Exam Paper

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Test / Exam Name: Revision
Student Name: ----------
Standard: 9TH
Section: ----------
Subject: MATHEMATICS
Roll No.: ----------

Questions: 180	Time: 60 Mins	Marks: 180

Instructions

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Q1. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): An angle can be compared to a pentagon.

Reasons (R): Magnitudes of the same kind can be compared.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q2. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): The Indus Valley Civilisation made extensive use of geometry.

Reasons (R): The brick used for construction were in ratio: 4 : 2 : 1.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q3. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): A sphere is a solid figure.

Reasons (R): It has two dimension.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q4. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: Given two distinct points, there is a unique line that passes through them.

Reason: If A, B and C are three points on a line and B lies between A and C then AB + BC = AC.

A. Both assertion and reason are true and reason is the correct explanation of assertion.
B. Both assertion and reason are true but reason is not the correct explanation of assertion.
C. Assertion is true but reason is false.
D. Assertion is false but reason is true.

Q5. There are _____ number of Euclid's Postulates. **1 Marks**

A. Three
B. Four
C. Five
D. Six

Q6. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: Parallel lines are those lines which never intersect each other.

Reason: Parallel lines can be two or more lines.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q7. If the angle between two lines is 180 degree, then: **1 Marks**

A. Lines are parallel to each other
B. Lines are perpendicular to each other
C. Lines are parallel as well as perpendicular
D. None of these

Q8. The number of dimensions, a surface has: **1 Marks**

A. 3 B. 1 C. 2 D. 0

Q9. Thales belongs to the country: **1 Marks**

A. India. B. Egypt. C. Greece. D. Babylonia.

Q10. Write the correct answer in the following: **1 Marks**
The three steps from solids to points are:

A. Solids - surfaces - lines - points.
B. Solids - lines - surfaces - points.
C. Lines - points - surfaces - solids.
D. Lines - surfaces - points - solids.

Q11. Given four distinct points in a plane. How many line segments can be drawn using them when no three of them are collinear? **1 Marks**

A. 8 B. 4 C. 6 D. 1

Q12. Which of the following is a true statement? **1 Marks**

A. The floor and a wall of a room are parallel planes.
B. The ceiling and a wall of a room are parallel planes.
C. The floor and the ceiling of a room are parallel planes.
D. Two adjacent walls of a room are parallel planes.

Q13. Two intersecting lines cannot be parallel to the same line is stated in the form of: **1 Marks**

A. A theorem. B. A postulate. C. A definition. D. None of these.

Q14. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: According to Euclid's second axiom, when equals. are added to equals, the wholes are equal.
Reason: Ram and Ravi have the same weight. If they each gain weight by 2 kg, second Euclid's axiom will be used to compare their weights?

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q15. A point C is said to lie between the points A and B if. **1 Marks**

A. AC = CB.
B. AC + CB = AB.
C. Point A, C and B are collinear.
D. None of these.

Q16. A point has: **1 Marks**

A. One part
B. Two parts
C. More than two parts
D. No parts

Q17. The line drawn from the center of the circle to any point on its circumference is called: **1 Marks**

A. Radius B. Diameter C. Sector D. Arc

Q18. The basic facts which are taken for granted, without proof, are called: **1 Marks**

A. Theorems. B. Propositions. C. Lemmas. D. Axioms.

Q19. The side faces of a pyramid are: **1 Marks**

A. Triangles. B. Rectangles. C. Squares. D. Polygons.

Q20. Which of the following needs a proof? **1 Marks**

A. Axiom. B. Postulate. C. Definition. D. Theorem.

Q21. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: A collection of points that has only length and no breadth is known as a line.
Reason: The line segment cannot be extended from both sides.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q22. A line segment, when extended indefinitely in one direction is called a: **1 Marks**

A. Line. B. Ray. C. Line segment. D. None of these.

Q23. A surface is that which has: **1 Marks**

A. None of these.
B. Breadth only.
C. Length and breadth only.
D. Length only.

Q24. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: If lines AB, AC, AD and AE are parallel to line l, the point A, B, C, D, E are collinear.
Reason: Infinite line can be drawn through A and parallel to l.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q25. A is of the same age as B and C is of the same age as B. Euclid's which axiom illustrates the relative ages of A and C? **1 Marks**

