

VISTO - 2016 - 17

(VELAMMAL INTER SCHOOL SCIENCE TALENT OLYMPIAD)

SEASON - I (MOCK TEST 1)

CLASS - VI

Duration : 2hrs

Max.Marks : 100

Instructions To the Candidate

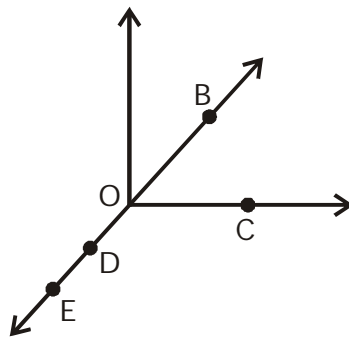
- Write your **NAME** and **CLASS** in the space provided on **OMR** Response sheet.
 - You have to mark the answers on the **OMR** Response sheet only.
 - You have to handle the **OMR** Response sheet with utmost care.
 - Do not fold/mutilate or make any unnecessary markings on the **OMR** Response sheet.
 - Use **BLUE** or **BLACK BALL POINT PEN** only to darken the appropriate circles in **OMR** Response sheet.
- Answers marked with **PENCIL** will not be considered for evaluation.
- This Question Paper consists of **100 QUESTIONS**, under four subjects heads, **MATHEMATICS (40 Questions)**, **PHYSICS (20 Questions)**, **CHEMISTRY (20 Questions)** and **BIOLOGY (20 Questions)**.
- Each question has four alternative responses marked a, b, c, d. You have to darken the appropriate circle provided in the OMR Response sheet against each question.
- 1 MARK** will be awarded for every correct response for all the questions in **ALL THE FOUR SUBJECTS**.
- NO** mark will be deducted for incorrect response.
- Usage of Calculators, Log tables and Electronic gadgets is strictly prohibited in the examination hall.
- Return the OMR Response sheet to the Invigilator at the end of Examination, before leaving the examination hall.

MATHEMATICS

Single Response Type :

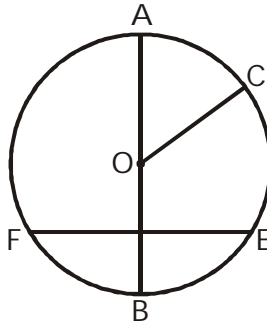
- Write the greatest 7-digit number having three different digits
A) 9998997 B) 9899997 C) 9989997 D) 9999987
- Identify the greatest and the smallest in 2853, 7691, 9999, 12002, 124
A) 12002, 124 B) 2853, 124 C) 9999, 124 D) None
- Using digits 4, 5, 6 and 0 without repetition make the greatest form digit
A) 6405 B) 4650 C) 6540 D) 5640
- What is the product of place value and face value of 5 in 4567?
A) 500 B) 2500 C) 5 D) 505

5. Find the L.C.M. of the following number 9 and 4
 A) 30 B) 9 C) 36 D) 4
6. Using divisibility test, determine 5445 is divisible by _____
 A) 11 B) 5 C) 7 D) 9
7. A number is divisible by both 5 and 12 by which other number will that number be always divisible?
 A) 5 B) 12 C) 17 D) 60
8. Determine the greatest 3-digit number exactly divisible by 8, 10 and 12
 A) 940 B) 960 C) 980 D) 990
9. Whole numbers are closed under which operation?
 A) Addition B) Subtraction C) division D) none
10. Which number is identity for multiplication of whole numbers?
 A) 3 B) 2 C) 0 D) 1
11. Find the product of 25, 234, 4
 A) 24300 B) 23400 C) 23040 D) 20340
12. The canteen charges Rs 50 for lunch and Rs 20 for milk for each day. How much money do you spend in 5 days on these things?
 A) Rs 350 B) Rs 450 C) Rs 500 D) Rs 400
13. How many points does the given figure has



- A) 2 B) 4 C) 5 D) 3
14. How many lines pass through one given point
 A) three B) two C) one D) countless
15. The line segment forming a polygon are called _____
 A) Angle B) Sides C) Vertices D) Curve
16. A flat surface which extends indefinitely in all directions is called
 A) plane B) line segment C) point D) lines
17. Which geometrical instrument used to draw line segments and to measure their lengths?
 A) Ruler B) Set squares C) Compasses D) divider

