

11

The Competition in

Advanced Mathematics Skills

Advanced Maths Test I & II

MODEL PAPERS

Class : V



Eduranet

Intellectual Olympiad Foundation

(Promoted by Eduranet Educational Society (Regd. 309/09))

Hyderabad | India

Eduranet Intellectual Olympiad Foundation

10-3-304/A/2,
Humayun Nagar,
Hyderabad-500 028.
Andhra Pradesh,
India.

Phone : 040 - 23530999

Eduranet is a registered trademark of Eduranet Educational Services (P) Ltd., in India.

© Copyrights - Eduranet Intellectual Olympiad Foundation
2010

First Published - 2012

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing, of Eduranet Intellectual Olympiad Foundation.

ISBN - 81- 89528- 03-3

SYLLABUS**I) Arithmetic**

1. Play with Numbers
2. Arithmetic operations and Simplification
3. Factor, Multiple HCF & LCM,
4. Fraction Decimal and Percentage

II) Arithmetic Application

1. Measurement
2. Time and Temperature
3. Average, Speed & Distance
4. Bill, Money, Simple interest and Discount
5. Mapping skills.

III) Geometry

1. Exploring shapes, Patterns and their Symmetry
2. Solid shapes and their Nets, Volumes
3. Area and Perimeter
4. Smart Charts
5. Geometry

TABLE OF CONTENTS

- 1) **Advanced Maths Test - I 5 - 21**
- 2) **Advanced Maths Test - II 22 - 32**

ADVANCED MATHS TEST-I

Code : 1151

PRELIMS

Max. Marks : 75

Duration : 75 Mins.

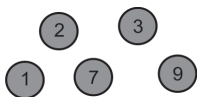
General Instructions :

1. Please find the Answer Sheets (OMR) with in the envelop given to you.
2. Mention your Test Code, Student ID, Name, Class, Section and School Name on the OMR Sheet as per Question Paper and Hall Ticket.
3. This question paper contains 75 Questions, duration is 75 minutes.
4. Do rough work in the empty sheet provided along with this question paper.
5. Answer questions in OMR sheet only.
6. Don't write or tick anything on the question paper.
7. Use only Black or Blue Ball Point Pen or Dark Pencil to answer the question in OMR sheet.
8. Indicate the correct answer by darkening one of the 4 or 5 responses provided.
9. Submit only OMR sheet to the invigilator

1. Thirteen lakh, seven thousand and five is

- a) 1307005
- b) 1300705
- c) 1370050
- d) 1300075

2. The greatest number formed by these blown digits is



- a) 21379 b) 79132
 c) 97321 d) 91237

3. Which of the following is the smallest Number?

- a) 25,17,01,294 b) 15,27,01,294
 c) 25,17,40,294 d) 15,27,27,274

4. If 50,000 is subtracted from 3,00,000 it will be 50,000 more than

- a) 20,000 b) 2,00,000
 c) 20,00,000 d) 2000

5. Compare 1,00,002 10,000,02

- a) > b) <
 c) = d) None of these

6. The smallest 7-digit number is:

- a) 10,00,000
 b) 1 + greatest 6 digit number
 c) either A or B
 d) none of these

7. Numeral for thirteen lakhs thirteen thousand three hundred and thirteen

- a) 1,31,31,313 b) 13,13,013
 c) 13,01,313 d) 13,13,313

8. First 8 multiple of 11 is

- a) 10,20,30,40,50,60,70,80
- b) 12,24,36,48,60,72,84,96
- c) 9,18,27,36,45,54,63,72
- d) 11,22,33,44,55,66,77,88

9. 5796 is divisible by

- a) 2 and 3
- b) 5
- c) 5 and 9
- d) 7 and 5

10. What is the relation between H.C.F and L.C.M of two numbers ?

- a) Product of two numbers = H.C.F \times L.C.M
- b) Division of two numbers = H.C.F \times L.C.M
- c) Sum of two numbers = H.C.F + L.C.M
- d) Difference of two number = H.C.F – L.C.M.

