# Know Your Aptitude (KYA) TEST BOOKLET

Dr. Anjum Sibia, Professor

Ms. Sunita Devi, Assistant Professor Dr. Prabhat K. Mishra, Associate Professor

Dr. Sushmita Chakraborty, Assistant Professor Dr. Shraddha Dhiwal, Assistant Professor

Dr. Jyoti Gupta, Assistant Professor

Dr. Ruchi Shukla, Assistant Professor



शैक्षिक मनोविज्ञान एवं शिक्षा आधार विभाग Department of Education Psychology and Foundations of Education राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद् NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING श्री अरविंद मार्ग, नई दिल्ली–110016 Sri Aurobindo Marg, New Delhi–110016

Test Cover Page.indd 1 20-11-2018 16:32:26

### **First Edition**

October 2018 Kartika 1940

### PD 3T RPS

© National Council of Educational Research and Training, 2018

₹ 150.00 (Price Per Set)

### Per set contains

Know Your Aptitude (KYA) Guide for Teachers — (1)
 Know Your Aptitude (KYA) Technical Manual — (1)
 Know Your Aptitude (KYA) Test Booklet — (1)
 Know Your Aptitude (KYA) Answer Sheets — (40)

Published at the Publication Division, by the Secretary, National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi – 110 016 and printed at Ana Print-O-Grafix Pvt. Ltd. 347-K, Udyog Kendra Extn.-II, Sector- Ecotech-III, Greater Noida 201 306.

Test Cover Page.indd 2 20-11-2018 16:32:26

### KYA - LA

### **Instructions**

Find the space for LA-01 in your Answer Sheet. Answer all questions as directed.

This test consists of three parts - Part I, II and III.

### PART I

**Part I** has 10 items (Question 1-10). First look at the word in capital letters. There are four options - A, B, C and D. From the given options find the word which means the same thing as the word in capitals.

An example is given below:

# **Example X**

MEMORABLE: A. Unforgettable B. Interesting C. Attractive D. Eventful

In the above example, note that MEMORABLE and UNFORGETTABLE mean the same thing.

Therefore option "A" is the correct answer. Mark the answer in the given answer sheet by darkening the circle as shown below:

# Correct way of marking the answer ⇒ ■ B © D

### **Practice Item**

**AMAZING:** A. Dutiful B. Wonderful C. Joyful D. Beautiful

You are to mark the correct answer of the practice item in the answer sheet.

Answer: B

### **PART II**

**Part II** has 10 items (Questions 11-20). Each item has a series of words. Out of the four options- A, B, C and D, find the word that has been spelt correctly.

An example is given below:

# **Example Y**

A. Government B. Government C. Gorment D. Government

Out of the four options given, the word 'Government' (option 'B') has been spelt correctly. In this example, the right answer is option "B".

### **Practice Item**

A. Precotion B. Pricaution C. Precausion D. Precaution

You are to mark the correct answer of the practice item in the answer sheet.

### Answer: D

1-LA Folder.indd 1 28-09-2018 15:57:39

### **PART III**

**Part III** has 10 items (Questions 21-30). First, read the proverb / idiom in bold letters. Then, choose the correct meaning of the proverb/idiom from the options- A, B, C, and D as given below.

## Example Z

### Cry over spilt milk.

- A. Getting out of difficulty
- B. Holding hatred against someone
- C. Complaining about a loss from the past.
- D. Anticipating about the future and crying.

Since 'Cry over spilt milk' means about the same as complaining about a loss from the past.

In this example, the right answer is "C".

### **Practice Item**

The grass is always greener on the other side.

- A. People are looking at the other side.
- B. People want green grass.
- C. People always want what they don't have.
- D. People think that grass grows better on other side.

You are to mark the correct answer of the practice item in the answer sheet.

### Answer: C

You will have 10 minutes for this test-Part I, II and III. Work as quickly as possible.