A. First axiom. B. Third axiom. C. Fourth axiom. D. Second axiom.

Q26. Write the correct answer in the following: **1 Marks**
Greek's emphasised on:

A. Inductive reasoning
B. Deductive reasoning.
C. Both A and B.
D. Practical use of geometry.

Q27. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion (A): A line cannot be compared to a rectangle.
Reasons (R): Magnitudes of different kinds cannot be compared.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q28. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: Through two distinct points there can be only one line that can be drawn.
Reason: From this two point we can draw only one line.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q29. Euclid stated that if equals are subtracted from equals, the remainders are equal in the form of: **1 Marks**

A. A definition. B. A theorem. C. An axiom. D. None of these.

Q30. The boundaries of solids are: **1 Marks**

A. Points. B. Lines. C. Surfaces. D. Curves.

Q31. The Sri yantra consists of _____ interwoven isosceles triangles. **1 Marks**

A. Three. B. One. C. Six. D. Nine.

Q32. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): If $A = \frac{B}{2}$, and $C = \frac{B}{2}$, then A = C.

Reasons (R): Things which are halves of the same things are equal to each other.

A. Both A and R are true and R is the correct explanation of A.

B. Both A and R are true but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Q33. Euclid stated that all right angles are equal to each other in the form of: **1 Marks**

A. An axiom. B. None of these. C. A definition. D. A postulate.

Q34. It is known that if x + y = 10 then x + y + z = 10 + z. The Euclid's axiom that illustrates this statement is: **1 Marks**

A. Second Axiom. B. Fourth Axiom. C. Third Axiom. D. First Axiom.

Q35. Euclid first postulates is: **1 Marks**

A. A straight line may be drawn from any point to any other point.

B. A terminated line can be produced indefinitely.

C. All right angles are equal to one another.

D. None of these

Q36. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): Construction of altars in vedic period uses geomectry.

Reasons (R): Altars were combinations of rectangles, triangles and trapeziums.

A. Both A and R are true and R is the correct explanation of A.

B. Both A and R are true but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Q37. Every line has: **1 Marks**

A. Two mid-points.

B. None of these.

C. Only one mid-point.

D. Three mid-points.

Q38. Write the correct answer in the following: **1 Marks**

The number of dimensions, a solid has:

A. 1 B. 2 C. 3 D. 0

Q39. The first known proof that 'the circle is bisected by its diameter' was given by: **1 Marks**

A. Pythagoras B. Thales C. Euclid D. Hypatia

Q40. If AB, AC, AD and AE are parallel to a line q, then the points A, B, C, D and E are: **1 Marks**

A. Intersecting. B. Non-collinear. C. Collinear. D. None of these.

Q41. Euclid's which axiom illustrates the statement that when x + y = 15 then x + y + 2 = 15 + z? **1 Marks**

A. Frist. B. Second. C. Third. D. Fourth.

Q42. Write the correct answer in the following: **1 Marks**

Thales belongs to the country:

A. Babylonia. B. Egypt. C. Greece. D. Rome.

Q43. If the point P lies in between M and N, C is the mid-point of MP then: **1 Marks**

A. CP + CN = MN B. MC + CN = MN C. MC + PN = MN D. MP + CP = MN

Q44. Two lines are said to be _____ if they intersect at right angles. **1 Marks**

A. Concurrent. B. Parallel. C. Perpendicular. D. None of these.

Q45. Which of the following is a false statement? **1 Marks**

A. An infinity number of lines can be drawn to pass through a given point.

B. A unique line can be drawn to pass through two given points.

C. Ray $\overrightarrow{AB}$ = ray $\overrightarrow{BA}$.

D. A ray has one end point.

Q46. The shape of the base of a Pyramid is: **1 Marks**

A. Triangle B. Square C. Rectangle D. Any polygon

Q47. 'Lines are parallel if they do not intersect' is stated in the form of: **1 Marks**

