Explanations

1) A   Exhort means to urge or to advise.

2) B   Preamble is the introductory statement of the constitution and Prologue is the introductory part of a play, therefore B is the right answer option.

3) C   In the statement it is given "extolling only the strength of the proposal" which means "praising only the strength of the proposal". Since the word 'only' is used, we can conclude that the report was biased and hence option C is the answer

4) D   In the first part of the statement, "If the country has to achieve real prosperity", note the word 'If', which implies that the blank after 'it is' has to be filled with a word meaning 'required' or 'necessary' and the only word among the options with a similar meaning is 'Imperative'

5) D   The amount after 2 years = $1000\left(1+\dfrac{10}{100}\right)^2$ =Rs. 1210

            The amount after next five years at SI = $1210 + \dfrac{1210*5*12}{100}$ = Rs.1936

6) B   In the paragraph, the author speaks about the effects of environmental tobacco some including the effect on passive smokers and mentions that the ban can reduce these effects. The options A, B and C can be concluded from the paragraph but only option B sums up the meaning of the entire paragraph.

7) C

            The integers that are divisible by 3 are 3, 6, 9, 12, 15, 18…... 4998 i.e. a total of 1666 numbers
            The integers that are divisible by 4 are 4, 8, 12, 16, 20,…………….., 5000 i.e. a total of 1250 numbers
            The integers that are divisible by 3 and 4 are 12, 24, 36,…………….., 4992 i.e. a total of 416 numbers
            The number of integers that are divisible by either 3 or 4
             =1666+1250-416 = 2500
            The number of integers that are divisible by neither 3 nor 4
             = 5000-2500=2500

8) A

            The given sequence is A, BB, CCC, DDDD..........
            Clearly the first term has 1 letter, second 2 , third 3 and so on
            i.e. the number of letters in the sequence are first n natural numbers
            To find the 240th term it is enough to equate sum to n natural numbers to 240 and can find the approximate integer value of n.
            $\therefore \dfrac{n(n+1)}{2} = 240$

$\Rightarrow n(n+1) = 480$

$\therefore n = 22\,app$

Hence the 240th letter is 22nd alphabet in English i.e. V

9) B

Let us plug-in the options to answer this question. Now we know that in binary system the digits are 0 and 1.
If we convert the numbers less than 8 into binary system we obtain only three digits i.e. we get the numbers in 100's.So the subtraction cannot be 990.Hence we can eliminate the Options C and D.
Now, 12 will satisfy the conditions given in the problem.

10. D

Given, $f_1(n)=n^{100}$, $f_2(n)=1.2^n$, $f_3(n)=2^{n/2}$ and $f_4(n) = 3^{n/3}$

i.e. $f_1(n)=n^{100}$, $f_2(n)=1.2^n$, $f_3(n)=(\sqrt{2})^n$ and $f_4(n) = (\sqrt[3]{3})^n$

i.e. $f_1(n)=n^{100}$, $f_2(n)=1.2^n$, $f_3(n)=(1.41)^n$ and $f_4(n) = (1.44)^n$

Now clearly f_2 and f_3 can be eliminated as they are less than f_4

Therefore it is enough to compare f_1 and f_4

For say $n=1000$

$f_1(1000)=1000^{100} =10^{300}$ and $f_4(1000) = (3)^{1000/3}$

$$= 3^{333.33}$$
$$= 9^{167}$$

Clearly f_1 is greater than f_4

But if $n=10000$

$f_1(10000) =10000^{100} =10^{400}$ and $f_4(10000) = (3)^{10000/3}$

$$= 3^{3333.33}$$
$$= 27^{1111.11}$$

Clearly f_4 is greater than f_1

Hence we can say that as the value of n increases,f_4 will be greater than f_1