Specification Grid: 2081

Sub: C Math
FM: 50
Class : 8
PM: 20

For First Terminal Examination

Time: 2 hour

S.N	Area	Knowledge (16%)		Understanding (24%)		Application (40%)		Higher Ability (20%)		Total No of Items	Total No of Questions	Total Marks
		No of items	Marks	No of items	Marks	No of items	Marks	No of items	Marks			
1	Set	1	1	1	1	2	3	1	1	5	2	3
2	Statistics (up to 20.3)											3
3	Ratio and Proportion Unitary Method	2	2	3	4	3	5	2	3	10	3	14
4	Area and Volume (Up to 17.1)	1	1	1	1	1	2	1	1	4	1	5
5	Algebraic Expression Law of Indices	2	2	1	2	2	4	1	2	6	3	10
6	Angle Triangle (up to 14.2)	2	2	2	4	2	6	2	3	8	3	15
	Total	**8**	**8**	**8**	**12**	**10**	**20**	**7**	**10**	**33**	**12**	**50**

MODEL QUESTION FIRST TERMINAL- 2081

CLASS: 8 Time: 2 hours

FM:50

Sub: Mathematics PM:20

Attempt all question:

1.If A={a,b,c}, B={a,e,I,.o,u }

a)Are the set A and set B are overlapping or disjoint?and why? [1]

b)How many proper subet are possible from set A? write it. [1]

c)Show the relation of set A and set B in venn diagram. [1]

2.a If A:B = 2:3 and B:C= 6:5 then find the value of A:B:C? [2]

(b)Assume , Last year, 1000 students in Devchuli appeared BLE examination . Out of them , the ratio of girls and boys was 4:6 then find the number of boys and girls. [2]

3(a) Ram and Hari"s, mother has Rs. 72000 . The age of Ram and Shyam are 25 years and 15 years .If she decide to divide the money to her sons in the ratio of their ages then how much money Ram and Shyam got? [2]

(b) The cost of 5 k.g of rice is Rs 400, than find the cost of 12 kg of rice ? [2]

4(a) If 9 workers can complete a piece of work in 20 days, how many workers should be added to complete the work in 15 days? [2+1]

(b) 6 and 9 are two given number .Answer the following questions .

i)What should be added to the number to get the ratio of 5:6 ?| [1.5]

ii) What should be subtracted to the number to get the ratio 1:2 ? [1.5]

5. A rectangular park of length 60m and breadth is 50m

i) Write the formula to calculate the area of isosceles triangle ?[1]

ii) if the volleyball player make the volleyball court of length 18m and breadth 9m inside the rectangular park then find the are of park excluding volleyball court ?[2]

iii) Find the total cost of volleyball court at the rate of RS. 110 per square meter. [2]

6. (a) What is the value of 2^2+2^0 . [1]

(i) 5 (ii) 0 (iii) 4 (iv)none of these

(b) Simplify : $\frac{11^{p+2}-11^p}{11^{p+1}+11^p}$

7(a) Factorise : $(x-y)^2-9(x-y)-22$ [2]

(b) Find the greatest algebraic expression that divides x^4-1 and x^2+x-2 [2]

8 (a) If the area of square football ground is $x^4+x^2\ y^2+y^4$ sq.units

i) Find the length of square ground . [2]

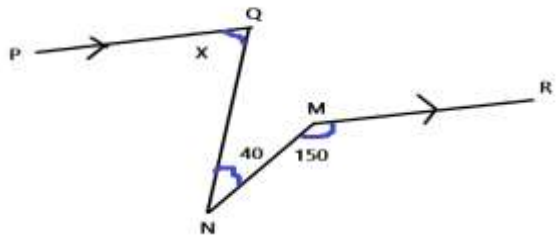
ii) Find its perimeter? [1]

9.In the adjoining figure ,PQ//MR <NMR=150^0 and < QMN=40^0 Calculate the value of x

i) If the < AOB and < BOC are linearpair then what is the value of sum of <AOB and <BOC ?[1]

ii) Are the <PQN And < QNM are equal or not ? why? [1]

iii Calculate the value of x [3]



