



Class Test

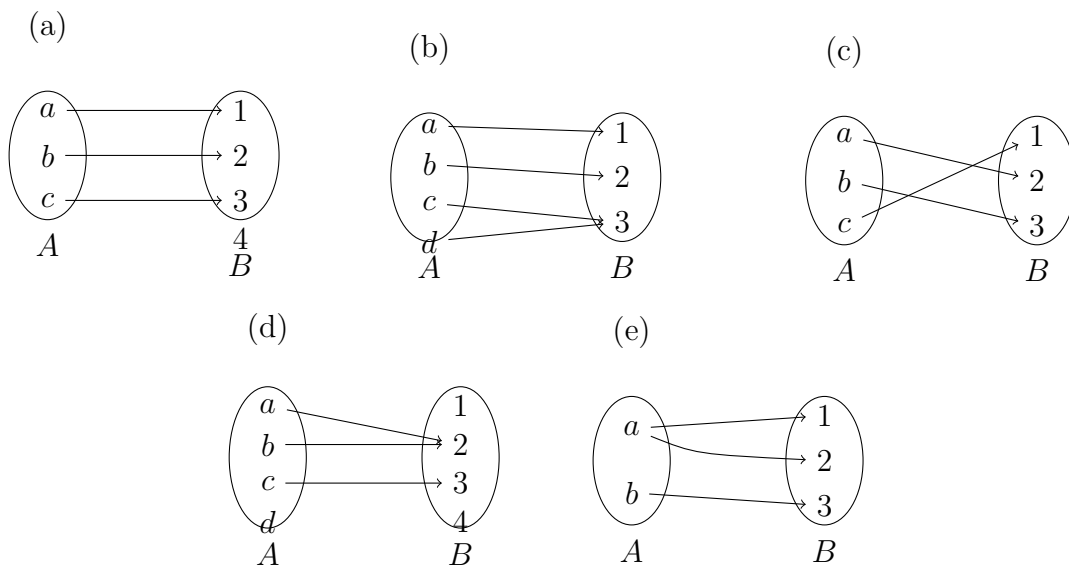
Student ID: Program: Semester: Spring-2026
Course Code:.....MAT101..... Course Title:.....Mathematics 1.....Section:.....
Class Test No: Date: Teacher’s Signature:

Total Marks: 15

Time: 45 minutes

Set–1

Q1. From the following diagrams, determine whether each represents a function from A to B . If it is a function, state whether it is one-one, onto, both, or neither. Justify your answer. (5 marks)



Q2. Find the domain and range of: (5 marks)

(i) $f(x) = \frac{1}{x - 3}$ (3 marks)

(ii) $g(x) = \sqrt{4 - x}$ (3 marks)

Q3. Sketch the graphs of: (5 marks)

(i) $y = x^2 - 4x + 3$ (2 marks)

(ii) $y = \begin{cases} -1, & x < 0, \\ 0, & x = 0, \\ 1, & x > 0 \end{cases}$ (2 marks)

Start From here



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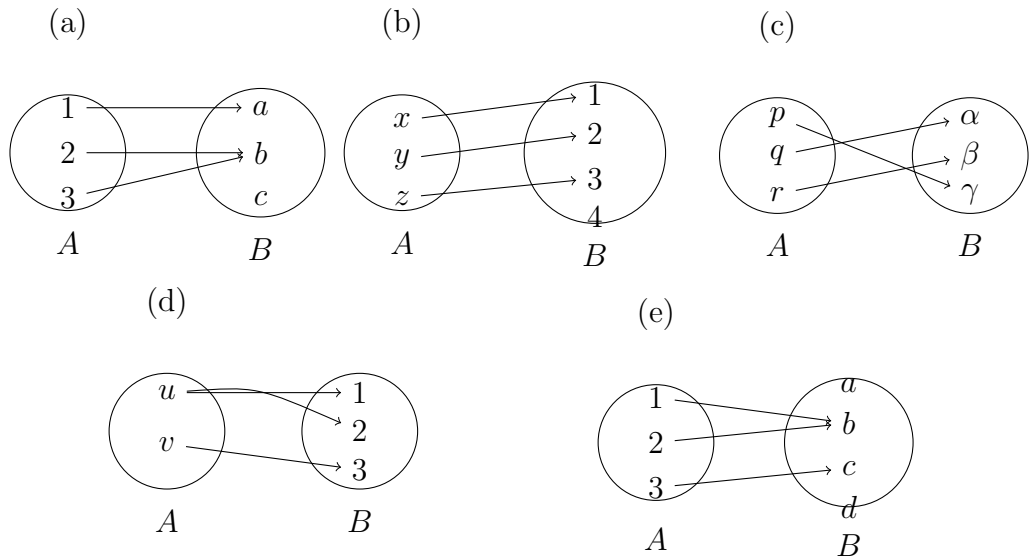
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Set-2

Q1. For each mapping from A to B , state whether it is a function. If yes, determine if one-one, onto, both, or neither. (5 marks)



Q2. Find the domain and range of: (5 marks)

- (i) $f(x) = \frac{1}{x-2}$ (3 marks)
(ii) $g(x) = \sqrt{5-x}$ (3 marks)

Q3. Sketch: (5 marks)

