Here are some samples of questions that may be included in an Ekya Entrance Test:

Early Years

	Based on observation and interaction	

Grades 1-2

	Section A: Content	**1x15 = 15**
	15 Content-related Multiple Choice Questions from portions mentioned on the website.	

Grades 3-4

	Section A: Content	**1x12 = 12**
	Content-related Multiple Choice Questions from portions mentioned on the website.	
	Section B: Skills	
Critical Thinking and Problem-Solving Skills: These questions encourage students to analyze, interpret data, and make informed decisions based on the given scenarios. They provide opportunities for critical thinking and problem-solving skills at a grade 3-4 level.		
	Scenario: Tom and Sara are organizing a lemonade stand to raise money for their school trip. They have two options for selling their lemonade: • Option A is to set up their stand at a local park where there are many people, but they would have to pay a fee to use the space. • Option B is to set up their stand in their own neighbourhood where there are fewer people, but they wouldn't have to pay any fees. • Which option should Tom and Sarah choose? Explain your answer.	
	Problem-Solving: Suma is organizing a birthday party and wants to buy balloons for decoration. She can choose between two stores. Store A sells a bag of 20 balloons for Rs 4, and Store B sells a bag of 15 balloons for Rs 3. Which store offers a better deal in terms of price per balloon? Show your calculations and explain your answer.	

Data Interpretation: The table below shows the number of books read by five students in a summer reading program.

Student	Number of Books Read
Neema	8
Lisa	5
Sona	10
Arun	3
Raj	7

a) Who read the most books? How many books did they read?
b) Who read the fewest books? How many books did they read?
c) Calculate the average number of books read by these five students.

Creativity and Innovation: These questions encourage students to think outside the box, come up with innovative ideas, and apply their creativity to solve problems or create something new. They provide opportunities for students to showcase their imagination and innovative thinking skills at a grade 3-4 level.

Idea Generation: Imagine you are in charge of making your school lunches healthier and more exciting. Brainstorm three creative ideas to improve the school lunch menu. Explain why you think these ideas would be beneficial for your classmates.

Design Challenge: You are tasked with designing a new toy that uses recycled materials. The toy should be fun to play with and environmentally friendly. Use your imagination and describe the features, materials, and how it can be made using recycled items.

Problem-Solving and Innovation: Your town experiences heavy rainfall during certain seasons, leading to flooded streets and sidewalks. How can you use your creativity and innovation to solve this problem? Think of an idea or invention that can help prevent or minimize flooding in your town. Draw a picture and describe how it works.

Ethical Reasoning: These questions encourage students to think about ethical considerations, analyze different perspectives, and justify their ethical choices. They provide opportunities for students to develop ethical reasoning skills and understand the importance of making ethical decisions at a grade 3-4 level.

Ethical Scenario: Imagine you find a wallet on the playground with money and cards inside. What would you do? Why is it important to do the right thing when you find

| | something that doesn't belong to you? What things would you think about before deciding what to do?

Case Study: Sarah's friend, Lily, tells her a secret about another student that could get that student in trouble. Sarah is not sure what to do because she doesn't want to break her friend's trust, but she also doesn't want someone to get hurt. What can Sarah do to make sure she does the right thing? Why is it important to be honest and kind to others?

Ethical Dilemma: Your classmate has been accused of taking another student's pencil case, but you didn't see what happened. Another student, who is friends with the accused classmate, asks you not to tell the truth. What should you do in this situation? Why is it important to be honest and fair, even when it's difficult? | |

Adaptability and Resilience: These questions encourage students to think creatively, adapt to challenging situations, and reflect on their own experiences of resilience and overcoming adversity. They provide opportunities for students to demonstrate their ability to adapt, problem-solve, and persevere at a grade 3-4 level.

| | **Challenging Situation:** Imagine you planned a picnic, but it starts raining a lot on the picnic day. What can you do to still have fun? How can you change your plans to enjoy the rainy day?

Personal Reflection: Can you think of a time when you found something hard to do, but didn't give up? What was it? How did you keep trying, and how did you feel when you finally did it?

