(a) Iqbal

(b) Sikandar Hayat Khan

(c) Chaudhary Rehmat Ali

(d) M Ali Jinnah

80. Choose the incorrect statement

(a) 15th August, 1947 was the date fixed for handing over power to India and Pakistan

(b) The British Government passed the Indian Independence Act in July, 1947

(c) Lord Mountbatten put forward his plan on 3rd June, 1947

(d) Constitutional Assembly for Pakistan and India are Combined

81. Liberty, Equality and Fraternity emerged from which revolution?

(a) French revolution

(b) American revolution

(c) Industrial revolution

(d) revolution of England

82. Indian Judicial system consists of how many levels of courts.

- (a) 4
- (b) 5
- (c) 3
- (d) 2

83. Which among the following pair is rightly matched

Organisation	Headquarters
(a) UNDP :	Washington, DC
(b) IMF :	New York
(c) WHO :	Vienna
(d) WTO :	Geneva

84. Afghanistan shares border with which Indian state?

- (a) Jammu and kashmir
- (b) Gujarat
- (c) Rajasthan
- (d) Nagaland

85. Redcliffe line is a border line between Indian and

- (a) Afghanistan
- (b) Iran
- (c) Pakistan
- (d) Bhutan

86. Tropic of Cancer passes through how many states of India?

- (a) 7
- (b) 8
- (c) 9
- (d) 10

87. Silicon, which is obtained from the mineral quartz, is used in which of the following Industries ?

- (a) Plastic
- (b) Electronic
- (c) Chemical
- (d) Infrastructure

88. One who hates mankind

- (a) philanthropist
- (b) terrorist
- (c) misanthrope
- (d) misogynist

89. The action-reaction forces

- (a) act on the same body
- (b) act on different bodies
- (c) act along different lines
- (d) act in the same direction

90. Which of the following is not true regarding friction.

- (a) Friction wears down machine parts
- (b) Friction helps us walk
- (c) Friction helps a ship move through water
- (d) Friction Produces heat

91. The pressure on earth will be less when the man is

- (a) lying
- (b) sitting
- (c) standing by one foot
- (d) standing by two feet

92. Why does a duck float?

- (a) The duck weighs less than water
- (b) The duck has feathers
- (c) The duck can swim
- (d) The duck has a smaller density than water.

93. Which of the following sequences is correct in the spectrum?

- (a) violet, Blue, Indigo, Green, Yellow, Orange, Red
- (b) orange, Red, Yellow, Green, Indigo, Blue, Violet
- (c) Blue, Indigo, Violet, Green, Yellow, Orange, Red
- (d) Violet, Indigo, Blue, Green, Yellow, Orange, Red

94. A Swimmer under water is trying to view a boy standing on the bank of lake. The boy will appear

- (a) taller
- (b) Shorter
- (c) Same height
- (d) Boy will not be visible

95. A student is asked to sit at the last bench because he cannot read the letters written on blackboard clearly from front seat but still is unable to read the letters written in his textbook. Which of the following statements is correct?

- (a) The near point has come closer to him
- (b) The far point has come closer to him
- (c) The near point has receded away
- (d) The far point has receded away

96. The unit of noise pollution (level) is measured in

- (a) Decibel
- (b) Decimal
- (c) ppm
- (d) None of these

97. Cutting a bar magnet in half is like cutting a solenoid, such that we get two smaller solenoids with

- (a) Weaker magnetic properties
- (b) Strong magnetic properties
- (c) Constant magnetic properties
- (d) Both (a) and (b).

98. The filament of heater is made of

- (a) Copper
- (b) Zinc
- (c) Iron
- (d) nichrome

99. The Earth has the size among all the planets
- (a) fifth
 - (b) third
 - (c) Fourth
 - (d) Seventh
100. Which of the following are true?
- (a) A polar satellite goes around the Earth's pole in North-south direction
 - (b) A geostationary satellite goes around the Earth in East-West Direction
 - (c) A geostationary satellite goes around the Earth in west-East direction
 - (d) Both (a) and (c)
101. Identify the metalloid among the following
- (a) Sodium
 - (b) nitrogen
 - (c) Carbon
 - (d) Silicon
102. Which of the following reacts vigorously with water?
- (a) sodium
 - (b) Aluminium
 - (c) Gold
 - (d) Both (b) and (c)
103. Stainless steel is corrosion resistant because of
- (a) alloying
 - (b) Painting
 - (c) greasing
 - (d) electroplating
104. Which property of diamond makes it useful for cutting glass?
- (a) Bad conductor of electricity
 - (b) Hardest substance
 - (c) High density
 - (d) Transparent