18. Which geometrical instrument used to draw perpendicular and parallel lines?
 A) Ruler B) Set squares C) Compasses D) divider
19. The line segment joining any two points on the circle is called
 A) diameter B) centre C) chord D) radius
20. Refer to the figure given below and answer the following EF is the _____ of the circle



- A) chord B) diameter C) arc D) radius
21. The mirror image of 'w' when the mirror is placed vertically
 A) M B) V C) U D) W
22. Number of lines of symmetry a triangle does not have
 A) 3 B) 0 C) 1 D) 2
23. How many lines of symmetries are there in an equilateral triangle?
 A) 3 B) 2 C) 1 D) 0
24. How many lines of symmetries are there in regular pentagon?
 A) 3 B) 4 C) 5 D) 2
25. The tally mark given below shows frequency _____
 IIII IIII
- A) 10 B) 9 C) 5 D) 8
26. A _____ is a collection of numbers gathered to given some information
 A) tally mark B) data C) frequency D) Range
27. A _____ represents data through pictures of objects
 A) line graph B) bar graph C) histogram D) pictograph
28. The _____ of each bar gives the required information
 A) length B) breadth C) height D) none
29. What is the predecessor of 2451?
 A) 2451 B) 2450 C) 2452 D) none
30. 2134 _____ 3245
 A) \leq B) $=$ C) $>$ D) $<$

Assertion and Reasoning Type :

31. **Statement 1 :** The lowest common multiple of two (or) more numbers is the smallest number which is a multiple of each of the numbers.
Statement 2 : The LCM of 28, 46, 45, 60 is 1250
 A) Statement 1 is true and Statement 2 is false
 B) Statement 1 is false and Statement 2 is true
 C) Statement 1 is true and Statement 2 is true
 D) Statement 1 is false and Statement 2 is false
32. **Statement 1 :** The successor of a whole number is the number obtained by adding 1 to it
Statement 2 : The successor of 2340900 is 2340901
 A) Statement 1 is true and Statement 2 is false
 B) Statement 1 is false and Statement 2 is true
 C) Statement 1 is true and Statement 2 is true
 D) Statement 1 is false and Statement 2 is false

Linked comprehensive Type:

Roman Numerals	I	V	X	L	C	D	K
Hindu Arabic Numerals	1	5	10	50	100	500	1000

I.

To find the following questions

33. The value of XCIX
 A) 109 B) 99 C) 89 D) 79
34. The value of LXXXIX
 A) 89 B) 79 C) 69 D) 99
35. The value of CDXLVI
 A) 756 B) 456 C) 556 D) 446

II. **Linked comprehensive Type:**

Roman Numerals	I	V	X	L	C	D	K
Hindu Arabic Numerals	1	5	10	50	100	500	1000

36. The value of 342
 A) CCXLII B) CCXCII C) XCII D) DXCII
37. The value of 996
 A) CXKCVI B) CKXCVI C) CXLVCI D) None
38. The value of 20349
 A) XXCCXCIX B) XXCCCXIX C) XXCCCXLIX D) XCCCXLIX

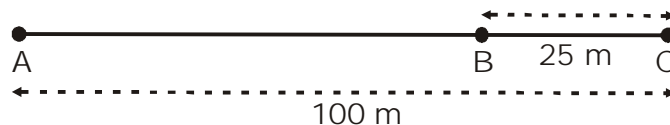
Match the following:

39. **Column - I** **Column = II**
- 1) the place value of 6 in a number 567890 p) 80
- 2) The place value of 7 in 23574869 q) 20,0000
- 3) The place value of 8 in 56789 r) 60000
- 4) The place value of 2 in 1234567 s) 70000
- A) 1 - s, 2 - r, 3 - p, 4 - q B) 1 - p, 2 - q, 3 - r, 4 - s
- C) 1 - p, 2 - q, 3 - s, 4 - r D) 1 - r, 2 - s, 3 - p, 4 - q
40. **Column - I** **Column - II**
- a) LCM of 48, 60 p) 126
- b) LCM of 42, 63 q) 90
- c) LCM of 18, 17 r) 1386
- d) LCM of 15, 30, 90 s) 240
- A) a - p, b - q, c - r, d - s B) a - s, b - p, c - r, d - q
- C) a - s, b - p, c - q, d - r D) a - p, b - q, c - s, d - r