Problem-Solving: You and your friends are building a tower with blocks, but it keeps falling down. What can you do to make the tower stronger and not fall? How can you build it differently so it stays up? | |

Grades 5-6

Total Marks: 30		**Time: 1 hour**
	Section A: Content	**1x12 = 12**
	Content-related Multiple Choice Questions from portions mentioned on the website.	
	Section B: Skills	

Critical Thinking and Problem-Solving Skills: These questions encourage students to analyze, interpret data, and make informed decisions based on the given scenarios. They provide opportunities for critical thinking and problem-solving skills at a grade 5-6 level.

Scenario: There is a river nearby that is getting very dirty because factories are dumping their waste into it. This is causing harm to the fish and making the water really dirty. You want to help and make the river clean and healthy again.

(i) What is causing the river to get dirty?

a) Trash from people's homes
b) Waste from farms
c) Waste from factories
d) Natural things in the water

(ii) What happens when the river gets dirty?

a) More fish are born
b) The water becomes clearer
c) Some fish die, and there are fewer fish
d) The plants in the water grow faster

(iii) What can you do to help make the river healthy again?

a) Build a wall to stop the dirty water from going into the river
b) Put more fish in the river to eat the polluted fish
c) Make rules for the factories to stop them from dumping waste in the river
d) Empty all the dirty water from the river and fill it with clean water

(iv) Imagine you have been put in charge of a project to clean and restore the river. What specific actions or steps would you take to help make the river clean and healthy again? Describe your plan and explain why you think it would be effective.

Problem-Solving: A group of friends is sharing a rectangular chocolate bar. The chocolate bar is divided into 12 equal pieces. Each friend wants to have an equal share of the chocolate bar.

(i) If there are 4 friends and they want to share the chocolate bar equally, what fraction of the chocolate bar will each friend get?

a) 1/3
b) 1/4
c) 1/6
d) 1/12

(ii)If there are 10 friends and they want to divide the chocolate bar equally, can they do so without breaking any pieces? Explain your reasoning.

(iii)If each friend wants to have 2 pieces of chocolate, how many friends can be accommodated with the given chocolate bar? Explain your answer.

(iv)Consider a situation where there are 6 friends, and they want to share the chocolate bar equally. Is it possible to divide the chocolate bar into equal pieces other than the existing 12 pieces? If yes, explain how you would do it. If no, explain why it is not possible.

Data Interpretation: The table below shows the average monthly temperatures (in degrees Celsius) in a city over a year:

Month	Temperature
January	10
February	12
March	15
April	20
May	25
June	30
July	35

August	33
September	28
October	22
November	15
December	12

(i) Which month has the highest average temperature?

a) July
b) June
c) August
d) September

(ii) What is the temperature difference between the warmest and coldest months?

a) 25°C
b) 23°C
c) 20°C
d) 18°C

(iii) During which months does the temperature range between 10°C and 20°C?

a) January and February
b) March and April
c) September and October
d) November and December

(iv) Based on the data, which statement is true regarding the temperature trend?

a) The temperature gradually increases from January to July and then decreases.
b) The temperature gradually decreases from January to July and then increases.
c) The temperature remains constant throughout the year.
d) The temperature varies randomly each month.

Creativity and Innovation: These questions encourage students to think outside the box, come up with innovative ideas, and apply their creativity to solve problems or create something new. They provide opportunities for students to showcase their imagination and innovative thinking skills at a grade 5-6 level.

Idea Generation: You have noticed that many students in your school forget to turn off the lights when leaving a classroom, resulting in wasted energy. How can you encourage students to be more mindful of energy conservation and develop a solution to address this problem?

	Design Challenge: Your goal is to design and construct a bridge using only popsicle sticks and glue. The bridge should be able to support a certain weight without collapsing. How can you create an innovative and structurally sound bridge within the given materials and weight-bearing requirements?	
	Problem-Solving and Innovation: Imagine you are presented with a new invention that claims to generate electricity from simple hand movements. What critical questions would you ask to evaluate the validity and effectiveness of this invention?	
Ethical Reasoning: These questions encourage students to think about ethical considerations, analyze different perspectives, and justify their ethical choices. They provide opportunities for students to develop ethical reasoning skills and understand the importance of making ethical decisions at a grade 5-6 level.		
	You see a friend being excluded and bullied by other students. How would you intervene and uphold ethical values to promote inclusivity and kindness?	
Adaptability and Resilience: These questions encourage students to think creatively, adapt to challenging situations, and reflect on their own experiences of resilience and overcoming adversity. They provide opportunities for students to demonstrate their ability to adapt, problem-solve, and persevere at a 5-6 level.		
	Challenging Situation: Imagine you are in a group project, and some team members are not cooperating. How would you handle this situation and find creative ways to motivate your teammates? **Personal Reflection:** Think of a time when you made a mistake. How did you learn from it, and what changes did you make to avoid similar mistakes in the future? **Problem-Solving:** Your school wants to start a student-led newspaper, but there are limited resources and no established process for creating a newspaper. How would you develop a plan to launch and sustain the newspaper while involving students from different grade levels?	