# DO NOT MARK ANYTHING ON THIS BOOKLET.

1-LA Folder.indd 2 28-09-2018 15:57:39

			PART I		
1.	REMEDY:	A. Treatment	B. Rejection	C. Prevention	D. Protection
2.	STAMINA:	A. Warmth	B. Depth	C. Strength	D. Boldness
3.	CAUTIOUS:	A. Helpful	B. Kind	C. Diligent	D. Careful
4.	CLUMSY:	A. Awkward	B. Different	C. Varied	D. Arrogant
5.	ANCESTOR:	A. Grandfather	B. Forefather	C. Elderly	D. Antique
6.	FATAL:	A. Dangerous	B. Simple	C. Severe	D. Deadly
7.	PERSUADE:	A. Discuss	B. Convince	C. Debate	D. Converse
8.	PROSPERITY:	A. Wealth	B. Health	C. Wisdom	D. Comfort
9.	CONTAMINATE:	A. Combine	B. Erode	C. Suspend	D. Pollute
10.	ACCOUNTABLE:	A. Dependable	B. Answerable	C. Sincere	D. Dutiful
PART II					
11.		A. Illeterate	B. Illiterate	C. Iliterate	D. Illitrate
12.		A. Procede	B. Proceede	C. Procead	D. Proceed
13.		A. Sanitasion	B. Sanitation	C. Sanitetion	D. Sanetation
14.		A. Skillful	B. Skillfull	C. Skiilful	D. Skilfull
15.		A. Occasin	B. Ocassin	C. Occasion	D. Ocassion
16.		A. Argument	B. Arguement	C. Arguemint	D. Arguiment
17.		A. Existance	B. Existense	C. Existanse	D. Existence
18.		A. Transsnision	B. Transmisson	C. Transmission	D. Transmision
19.		A. Privilege	B. Privlege	C. Privelege	D. Previlge
20.		A. Vacination	B. Vaccination	C. Vaxination	D. Vaccenation
				G	Go on to the next page

1-LA Folder.indd 3 28-09-2018 15:57:39

### **PART III**

### 21. Kill two birds with one stone.

- A. To achieve two different things with a single action.
- B. To trap two birds with one stone.
- C. To throw the stone onto others.
- D. To have two opportunities.

### 22. Burn the midnight oil.

- A. Work late into the night.
- B. Would never like to do something.
- C. Work hard to achieve targets.
- D. Finish two different things on time.

### 23. Beat around the bush.

- A. To hide from someone.
- B. To try and remain distant.
- C. To avoid making an eye contact.
- D. To avoid speaking on the main topic of discussion.

### 24. Hit the nail on the head.

- A. To make something new.
- B. To do carpenters work.
- C. To do exactly the right thing.
- D. To announce one's fixed views.

### 25. To keep one's temper.

- A. To stop talking.
- B. To hold one's anger.
- C. To be aloof.
- D. To become angry.

### 26. Not a spark of decency.

- A. A person who has no rights.
- B. A person who has no duties.
- C. A person who has no manners.
- D. A person who has no energy.

Go on to the next page

1-LA Folder.indd 4 28-09-2018 15:57:39

### 27. Don't judge a book by its cover.

- A. Don't judge something by its cover.
- B. Don't judge a book by its price.
- C. Don't judge something by its appearance.
- D. Don't judge something by its colour.

### 28. Add insult to injury.

- A. To worsen a negative situation.
- B. To insult a physically injured person.
- C. To laugh at someone.
- D. To taunt someone.

### 29. Honesty is the best policy.

- A. It is better to lie than to say truth.
- B. Honesty is equivalent to truth.
- C. Honesty is equal to making a policy.
- D. It is better to tell the truth than lie.

### 30. Make hay while the sun shines.

- A. Take advantage of yourself.
- B. Take advantage of the opportunity.
- C. Take advantage of the sun.
- D. Take advantage of the hay.

DO NOT START THE NEXT TEST UNTIL YOU ARE TOLD TO DO SO.

1-LA Folder.indd 5 28-09-2018 15:57:39

### **Instructions**

Find the space for AR-02 in your Answer Sheet. Answer all questions as directed.

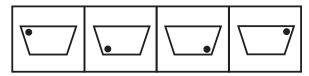
In this test, there are 30 questions. You will see rows of designs or figures like those given below in the example.

Each row consists of four figures called Problem Figures followed by Answer Figures which have four options- A, B, C and D. The Problem Figures follow a certain sequence. You need to find out which one of the Answer Figures would be the next in the sequence of Problem Figures.

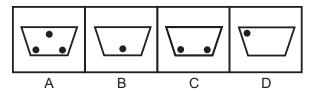
Look at the following example:

# Example X

# **Problem Figures**



# **Answer Figures**



In the above example, note that each of the four problem figures has a shape with a dot. As you can see the dot in the problem figures moves anti-clockwise (^). So, the correct option in the answer figure would be the one in which the dot shows the next anti-clockwise position.

