▶ General Multiple Choice Questions and Answers

1. Convert $0.\dot{2}3\dot{4}$ into common fraction. [D.B.-19]
   ⓐ $\frac{211}{900}$ ⓑ $\frac{234}{909}$ ⓒ $\frac{234}{900}$ ⓓ $\frac{26}{111}$ — **d**

2. Which is the simple fraction of $0.55\dot{5}$? [R.B.-19]
   ⓐ $\frac{5}{9}$ ⓑ $\frac{11}{18}$ ⓒ $\frac{11}{9}$ ⓓ $\frac{50}{99}$ — **a**

3. Which one is simple fraction of $0.5\dot{7}$ [Dj.B.-19]
   ⓐ $\frac{31}{45}$ ⓑ $\frac{26}{45}$ ⓒ $\frac{52}{99}$ ⓓ $\frac{57}{90}$ — **b**

4. What kind of number $\sqrt{\frac{12}{75}}$ is? [Dj.B.-19]
   ⓐ Natural ⓑ Rational
   ⓒ Irrational ⓓ Prime — **b**

5. Which one of the following is the rational number? [Ctg.B.-19]
   ⓐ $\frac{\sqrt{5}}{\sqrt{10}}$ ⓑ $\frac{\sqrt{27}}{\sqrt{48}}$ ⓒ $\frac{\sqrt{6}}{3}$ ⓓ $\frac{\sqrt{8}}{\sqrt{7}}$ — **b**

6. Which one of the following is the common fraction of $0.3\dot{1}$. [Ctg.B.-19]
   ⓐ $\frac{28}{99}$ ⓑ $\frac{31}{100}$ ⓒ $\frac{14}{45}$ ⓓ $\frac{31}{90}$ — **c**

7. Which one is simple fraction of $3.\dot{2}$? [S.B.-19]
   ⓐ $3\frac{1}{3}$ ⓑ $3\frac{2}{9}$ ⓒ $3\frac{5}{9}$ ⓓ $3\frac{7}{9}$ — **b**

8. $0.2\dot{7} + 0.\dot{3} = ?$ [J.B.-19]
   ⓐ 5.4 ⓑ 0.54 ⓒ 0.50 ⓓ 0.17 — **c**

9. Which one is the irrational number? [J.B.-19]
   ⓐ $\sqrt{9}$ ⓑ $\sqrt{7}$ ⓒ 0.5 ⓓ 0.10 — **b**

10. $0.\dot{4} \times 0.\dot{3} = ?$ [B.B.-19]
    ⓐ 1.2 ⓑ 0.12
    ⓒ 0.102 ⓓ 0.148 — **d**

11. If a, b, c ∈ R; a > b > 0 and c < 0, Which one of the following is correct? [B.B.-19]
    ⓐ ac = bc ⓑ ac > bc
    ⓒ ac < bc ⓓ ab < bc — **c**

12. Which one is a natural number? [All B.-18]
    ⓐ −1 ⓑ $\sqrt{2}$ ⓒ $\frac{5}{2}$ ⓓ 3 — **d**

13. Which one of the following is rational number? [D.B.17]
    ⓐ $2\sqrt{3}$ ⓑ $\sqrt{7}$ ⓒ $\frac{\sqrt{3}}{\sqrt{2}}$ ⓓ $\frac{\sqrt{12}}{\sqrt{3}}$ — **d**

14. Which one of the following is a rational number? [R.B.17]
    ⓐ $\sqrt{11}$ ⓑ $\frac{\sqrt{6}}{3}$ ⓒ $\frac{\sqrt{8}}{\sqrt{7}}$ ⓓ $\frac{\sqrt{27}}{\sqrt{48}}$ — **d**

15. Which one is the rational number? [Dj.B.17]
    ⓐ $\sqrt{5}$ ⓑ $\sqrt[3]{8}$ ⓒ $\sqrt{3}$ ⓓ $\sqrt[3]{7}$ — **b**

16. Which one below is a rational number? [Ctg.B.17]
    ⓐ $\frac{\sqrt{12}}{3}$ ⓑ $\frac{\sqrt{8}}{2}$ ⓒ $\frac{5}{\sqrt{5}}$ ⓓ $\frac{\sqrt{18}}{\sqrt{2}}$ — **d**

17. Which one of the following is a rational number? [C.B.17]
    ⓐ $\sqrt{729}$ ⓑ $\sqrt{11}$
    ⓒ $\frac{\sqrt{7}}{3}$ ⓓ 3.2354678..... — **a**

