



Hillrange Secondary School Entrance Examination 2017

SUBJECT: GENERAL MATHEMATICS

TIME ALLOWED: one(1) hour

Attempt All questions by circling the correct option from the list of options provided for each question. Use pencil.

Clearly write your name, application number and date on your question paper.

You may use this question paper for your rough work.

YOU ARE ADVISED TO WORK COMPLETELY ON YOUR OWN.

FULL NAME:

APPLICATION NO:

DATE:

1. Write in figures: One million, twenty thousand and seventeen.
 - A. 1020017
 - B. 10020017
 - C. 12001
 - D. 102007
 - E. 100017

2. Write down in words, 370 894.
 - A. Three thousand, seventy hundred and eighty four
 - B. Three million, seven hundred and eighty thousand and ninety four
 - C. Three million, seventy hundred and ninety four
 - D. Three million and ninety four
 - E. Three hundred and seventy thousand, eight hundred and ninety four.

3. What is CLXII?
 - A. 116
 - B. 162
 - C. 159
 - D. 164
 - E. 199

4. Find the value of $(1.7)^2$
 - A. 28.9
 - B. 27.8
 - C. 289
 - D. 2.89
 - E. 0.289

5. Calculate $0.126 \times .04$
 - A. 0.54
 - B. 0.50
 - C. 5.04
 - D. 1.054
 - E. 0.00504

6. Find the cube root of 2744
 - A. 14
 - B. 9
 - C. 18
 - D. 12

7. Find the L.C.M. of 165 and 210
 - A. 21203
 - B. 2310
 - C. 2013
 - D. 2230
 - E. 2103

8. Find the H.C.F. of 168 and 189
 - A. 14
 - B. 15
 - C. 19
 - D. 16
 - E. 21

9. Simplify: $(1 \frac{2}{3} - 1 \frac{1}{2}) + (3 \frac{1}{2} - 2 \frac{2}{3})$
 - A. $1 \frac{1}{6}$
 - B. 1
 - C. $\frac{1}{3}$
 - D. $\frac{5}{6}$
 - E. $\frac{1}{5}$

10. I owe a sum of ₦ 220 and was able to pay ₦ 110. What percentage could I not pay?
 - A. 54%
 - B. 44%
 - C. 50%
 - D. 40%
 - E. 20%

11. If a motorist travels 100km in $2 \frac{1}{2}$ hours, what is his average speed in km per hour?
 - A. 45kmph
 - B. 36kmph
 - C. 50kmph
 - D. 40kmph
 - E. 140kmph

12. By how much is 25% of ₦ 25 greater than 15% of ₦ 15?
 - A. ₦ 2.25
 - B. ₦ 2.20

- C. ₦ 25
D. ₦ 4
E. 25k
13. Subtract 0.07 from 1.1
A. 6.93
B. 1.3
C. 1.03
D. 0.13
E. 1.3
14. In a class of 50 pupils, 70% passed in the final examination. How many pupils failed?
A. 10
B. 30
C. 15
D. 20
E. 35
15. If $V + 18 = 62$, find the value of V.
A. 44
B. 62
C. 54
D. 80
E. 45
16. Find the cost of 4 notebooks at 5 for ₦ 80.
A. ₦ 160.00
B. ₦ 25.00
C. ₦ 46.00
D. ₦ 64.00
E. ₦ 6.40
17. Express 50 as decimal of 200.
A. 0.25
B. 0.005
C. 0.05
D. 0.51
E. 50.0
18. Some mangoes were shared between Ada and Chika in the ratio of 3 : 5 respectively. If Ada's share was 120, how many mangoes were shared between them?
A. 420
B. 320
C. 200
D. 120
E. 220
19. Decrease ₦ 1000 by 10%.
A. ₦ 900
B. ₦ 1100
C. ₦ 800
D. ₦ 100
E. ₦ 50
20. Find the volume of a cylinder, given the radius as 7cm and height 10cm.
A. 1540cm^3
B. 15cm^3
C. 54cm^3
D. 1640cm^3
E. 540cm^3
21. When an article was sold for ₦ 1,400.00, the profit was 40%, what would have been the profit, if it had been sold for ₦ 1,600.00?
A. 25%
B. 60%
C. 50%
D. 80%
E. 20%
22. During a second term examination, a boy scored the following marks: Arithmetic 89%, English 60%, Yoruba 80%, General Paper 96% and Social Studies 85%. What was his average mark?
A. 70%
B. 65%
C. 82%
D. 30%
E. 90%