In this example, right answer is "D", therefore, darken the circle of option D in the answer sheet as shown below:

# Correct way of marking the answer ⇒ (A) (B) (C) ●





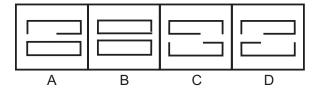


### **Practice Item:**

### **Problem Figures**



### **Answer Figures**



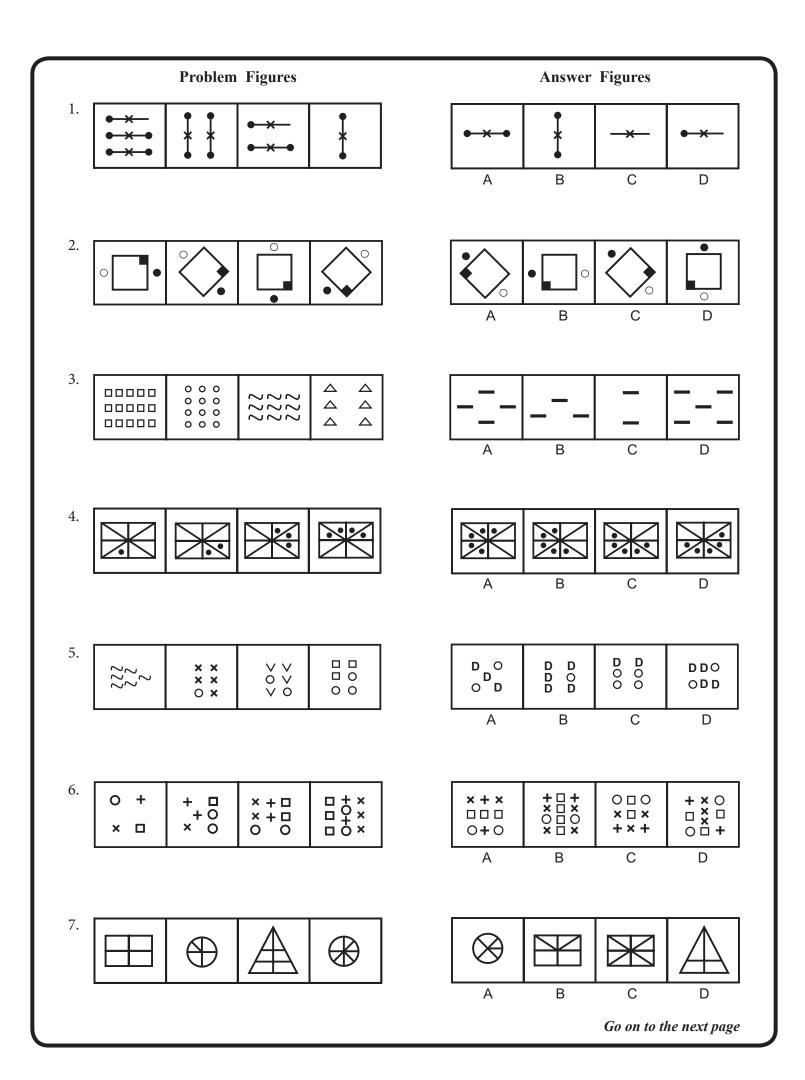
You are to mark the correct answer of the practice item in the answer sheet.