11. Common multiples of 2 and 3 are

- a) 6 and 4
- b) 6 and 12
- c) 6 and 3
- d) 2 and 12

12. Which is prime factorization of 315 ?

Hint : $3^3 \equiv 3 \times 3 \times 3, 3^2 = 3 \times 3$

- a) $3^3.5$
- b) $3^3.7$
- c) $3^2.5.7$
- d) 5.7

13. The multiples of 3 that are between 15 and 25 are

- a) {18,21,24}
- b) {3,15,9}
- c) {6,9,18}
- d) {15,18,9}

-
14. Which is the only prime number that is not odd ?
- a) 4 b) 2 c) 6 d) 8
15. The HCF and LCM of two numbers are 3 and 180 respectively. If one number is 12, then the other number is,
- a) 40 b) 45 c) 50 d) 55
16. Which of the following numbers are divisible by 5 but not by 10 ?
- a) 8,605 b) 54,805
c) 2,73,915 d) 6,83,090
17. A, B and C starts at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds, all starting at the same point. After what time will they meet again at the starting point ?
- a) 46 min 12 seconds
b) 56 min 12 seconds
c) 67 min 12 seconds
d) 86 min 12 seconds
18. Find the largest number which exactly divides 280 and 1,245 leaving remainders 4 and 3 respectively.
- a) 148 b) 138
c) 158 d) 168
19. $53.194 + 436.087 + 501.190$ is
- a) 99.0471 b) 990.471
c) 9904.71 d) 99047.1

20. $5/9 = A/18$, then A is equal to

- a) 3
b) 10
c) 7
d) 9

21. The fraction representing the un-shaded portion of the given figure is



- a) $1/3$
b) $2/3$
c) $3/2$
d) $\frac{3}{1}$

22. The difference of $14\frac{1}{2}$ and $9\frac{3}{4}$ is

- a) $4\frac{3}{4}$
b) $2\frac{3}{4}$
c) $5\frac{3}{4}$
d) $1\frac{3}{4}$

23. $\frac{8}{9}$ of 72 is equal to

- a) 46
b) 56
c) 64
d) 75

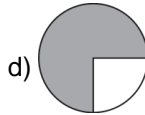
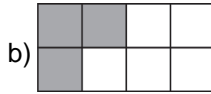
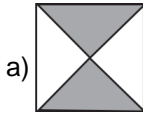
24. The reciprocal of '0' is

- a) 1
b) $\frac{1}{0}$
c) '0' does not have a reciprocal
d) $\frac{1}{0.1}$

25. Shelly is $\frac{1}{4}$ Dolly's age. Shelly is 2yrs. Old, Dolly's age is

- a) 2 years
- b) 4 years
- c) 8 years
- d) 6 years

26. Which model is shaded to show a fraction equivalent to $\frac{3}{6}$?



27. The closest estimated value of 3.43×49 is_____.

- a) 3×50
- b) 4×45
- c) 3×45
- d) 4×50

28. $53.194 + 436.087 + 501.190$ is

- a) 99.0471
- b) 990.471
- c) 9904.71
- d) 99047.1

29. Which of the following is the same as $\frac{25}{1000}$?

- a) 0.25
- b) 0.025
- c) 2.5
- d) 0.52

30. If $\frac{3}{4}$ is divided by $\frac{6}{8}$, the quotient will be

- a) 1
- b) 2
- c) 3
- d) 4

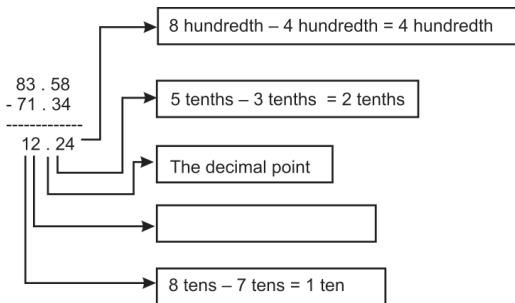
31. 55.899 is when rounded off to 2 decimal places.

- a) 55.00
- b) 55.80
- c) 55.90
- d) 56

32. Suppose you were born on 29th february. Then your birthday comes

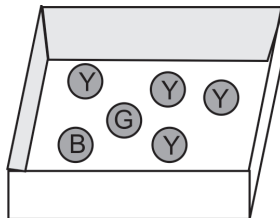
- a) Every year
- b) Twice in a year
- c) After every 4 year
- d) After every two year

33. Given a step by step procedure of subtractiion of two decimal numbers through a chart. Complete it by choosing the correct option.