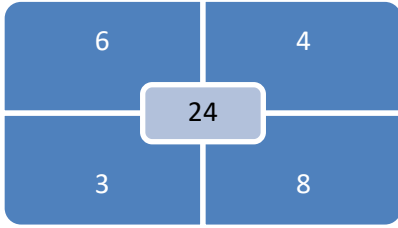
23. How much interest would be charged on a bank loan of ₦ 270,000.00 for 8 months at the rate of 5% simple interest per annum?
- ₦ 27,000
 - ₦ 18,000
 - ₦ 9,000
 - ₦ 7,000
 - ₦ 5,000
24. If a school begins at 8.15a.m. and closes at 2.05p.m. for how many hours and minutes are the students in school each day?
- 5 hours 5 minutes
 - 5 hours 10 minutes
 - 5 hours 15 minutes
 - 5 hours 20 minutes
 - 5 hours 50 minutes
25. A cyclist can travel 30km in 4hrs. How many kilometres would he have travel in $2\frac{1}{2}$ hrs at the same rate?
- $16\frac{1}{4}$ km
 - $17\frac{1}{2}$ km
 - $18\frac{3}{4}$ km
 - $19\frac{1}{4}$ km
 - $20\frac{1}{2}$ km
26. Mr. Adu bought a motorcycle and paid for it in two installments. In May he paid ₦ 330,000 which was $\frac{2}{3}$ of the cost. He paid the rest in June. How much did he pay in June?
- ₦ 110,000
 - ₦ 165,000
 - ₦ 220,000
 - ₦ 330,000
 - ₦ 495,000
27. The average height of a barometer during one week was 30.84 inches. For six week days of the same week the average height was 30.18 inches. What was the height on Sunday?
- 0.66 inch
 - 24.80 inches
 - 30.51 inches
 - 32.49 inches
 - 34.80 inches
28. Jones is now twice as old as he was 5 years ago and his mother is now 4 times as old as Jones. How old is his mother now?
- 20 years
 - 40 years
 - 50 years
 - 80 years
 - 100 years
29. In the number 7564, by how much is the value of the 7 greater than the value of the 4?
- 3
 - 56
 - 756
 - 6996
 - 7557
30. In a class $\frac{1}{4}$ of the pupils are girls, $\frac{2}{5}$ of the girls are boarders and none of the boys are boarders. What fraction of the class are boarders?
- $\frac{1}{10}$
 - $\frac{3}{10}$
 - $\frac{3}{8}$
 - $\frac{5}{8}$
 - $1\frac{3}{5}$
31. If $\frac{7}{8}$ of the share capital of a certain company is equal to ₦ 44,800, what is the total share capital of the company?
- ₦ 39,200
 - ₦ 39,277
 - ₦ 51,200
 - ₦ 51,288
 - ₦ 313,600