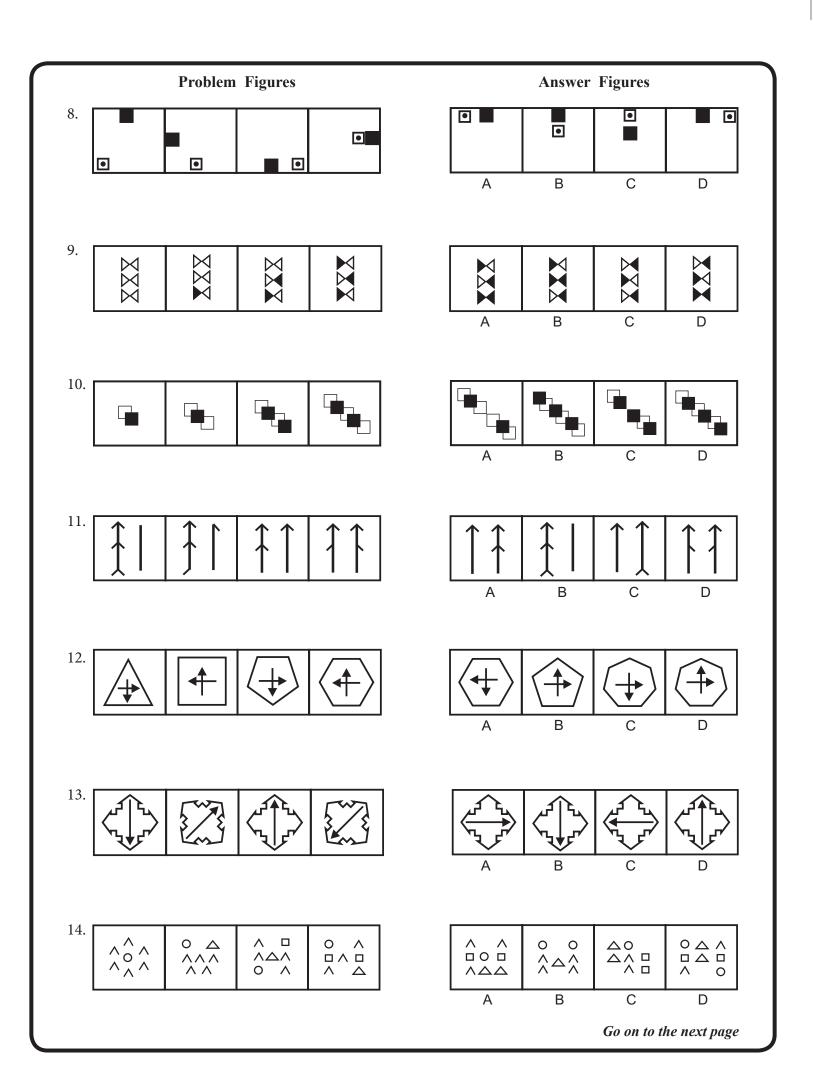
### Answer: B

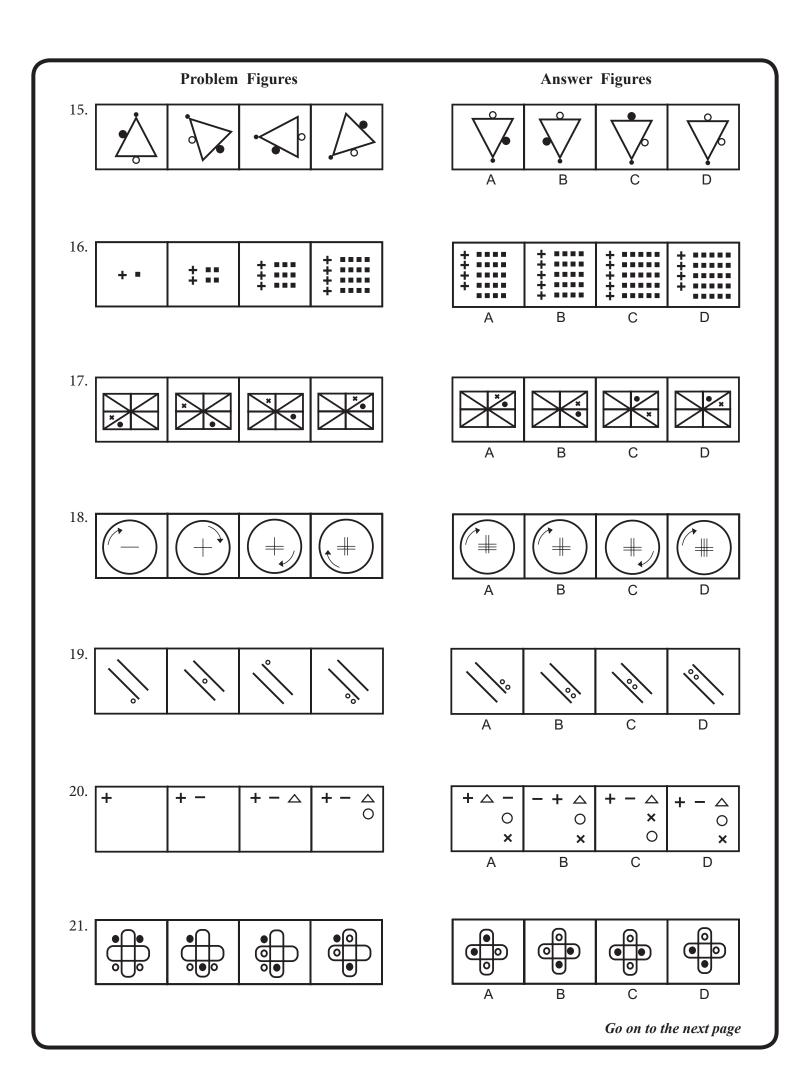
You will have **10 minutes** for this test. Work as quickly as possible.

