



(Group-A) 1-mark each

- 1)  $\frac{68}{-85}$  in standard form is  
a)  $\frac{4}{-5}$                       b)  $\frac{-4}{5}$                       c)  $\frac{-68}{85}$                       d) none of these
- 2) Which of the following is undefined ?  
a)  $0 \times 0$                       b)  $\frac{0}{5}$                       c)  $\frac{8-8}{9}$                       d)  $5 \div 0$
- 3) If  $\frac{-3}{7}$  and  $\frac{x}{-21}$  are equivalent rational number, then x =  
a) -9                      b) 3                      c) 9                      d) -3
- 4) The rational number equal to  $\frac{3}{-4}$  is  
a)  $\frac{-6}{8}$                       b)  $\frac{6}{8}$                       c)  $\frac{9}{-16}$                       d)  $\frac{15}{20}$
- 5) Which is smaller out of  $\frac{5}{-6}$  and  $\frac{-7}{12}$   
a)  $\frac{5}{-6}$                       b)  $\frac{-7}{12}$                       c) cannot be compared
- 6) The absolute value of  $\frac{-5}{4}$  is  
a)  $\frac{-5}{4}$                       b)  $\frac{5}{4}$                       c)  $\frac{-4}{5}$                       d)  $\frac{4}{5}$
- 7) Reciprocal of  $\frac{-5}{7}$  is  
a)  $\frac{-7}{5}$                       b)  $\frac{5}{7}$                       c)  $\frac{-5}{7}$                       d) none
- 8) The multiplicative inverse of  $\frac{3}{8}$  is  
a)  $\frac{-3}{8}$                       b)  $\frac{-8}{3}$                       c)  $\frac{8}{3}$                       d) none of these
- 9) Additive inverse of a rational no  $\frac{-3}{5}$  is  
a)  $\frac{-3}{5}$                       b)  $\frac{3}{5}$                       c)  $\frac{-5}{3}$                       d) none of these
- 10)  $0 \div \frac{4}{7} =$   
a)  $\frac{7}{4}$                       b)  $\frac{4}{7}$                       c)  $\frac{-4}{7}$                       d) 0
- 11)  $-2\frac{1}{3} + 4\frac{3}{5} =$   
a)  $-2\frac{4}{15}$                       b)  $2\frac{4}{15}$                       c)  $-2\frac{1}{5}$                       d)  $2\frac{1}{5}$

12) The product of  $3\frac{1}{7} \times 1\frac{5}{6} \times 1\frac{2}{5} \times 1\frac{1}{11}$  is equal to

- a)  $5\frac{8}{5}$       b)  $5\frac{4}{5}$       c)  $8\frac{4}{5}$       d)  $7\frac{4}{5}$

13)  $2^{3^2} =$

- a) 69      b) 32      c) 256      d) 512

14) If  $\chi=28$ , then  $\chi^{28^0} + \chi^{0^{28}} =$

- a) 28      b) 29      c) 27      d) 0

15)

$$\left[ \left\{ \left(-\frac{1}{3}\right)^2 \right\}^{-2} \right]^{-1}$$

- a)  $\frac{1}{81}$       b)  $\frac{1}{9}$       c)  $\frac{-1}{81}$       d)  $\frac{-1}{9}$

16)  $\left(\frac{6}{11}\right)^0$

- a) 0      b) 1      c)  $\frac{6}{11}$       d)  $\frac{11}{6}$

17)  $\left(\frac{-3}{5}\right)^7 \div \left(\frac{-3}{5}\right)^5 =$

- a)  $\frac{25}{9}$       b)  $\frac{9}{25}$       c)  $\left(\frac{-3}{5}\right)^{12}$       d) None of these

18)  $\left(\frac{-1}{2}\right)^{-6} =$

- a) -64      b) 64      c)  $\frac{1}{64}$       d)  $\frac{-1}{64}$

19)  $(4^{-1} \times 5^{-1})^{-1} =$

- a)  $\frac{1}{20}$       b)  $\frac{-1}{20}$       c) 20      d) -20

20) The number 530, 468 in scientific form is written as

- a)  $5.30468 \times 10^5$       b)  $5.30468 \times 10^4$       c)  $53.0468 \times 10^4$       d)  $5304.658 \times 10^2$

**(Group-B) 2 marks each**

21) Find x such that

$$\left(\frac{3}{4}\right)^3 \times \left(\frac{3}{4}\right)^3 = \left(\frac{3}{4}\right)^{x-1}$$

22) Represent  $\frac{-2}{9}$  on a number line

23) Find integer x such that

$$\frac{14}{6} = \frac{-70}{x}$$

**(Group-C) 3-marks each**

24) Arrange the following rational numbers in ascending order.  $\frac{3}{8}, \frac{4}{12}, \frac{-7}{16}, \frac{-2}{3}$

25) Find the sum :  $2\frac{1}{3} + 4\frac{3}{5}$