- a) 3 hundredth - 1 hundredth = 2 hundredth
- b) 3 tenths - 1 tenths = 2 tenths
- c) 3 ones - 1 one = 2 ones
- d) can not find

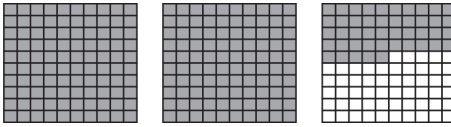
34. Look at the box of balls. B denotes Blue ball. Y denotes yellow Ball. and G denotes Green ball



What is the fraction of the blue ball to other balls in the box?

- a) 1/6
- b) 2/5
- c) 2/3
- d) 2/7

35. The given model is shaded to represent $2\frac{45}{100}$



What decimal does the model represent ?

- a) 245.0
 - b) 0.245
 - c) 2.45
 - d) 24.5
36. **Expanded form of 78.059 is:**

a) $78 + \frac{5}{10} + \frac{9}{100}$

b) $70 + 8 + 0 + \frac{5}{100} + \frac{9}{1000}$

c) $70 + 8 + \frac{5}{10} + \frac{9}{100}$

d) none of these

37. **If $2805 \div 2.55 = 1100$, then $280.5 \div 25.5 =$ _____**

- a) 1.1
- b) 1.01
- c) 0.11
- d) 11

38. **The smallest possible decimal fraction upto three decimal places is:**

- a) 0.101
- b) 0.111
- c) 0.001
- d) 0.011

39. **Which of the following is equal to 104×50 ?**

- a) $(100 \times 5) + (4 \times 5)$
- b) $(100 \times 5) + (4 \times 50)$
- c) $(100 \times 50) + (40 \times 50)$
- d) $(100 \times 50) + (4 \times 50)$

40. Mr. Rohan solved the division problem shown below.

$$252 \div 7 = 36$$

Which of the following could Mr. Rohan use to check his answer ?

a) 7×42

b) 36×252

c) 36×7

d) 252×7

41. Ram wants to show 15 pictures he took. He wants to put an equal number of pictures on 3 posters. Which number sentence shows how many pictures Ram should put on each poster?

a) $15 \div 3 = 5$

b) $15 \times 3 = 45$

c) $15 + 3 = 18$

d) $15 - 3 = 12$

42. Choose the correct option to complete the given sentence

Dividend = \times quotient +

a) Remainder, Divisor

b) Product, Multiplier

c) divisor, Remainder

d) Multiplier, Product.

43. If 13 more people went to a music stall, then 217 people would have visited in total. So, number of people visited the music stall were.

a) 230

b) 200

c) 204

d) 214

44. If both equations shown below are true, then which of the following equations from the four options must also be true ?

$$\square - \circ = 6$$

$$\circ + \circ = 2$$

- a) $\square \times \circ = \square$ b) $\circ \times 2 = \circ$
 c) $\square + \square = 12$ d) $\square + \circ = \square$

45. Meena was reciting the 26 letters of the alphabet in groups of 3 : “ ABC, DEF, GHI, ...”. Before she could finish, her friend Mohan said, “There will be 2 letters left over.” Which of the following suggests that Mohan is correct ?

- a) 13 multiplied by 2 equals 26.
 b) 6 divided by 3 equals 2.
 c) 26 divided by 3 leaves a remainder of 2.
 d) 26 divided by 4 leaves a remainder of 2.