32. Edet took sixth at the end of a term's tests and each test was marked out of 80. If his marks were 48, 52, 46, 46, 44 and 52. What percentage of the total marks did he get?
- A. 36%
B. 40%
C. 48%
D. 60%
E. 72%
33. A town has a population of 450,000 people. If 60% of the population are under 25 years of age, how many people in the town are 25 years old and above?
- A. 11,250
B. 18,000
C. 112,500
D. 180,000
E. 1,800,000
34. A woman bought some oranges and 30% of them were bad. If there were 60 bad oranges, how many oranges did she buy?
- A. 18
B. 42
C. 100
D. 180
E. 200
35. A rectangular tank has a length of 3m, breadth of 2m and a height of 8m. What volume of water is in the tank when it is half full?
- A. 13m^3
B. 20m^3
C. 24m^3
D. 40m^3
E. 48m^3
36. A cinema house has 28 rows each with 15 seats. Another one has 21 rows, and the total number of seats is the same. How many seats are there in each row in the second cinema?
- A. 15
B. 20
C. 25
D. 30
E. 35
37. By selling an article for ₦ 70.00, a trader made a profit of 25%. What was the cost price of the article?
- A. ₦ 66.50
B. ₦ 63.00
C. ₦ 59.50
D. ₦ 56.00
E. ₦ 52.25
38. A lorry tank was $\frac{3}{5}$ full of petrol, 21 litres was then added and it is now $\frac{5}{6}$ full. How many litres of petrol can the tank hold?
- A. 60 litres
B. 70 litres
C. 80 litres
D. 90 litres
E. 100 litres
39. A boy sold his football losing 20% of the cost price. If the football was bought for ₦600.00, how much did he sell the football?
- A. ₦ 1,200.00
B. ₦ 720.00
C. ₦ 500.00
D. ₦ 480.00
E. ₦ 120.00
40. A man spends $\frac{1}{5}$ of his income on food and $\frac{1}{3}$ of the remainder on his car. If he then has ₦ 286.00 left, what is his income?
- A. ₦ 612.86
B. ₦ 686.83
C. ₦ 536.25
D. ₦ 2,145
E. ₦ 4,290

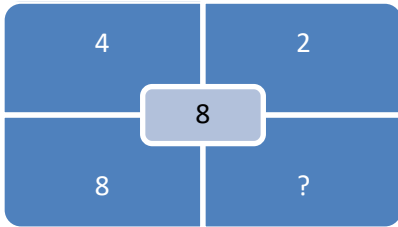
**SECTION B: QUANTITATIVE
REASONING. ANSWER AL**

Answer questions 41- 45 with the
sample given below.

Sample:

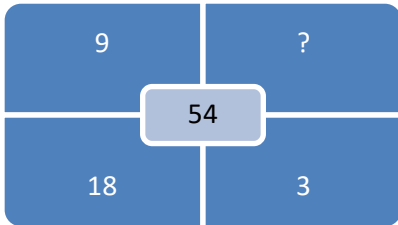


41.



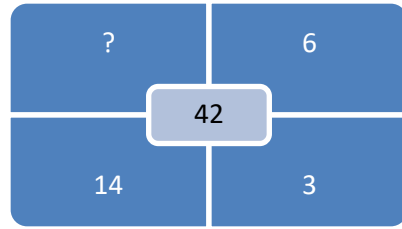
- A. 1
- B. 2
- C. 3
- D. 4
- E. 10

42.



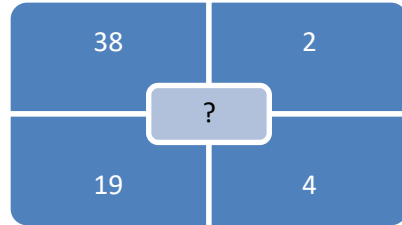
- A. 3
- B. 5
- C. 6
- D. 9
- E. 11

43.



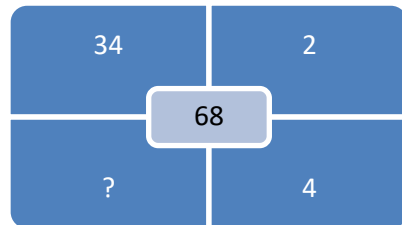
- A. 3
- B. 4
- C. 5
- D. 6
- E. 7

44.



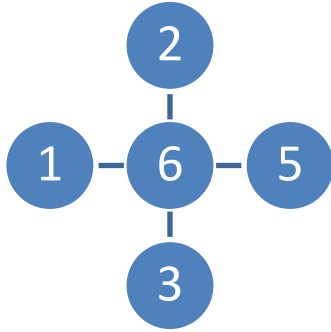
- A. 13
- B. 36
- C. 38
- D. 40
- E. 76

45.

