SUMMATIVE ASSESSMENT – I

CLASS: VI MATHEMATICS PRINCIPLES OF EVALUATION

SECTION – I [2 Marks each]

① Number of motor cycles manufactured in each day = 2678
Total number of days in January = 31 } 1M

∴ Total number of motor cycles manufactured in January
= 2678 × 31
= 83018 Ans } 1M

② ① 30° Acute angle
② 95° obtuse angle
③ 180° straight angle
④ 215° Reflex angle
} ½ M for each correct answer

③ 13 and 23 are two odd primes → 1Mark

Their sum = 13+23
= 36
∴ 36 = 13+23. } 1Mark

④ open curve : C → 1Mark

closed curve : O → 1Mark

Note : Any other relevant answer may also be given weightage.

SECTION – II [4 Marks each]

⑤ 368×12 + 18×368 (Given) → 1 Mark

= 368(12+18) [by distributive property] → 2 Marks

= 368(30)

= 11040 Ans } 1Mark

⑥ Total weight of a box of 5 biscuit packets = 8Kg. 400gms
= 8×1000+400 gms
= 8000+400gms
= 8400gms } 2 Marks

∴ weight of each packet = 8400 ÷ 5
= 1680 gms
= 1Kg. 680 gms Ans } 2Marks

⑦ Given number = 859484
we have to check the divisibility by 11.

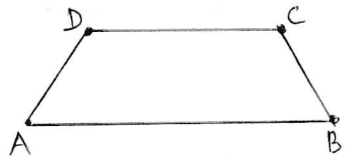
Divisibility rule for 11 : A given number is divisible by 11, if the difference between the sum of the digits at odd places and the sum of the digits at even places (from the right) is either '0' or divisible by 11. } 1Mark

sum of the digits at even places = 5+4+4 = 13 } 1 Mark

sum of the digits at odd places = 8+9+8 = 25 } 1 Mark

Their difference = 25-13 = 12
Divisibility rule for 11 does not hold and
Hence 859484 is not divisible by 11. } 1 Mark

(8)



In the adjacent figure,
opposite sides: $\overline{AB}, \overline{CD}$; $\overline{BC}, \overline{AD}$ → 1 Mark
Adjacent sides: $\overline{AB}, \overline{BC}$; $\overline{AB}, \overline{AD}$; $\overline{BC}, \overline{CD}$; $\overline{CD}, \overline{AD}$. } → 1 Mark
opposite angles: $\angle A, \angle C$; $\angle B, \angle D$. → 1 Mark
Adjacent angles: $\angle A, \angle B$; $\angle A, \angle D$; $\angle B, \angle C$; $\angle C, \angle D$. } 1 Mark

(9) The type of small angles formed between the long hand and short hand of a clock at

(a) 9am —— Right angle → 1 Mark
(b) 6 pm —— straight angle → 1 Mark
(c) 12 noon —— zero angle → 1 Mark
(d) 4 pm —— obtuse angle. → 1 Mark

SECTION-III [8 marks each]

19(a) Number of pages contained in the newspaper = 16 → 1 Mark
Number of copies printed per day = 9,540 → 1 Mark
No. of days July month has = 31 days → 2 Marks
∴ Total number of pages printed in July = 16 X 9540 X 31
= 47,31,840 pages } 4 Marks

[or]

10(b) 12X75 can be written as
12X75 = 12(50+25) [by using distributive property] → 2 Marks
= 12X50 + 12X25 → 2 Marks
= 600 + 300 → 2 Marks
= 900 Ans. → 2 Marks

11 (a) To find the number exactly divisible by 12, 14 and 18, first of all we find the L.C.M of 12, 14, 18 → 1 Mark

L.C.M of 12, 14, 18 = 2 × 3 × 2 × 7 × 3
= 252 → 2 Marks

2	12, 14, 18
2	6, 7, 9
3	3, 7, 9
3	1, 7, 3
7	1, 7, 1
	1, 1, 1

} 2 marks

Smallest number that can be added to 5 so that it is exactly divisible by 12, 14 and 18 = 252 − 5 = 247 } 2 Marks

∴ The required smallest number that can be added to 5 so that it is exactly divisible by 12, 14 and 18 = 247 Ans } 1 Mark

[OR]

11 (b) Given, HCF of two numbers = 6 → 1 Mark
Their L.C.M = 36 → 1 Mark
One of the numbers = 12 → 1 Mark

To find the other number we need the following rule. }
L.C.M × H.C.F = product of two numbers } 1 Mark
36 × 6 = 12 × other number → 1 Mark
other number = $\frac{36 \times 6}{12}$ } 1 Mark
= 18

∴ The other number = 18

The pair of numbers whose HCF is 6 and LCM is 36 are: ① 12, 18 }
② 6, 36 } 1 Mark

co-primes: Two numbers whose common factor is '1' } 1 Mark
only are called co-primes.