PHYSICS**Single Response Type :**

41. Pick the odd one out.
- A) milli B) kilo C) micro D) centi
42. Length of curved line can be measured by using
- A) Threads B) Vernier scale C) Measuring rod D) Measuring tap
43. Which one unit is used to measure the mass of the objects?
- A) Kiloliter B) Hectare C) Kilogram D) Kilometer
44. Small thickness is measured by using
- A) Measuring tape B) Vernier scale C) Measuring rod D) Barometer
45. During measuring the length
- A) Measuring tape should be long B) Eyes should be in correct position
- C) Measuring tape should be made up of plastic
- D) Measuring tape should be flexible
46. Which of the following is not an oscillatory motion?
- A) Motion of the swing B) Motion of a pendulum
- C) Motion of earth around the sun D) Movement of merry go round
47. The C.G.S unit of displacement is _____
- A) metre B) centimetre C) millimetre D) no unit

48. The MKS unit of distance is
 A) Foot B) Metre C) Second D) Centimetre
49. A man leaves his house at 5.00 a.m. for morning walk for 2km and returns at 6.00. a.m. What is his displacement traversed by him in this time?
 A) 4 km B) 8 km C) 2 km D) Zero
50. In the above question, what is the distance travelled by the man?
 A) 4 km B) 8km C) 2 km D) Zero
51. A) person starts from point a, travels to point B and finally reaches point C as shown:



- Then the distance travelled by the person and displacement of the person respectively is
 A) 25m,100m B) 100m,25m C) 125m,75m D) 125m, 25m
52. If the total displacement of a body is 13 m in 4 sec. Then the average velocity is _____
 A) 3.25 m/s B) 2.25 m/s C) 1.25 m/s D) 4.25 m/s
53. The property of light travelling in straight line is known is
 A) reflection B) rectilinear propagation
 C) rays D) beam
54. Light is
 A) visible and also makes objects visible on which it falls
 B) invisible but makes objects visible on which it falls
 C) invisible but becomes visible when it falls on an object
 D) sometimes visible and sometimes invisible but it always makes objects visible on which it falls
55. One cannot see beyond the door of a closed room because it is
 A) Transparent B) Translucent C) Refracting D) Opaque
56. A shadow is formed when
 A) a transparent body is kept near a light source
 B) a translucent body kept near a light
 C) an opaque body is kept near a light source
 D) none of the above
57. Solar eclipse occurs when :
 A) sun is between earth and moon B) moon is between sun and earth
 C) earth is between sun and moon D) it is a full moon
58. If the Sun is above your head, the shadow formed would be
 A) Shortest B) Longest

- C) absent
D) Sometimes short, some time long.
59. The shadow below a tree has bright spots in it because :
- A) leaves attract the light.
B) the light bends around the leaves to form circular spots.
C) the gaps between the leaves acts as pin holes,
D) leaves reflect light.
60. When the moon is in the penumbra of the shadow of the earth, what kind of eclipse occurs ?
- A) Solar ecllipse
B) Total lunar ecllipse
C) partial lunar ecllipse
D) no ecllipse

CHEMISTRY

Single Response Type :