A. Definition B. Proof C. Postulate D. Axiom

Q48. The boundaries of solid are called: **1 Marks**

A. Surfaces B. Curves C. Lines D. Points

Q49. In ancient India, altars with combination of shapes like rectangles, triangles and trapeziums were used for: **1 Marks**

A. Household rituals.

B. Public rituals.

C. Both (a) and (b).

D. None of (a), (b) and (c).

Q50. Theorems are statements which are proved using definitions, _____, previously proved statements and deductive reasoning. **1 Marks**

A. Definitions B. Axioms C. Theorems D. Statements

Q51. A point C is called the mid-point of a line segment $\overrightarrow{AB}$ if. **1 Marks**

A. C is an interior point of AB.

B. AC = CB.

C. C is an interior point of AB such that $\overrightarrow{AC} = \overrightarrow{CB}$.

D. AC + CB = AB.

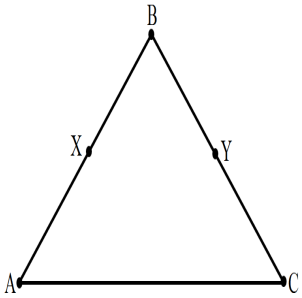
Q52. The number of dimensions of a surface are: **1 Marks**

A. 1 B. 2 C. 3 D. 0

Q53. If p, q and t are three straight lines such that p || q and p || t, then. **1 Marks**

A. q || t B. q = t C. q ⊥ t D. None of these

Q54. In the figure, if AB = BC and BX = BY, then: **1 Marks**



A. AX > CY B. AX < CY C. AX = CY D. None of these

Q55. The edges of a surface are: **1 Marks**

A. Points B. Lines C. Surface itself D. None of these

Q56. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: a sequence finite or infinite list of numbers

Reason: 1, 2, 3, 4 ——– is the sequence an infinite sequence of natural no.

A. Both Assertion and reason are correct and reason is correct explanation for Assertion.

B. Both Assertion and reason are correct but reason is not correct explanation for Assertion

C. Assertion is true but reason is false.

D. Both Assertion and reason are false.

Q57. Write the correct answer in the following: **1 Marks**

Euclid belongs to the country:

A. Babylonia. B. Egypt. C. Greece. D. India.

Q58. In Ancient India, Altars with combination of shapes like rectangles, triangles and trapeziums were used for: **1 Marks**

A. Household rituals.
B. Public worship.
C. Both Public worship and Household rituals.
D. None of these.

Q59. If two circles are equal, then their radii are _____. **1 Marks**

A. Equal
B. Diminished
C. Different
D. None of these

Q60. Three or more lines are called concurrent lines if they pass through _____ point. **1 Marks**

A. Two
B. Three
C. Same
D. None of these

Q61. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion (A): A square is a solid figure.
Reasons (R): It has two dimension.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q62. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: If AB = CD, then AC = BD.
Reason: Above statement we can prove by Euclid axiom 2 equals are added to equals, then the wholes are equal.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q63. In Indus Valley Civilisation, the bricks used for construction work were having dimensions in the ratio: **1 Marks**

A. 4 : 4 : 1
B. 4 : 3 : 2
C. 4 : 2 : 1
D. 1 : 3 : 4

Q64. If $\overline{AB} = \overline{PQ}$ and $\overline{PQ} = \overline{XY}$, then: **1 Marks**

A. $\overline{AB} = \overline{XY}$
B. $\overline{AB} > \overline{PQ}$
C. $\overline{AB} < \overline{XY}$
D. None of there

Q65. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion (A): The angle between two parallel line is zero degree.
Reasons (R): Parallel lines never intersect with each other.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q66. The number of interwoven isosceles triangles in Sriyantra (in the Atharvaveda) is: **1 Marks**

A. 7
B. 8
C. 9
D. 11

Q67. A, B and C are three collinear points. How many lines can be determined by them? **1 Marks**

A. 3
B. 1
C. 0
D. 2

Q68. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion (A): A pyramid is a solid figure.
Reasons (R): Beacuse it has three dimension.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

