**AFSS CENTRAL EVALUATION SYSTEM**

Central Assessment Team (CAT), HO Islamabad

**1st Term Examination 2016 – 17**

**MATHEMATICS - Class VIII**

**50 marks 2 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-20(marks)***

**Q No1(a):Tick at the correct answer. 5**

i) $\sqrt[3]{mn}$ = \_\_\_\_\_\_\_

 a) $\sqrt[3]{m}+\sqrt[3]{n}$ b) $\sqrt[3]{m}×\sqrt[3]{n}$ c) $\frac{\sqrt[3]{m}}{\sqrt[3]{n}}$

ii) *a*3 + b3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_

 a) (a + b)(a2-ab+b2) b) (a-b)(a2+ab+b2) c) a2+b2+2ab

iii) Average of 1,2,3,4,5 is equal to:

 a) 2 b) 3 c) 6

iv) (4a3)0 is equal to:

 a) 1 b) 0 c) 2

v) $\sqrt[4]{16}$ is equal to:

 a) 4 b) 2 c) 3

**Q No2:Solve any five of the following short questions. 3×5=15**

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i) Evaluate (16)3/4

ii) Evaluate 21/2 × 22/3

iii) Subtract the following binary number 1012 - 112

iv) List the number of the power set of the following sets.

 a = { } , b = {a, b, c, d}

v) Multiply first expression to the second (*m*2 + *mn* + *n*2 ) , (*m*2 + *n)*

vi) Find the cube of (2*x* + 5)

vii) Evaluate a3 + 9a3 + 27a + 30 when a = 3.

***SUBJECTIVE – 30(marks)***

**Solve any three of the following questions. Each question carry equal marks.**

 **3×10=30**

 **Q No1:Simplify
*(x + y)(x2 – xy +y2) – (y + z)(y2 – yz + z2) + (z + x)(z2 – zx + x2)***

 **Q No2:If *P* = 2*q* + 4 then**

**show that *p*3 - 8*q*4 – 24*pq = 64***

 **Q No3:Divide the first expression by the second.**

 ***a3 – b3 ÷ a - b***

 **Q No4:On what sum will the compound interest of 2years at 5% p.a be Rs 82?**

 **Q No5:Find the cost of the 100 shares of Rs. 25 each at premium.**

 **Q No6:Simplify**

$\frac{\sqrt{27}×\sqrt{243}×\sqrt{12}}{\sqrt{125}×\sqrt{18}}$