Here, 12, 18 and 6, 36 are not co-primes. → 1 Mark

12 (a) Lengths of three measuring rods are 64 cm, 72 cm, 96 cm → 1 Mark

To find the least length that can be measured by any of the rods exactly, we should find L.C.M of 64, 72, 96. } 2 Marks

2	64, 72, 96
2	32, 36, 48
2	16, 18, 24
2	8, 9, 12
2	4, 9, 6
2	2, 9, 3
3	1, 9, 3
3	1, 3, 1
	1, 1, 1

} 3 Marks

L.C.M of 64, 72, 96 = 2 × 2 × 2 × 2 × 2 × 2 × 3 × 3 }
= 576 } 1 Mark

∴ Least length that can be measured by any of the rods 64 cm, 72 cm, 96 cm = 576 cm } 1 Mark

12 (6) We have to write eight numbers

The condition is given that digit 5 in crores, 2 in lakhs, 1 in ten thousands, 6 in tens and 3 in ones place

The required number must be in the below form.

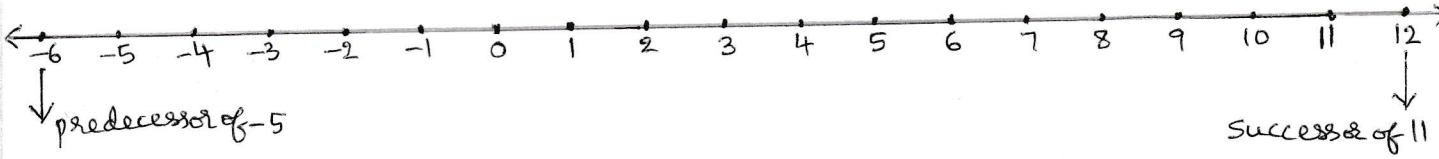
5 _ 21 _ _ 63.

Any digit can be written in blanks.

Note: For every right formation of number — 1 Mark.

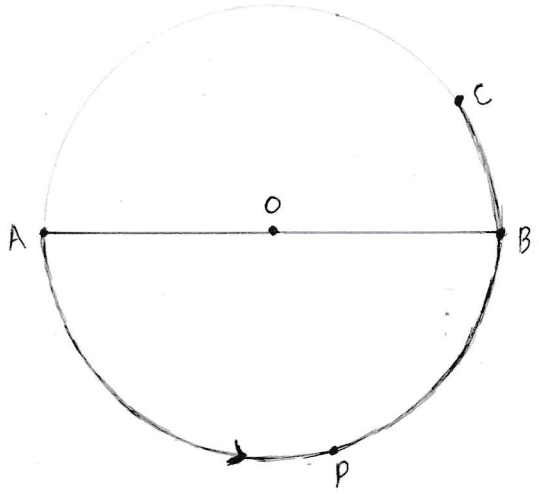
13 (6) successor of 11 = 12 , predecessor of −5 = −6 } → 2M

For drawing number line → 2 M
Marking the place of successor of 11 → 2 M
Marking the place of predecessor of −5 → 2 M



(OR)

13 (6)



For drawing a circle of radius 3cm → 4M
centre : O → 1M
radius : $\overline{OA}$ or $\overline{OB}$ → 1M
diameter : $\overline{AB}$ → 1M
Major Arc $\overset{\frown}{APC}$ → 1M

PART – B [1 Mark each]

(14)	D	(24)	C
(15)	A	(25)	B
(16)	D	(26)	D
(17)	B	(27)	B
(18)	B	(28)	D
(19)	D	(29)	B
(20)	A	(30)	C
(21)	D	(31)	A
(22)	B	(32)	C
(23)	A	(33)	A