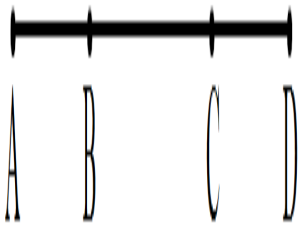
Q69. A polygon is a closed figure made up of: **1 Marks**

A. Three line segments only.
B. Two line segments.
C. Three or more line segments.
D. None of these.

Q70. Three or more lines intersecting at the same point are said to be: **1 Marks**

A. Intersecting.
B. Concurrent.
C. Collinear.
D. None of these.

Q71. In this figure, if AC = BD, then: **1 Marks**



A. AB ≠ CD
B. BC = CD
C. AB = BC
D. AB = CD

Q72. If C lies between A and B and AB = 10cm, AC = 3cm, then BC2 = **1 Marks**

A. 13cm2
B. 49cm2
C. 9cm2
D. 7cm2

Q73. If a > b and b > c, then, **1 Marks**

A. a = c
B. a < c
C. a > c
D. a ≤ c

Q74. Which of the following is true statement? **1 Marks**

A. The ceiling and a wall of a room are parallel planes.
B. Two adjacent walls of a room are parallel planes.
C. The floor and a wall of a room are parallel planes.
D. The floor and the ceiling of a room are parallel planes.

Q75. A pyramid is a solid figure, the base of which is: **1 Marks**

A. A triangle.
B. A square.
C. A polygon.
D. A circle.

Q76. Axioms are assumed: **1 Marks**

A. Universal truths specific to geometry.
B. Universal truths in all branches of mathematics.
C. Theorems.
D. Definitions.

Q77. A surface of shape has: **1 Marks**

A. Length, breadth and thickness
B. Length and breadth only
C. Length and thickness only
D. Breadth and thickness only

Q78. The number of lines passing through one point. **1 Marks**

A. Infinite
B. 1
C. 2
D. 3

Q79. Axiom and postulates are: **1 Marks**

A. Conclusions
B. Reasons
C. Assumptions
D. Questions

Q80. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion (A): To form a line segment minimum two points are needed.
Reasons (R): A line segment has two end points.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q81. A point C is said to lie between the points A and B if: **1 Marks**

A. AC = CB.
B. Points A, C and B are collinear.
C. AC + CB = AB.
D. None of these.

Q82. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: 3 + 7 = 9 is a statement.

Reason: A sentence that can be judged to be true or false, but not both, is called a statement.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q83. The boundaries of the solids are: **1 Marks**

A. Curves. B. Points. C. Surfaces. D. Lines.

Q84. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): A straight line can be drawn from any one point to any other point.

Reasons (R): To draw a straight line we need any two points.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q85. A point C is called the midpoint of a line segment $\overrightarrow{AB}$ if: **1 Marks**

A. $\overrightarrow{AC} = \overrightarrow{BC}$.
B. C is an interior point of AB such that $\overrightarrow{AC} = \overrightarrow{BC}$.
C. AC + CB = AB.
D. C is an interior point of AB.

Q86. Into how many chapters was the famous treatise, 'The Elements' divided by Euclid? **1 Marks**

A. 13 B. 12 C. 11 D. 9

Q87. Two lines are said to be _____ if they intersect at a right angle. **1 Marks**

A. Parallel. B. Perpendicular. C. Intersecting. D. None of these.

Q88. The number of planes passing through 3 non-collinear points is: **1 Marks**

A. 4 B. 3 C. 2 D. 1

Q89. The total number of propositions in the Euclid's Elements is: **1 Marks**

A. 465 B. 13 C. 460 D. 32

Q90. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): Euclid's first axiom states that - "Things which are equal to the same thing are also equal to one another".

Reasons (R): If AB = CD and CD = XY, then AB = XY.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q91. Euclid stated that if equals are added to equals, the wholes are equal in the form of: **1 Marks**

A. An axiom. B. None of these. C. A definition. D. A theorem.

Q92. Write the correct answer in the following: **1 Marks**

'Lines are parallel if they do not intersect' is stated in the form of:

A. An axiom.
B. A definition.
C. A postulate.
D. A proof.

Q93. A solid has _____dimensions. **1 Marks**

A. One B. Two C. Three D. Zero

Q94. Write the correct answer in the following: **1 Marks**
Which of the following needs a proof ?