- (i) $y = |x-2|$ (2 marks)
(ii) $y = \begin{cases} 0, & x \leq 1, \\ x-1, & x > 1 \end{cases}$ (2 marks)

Start From here



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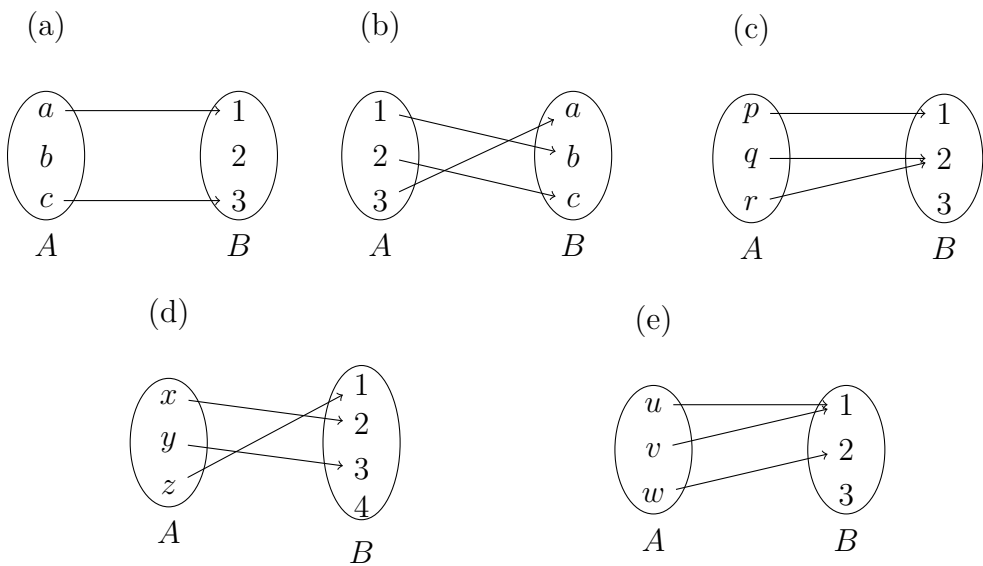
Course Code:.....MAT101..... Course Title:.....Mathematics 1.....Section:.....

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Total Marks: 15 Time: 45 minutes

Set–3

Q1. For each arrow diagram, decide if it’s a function from A to B. Classify if one-one, onto, etc. (5 marks)



Q2. Domain and range: (5 marks)

- (i) $g(x) = \sqrt{x + 3}$

(3 marks)
- (ii) $h(x) = \frac{3x - 1}{x + 2}$

(3 mark)

Q3. Sketch graphs: (5 marks)

- (i) $y = \frac{1}{x}$

(2 marks)
- (ii) $y = \begin{cases} 1, & x \leq 0, \\ x, & x > 0 \end{cases}$

(2 marks)

Start From here



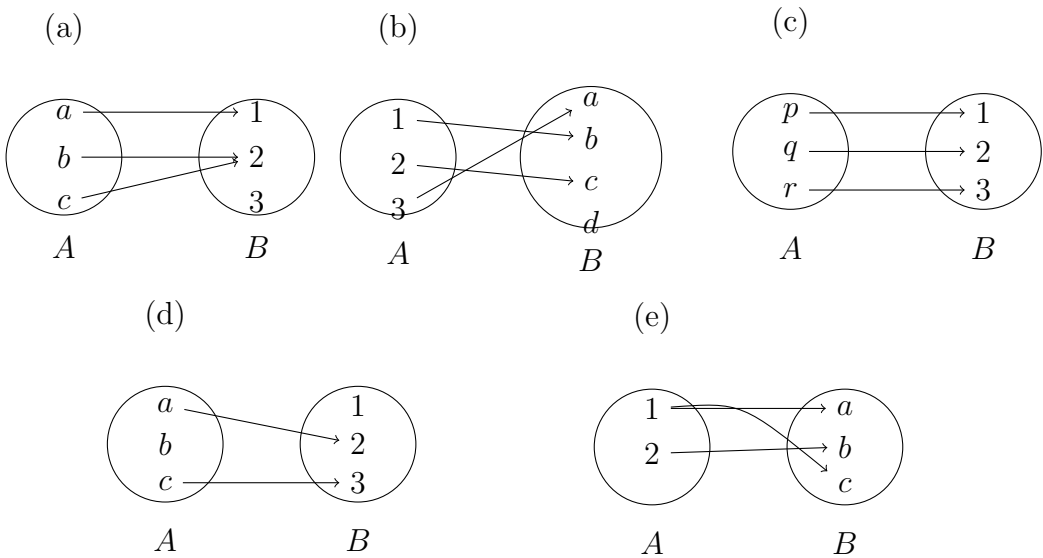
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Set–4

Q1. For each arrow diagram, decide if it’s a function from A to B . Classify if one-one, onto, etc. (5 marks)



Q2. Domain and range: (5 marks)

- (i) $f(x) = \sqrt{2x - 3}$

(3 marks)
- (ii) $g(x) = \frac{x}{x - 4}$

(3 marks)

Q3. Sketch graphs: (5 marks)

- (i) $y = x^2$

(2 marks)
- (ii) $y = \begin{cases} 0, & x \leq 0, \\ \sqrt{x}, & x > 0 \end{cases}$

(2 marks)

Start From here