61. Yarn is converted into fabric by which of the following process?
- A) Spinning B) Weaving C) Pasting D) Sowing
62. Which of the following is a manmade fiber?
- A) Wool B) Flex C) Terrylene D) Cotton
63. Statement-I : The silk yarn (thread) is obtained from the cocoon of the silk moth.
Statement-II : Silk fibres are used for weaving silk cloth.
- A) Both Statement-I, and Statement-II are true.
B) Both Statement-I, and Statement-II are false.
C) Statement I is true, Statement II is false.
D) Statement I is false, Statement II is true.
64. Which pair of substance float in water?
- A) Plastic ball, feather B) Coin, rubber band
C) Pin, oil drops D)Thermocol, Cotton thread
65. Shopkeepers usually prefer to keep biscuits, sweets and other edibles in glass or transparent plastic container, so that
- A) Classification is grouping of B) Insects not reach their
C) It do not get spoiled D) Buyers can easily see these items
66. Arrange the steps in sequence for the manufacture of borosilicate glass.
- a) Addition of ingredients like red lead, aluminium oxide, manganese oxide, chromium oxide etc.,
b) Addition of broken piece of glass
c) Mixing up of sand, limestone, sodium carbonate, aluminium oxide and borax in required proportion.

- d) Melting mixture in a glass tank furnace or pot furnace
(e) Annealing process
(f) Blowing of glass
A) cbadfe B) debc C) deabc D) dbac
67. The false statement among the following is:
A) every pure substance is homogeneous in nature.
B) in compounds the constituents do not retain properties.
C) the constituents of a mixture can be separated by physical method.
D) during formation of mixtures there is a change in the molecular composition.
68. Statement I: Bronze is an alloy (mixture of two metals) which is a homogeneous mixture.
Statement-II: The constituents are mixed uniformly.
A) Both Statement-I, and Statement-II are true.
B) Both Statement-I, and Statement-II are false.
C) Statement I is true, Statement II is false.
D) Statement I is false, Statement II is true.
69. Select the appropriate principle behind sublimation.
A) Sublimation involves the principle of change of state by skipping the intermediate state.
B) Sublimation is based on the principle of filtration.
C) Sublimation is based on the principle of distillation.
D) Sublimation is based on the principle of difference in the solubility of substance.
70. Cleaning of flour is done by the process of
A) Decantation B) Sieving C) Winnowing D) Filtration
71. Which one of the following pairs of separation techniques will BOTH separate sand from a mixture of salt and water.
A) Distillation and evaporation B) Decanting and distillation
C) Chromatography and evaporation D) Decanting and filtration
72. Which one of the following is a disadvantage of evaporation?
A) It cannot be used for insoluble solids
B) It always requires heat
C) The solvent is not recovered
D) All of the solute is recovered
73. Silk fibre is a:
A) Plant fibre B) Animal fibre C) Synthetic fibre D) None of these
74. Looms are related to:

- A) Ginning B) Spinning C) Weaving D) Knitting
75. Clothes do not protect us from:
A) heat B) Dust C) Cold D) High blood pressure
76. The odd one out:
A) Nylon B) Wool C) Silk D) Cotton
77. What materials were used for clothes in ancient time?
A) leaves B) Barks C) Skin of animals D) All of these
78. Frying pan have Bakelite handle because
A) Bakelite is bad conductor of heat
B) Bakelite is good conductor of electricity
C) Bakelite is good conductor of heat
D) Bakelite is bad conductor of electricity
79. The property due to which two substance mixes with each other is called
A) Immiscibility B) Ductility C) Transparency D) Miscibility
80. The property of burning of a substance to produce heat and light is called
A) Malleability B) Combustibility C) Solubility D) Conductivity

BIOLOGY

Single Response Type :

81. Materials required to prepare a food item are called
A) Ingredients B) Nourishment C) Minerals D) Nutrients
82. Water and rice are the ingredients for which of the following ?
A) Boiled rice B) Chapati C) curry soup D) curd
83. Which of the following are products of an animal ?
A) Egg and vegetable B) Egg and milk C) Vegetable and rice D) Spices and meat
84. Which part of mustard plant gives oil ?
A) Root B) Seed C) flower D) Stem

Assertion and Reasoning Type:

85. Assertion : Materials needed to prepare any food item are called ingredients.
Reason : Water and salt are two ingredients obtained from the earth.
A) If both assertion and reason are true and reason is the correct explanation of assertion.
B) If both assertion and reason are true but reason is not the correct explanation of assertion.

C) If assertion is true but reason is false.

D) If assertion is false but reason is true.