A. Theorem. B. Axiom. C. Definition. D. Postulate.

Q95. It is known that if a + b = 4 then $\frac{1}{2}(a + b) = 2$. The Euclid's axiom that illustrates this statement is: **1 Marks**

A. VI axiom. B. V axiom. C. VII axiom. D. IV axiom.

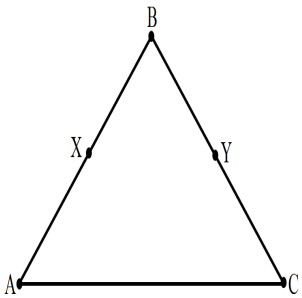
Q96. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion (A): The value of all right angle is 90 degrees.
Reasons (R): Euclid's postulate four states that - "All right angles are equal to one another".

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q97. Write the correct answer in the following: **1 Marks**
It is known that if x + y = 10 then x + y + z = 10 + z. The Euclid's axiom that illustrates this statement is:

A. First Axiom. B. Second Axiom. C. Third Axiom. D. Fourth Axiom.

Q98. In the figure, if AX = CY and BX = BY, then: **1 Marks**



A. AB = BC B. AB < BC C. AB > BC D. None of these

Q99. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion (A): If A, B and C are three points on a line, and B lies between A and C. Then AB + BC = AC.
Reasons (R): Euclid's axiom says that things which coincide with one another are equal to one another.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q100. Write the correct answer in the following: **1 Marks**
Boundaries of solids are:

A. Surfaces. B. Curves. C. lines. D. points.

Q101. If two line segments are equal then they are called: **1 Marks**

A. Line segment B. Ray C. Congruent D. None of these

Q102. Euclid stated that 'all right angles are equal to each other', in the form of: **1 Marks**

A. A definition. B. An axiom. C. A postulate. D. A proof.

Q103. Write the correct answer in the following: **1 Marks**
Euclid divided his famous treatise "The Elements" into:

A. 13 chapters. B. 12 chapters. C. 11 chapters. D. 9 chapters.

Q104. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: A collection of points that has only length and no breadth is known as a line.
Reason: Line can be extended from both side.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q105. Axioms are assumed: **1 Marks**

A. Theorems
B. Definitions
C. Universal truths specific to geometry
D. Universal truths in all branches of mathematics

Q106. How many points can be common in two distinct straight lines? **1 Marks**

A. One
B. Two
C. Three
D. None

Q107. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: It is given that AD = BC. Then AC = BD.
Reason: Above line we can prove by Euclid axiom 3 If equals are subtracted from equals, the remainders are equal."

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q108. A sentence which is either true or false but not both is called: **1 Marks**

A. The statement
B. Axioms
C. Postulates
D. None of these

Q109. Pythagoras was a student of: **1 Marks**

A. Euclid.
B. Thales.
C. Archimedes.
D. Bhaskara.

Q110. The edges of a surface are. **1 Marks**

A. Lines
B. Points
C. Rays
D. Planes

Q111. The base of a Pyramid is: **1 Marks**

A. Only a triangle
B. Only a square
C. Only a rectangle
D. Any polygon

Q112. The things which coincide with one another are: **1 Marks**

A. Double the same thing.
B. Unequal.
C. Triple the same thing.
D. Equal.

Q113. The line segment with one endpoint at the centre and the other at any point on the circle is called _____. **1 Marks**

A. Diameter.
B. Chord.
C. Radius.
D. None of these.

Q114. A pyramid is a solid figure, whose base is: **1 Marks**

A. Only a triangle.
B. Only a square.
C. Only a rectangle.
D. Any polygon.

Q115. The two lines which are parallel to the same line are _____ to each other. **1 Marks**

A. Perpendicular.
B. Equal.
C. Parallel.
D. None of these.

Q116. The three steps from solids to points are: **1 Marks**

A. Lines - points - surfaces - solids
B. Lines - surfaces - points - solids
C. Solids - lines - surfaces - points
D. Solids - surfaces - linepoint

Q117. The number of dimensions a solid has is: **1 Marks**

A. 1
B. 2
C. 3
D. 0

Q118. The things which are double of the same thing are: **1 Marks**

A. Equal
B. Unequal
C. Double of the same thing
D. Halves of the same thing

Q119. The three steps from solids to points are: **1 Marks**

A. Solids - lines - points - surfaces.
B. Solids - points - lines - surfaces.
C. Solids - surfaces - lines - points.
D. None of these.