Grades 7-8

Total Marks: 30		**Time: 1 hour**
	Section A: Content	**1x12 = 12**
	Content-related Multiple Choice Questions from portions mentioned on the website.	
	Section B: Skills	

Critical Thinking and Problem-Solving Skills: These questions encourage students to analyze, interpret data, and make informed decisions based on the given scenarios. They provide opportunities for critical thinking and problem-solving skills at a grade 7-8 level.

Scenario: You are given the task to reduce plastic waste in your school. Analyze the current situation of plastic usage, evaluate its impact on the environment, and propose three practical steps that the school can take to minimize plastic usage and promote sustainability.

Data Analysis: Provided below is a table showing the average monthly temperatures for a city over a year. Based on this data, draw conclusions about the seasons in the city and explain your reasoning.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temp (°C)	10	12	15	20	25	28	30	29	25	20	15	12

Creativity and Innovation: These questions encourage students to think outside the box, come up with innovative ideas, and apply their creativity to solve problems or create something new. They provide opportunities for students to showcase their imagination and innovative thinking skills at a grade 7-8 level.

Idea Generation: Imagine you are tasked with improving public transportation in your city. Generate three innovative ideas to make public transportation more efficient, accessible, and environmentally friendly. You may use illustrations and labelled diagrams showing your model and its features.

Design Challenge: Using only recycled materials, design a model of a sustainable house that utilizes renewable energy sources for power and minimizes water wastage. Be creative in incorporating eco-friendly features. You may use illustrations and labelled diagrams showing your model and its features.

Ethical Reasoning: These questions encourage students to think about ethical considerations, analyze different perspectives, and justify their ethical choices. They provide opportunities for students to develop ethical reasoning skills and understand the importance of making ethical decisions at a grade 7-8 level.

Ethical Scenario: Your friend has found a wallet containing a significant amount of money. Discuss what ethical choices you think your friend has and provide reasoned justifications for each option. What would you advise your friend to do and why?

Case Study: Read the following case study: "A student is caught cheating during an important exam. The teacher confronts you, knowing that you were aware of the

	cheating but did not report it. Analyze the situation from an ethical perspective and propose appropriate actions that should be taken to uphold academic integrity."	
	Adaptability and Resilience: These questions encourage students to think creatively, adapt to challenging situations, and reflect on their own experiences of resilience and overcoming adversity. They provide opportunities for students to demonstrate their ability to adapt, problem-solve, and persevere at a 7-8 level.	
	Challenging Situation: You and your friends are planning an outdoor event, but it starts raining heavily on the day of the event. Think creatively and come up with alternative activities that can be organized indoors without much preparation. **Personal Experience:** Reflect on a time when you faced a significant challenge or failure in your life. Describe the situation, how you felt during that time, and the steps you took to overcome the adversity. Explain how the experience has made you more adaptable and resilient.	

Grade 9-10

Total Marks: 30		**Time: 1 hour**
	Section A: Content	**1x12 = 12**
	Content-related Multiple Choice Questions from portions mentioned on the website.	
	Section B: Skills	
Critical Thinking and Problem-Solving Skills: These questions encourage students to analyze, interpret data, and make informed decisions based on the given scenarios. They provide opportunities for critical thinking and problem-solving skills at the grade 9-10 level.		
	Scenario: Your city is experiencing traffic congestion during rush hours, leading to significant delays and environmental issues. Analyze the causes of traffic congestion, evaluate the potential solutions, and propose a comprehensive plan to alleviate the problem and improve traffic flow. **Data Analysis**: You are given a dataset that shows the academic performance of students in different subjects over a school year. Interpret the data, draw conclusions about any patterns or trends, and make logical inferences about factors that may influence students' academic achievements. **Hypothetical Example Dataset** - Academic Performance of Students in Different Subjects:	

Student ID	English (out of 100)	Math (out of 100)	Science (out of 100)	History (out of 100)	Attendance (out of 100)
101	85	90	78	82	95
102	78	85	80	88	92
103	92	96	88	90	98
104	70	72	75	68	85
105	88	90	92	85	90

Creativity and Innovation: These questions encourage students to think outside the box, come up with innovative ideas, and apply their creativity to solve problems or create something new. They provide opportunities for students to showcase their imagination and innovative thinking skills at a grade 7-8 level.