46. On a chess board percentage of black coloured squares is :

- a) 50% b) 60%
 c) 15% d) 75%

47. A student has to reach his school in 15 minutes. If the school is 800 metres away, at what speed should he walk?

- a) $\frac{800}{15} m/s$ b) $\frac{1}{15} m/s$
 c) $\frac{8}{9} m/s$ d) None of these

48. In what time will Rs. 72 become Rs. 81 at $6\frac{1}{4}\%$ per annum simple interest ?

- a) $1\frac{1}{2}$ years b) 2 years
 c) $2\frac{1}{2}$ years d) None of these

49. Finishing time – Elapsed time = ?

- a) Starting time b) Ending time
 c) Elapsed time d) Finishing time

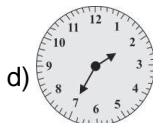
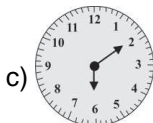
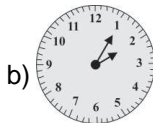
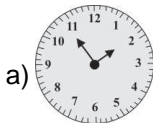
50. Normal human body temperature is

- a) 98.6°F b) 96.8°F
 c) 94.6°F d) 96.4°F

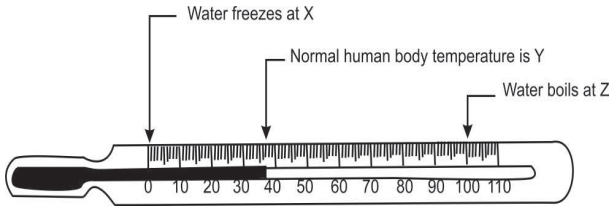
51. Which is the correct formula to convert the temperature into fahrenheit.

- a) $^{\circ}\text{F} = \frac{5}{9} \times ^{\circ}\text{C} + 32$ b) $^{\circ}\text{F} = \frac{9}{5} + 32 \times ^{\circ}\text{C}$
 c) $^{\circ}\text{F} = \frac{9}{5} \times ^{\circ}\text{C} + 32$ d) $^{\circ}\text{F} = \frac{5}{9} + 32 \times ^{\circ}\text{C}$

52. Which clock shows a time between 2 : 15 P.M. and 3 : 00 P.M. ?



53. Study the figure and identify the labels X, Y and Z from the given options.



- a) $X = 37^{\circ}\text{C}$, $Y = 0^{\circ}\text{C}$, $Z = 100^{\circ}\text{C}$
 - b) $X = 37^{\circ}\text{C}$, $Y = 100^{\circ}\text{C}$, $Z = 0^{\circ}\text{C}$
 - c) $X = 100^{\circ}\text{C}$, $Y = 0^{\circ}\text{C}$, $Z = 37^{\circ}\text{C}$
 - d) $X = 0^{\circ}\text{C}$, $Y = 37^{\circ}\text{C}$, $Z = 100^{\circ}\text{C}$
- 54. Saturday was a holiday for Republic Day. 14th of the next month is again a holiday for Shivratri. What day was it on the 14th ?**

- a) Monday b) Tuesday c) Thursday d) Friday
- 55. The train for Lucknow leaves every two and half hours from New Delhi Railway Station. An announcement was made at the station that the train for Lucknow had left 40 minutes ago and the next train will leave at 18.00 hrs. At what time was the announcement made ?**

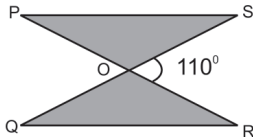
- a) 15.30 hrs b) 17.10 hrs
 - c) 16.00 hrs d) None of these
- 56. Clinical thermometers are marked in ___ scale.**

- a) Celsius b) Fahrenheit
- c) Both A and B d) None of these

57. A = 5 : 20 the angle formed between the two hands of a clock is:

- a) obtuse
- b) right
- c) acute
- d) none of these

58. The measure of $\angle POQ$ in the following figure is:



- a) 90°
- b) 70°
- c) 20°
- d) 110°

59. The complementary angle of 30° is :

- a) 60°
- b) 90°
- c) 150°
- d) none of these

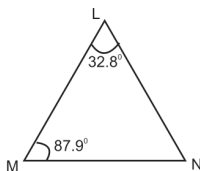
60. A set of circles with a common centre and different radii are called as:

- a) concentric circles
- b) designs
- c) patterns
- d) none of these

61. A triangle is formed by joining three _____ points.

- a) collinear
- b) non-collinear
- c) equal
- d) none of these

62. Measure of $\angle N$ in $\triangle LMN$ is :



- a) 198.7°
- b) 87.9°
- c) 59.3°
- d) 8.97°

63. The angles in a right angled isosceles triangle are :

- a) $90^{\circ}, 30^{\circ}, 60^{\circ}$ b) $90^{\circ}, 20^{\circ}, 70^{\circ}$
c) $90^{\circ}, 40^{\circ}, 50^{\circ}$ d) $90^{\circ}, 45^{\circ}, 45^{\circ}$,