Q120. Which of the following statements are true? **1 Marks**

A. Only one line can pass through a single point.
B. There is an infinite number of lines that pass through two distinct points.
C. A terminated line can be produced indefinitely on both sides.
D. If two circles are equal, then their radii are unequal.

Q121. The number of end points a line has: **1 Marks**

A. 0
B. 1
C. 2
D. None of these

Q122. Write the correct answer in the following: **1 Marks**
Euclid stated that all right angles are equal to each other in the form of:

A. An axiom.
B. A definition.
C. A postulate.
D. A proof.

Q123. The number of line segments determined by three collinear points is: **1 Marks**

A. 1
B. 2
C. 4
D. 3

Q124. Write the correct answer in the following: **1 Marks**
The number of dimension, a point has:

A. 0
B. 1
C. 2
D. 3

Q125. A and B have the same weight. If they gain weight by 3kg, then: **1 Marks**

A. Weight of A < Weight of B.
B. Weight of A = Weight of B.
C. Weight of A > Weight of B.
D. None of these.

Q126. It is known that if a + b = 4 then a + b - c = 4 - c. The Euclid's axiom that illustrates this statement is: **1 Marks**

A. III axiom.
B. II axiom.
C. I axiom.
D. IV axiom.

Q127. A line segment has definite: **1 Marks**

A. Breadth.
B. Volume.
C. Length.
D. Area.

Q128. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: There can be infinite number of lines that can be drawn through a single point.
Reason: From this point we can draw only two lines.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q129. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: Boundaries of surfaces are curves.
Reason: Surfaces are dimensional figures and their boundaries are one - dimensional which curves are.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q130. "Lines are parallel if they do not intersect" is stated in the form of: **1 Marks**

A. A proof.
B. A postulate.
C. A definition.
D. An axiom.

Q131. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): Base of a pyramid is a square.

Reasons (R): Four faces (four triangle) meet at the base of the pyramid.

A. Both A and R are true and R is the correct explanation of A.

B. Both A and R are true but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Q132. The number of end points a line segment has: **1 Marks**

A. 2 B. 1 C. 0 D. None of these

Q133. A _____ is an exact location in space. **1 Marks**

A. Line. B. Solid. C. Surface. D. Point.

Q134. The boundaries of surfaces are: **1 Marks**

A. Lines. B. Points. C. Surfaces. D. Curves.

Q135. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): The number of dimension a solid has is 3.

Reasons (R): Solid is dimensionless.

A. Both A and R are true and R is the correct explanation of A.

B. Both A and R are true but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Q136. Which of the following is not a rectilinear figure? **1 Marks**

A. Circle. B. Square. C. Rectangle. D. Rhombus.

Q137. The things which are double of same things are: **1 Marks**

A. Halves of same thing

B. Double of the same thing

C. Equal

D. Unequal

Q138. The two lines which are perpendicular to the same line are _____ to each other. **1 Marks**

A. Equal. B. Parallel. C. Perpendicular. D. None of these.

Q139. Pythagoras was influenced by: **1 Marks**

A. Archimedes. B. Thales. C. Euclid. D. None of these.

Q140. In ancient India, the shapes of altars used for household rituals were: **1 Marks**

A. Squares and circles.

B. Triangles and rectangles.

C. Rectangles and squares.

D. Trpeziums and pyramids.

Q141. It is known that if a + b = 4 then 2(a + b) = 8. The Euclid's axiom that illustrates this statement is: **1 Marks**

A. I axiom. B. IV axiom. C. VI axiom. D. III axiom.

Q142. The number of planes passing through 3 noncollinear points is: **1 Marks**

A. 1 B. 4 C. 3 D. 2

Q143. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: According to Euclid's 1st axiom- "Things which are equal to the same thing are also equal to one another".