18. Which one is the simple fraction of $0.4\dot{5}\dot{5}$? [Dj.B.17]
    ⓐ $\frac{4}{9}$ ⓑ $\frac{9}{20}$ ⓒ $\frac{5}{11}$ ⓓ $\frac{9}{11}$ — **c**

19. Which one of the following is simple fraction of $0.2\dot{4}$? [Ctg.B.17]
    ⓐ $\frac{8}{33}$ ⓑ $\frac{11}{45}$ ⓒ $\frac{4}{15}$ ⓓ $\frac{8}{3}$ — **b**

20. Which one is the simple fraction of $0.6\dot{9}$? [S.B.17]
    ⓐ $\frac{7}{11}$ ⓑ $\frac{69}{100}$ ⓒ $\frac{23}{30}$ ⓓ $\frac{7}{10}$ — **d**

21. Which one is the simple fraction of $0.01\dot{2}$? [J.B.17]
    ⓐ $\frac{11}{900}$ ⓑ $\frac{11}{990}$ ⓒ $\frac{11}{999}$ ⓓ $\frac{11}{1000}$ — **a**

22. If A = ϕ, B = {a}, A ∪ B = what? [Ctg.B.17]
    ⓐ ϕ ⓑ {ϕ}
    ⓒ {a} ⓓ {a, ϕ} — **c**

23. Which one is simple fraction of $0.\dot{2}\dot{4}$? [R.B. 16]
    ⓐ $\frac{8}{3}$ ⓑ $\frac{8}{33}$ ⓒ $\frac{8}{5}$ ⓓ 5 — **b**

24. Which one of the following is a rational number? [B.B. 16]
    ⓐ $\sqrt{0.4}$ ⓑ $\sqrt{0.9}$
    ⓒ $\sqrt{0.04}$ ⓓ $\sqrt{0.025}$ — **c**

25. Which one of the following is irrational? [Ch.B. 16]
    ⓐ $\frac{\sqrt{5}}{\sqrt{4}}$ ⓑ $\frac{\sqrt{75}}{\sqrt{27}}$ ⓒ $\frac{\sqrt{32}}{\sqrt{8}}$ ⓓ $\frac{\sqrt{18}}{\sqrt{2}}$ — **a**

26. All integers and fractional numbers are— [J.B. 16]
    ⓐ Irrational number ⓑ Rational number
    ⓒ Natural number ⓓ Non-negative number — **b**

27. If the number of subsets of U is 64, what is the number of elements of U? [J.B.17]
ⓐ 2 ⓑ 4 ⓒ 5 ⓓ 6 **d**

28. What is the simple fraction form of $0.\dot{3}\dot{6}\dot{9}$? [Ctg.B. 16]
ⓐ $\frac{41}{100}$ ⓑ $\frac{41}{101}$ ⓒ $\frac{41}{110}$ ⓓ $\frac{41}{111}$ **d**

29. Which one is the value of $4.3\dot{5}$? *[Mirzapur Cadet College, Tangail-18]*
ⓐ 392/90 ⓑ 329/100
ⓒ 478/90 ⓓ 478/100 **a**

30. What is the simple fraction form of $0.\dot{3}\dot{6}\dot{9}$? *[Mymensingh Girls' Cadet College, Mymensingh-18]*
ⓐ $\frac{41}{100}$ ⓑ $\frac{41}{101}$ ⓒ $\frac{41}{110}$ ⓓ $\frac{41}{111}$ **d**

31. How many real numbers of the numbers 0.3, $2+\sqrt{3}$, $2-\sqrt{3}$, $\frac{17}{90}$ are there? *[Rajshahi Cadet College, Rajshahi-18]*
ⓐ 1 ⓑ 2 ⓒ 3 ⓓ 4 **d**

32. What is the value of 5. $\dot{1}\dot{2}-3.4\dot{5}$? *[Joypurhat Girls' Cadet College, Joypurhat-18]*
ⓐ $1.6\dot{5}\dot{3}$ ⓑ $1.6\dot{6}$
ⓒ 1.65 ⓓ $1.66\dot{5}\dot{3}$ **a**

33. Which number is irrational? *[Joypurhat Girls' Cadet College, Joypurhat-18]*
ⓐ $0.\dot{3}$ ⓑ $\sqrt{\frac{16}{9}}$ ⓒ $\sqrt[3]{\frac{8}{27}}$ ⓓ $\frac{5}{\sqrt{3}}$ **d**