10. a) Experimentally verify that the sum of each pair of co-interior angle formed by a transversal with two parallel lines is 180.(minimum two figure with different size) . (2+1)

b) If the angle of triangle is in the ratio of 2:3:5. Find them, also identify the type of triangle and define it. [2+1+1]

11 a) Draw a line segment MN .Mark a point Z on line segment and draw angle <MZP. Measure <MZP and < NZP and also write sum of these two angle ? [2]

b) If the <MZP=4 a^0 and < NZP= $2a^0$ then dinf the value of a^0?[1]

12. The table given below shows the number of students of a school from 1 to 5.

Class	I	II	III	IV	V
No.of std	40	50	30	45	15

(a)Represent the data in pie-chart. [2]

(b)Write the formula to calculate mean of above given data. [1]

*****THE END*****

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		No of items	Marks	No of items	Marks	No of items	Marks	No of items	Marks			
1	Set	1	1	1	1	2	3	1	1	5	2	3
2	Statistics											3
3	Arithmetic • Ratio and Proportion • Unitary Method • Number system in different bases • Simple Interest	2	2	3	4	3	5	2	3	10	4	14
4	Mensuration • Area and Volume	1	1	1	1	1	2	1	1	4	1	5
5	Algebra • Algebraic Expression • Law of Indices • Rational Expression	2	2	1	2	2	4	1	2	6	3	10
6	Geometry • Angle • Triangle • Transformation • Quardilateralregularpolygon Upto 15.5 • Coordinate 16.4 only(distance)	2	2	2	4	2	6	2	3	8	3	15
	Total	**8**	**8**	**8**	**12**	**10**	**20**	**7**	**10**	**33**	**12**	**50**

MODEL QUESTION SECOND TERMINAL- 2081

CLASS: 8 Time: 2 hours

FM:50 Sub: Mathematics

PM:20

Attempt all question:

1.IF the universal set U= { x:x natural number upto 20} and A= {Y:Y square number } B={Z:Z cube number } then

i) Define proper sub set ? [1]

ii) Is the 25 belongs to the set A? why? [1]

Iii) Draw the diagram of given information? [1]

2. The distance between narayanghade to pokhara is 126000m

i) write the scientific notation of distance ? [1}

ii) Write the distance in Kilometer and converet it in binary number system.[2]

iii) In a school total number of student in quinary system is 3104_5 find the total number of student in decimal system [2]

b. Ram deposit RS. 160000 at two bank A and B in the ratio 3:4 respectively . Bank A gives 12% interest and Bank B gives 18% interest . then

i) how much money has ram deposit in bank B ? [1]

ii) After complete of 3 years how much money received by Ram from bank A ? [2]

iii) In 3 years from which bank Ram can get more amount of interest and how much ? [2]

c. The rate of cost of per dozen of copies is Rs.360 and Prakash buys few number of copies for Rs. 540

i) In what type of proportion are the number of copies and the cost ? [1]

ii) How many copies does Prakash buy? [1]

d.If 16 worker can construct a road in 45 day

i) how many worker need to construct a road in a day? [1]

ii)how many more worker need to construct a road in 30 days ? [1]

3.Mrs. Sharma has triangular land whose measurement are 40m,32m and 54m .If Mr. Sharma decide to built a circular pond of radius 7m and a volleyball court of length and breadth are 18m and 9m respectively,

i) find the area occupied by pond? [1]

ii) find the perimeter of volleyball court ?[1]

iii) Write the formula to calculate the area of volleyball court? [1]

Iv) Find the area of total land ? [2]

4.a.Which is the following negative index law ?[1]

a) $m^a \times m^b = m^{a+b}$ b) $m^a \div m^b = m^{a-b}$

c) $m^{-a} = \frac{1}{m^a}$ d) $(m^a)^b = m^{ab}$

b.Simplify: $(\frac{x^a}{x^b})^{a-b} \times (\frac{x^b}{x^c})^{b-c} \times (\frac{x^c}{a})^{c-a}$ [2]

5.a.If two algebraic expression $x^2-3x-21$ and x^2-4 are given ,

i) find the H.C.F of given expression [2]

ii)Simplify: $\frac{a^2+5a+6}{a^2-1} \div \frac{a^2-9}{a^2-2a-3a}$ [2]

b.i)Write the expanded form of $(3x-4y)^2$ [1]