Reason: If AB = PQ and PQ = XY, then AB = XY.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.

B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

C. Assertion is true but the reason is false.

D. Both assertion and reason are false.

Q144. Write the correct answer in the following: **1 Marks**

The total number of propositions in the Elements are:

A. 465 B. 460 C. 13 D. 55

Q145. Which one of the following statements is true? **1 Marks**

A. A point determines always a unique line.

B. Three lines are concurrent when they have only one point in common.

C. A ray has two end points.

D. A line has definite length.

Q146. The number of dimension, a point has: **1 Marks**

A. 2 B. 3 C. 1 D. 0

Q147. Write the correct answer in the following: **1 Marks**

In Ancient India, Altars with combination of shapes like rectangles, triangles and trapeziums were used for:

A. Public worship.

B. Household rituals.

C. Both A and B.

D. None of A, B, C.

Q148. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): The number of dimension that a point has is zero.

Reasons (R): Point is dimensionless.

A. Both A and R are true and R is the correct explanation of A.

B. Both A and R are true but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Q149. Euclid divided his famous treatise "The Elements" into: **1 Marks**

A. 12 chapters. B. 11 chapters. C. 9 chapters. D. 13 chapters.

Q150. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): Boundaries of solids are lines.

Reasons (R): Lines are the combination of points with length and no breadth.

A. Both A and R are true and R is the correct explanation of A.

B. Both A and R are true but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Q151. Which of these statements do not satisfy Euclid's axiom? **1 Marks**

A. Things which are equal to the same thing are equal to one another

B. If equals are added to equals, the wholes are equal.

C. If equals are subtracted from equals, the remainders are equal.

D. The whole is lesser than the part.

Q152. Two distinct lines: **1 Marks**

A. Always intersect

B. Either intersect or parallel

C. Always have two common points

D. Always parallel

Q153. In Indus Valley Civilisation (about BC 3000), the bricks used for construction work were having dimensions in the ratio of: **1 Marks**

A. 5 : 3 : 2 B. 4 : 2 : 1 C. 4 : 3 : 2 D. 6 : 4 : 2

Q154. Write the correct answer in the following: **1 Marks**

In Indus Valley Civilisation (about 3000 B.C.), the bricks used for construction work were having dimensions in the ratio:

A. 1 : 3 : 4 B. 4 : 2 : 1 C. 4 : 4 : 1 D. 4 : 3 : 2

Q155. Write the correct answer in the following: **1 Marks**
In ancient India, the shapes of altars used for house hold rituals were:

A. Squares and circles.
B. Triangles and rectangles.
C. Trapeziums and pyramids.
D. Rectangles and squares.

Q156. Which of the following is not a solid? **1 Marks**

A. Cube.
B. Cone.
C. Cylinder.
D. Circle.

Q157. The number of interwoven isosceles triangles in a Sriyantra is: **1 Marks**

A. Five.
B. Seven.
C. Nine.
D. Eleven.

Q158. Euclid's which axiom illustrates the statement that when x + y = 15, then x + y + z = 15 + z? **1 Marks**

A. First.
B. Fourth.
C. Second.
D. Third.

Q159. Which of the following is a solid? **1 Marks**

A. Rectangle.
B. Circle.
C. Cylinder.
D. Square.

Q160. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: A figure formed of line segments only is called a rectilinear figure.
Reason: A circle is a rectilinear figure.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q161. If point C lies between two points A and B such that AC = BC, then: **1 Marks**

A. $AC = \frac{1}{4}AB$
B. $AC = \frac{1}{2}AB$
C. $AC = \frac{3}{4}AB$
D. $AC = \frac{1}{3}AB$

Q162. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**
Assertion: The locus of points which is at a same distance from single point is called as ellipse.
Reason: Two lines are said to be perpendicular when angle between them is 80°.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q163. The whole is _____ the part. **1 Marks**

A. Greater than.
B. Lesser than.
C. Equal to.
D. None of these.

Q164. 'Lines are parallel if they do not intersect' – is stated in the form of: **1 Marks**

A. A postulate
B. An axiom
C. A definition
D. A proof

Q165. Euclid's Postulate 1 is: **1 Marks**

A. A straight line may be drawn from any point to any other point.
B. A terminated line can be produced indefinitely.
C. All right angles are equal to one another.
D. None of these.