34. What is the simple fraction of $0.\dot{4}\dot{5}$? *[Joypurhat Girls' Cadet College, Joypurhat-18]*
ⓐ $\frac{4}{9}$ ⓑ $\frac{9}{20}$ ⓒ $\frac{5}{11}$ ⓓ $\frac{9}{11}$ **c**

35. What is the product of $0.\dot{3}$ and $0.\dot{6}$? *[Cumilla Cadet College, Cumilla-18]*
ⓐ $0.\dot{3}$ ⓑ $0.0\dot{1}\dot{8}$
ⓒ 0.18 ⓓ 0.5 **d**

36. Which one is the rational number in between 0.1 and 0.12? *[Shaheed Bir Uttam Lt. Anwar Girls' College, Dhaka-18]*
ⓐ 0.10 ⓑ 0.11 ⓒ 0.20 ⓓ 0.21 **a**

37. What is the value of $2.\dot{4} \times 0.\dot{8}\dot{1}$? *[Shaheed Bir Uttam Lt. Anwar Girls' College, Dhaka-18]*
ⓐ 2 ⓑ 0.12
ⓒ $0.\dot{2}$ ⓓ $1.\dot{2}$ **c**

▶ Multiple Completion Based Questions and Answers

38. If $x = 0.\dot{4}$ and $y = 0.\dot{8}$, then— [C.B.-19]
i. $x + y = 1.\dot{3}$
ii. $xy = \frac{32}{81}$ iii. $\frac{x}{y} = 0.5$
Which one is correct?
ⓐ i and ii ⓑ i and iii
ⓒ ii and iii ⓓ i, ii and iii **d**

39. In case of real number— [S.B.17]
i. $\sqrt{81}$ is an odd number
ii. 0.21 is an improper fraction
iii. 0 is an integer
Which one of the following is correct?
ⓐ i and ii ⓑ i and iii
ⓒ ii and iii ⓓ i, ii and iii **b**

40. Of two irrational numbers — [B.B. 16]
i. sum is always an irrational number
ii. difference is always an irrational number
iii. product can be either rational or irrational
Which one of the following is correct?
ⓐ i and ii ⓑ i and iii
ⓒ ii and iii ⓓ i, ii and iii **d**

41. If a, b, c are real numbers, then — [R.B.17]
i. $a(b + c) = ab + ac$
ii. If $a < b$ then $a + c < b + c$
iii. If $a < b$ and $c < 0$ then $ac > bc$
In the light of the above information which one of the following is correct?
ⓐ i and ii ⓑ i and iii
ⓒ ii and iii ⓓ i, ii and iii **d**

42. Zero is— *[Mymensingh Girls' Cadet College, Mymensingh-18]*
i. Non-negative number
ii. Rational number
iii. Integer number
Which one of the following is correct?
ⓐ i, ii ⓑ i, iii
ⓒ ii, iii ⓓ i, ii, iii **d**

43. An irrational number between 1 and 2 is– *[Rajshahi Cadet College, Rajshahi-18]*
i. $\sqrt{3}$
ii. 1.45
iii. $\sqrt{2}$
Identify the correct option on the basis of the above information.
ⓐ i, ii ⓑ ii, iii
ⓒ i, iii ⓓ i, ii, iii **c**

44. The simple fraction $\frac{p}{q}$ is the proper fraction, where a & b are mutually prime and— *[Viqarunnisa Noon School & College, Dhaka-18]*
i. $b > a$
ii. $b \neq 1$ iii. $b \neq 0$
Which one of the following is correct?
ⓐ i & ii ⓑ ii & iii
ⓒ i & iii ⓓ i, ii & iii **d**

45. Observe the following information— *[Viqarunnisa Noon School & College, Dhaka-18]*
i. $5.\dot{3}\dot{2}$ is a rational number
ii. $\sqrt{-25}$ is an imaginary number
iii. $\sqrt{\frac{36}{49}}$ is an irrational number
Which one of the following is correct?
ⓐ i & ii ⓑ ii & iii
ⓒ i & iii ⓓ i, ii & iii

46. Observe the following— *[Scholars' School & College, Dhaka-18]*
i. 0 is a natural number
ii. $\sqrt{8}$ is an irrational number
iii. all the natural numbers are real numbers
Which one is correct?
ⓐ i & ii ⓑ i & iii
ⓒ ii & iii ⓓ i, ii & iii