105. Which of the following is named as versatile material?

- (a) Bakelite
- (b) Teflon
- (c) Melamine
- (d) Polythene

106. Deficiency of Vitamin-C causes

- (a) anemia
- (b) rickets
- (c) scurvy
- (d) exophthalmia

107. Tocopherol is the chemical name of

- (a) vitamin-B
- (b) Vitamin - E
- (c) Vitamin - C
- (d) None of these

108. Cholera is infectious digestive disorder in which patients have loose motions and vomiting. It is caused by.....

- (a) Virus
- (b) fungi
- (c) Bacteria
- (d) None of these

109. Pasteurisation is done at

- (a) 100°C
- (b) 30°C
- (c) 70°C
- (d) 45°C

110. Which one is known as the controlling center of the cell?

- (a) cytoplasm
- (b) Chromatin
- (c) Cell membrane
- (d) None to these

Section-D (Intelligence Test)

111. Six persons are sitting in a circle facing the center of the circle. Parikh is between Babita and Narendra. Asha is between Chitra and Pankaj. Chitra is to the immediate left to Babita. Who is to the most immediate right of Babita?

- (a) Parikh
(b) Pankaj
(c) Narendra
(d) Chitra

112. Four girls A, B, C and D are sitting around a circle facing the center. B and C are in front of each other, which of the following is definitely true?

- (a) A and D are in front of each other
(b) A is not between B and C
(c) D is to left of C
(d) A is to the left of C

Directions In each of the following questions, you are given a combination of alphabets and/or numbers followed by four alternatives (a), (b), (c) and (d). Choose the alternative which most closely resembles the mirror image of the given combination

113. BUZZER

- (a) BŪZZEB
(b) RƆZZEB
(c) BUZZER
(d) BUZZER

114. 1 3 9 4

- (a) 1 3 9 4
(b) 4 3 9 1
(c) 1 3 9 4
(d) 4 3 9 1

115. disturb

- (a) dɹɹɹɹɹɹ
(b) qɹɹɹɹɹɹ
(c) qɹɹɹɹɹɹ
(d) disturb

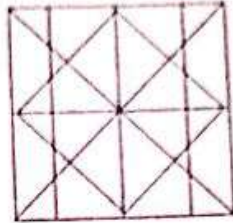
116. what is the number of straight lines in the following figure ?

(a) 11

(b) 14

(c) 16

(d) 17



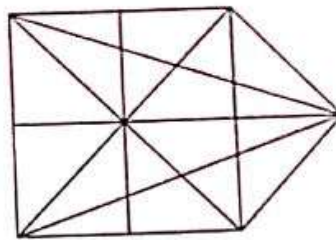
117. How many straight lines are there in the following figure?

(a) 10

(b) 12

(c) 13

(d) 17



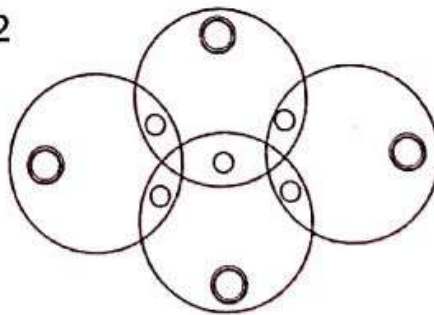
118. How many circles are there in this figure?

(a) 13

(b) 16

(c) 17

(d) 22



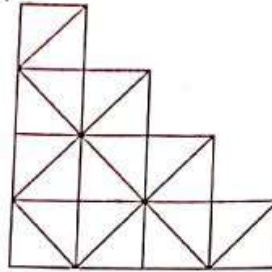
119. How many squares are there in the given figure?

(a) 10

(b) 13

(c) 12

(d) 14



120. How many triangles are there in the given figure?

(a) 18

(b) 20

(c) 12

(d) 16