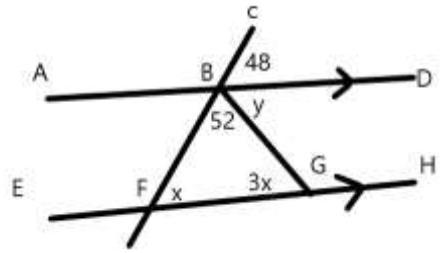
ii) Factorize : $2x^3-13x^2-7x$ [2]

6. In the given figure AD//EH ,<CBD=48^0 ,<DBG= y^0 <FBG= 52^0 < BFG=X^0 <BGF= $3X^0$, study the figure and answer the following question

i)Write the co-interior angle of<ABF {1}

ii)Find the value of X^0 {2}

iii) iii) If< BFG is s regular triangle then the find measurement of exterior angle [1]



iv)Verify the experimentally , the sum of angle of triangle is two right angle.(two figure with different size compulsory) [3]

9. Study the graph and answer the folling question.

i) Write the co-ordinate of A,Band C and reflect into y-axis also draw
the image of object . (3)

ii)find the distance between A and A^{l} [2]

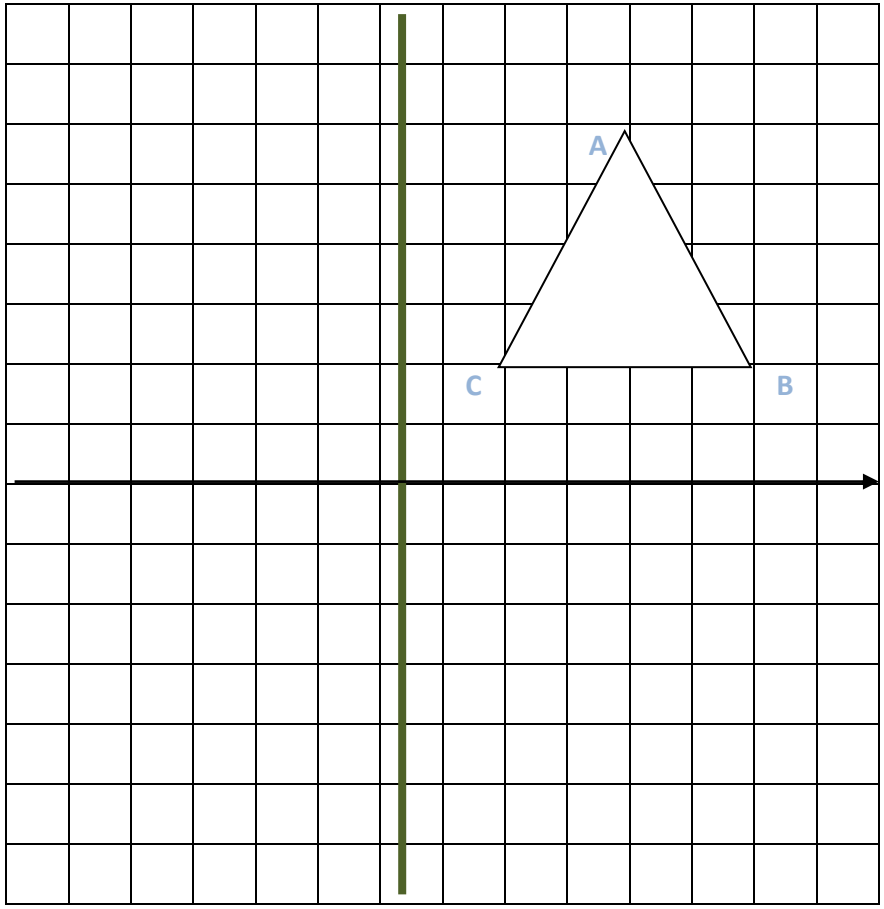
10.a. Write any two properties of parallelogram ? [1]

b. Construct a parallelogram PQRS in which PQ=4.8cm,QR=3.7cm and PR=5.6cm. [2]

11. The following marks obtain by 10 student of class 10 in mathematics
25,18,35,24,15,18,33,28,18, 30

i) find average marks obtain by students . [2]

ii) Find mode of given data ? [1]



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