Q166. If C is the mid-point of the line segment AB and L is the mid-point of AC, then: **1 Marks**

A. $AL = \frac{1}{2}AB$
B. $AL = \frac{3}{4}AB$
C. $AL = \frac{1}{3}AB$
D. $AL = \frac{1}{4}AB$

Q167. Thales belongs to: **1 Marks**

A. Babylonia.
B. Greece.
C. Rome.
D. Egypt.

Q168. Maximum numbers of points that can lie on a line are: **1 Marks**

A. Innumerable B. Two C. One D. Three

Q169. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): A circle with a centre point can be drawn with a radius of 5cm.

Reasons (R): A circle can be drawn wuth any centre and any radius.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q170. Into how many chapters was the famous treatise. The Elements divided by Euclid? **1 Marks**

A. 13 B. 12 C. 9 D. 11

Q171. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): A terminated line can be produced indefinitely.

Reasons (R): A line segment can be extended on any one side to form a line.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q172. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: A dimensionless dot which is drawn on a plane surface is known as point.

Reason: A point is that which has no part.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q173. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion (A): The circle is bisected by its diameter.

Reasons (R): Semi - circle has same diameter as its full circle.

A. Both A and R are true and R is the correct explanation of A.
B. Both A and R are true but R is not the correct explanation of A.
C. A is true but R is false.
D. A is false but R is true.

Q174. Write the correct answer in the following: **1 Marks**

The number of dimensions, a surface has:

A. 1 B. 2 C. 3 D. 0

Q175. Two lines are said to be parallel if: **1 Marks**

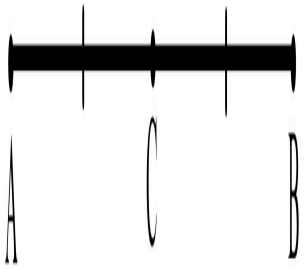
A. They intersect each other at any point.
B. They do not intersect each other at any point.
C. The angle between these lines is 90 degree.
D. None of these

Q176. Euclid's second axiom is: **1 Marks**

A. If equals be subtracted from equals, the remainders are equal.
B. The things which are equal to the same thing are equal to one another.
C. Things which coincide with one another are equal to one another.
D. If equals be added to equal, the whole are equal.

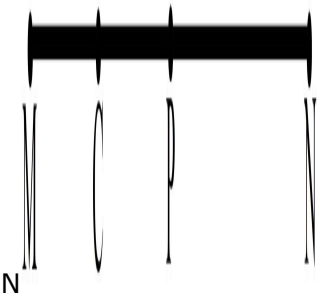
Q177. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: If a point C be the mid-point of a line line segment AB, then the relation among AC, BC and AB



is AC = CB = $\left(\frac{1}{2}\right)$AB.

Reason: If a point P be the mid-point of MN and C is the mid - point of MP, then the relation between MC



and MN

is MC = $\left(\frac{1}{4}\right)$MN.

A. Both Assertion and Reason are correct and Reason is the correct explanation for Assertion.
B. Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.
C. Assertion is true but the reason is false.
D. Both assertion and reason are false.

Q178. **Directions:** In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Marks**

Assertion: If lines AB, AC, AD and AE are parallel to line l, the point A, B, C, D, E are collinear.

Reason: One and only one line can be drawn through A and parallel to l.

A. Both assertion and reason are true and reason is the correct explanation of assertion.
B. Both assertion and reason are true but reason is not the correct explanation of assertion.
C. Assertion is true but reason is false.
D. Assertion is false but reason is true.

Q179. The number of end points a ray has: **1 Marks**

A. 0 B. 2 C. 1 D. None of these

Q180. How many dimensions does a point have: **1 Marks**

A. 0 B. 1 C. 2 D. 3