64. Each angle of a square has the measure of ____ degrees.

- a) 60° b) 90° c) 100° d) 360°

65. Perimeter of a square is the sum of the lengths of all the ____ sides.

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

66. Area of a square whose side measures 13 m is :

- a) 9 m b) 9 sq m
c) 169 sq m d) 169 m

67. The length of a rectangle is $\frac{6}{5}$ th of its breadth. If its perimeter is 132 m. its area will be ____.

- a) 1,080 m² b) 640 m²
c) 1,620 m² d) 2,160 m²

68. When the perimeter and area of a square are numerically equal, then the numerical value of its side is :

- a) 1 b) 2
c) 4 d) 8

69. Edge of a cube whose volume is $\frac{1}{125}$ cu m is :

- a) $\frac{1}{15}m$ b) $\frac{1}{5}m$ c) $\frac{1}{25}m$ d) 125 m

70. Volume of a suitcase with clothes in it is ____ the volume of empty suitcase. (Both suitcases are of same size)

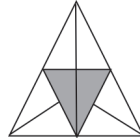
- a) more than
- b) less than
- c) equal to
- d) none of these

71. A cuboid measures 36 m × 24 m × 18 m . How many cubes of edge 6 m can be cut from the cuboid?

- a) 72
- b) 144
- c) 36
- d) 288






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

- a) 10
- b) 11
- c) 13
- d) 15



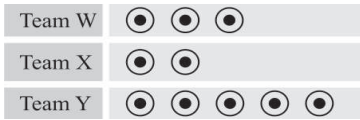
73. Each  represents 500 TV sets.

Number of TV sets sold in the year 1990

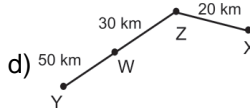
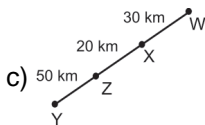
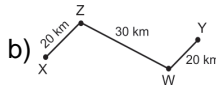
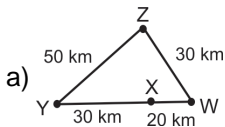
Year	Number of TV sets sold
1990	
1995	
2000	
2005	
2008	

- a) 1000
- b) 2
- c) 1
- d) 2000

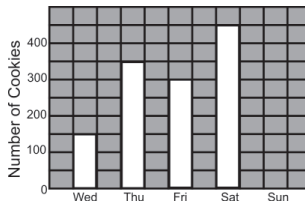
74. The pictograph shows the distances of towns W, X and Y from town Z.



Which of the following road maps shows the correct positions of towns W, X, Y and Z ?



75. The incomplete bar graph shows the number of cookies sold by Raju in 5 days.



The total number of cookies sold was 2,000. How many cookies were sold on Sunday ?

- a) 750
- b) 850
- c) 800
- d) 950

KEY TO MODEL PAPER - I

- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| 1. a | 2. c | 3. b | 4. b | 5. b | 6. c |
| 7. d | 8. d | 9. a | 10. a | 11. b | 12. c |
| 13. a | 14. b | 15. b | 16. d | 17. a | 18. b |
| 19. b | 20. b | 21. b | 22. a | 23. d | 24. c |
| 25. c | 26. a | 27. a | 28. b | 29. b | 30. a |
| 31. c | 32. c | 33. c | 34. a | 35. c | 36. b |
| 37. d | 38. c | 39. d | 40. c | 41. a | 42. c |
| 43. c | 44. a | 45. c | 46. a | 47. c | 48. b |
| 49. a | 50. a | 51. c | 52. d | 53. d | 54. c |
| 55. d | 56. b | 57. c | 58. d | 59. a | 60. a |
| 61. b | 62. c | 63. d | 64. b | 65. d | 66. c |
| 67. a | 68. c | 69. b | 70. c | 71. c | 72. d |
| 73. a | 74. b | 75. a | | | |

ADVANCED MATHS TEST-II

Code : 1152

FINALS

Max. Marks : 60

Duration : 60 Mins.