Idea Generation: With the growing concern for environmental pollution caused by single-use plastics, brainstorm three innovative ideas for sustainable packaging alternatives that can be adopted by businesses to reduce plastic waste and promote eco-friendly practices. You may include illustrations and labelled diagrams to show your responses.

Design Challenge: Design an energy-efficient and eco-friendly transportation system for a small town. Consider the town's size, population, and geographical features while ensuring your design is practical and cost-effective. You may include illustrations and labelled diagrams to show your responses.

Ethical Reasoning: These questions encourage students to think about ethical considerations, analyze different perspectives, and justify their ethical choices. They provide opportunities for students to develop ethical reasoning skills and understand the importance of making ethical decisions at a grade 7-8 level.

Ethical Scenario: You witness a classmate stealing another student's belongings, and you are torn between reporting the incident or confronting the classmate privately. Discuss the ethical dilemmas involved in this situation and provide reasoned justifications for your course of action. What would you do in this situation and why?

	Case Study: Read the following case study: "A medical researcher discovers a potentially life-saving drug but is unsure about its safety. The researcher's company is eager to release the drug to the market for financial gain. Analyze the ethical considerations in this situation and propose appropriate actions that prioritize public health and safety."	
	Adaptability and Resilience: These questions encourage students to think creatively, adapt to challenging situations, and reflect on their own experiences of resilience and overcoming adversity. They provide opportunities for students to demonstrate their ability to adapt, problem-solve, and persevere at a 9-10 level.	
	Challenging Situation: You and your team had been preparing for a sports competition for months, and a day before the event, your team captain falls sick and cannot participate. Demonstrate your ability to adapt and find a solution to reshuffle roles within the team and maintain team morale despite the setback. **Personal Experience:** Reflect on a time when you faced a significant personal challenge or failure, such as a major academic setback or a personal loss. Describe the situation, your emotional response, and the steps you took to overcome the adversity. Explain how this experience has contributed to your growth in adaptability and resilience.	

Grade 11

	Subjects: Sample Questions	
	Economics	
	1 Multiple Choice Question: **1 Case study question / Any long type question as per your LA /** **Creativity-based question**	
	Accountancy	
	Business Studies	
	Political Science	
1.	Which body in India can interpret the Constitution and decide disputes between the central and state governments? a) Parliament b) Supreme Court c) President d) Election Commission	

2.	**Answer:** **b) Supreme Court** Statement 1: "Democratic governments are more effective because they represent the people's will." Statement 2: "Authoritarian governments are more efficient in decision-making and implementing policies." Assess these statements, showing which you most agree with, and explain why in 150 words.	
	Psychology	
1. 2.	Which part of the human brain is primarily responsible for processing emotions and forming memories? i) Cerebellum ii) Medulla oblongata iii) Limbic system iv) Cerebral cortex **Answer:** **iii) Limbic system** Adolescence is a transitional stage marked by significant physical, emotional, and social changes that can present various challenges. Adolescents may struggle with identity formation, leading to confusion and self-doubt as they try to understand who they are and what they want to become. Peer pressure can influence them to engage in risky behaviours they might otherwise avoid. Academic stress from increased expectations can cause anxiety, while hormonal fluctuations often lead to mood swings and emotional difficulties. Physical changes during puberty can result in body image concerns and low self-esteem. Additionally, navigating new relationships, including friendships and romantic interests, can be confusing and overwhelming. Recognizing and understanding these issues are essential for providing support to adolescents during this critical developmental period. a).Which of the following factors can lead adolescents to engage in behaviors they might typically avoid, such as experimenting with substances? i) Academic expectations ii) Parental guidance iii) Peer pressure iv) Personal goals **Answer:** **iii) Peer pressure** b).Which of the following is a characteristic challenge faced by adolescents during the process of identity formation? i) Increased interest in childhood toys ii) Struggle with understanding personal beliefs and values iii) Decreased need for social interaction iv) Complete emotional stability **Answer:** **ii) Struggle with understanding personal beliefs and values**	