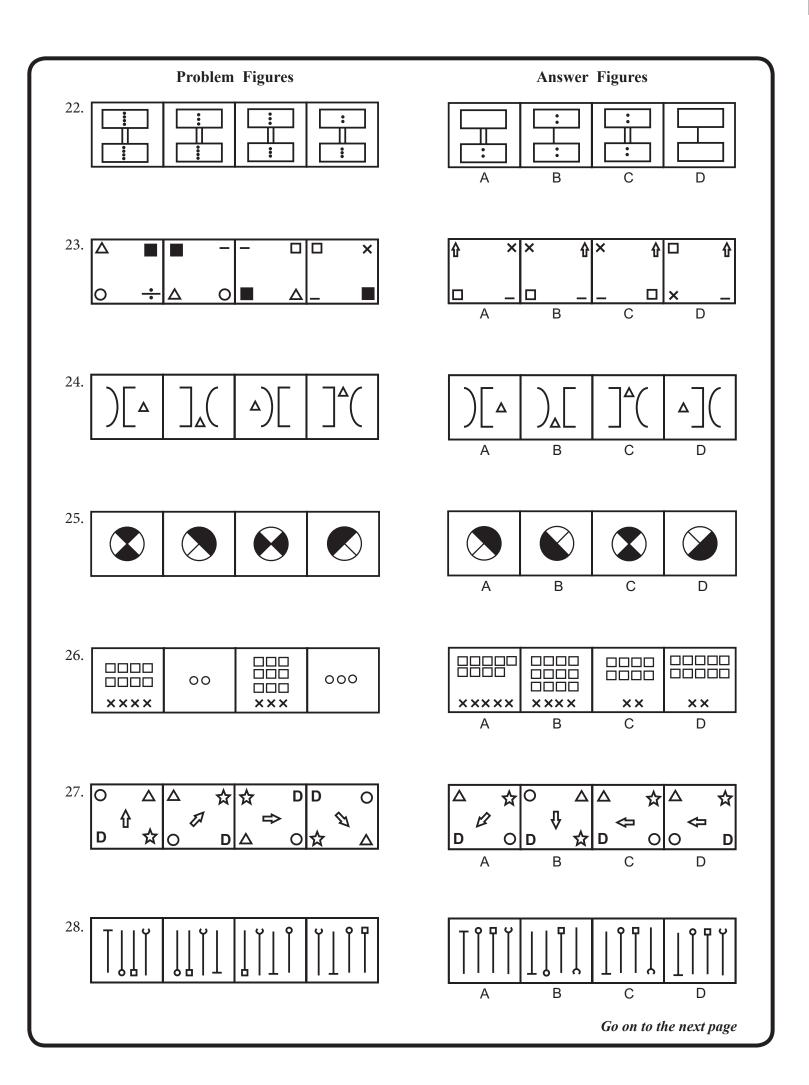
### DO NOT MARK ANYTHING ON THIS BOOKLET.

2-AR Folder.indd 1 20-09-2018 11:33:39









# **Problem Figures**

















30.

















DO NOT START THE NEXT TEST UNTIL YOU ARE TOLD TO DO SO.

### Instructions

Find the space for VR-03 in your Answer Sheet. Answer all questions as directed.

This test consists of Part I and Part II.

### PART I

Part I has 15 sentences (Questions 1-15). Each sentence has two pairs of words where one word from the second pair is missing. You need to complete this pair by selecting the correct word from the given options - A, B, C and D to make the statement correct and logical.

An example in given below:

Water is to Tank as Money is to\_\_\_\_\_

A. Spend

B. Bank

C. Gold

D. Manager

In the above example, the relationship between Water and Tank is that water is stored / saved in a tank. Similarly, money is saved in a bank. Therefore, the right answer is option "B". While marking answer "B" in the answer sheet, darken the circle of option B as shown below:

# Correct way of marking the answer $\implies (A) \implies (C) \pmod{D}$

### **Practice Item**

Ear is to Hear as Eye is to \_\_\_\_\_

B. Capture C. See

D. Picture

You are to mark the correct answer of the practice item in the answer sheet.

### Answer: C

### PART II

Part II has 15 sentences (Questions 16-30). Each sentence has two pairs of words where the first word from the first pair and the last word from the second pair is missing. You need to select the word pair from the given options - A, B, C and D so that the sentence will be correct and logical.

The first word of the pair you choose goes to the first blank space in the sentence while the second word of the pair goes to the second blank space in the sentence.