General Instructions :

1. Please find the separate Answer Sheets along with the question paper.
2. Mention your Test Code, Student ID, Name, Class, Section, Contact no. and School Name on the Answer Sheet as per Question Paper and Hall Ticket.
3. This question paper contains VI sections, duration is 60 minutes.
4. Please read the instructions carefully before attempting the question.
5. Answer questions in Answer Sheet only.
6. Don't write or tick anything on the question paper.
7. Use only Black or Blue Ball Point Pen to answer the question in Answer Sheet.
8. Submit only answer sheet(s) to the invigilator.

SECTION - I

10 × 1 = 10

DIRECTIONS: (1 - 10) – Complete the following statements with an appropriate word/term to be written in the answer sheet.

1. Thickness of an encyclopaedia = 42 mm = _____ cm
2. Average of $3\frac{1}{2}$, $5\frac{3}{4}$ and $4\frac{1}{4}$ is _____.
3. 4 mile = _____ yard.
4. Akshay sold a book for Rs. 315 incurring a loss of Rs.23. The cost of book is _____

5. $(7+8-3) \div (2 \times 2) = \underline{\hspace{2cm}}$.
6. The $\underline{\hspace{1cm}}$ value of a digit is the digit itself.
7. $517.834 - 437.857 = \underline{\hspace{2cm}}$.
8. A flat surface of a polyhedron is called a $\underline{\hspace{2cm}}$.
9. The average of 1 to 10 Numbers is $\underline{\hspace{2cm}}$.
10. A car covers 300km in 5 hours. It cover $\underline{\hspace{1cm}}$ km in 1 hour.

SECTION - II**10 × 1 = 10**

DIRECTIONS : (11 - 20) – Read the following statements and write true or false with reasons or solutions; in the answer sheet.

11. The area of triangle = 2 × base × height
12. A rectangular pool measures 20 ft, 50 ft and 6.5 ft, volume of the pool is 65000 cubic feet.
13. $23\frac{1}{4} + 23\frac{1}{5} + 23\frac{1}{6} = 23\frac{37}{60}$
14. I, X and C are used for both multiplication and division.
15. Decimal notation of one hundred thousand and five hundred - thousandths is 100,00.005
16. Temperature was 35°C on my birth day. That was a cold day.
17. The average of 0.5, 0.05, 5.0 and 0.005 is 1.
18. Meena paid Rs. 250.20 for 9 tumblers. The cost of 1 tumbler is Rs. 22.80
19. When B is 50% and A is 60%, we cannot say that A is 10% more than B.
20. Order of numbers 0.7, 0.23, 3.45, 0.07 and 3.54 from least to greatest is 0.07, 0.23, 0.7, 3.45, 3.54

SECTION - III

 $10 \times 1 = 10$

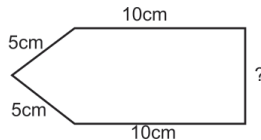
DIRECTIONS: (21 - 30) – Each question contains statements given in two columns which have to be matched. Match the statements (21,22,...30) in column I with statements (a,b,...o) in column II . Arrange the matched statements in order and write in the answer sheet.

Column I

- 21) $2,45,329 + 21,31,546 + 24,63,725 =$
- 22) Division is considered as a process of repeated
- 23) A whole number and fraction together is called a
- 24) $0.3 \div 0.6 =$
- 25) The Perimeter of the given figure is 37 cm.

Column II

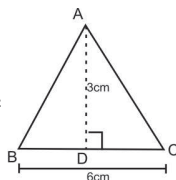
- a) Multiplication
- b) Capacity
- c) 7.0
- d) Subtraction
- e) Obtuse angle



The missing length of the figure is

- 26) An angle which is more than 90° is called an
- 27) 1 liter
- 28) 1 dozen bananas weight 240g.
1 banana weight
- 29) A millimeter cube is about the size of a
- f) 7 cm
- g) 9 sq.cm
- h) 4840600
- i) 0.5

- 30) Area of



- j) Addition

k) mixed fraction
angle

l) 0.05

m) 20g

n) dice

o) acute

SECTION - IV**10 × 1 = 10**

Directions : (31 – 40) – Identify the correct answer from the given options and write in the answer sheet.