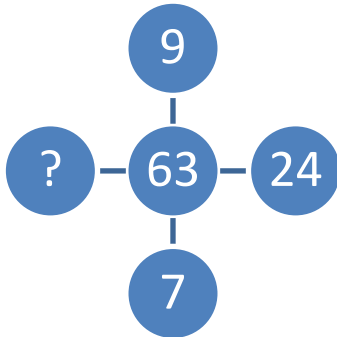


- A. 17
- B. 27
- C. 28
- D. 32
- E. 68

Answer questions 46 – 50 with sample given below:

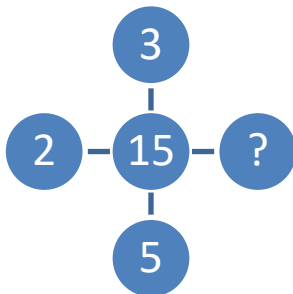


46.



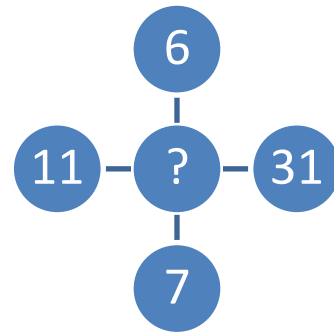
- A. 21
- B. 23
- C. 39
- D. 49
- E. 63

47.



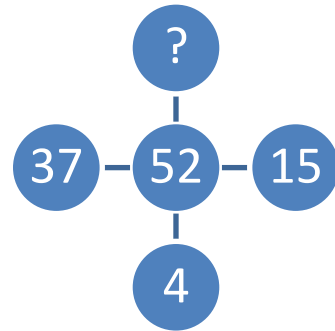
- A. 9
- B. 11
- C. 13
- D. 15
- E. 17

48.



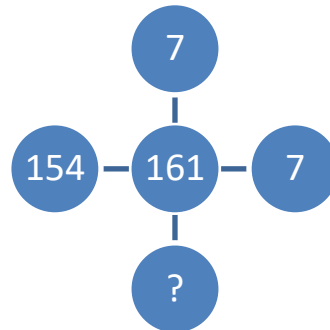
- A. 42
- B. 55
- C. 66
- D. 77
- E. 127

49.



- A. 9
- B. 13
- C. 15
- D. 37
- E. 52

50.

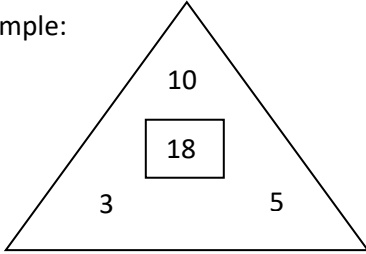


- A. 23
- B. 49

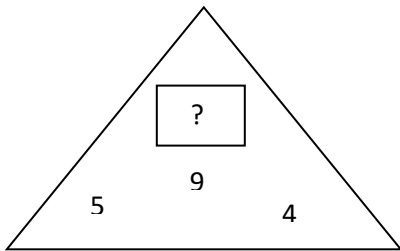
- C. 56
- D. 154
- E. 161

Use the following sample to answer to questions 21 – 25.

Sample:

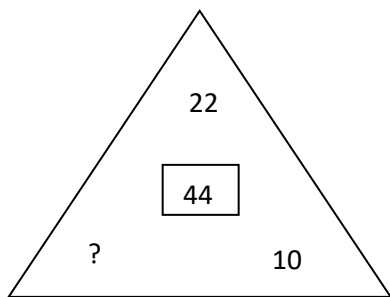


51.



