IEM KOLKATA

Number System

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Q1) $2^{25} + 2^{26} + 2^{27}$ is divisible by
(a) 6 (b) 7 (c) 5 (d) 9

Q2) $32^5 + 2^{27}$ is divisible by
(a) 3 (b) 7 (c) 10 (d) 11

Q3) Find the smallest number which when added to 4519 makes it exactly divisible by 30.
(a) 6 (b) 11 (c) 10 (d) 13

Q4) How many numbers are there between 1 & 900 which are not divisible by 2, 3 or 5?
(a) 240 (b) 245 (c) 250 (d) None

Q5) How many numbers upto 8700 are divisible by both 3 & 7?
(a) 39 (b) 41 (c) 42 (d) 46

Q6) When 2^{256} is divided by 17, the remainder would be:
(a) 2 (b) 0 (c) 5 (d) 1

Q7) What is the remainder when $(17^{25} + 19^{25})$ is divided by 18?
(a) 0 (b) 1 (c) 3 (d) 9

Q8) What is the remainder when we divide $2^{1000000}$ by 7.
(a) 1 (b) 2 (c) 4 (d) 6

Q9) Find the remainder when 989^{129} is divided by 33.
(a) 30 (b) 28 (c) 24 (d) 32

Q10) Find remainder when $(17^{13} - 21)$ is divided by 18.
(a) 15 (b) 17 (c) 14 (d) 21

Q11) Find the greatest number which when divides 131, 91 & 215 leaves remainders 8, 9 & 10 respectively.
(a) 41 (b) 57 (c) 37 (d) 61

Q12) What will be the remainder when $27^{27} + 27$ is divisible by 28.