31. Which of the following is correct ?

a) $XV = 10 + 5$

b) $VV = 5 + 5$

c) $VX = 5 + 10$

d) $XIX = 10 + 10$

32. In the series

6 4 1 2 2 8 7 4 2 1 5 3 8 6 2 1 7 1 4 1 3 2 8 6

How many pairs of successive numbers have a difference of 2 each ?

a) Four

b) Five

c) Six

d) Seven

33. If largest 3- digit number is divided by smallest 2 - digit number, then:

a) $Q=99$

b) $Q = 10$

c) $Q = 10$

d) $Q = 9$

$R=9$

$R = 99$

$R = 9$

$R = 10$

34. I am the factor of every number who am I?

a) 1

b) 2

c) 0

d) 3

35. Formula for increase in percentage is equal to

- a) $\frac{\text{Increase in value}}{\text{Original value}} \times 100\%$ b) $\frac{\text{Original value}}{\text{Increase in value}} \times 100\%$
c) $\text{Original value} \times 100\%$ d) $\text{Increase in value} \times 100\%$

36. A family used 63.5 l of water for bathing one day. How much is that in ml ?

- a) 63500 l b) 60503 ml c) 65300 ml d) 63500 ml

37. The simple interest on Rs. 1800 at $3\frac{1}{2}\%$ per annum for $2\frac{1}{2}$ years is :

- a) Rs. 157.50 b) Rs. 154.50
c) Rs. 156.50 d) none

38. Compare 10% of Rs100 50% of Rs10

- a) < b) =
c) > d) None of these

39. $3\frac{1}{2} + 2\frac{5}{7} \times \frac{9}{26} \times 2\frac{1}{2} \div 2 = \underline{\hspace{2cm}}$.

- a) $\frac{491}{728}$ b) $\frac{4}{728}$
c) $4\frac{491}{728}$ d) none of these




40. Product of $3.92 \times 0.1 \times 0.0 \times 6.3$ is:

- a) 0.392 b) 0.1176
c) 0 d) 6.3

SECTION - V

10 x 1 = 10

DIRECTIONS: (41 - 50) – Choose the correct answers (More than one correct answer) from the given options and write in the answer sheet.

41. “ The matchsticks make a small angle , big angle  and a bigger angle  the incorrect statement in regarding the given information.

- a) When the angle changes the shape changes so much.
- b) When the angle changes the shape does not change
- c) When the angle does not change, the shape also changes
- d) Cannot say.

42. Which model is shaded to show a fraction equivalent to $\frac{3}{6}$?



43. In the following statements which is correct

- a) Every odd number except 2 is the sum of two primes.
- b) All composite numbers can be broken up into their factors
- c) prime numbers with difference of 2 are called twin primes
- d) HCF is also known as GDF the greater division factor, GCF the greatest common factor

44. In the following number which is not divisible by 9.

- a) 593
- b) 207
- c) 117
- d) 560

45. The correct HCF of each pair of number are

- a) 16 and 24 HCF is 8 b) 12 and 20 HCF is 3
 c) 84 and 36 HCF is 12 d) 63 and 66 HCF is 5

46. $\triangle + \square = 7$
 $\square - \triangle = 1$

If these number sentences are true, which of the following may be correct ?

- a) $\square = 4, \triangle = 3$ b) $\triangle = 3, \square = 4$
 c) $\square - \triangle + \square = 5$ d) $(\triangle + \triangle) - \square = 2$

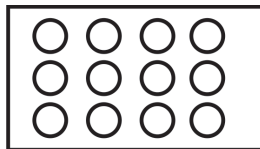
47. Which of the following are Quadrilaterals.

- a) Triangle b) Square
 c) Parallelogram d) Rectangle

48. If we put number 4 in the circle which equation will become true?

- a) $40 \div \bigcirc = 8$ b) $24 \div \bigcirc = 6$
 c) $168 \div \bigcirc = 42$ d) $32 \div \bigcirc = 8$

49. What mathematical expression is illustrated in this diagram.



- a) $3 + 3 = 6$ b) $3 \times 4 = 12$
 c) $3 + 3 + 3 + 3 + 3 = 12$ d) $4 + 4 + 4 = 12$

50. $(XV - V)$ is equal to

a) $15 - 5 = 10$

b) $10 + 5 - 5 = 10$

c) $10 \times 5 - 5 = 45$

d) $5 + 10 + 5 = -10$

SECTION - VI **$10 \times 1 = 10$** **Assertion & Reason**

DIRECTIONS: (51-60) Each of these questions contains an Assertion followed by reason. Read them carefully and answer the question on the basis of following options. You have to select the one that best describes the two statements and write in the answer sheet.