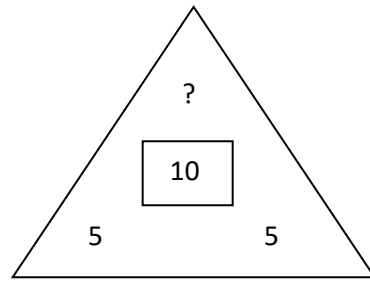
- A. 0
- B. 10
- C. 14
- D. 16
- E. 18

52.



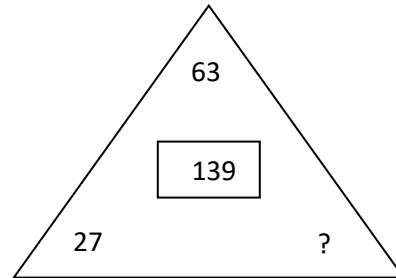
- A. 11
- B. 12
- C. 13
- D. 14
- E. 20

53.



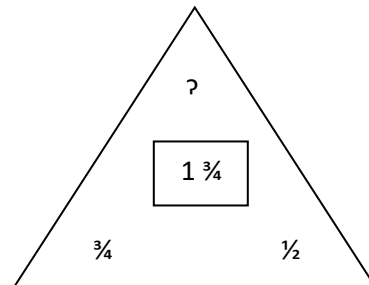
- A. 0
- B. 5
- C. 10
- D. 15
- E. 20

54.



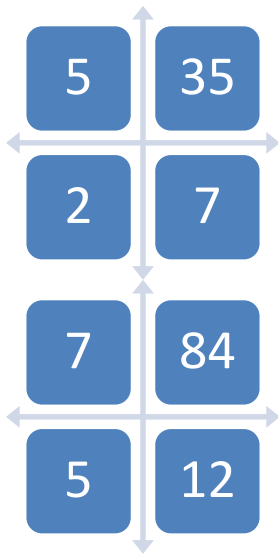
- A. 239
- B. 100
- C. 49
- D. 36
- E. 12

55.

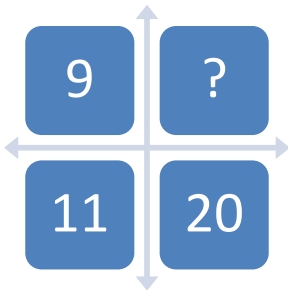


- A. $\frac{1}{4}$
- B. $\frac{1}{2}$
- C. $\frac{3}{4}$
- D. 1
- E. $1\frac{1}{4}$

Use the sample to answer questions 56 – 60.

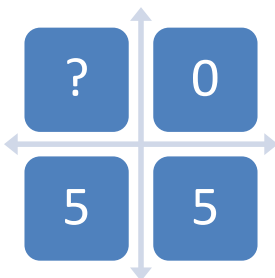


56.



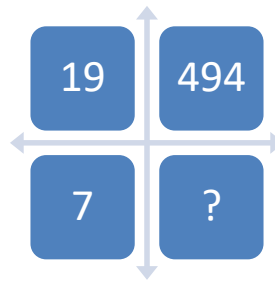
- A. 99
- B. 101
- C. 120
- D. 180
- E. 4

57.



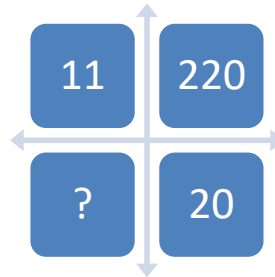
- A. 0
- B. 5
- C. 15
- D. 25
- E. 35

58.



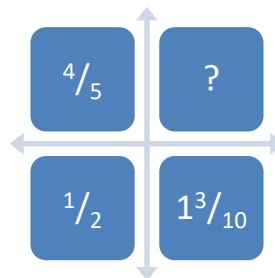
- A. 12
- B. 16
- C. 26
- D. 133
- E. 126

59.



- A. 2
- B. 9
- C. 11
- D. 22
- E. 31

60.



- A. $\frac{6}{25}$
- B. $\frac{3}{10}$
- C. $1\frac{2}{5}$
- D. $1\frac{1}{25}$
- E. $\frac{1}{5}$