Match the following/ Matrix Matching:

86. **Column A**

a) Milk, curd, panner, ghee

b) Spinach, cauliflower, carrot

c) Lions and tigers

d) Herbivores

A) a - s, b - r, c - p, d - q

C) a - q, b - r, c - s, d - p

Column B

p) Eat other animals

q) Eat plants and plant products

r) Are vegetables

s) Are all animals products

B) a - p, b - r, c - s, d - q

D) a - r, b - s, c - p, d - q

87. The indigestible material in food is known as

A) Roughage

B) Minerals

C) Vitamins

D) Fats

88. Scurvy is caused by deficiency of which of these?

A) Vitamin A

B) Vitamin D

C) Vitamin K

D) Vitamin C

Assertion and Reasoning Type:

89. Assertion : The nutrients carbohydrates and fats give energy to our body

Reason : Minerals are required by our body in very small quantities

A) If both assertion and reason are true and reason is the correct explanation of assertion.

B) If both assertion and reason are true but reason is not the correct explanation of assertion.

C) If assertion is true but reason is false.

D) If assertion is false but reason is true.

Match the following/ Matrix Matching:

90. **Column - I**

a) Fats

b) starch

c) dietary fiber

d) Protein

A) a - s, b - r, c - p, d - q

C) a - s, b - r, c - q, d - p

Column - II

p) pulse and eggs

q) salad and sprouted grains

r) Rice and potato

s) Butter and ghee

B) a - p, b - r, c - s, d - q

D) a - r, b - s, c - p, d - q

91. The pistil consists of

A) Anthers and filaments

B) Style, stigma, ovary

C) Ovary, Ovula, female gamete

D) Ovary, stigma, Anther

92. Carrot is

A) Stem

B) Flower

C) Root

D) Underground stem

93. Roots are

A) Non - Green geotropics

B) Green phototropics

- C) flat green parts that prepare food D) none of these
94. Ginger is a stem which can be differentiated from root because it
 A) Grows parallel to ground B) Stores food
 C) lacks chlorophyll D) has nodes and inter nodes
95. Root cap is absent in
 A) xerophytes B) mesophytes C) Epiphytes D) Hydrophytes

Assertion and Reasoning Type:

96. **Assertion** : The stems have branches, nodes, internodes and buds.
Reason : In cymose tap root system, the primary root itself stops growing after some time, but secondary roots carry on further growth of the root system.
- A) If both assertion and reason are true and reason is the correct explanation of assertion.
 B) If both assertion and reason are true but reason is not the correct explanation of assertion.
 C) If assertion is true but reason is false.
 D) If assertion is false but reason is true.

Match the following/ Matrix Matching:

97. **Column - 1** **Column - 2**
- | | |
|-------------------|--------------------|
| a) Tap root | p) Supporting root |
| b) Fibrous root | q) Respiration |
| c) Tuberos root | r) Maize |
| d) Prop root | s) Storage root |
| e) Pneumatophores | t) Mango |
- A) a - t, b - r, c - s, d - p, e - q
 B) a - r, b - t, c - p, d - s, e - q
 C) a - r, b - t, c - q, d - s, e - p
 D) a - t, b - r, c - q, d - s, e - p
98. **Column - 1** **Column - 2**
- | | |
|----------------------|----------------------------|
| a) Pistil | p) Pitcher plant |
| b) Leaf modification | q) male part of a flower |
| c) Stomata | r) female part of a flower |
| d) Stamen | s) Respiration. |
- A) a - r, b - p, c - s, d - q
 B) a - p, b - r, c - s, d - q
 C) a - q, b - r, c - s, d - p
 D) a - r, b - s, c - p, d - q
99. **Assertion** : The fruit is made up of seeds and pericarp.
Reason : Seeds are mature, fertilized ovules.
- A) If both assertion and reason are true and reason is the correct explanation of assertion.
 B) If both assertion and reason are true but reason is not the correct explanation of assertion.
 C) If assertion is true but reason is false.
 D) If assertion is false but reason is true.

100. Flowering plants are also called:

A) Ferns

B) Angiosperms

C) Gymnosperms

D) Mosses

***** **ALL THE BEST** *****