- a) If both **Assertion** and **Reason** are **correct** and Reason is the **Correct explanation** of Assertion.
- b) If both **Assertion** and **Reason** are correct, but Reason is **not the correct explanation** of Assertion.
- c) If **Assertion** is **correct** but **Reason** is **incorrect**.
- d) If **Assertion** is **incorrect** but **Reason** is **correct**.

51. **Assertion:** The successor of XVIII is XIX.

Reason: XIX also written as $10 + 10 - 1$

52. **Assertion:** All prime Number are odd Number

Reason: 2 is a even prime Number.

53. **Assertion:** $3\frac{3}{7}, 4\frac{3}{7}, 6\frac{7}{7}$ are mixed fractions and like fractions.

Reason: Mixed fractions converted into proper fractions.

54. **Assertion:** Sum of Angles of triangle equal to 180°

Reason: Sum of two right angles equal to straight angle

55. **Assertion:** A square has 4 Right angles

Reason: In Rectanlges opposite sides are equal

56. **Assertion:** A Ray has only one end point.

Reason: By using the point you can draw infinite Rays.

57. **Assertion:** Multiples of 5 is 5,10,15,20,.....

Reason: 5 Multiple are alternative even number and primes

58. **Assertion:** $\frac{1}{4}$ means $\frac{100}{25}$

Reason: $25\% = \frac{1}{4}$

59. **Assertion:** $345 + a23 + 312 = 780$

Reason: When $a = 2$ above addition is satisfied

60. **Assrtion:** 240,355,728 are divisible by 2

Reason: Any number Last digit 0 or even Number is there that Number should be divisible by 2

SOLUTIONS TO MODEL PAPER - II**SECTION – I****Fill in the Blanks**

- 1) 42. 2) $\frac{9}{2} = 4.5$ 3) 7040 4) 338
- 5) 3 6) face 7) 79.977 8) face
- 9) $\frac{n(n+1)}{2} = \frac{55}{10} = 5.5$ 10) 60

SECTION – II**True / False**

- 11) False 12) False 13) True 14) False
- 15) False 16) False 17) False 18) False
- 19) True 20) True

SECTION – III**Match the Following**

- 21) → h 22) → d 23) → k 24) → i
- 25) → f 26) → e 27) → b 28) → m
- 29) → n 30) → g

SECTION – IV**Multiple Choice Questions**

- 31) a 32) c 33) a 34) a
35) a 36) d 37) a 38) c
39) d 40) c

SECTION – V**More than One Correct Answers**

- 41) b, c 42) c, d 43) b, c 44) a, d
45) a, c 46) a, c, d 47) b, c, d 48) b, c, d
49) b, d 50) a, b

SECTION – VI**Assertion & Reason**

51. a) If both **Assertion** and **Reason** are **correct** and Reason is the **Correct explanation** of Assertion.
52. d) If **Assertion** is **incorrect** but **Reason** is **correct**.
53. c) If **Assertion** is **correct** but **Reason** is **incorrect**.
54. a) If both **Assertion** and **Reason** are **correct** and Reason is the **Correct explanation** of Assertion.
55. b) If both **Assertion** and **Reason** are correct, but Reason is **not the correct explanation** of Assertion.
56. a) If both **Assertion** and **Reason** are **correct** and Reason is the **Correct explanation** of Assertion.
57. c) If **Assertion** is **correct** but **Reason** is **incorrect**.
58. d) If **Assertion** is **incorrect** but **Reason** is **correct**.
59. c) If **Assertion** is **correct** but **Reason** is **incorrect**.
60. a) If both **Assertion** and **Reason** are **correct** and Reason is the **Correct explanation** of Assertion.