**AFSS CENTRAL EVALUATION SYSTEM**

Central Assessment Team (CAT), HO Islamabad

**Final Term/ Annual Examination 2016 – 2017**

**MATHEMATICS - Class VI**

**100 marks 3 hours**

**INFORMATION FOR STUDENTS**

Marks are given against each question or part of question.

Write your name, roll number and date in the spaces provided below.

|  |  |
| --- | --- |
| Student’s Name:  | Roll No: |
| Center’s Name: | Date: |
|  | Day: |
| Invigilator’s Name: | Sign: |
| Marks Obtained:  | Remarks: |
| Examiner’s Name:Date: | Sign :Day: |

***OBJECTIVE-40marks***

**Q No1:Fill in the blanks. 10**

i) 12 $\% $of 80 =

ii) The perimeter of a circle is called its \_\_\_\_\_\_\_\_\_\_\_.

iii) If 2+3x= 17, then x=

iv) If the sum of two angles is 1800, then each one of them is called

 of the others.

v) If the side of a cube is doubled its total surface area is **\_\_\_\_\_\_\_\_\_\_\_.**

vi) The measure of the supplement of an angle of degree measure 720 is **\_\_\_\_\_\_\_\_\_\_\_**.

vii) Two planes intersect at most in one **\_\_\_\_\_\_\_\_\_\_\_.**

 Fill the blank with ∈ , ∉ , ⊂ , ⊄ ,⊃

vii) 27 **\_\_\_\_\_\_\_\_**{1,4,9,16,……}

viii) {10,20,40}**\_\_\_\_\_\_\_\_**{1,2,3,4,5,…….}

ix) 135 = (12 × **\_\_\_\_** ) + **\_\_\_\_**

x) 4 : 6 = 8 : **\_\_\_\_\_**

**Q No2:State whether the following statements are true or false. 5**

i) An isosceles triangle can also be an obtuse-angled triangle. **\_\_\_\_\_**

ii) 1 liter = 100 cubic m. **\_\_\_\_\_**

iii) A cuboid having 8 vertices , 8 faces and 12 edges. **\_\_\_\_\_**

iv) A circle has only one diameter. **\_\_\_\_\_**

v) 5+(-5) is a positive integer. **\_\_\_\_\_**

**Q No3(a)**:**Write an equation for each of the following expressions. 5**

1. Six less than four times a number is 30. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. A number increased by 5 is 12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. State the co-efficient of $x$ in $\frac{1}{2}ax$ . \_\_\_\_\_\_\_\_\_\_\_\_

 **Name the type of each polynomial.**

1. 8abc + 1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 2x2+3xy+y2   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q No3(b):Match each statement on the left with its equivalent on the right. 5**

|  |  |
| --- | --- |
| **Column A** | **Column B** |
| 8 divided by two-thirds of a number | $\frac{x}{6}$ – 5 |
| Twice a number increased by 1 | 6 - $\frac{3}{4}x$ |
| A number divided by 6 decreased by 5 |  7x + 2  |
| Three-fourths of a number subtracted from 6 |  8 ÷ $\frac{2}{3}x$ |
| Seven times a number increased by 2 | 2x + 1 |

**Q No4:Choose the best answer. 5**

i) An angle measuring less than 90O degree in called an:

 a) obtuse angle (b) a cute angle (c) right angle

ii) 10 millimeters equal to:

 a) 1 centimeter (b) 0 centimeters (c) 100 centimeters

iii) An angle whose measure is greater than 90º but less than 180º is called an:

 a) right angle (b) straight (c) obtuse angle

iv) Prime factors of 32 are:

 a) 25 (b) 26 (c) 210

v) Counting numbers are called:

 a) natural numbers (b) even numbers (c) integers

**Q No5.Give short answers to any five of the following questions. 5**x**2 = 10**

1. Find the volume of the cuboid whose length = 4m , breadth=2.5m and

height=1.5 m.

 ii) Solve the equations 5x-1=44.

 iii) Simplify: $\frac{x}{3}$ + $\frac{3x}{2}$ = 11

 iv) If $x^{ }$= -3,y = 5 and z = -2 then evaluate $\frac{x^{2 }-yz}{z^{2 }}$

 v) Calculate 36$\% $of Rs. 200.

 vi) Express 6.25% in fraction.

 vii) Find the difference between the smallest and the largest numbers formed

 formed with the digits 2,3,4 and 0.

 viii) Find the ratio of 60 cm and 3 m.

***SUBJECTIVE-60***

**Solve any five questions of the following. Each question carries equal**

**Marks. (12 x 5 = 60)**

**Q No1(a):**Waheed purchased 8 text books, each costing Rs.12 and 4 story books,

each costing Rs 9.Find the ratio of the amounts he spent on the two

 types of books.

 **(b):**Find the fourth proportional to 2, 3 and 6.

 **Q No2(a):**Calculate the perimeter of rectangle whose length and breadth are 15m and 12m respectively.

 **(b):**Find the area of the square whose dimension is 21cm.

 **Q No3:**Simplify the following

 (a) 5a – [3b – {4a – (5b – 6a – 7b)}]

(b) If A = x – y + z, B = 2x – 3y + 4z and C = 4x – 5y – 6z

than find A + B +C.

**Q No4(a):**If a dozen eggs cost Rs.36, find the cost of 7 eggs.

 **(b):**There is the lost Rs.50 by selling a book at Rs.250.Find its cost price and

 the lost percent.

**Q No5(a):**In 12 years a man will be twice as old as he was 12 years ago.Find his

present age.

 **(b):**If 2x-1=1 and 3y-1=5, evaluate x+2y.

**Q No6(a):**Calculate the L.C.M of 36, 54, 72 and 108 with division method..

 **(b):**Find the H.C.F of 2×33×52, 53 , 23×3×52

**Q No7(a):**A tank is 15m long, 3m wide and 1.5m high. How many cubic meters of

water can it hold?

  **(b):**Draw an angle of measure 1200 using protractor. Bisect it to get an

angle of measure 600.