		Legal Studies	
		Design	
1		What does "viability" refer to in the context of Design Thinking? a) The aesthetic appeal of a design b) The technical feasibility of a solution c) The likelihood of a design being profitable d) The ease of prototyping a design **Answer:** c) The likelihood of a design being profitable	
2		What is Design Thinking, and why is it important in problem-solving? **Answer:** Design Thinking is a user-centred, iterative process focused on understanding users' needs, redefining problems, and creating innovative solutions. It is crucial in problem-solving as it promotes creativity, empathy, and feasibility, ensuring solutions are desirable, functional, and economically viable.	
		Artificial Intelligence	
1		Which of these AI technologies helps with image recognition? A) Audio processing B) Neural networks C) Word processing D) Cloud computing **Answer:** B) Neural networks	
2		Which of the following describes an AI model that continues to learn and adapt after its initial deployment? A) Supervised learning model B) Reinforcement learning model C) Dynamic learning model D) Active learning model **Answer:** D) Active learning model	
		Informatics Practice	
		1) Which of the following are valid identifiers? a) my name b)(myname c)myname d)my-name Ans:) myname ✔️ (valid, contains only letters) 2) What will the result give for type(6/3) **Ans:** <class 'float'> 6 / 3 = 2.0, which is a float	
		Entrepreneurship	
1		What does the acronym SMART stand for in goal setting? a) Specific, Measurable, Achievable, Realistic, Timely b) Strategic, Motivational, Action-oriented, Relevant, Time-bound c) Simple, Manageable, Accountable, Reasonable, Tactical d) Specific, Manageable, Action-based, Rational, Timely **Answer:** a) Specific, Measurable, Achievable, Realistic, Timely	
2		What role does innovation play in entrepreneurship? **Answer:** Innovation is central to entrepreneurship, as it drives the development of	

	new products, services, and processes. It differentiates businesses in competitive markets, meets changing customer demands, and fuels long-term growth and success.	
	Advanced Mathematics	
Q.1.	There are a total of 200 fruits in the basket. 35% of the fruits are apples. 25% are bananas. 20% are oranges. The remaining fruits are grapes. How many grapes are there in the basket? (Percentage, Data Analysis)	
Q.2.	A kite is flying at a height of 30 metres above the ground, and its string makes an angle of θ with the ground. The length of the string is 50 metres. (a) Find the value of $\cos\theta$, using trigonometric identities. (b) Calculate the horizontal distance between the person flying the kite and the point on the ground directly beneath the kite. (Trigonometry)	
Q.3.	Two friends go to a bookstore and purchase a few items. I. Each book costs b rupees. II. Each pen costs p rupees. III. The first friend buys 2 books and 4 pens for ₹ 28 and the second friend buys 4 books and 6 pens for ₹ 50, then what is the cost of one pen at the bookstore? (Linear Equation)	
Q.4.	A water tank in the shape of a cylinder has a radius of 7 metres and a height of 10 metres. If the tank is filled with water at a rate of 2 cubic metres per minute, how long will it take to completely fill the tank? (Surface Area/Volumes)	
	Volume of a cylinder = $\pi r^2 h = \frac{22}{7} \times 7 \times 7 \times 10 = 1540$ If 2 cubic meters are filled in a minute then 1540 cubic metres will be filled in 770 mins	
Q.5.	Raj and Ajay are very close friends. Both the families decide to go to Ranikhet by their own cars. Raj's car travels at a speed of x km/h while Ajay's car travels 5 km/h faster than Raj's car. Raj took 4 hours more than Ajay to complete the journey of 400 km. 1. What will be the distance covered by Ajay's car in two hours? a) 2(x + 5)km b) (x – 5)km c) 2(x + 10)km d) (2x + 5)km 2. Which of the following quadratic equations describes the speed of Raj's car? a) $x^2 - 5x - 500 = 0$ b) $x^2 + 4x - 400 = 0$ c) $x^2 + 5x - 500 = 0$ d) $x^2 - 4x + 400 = 0$ 3. How much time did Ajay take to travel 400 km?	

	a) 20 hours b) 40 hours c) 25 hours d) 16 hours (Quadratic Equations)	
Ans.	1. a 2. c 3. d	