Look at the following example:

# Example Y

is to **Red** as **Earth** is to \_\_\_\_\_

A. Mars ----- Blue

B. Jupiter ----- Orange

C. Mercury ----- Brown

D. Saturn ----- Yellow

Mars is known as the 'Red Planet' because of its Red Soil and Earth is known as the 'Blue Planet' because of water of the oceans. Therefore, the answer is "A".

### **Practice Item:**

\_\_\_\_\_ is to **Bird** as **Monkey** is to \_\_\_\_\_

A. Wings ----- Branch B. Crow ----- Mammal

C. Crow ----- Branch

D. Wings ----- Mammal

You are to mark the correct answer of the practice item in the answer sheet.

### Answer: B

You will have 10 minutes for this test - Part I and II. Work as quickly as possible.

### DO NOT MARK ANYTHING ON THIS BOOKLET.

3-VR Folder.indd 1 20-09-2018 11:34:41

PART I					
1.	Word is to Dictionary as Map is to				
	A. Globe	B. Atlas	C. Geography	D. Location	
2.	Thread is to Needle as Shelf is to				
	A.Wood	B. Rack	C. Book	D. Sack	
3.	Clay is to Potter				
	A. Sculptor	B. Carpenter	C. Architect	D. Mason	
4.	Skeleton is to Body as Grammar is to				
	A. Sentence	B. Language	C. Education	D. Meaning	
5.	Flexible is to Rigid as Confident is to				
	A. Coward	B. Indifferent	C. Hesitant	D. Pessimistic	
6.	Forecast is to Future as Regret is to				
	A. Present	B. Past	C. Mistake	D. Apology	
7.	Contestant is to Competition as Witness is to				
	A. Journey	B. Trial	C. Election	D. Royalty	
8.	Innumerable is to Quantity as Invaluable is to				
	A. Size	B. Surface	C. Worth	D. Volume	
9.	Ice is to Igloo as Straw is to				
	A. Hive	B. Field	C. Form	D. Nest	
10.	Train is to Station	n as Ship is to			
	A. Harbour	B. Sail	C. Mast	D. Anchor	
11.	Comb is to Tooth as Book is to				
	A. Page	B. Word	C. Knowledge	D. Letter	
12.	Appreciation is to Reward as Disgrace is to				
	A. Guilt	B. Scold	C. Allegation	D. Punishment	
13.	Insulator is to Wood as Conductor is to				
	A. Iron	B. Cotton	C. Plastic	D. Pearl	
14.	Breeze is to Cycle	one as Rain is to			
	A. Earthquake	B. Storm	C. Drizzle	D. Flood	
15.	Bridge is to River as Tunnel is to				
	A. Road	B. Passage	C. Mountain	D. Travel	
				Go on to the next page	

3-VR Folder.indd 2 20-09-2018 11:34:41

		PART II			
16.	is to Car as Water is to				
	A. Road Drink	B. Road Boat			
	C. Tyre Boat	D. Driver Sailor			
17.	is to <b>Justice</b> as S	School is to			
	A. Court Teacher	B. Law Education			
	C. Law Class	D. Court Education			
18.	is to Country as Governor is to				
	A. President State	B. Flag Nation			
	C. President District	D. Minister State			
19.	is to Brush as Key	v is to			
	A. Arm Leg	B. Recline Chair			
	C. Bristle Harmonium	D. Stage Curtain			
20.	is to <b>Storm</b> as <b>Smoke</b> is to				
	A. Weather Fire	B. Thunder Fire			
	C. Danger Cooking	D. Thunder Cooking			
21.	is to <b>Hand</b> as <b>Socks</b> is to				
	A. Glove Feet	B. Pencil Feet			
	C. Glove Shoes	D. Ring Toes			
22.	is to Chirp as Duck is to				
	A. Snake Quack	B. Sparrow Chatter			
	C. Frog Quack	D. Sparrow Quack			
23.	is to Lion as La	<b>mb</b> is to			
	A. Cub Deer	B. Kid Deer			
	C. Cub Sheep	D. Kid Sheep			
24.	is to <b>Ocean</b> a	s Elenhant is to			

A. Fish ----- Earth

C. Fish ----- Land

Go on to the next page

3-VR Folder.indd 3 20-09-2018 11:34:41

B. Whale ----- Desert

D. Whale ----- Land

25.	is to <b>Country</b> as <b>Frame</b> is to				
	A. Border Colour	B. Border Picture			
	C. Capital Picture	D. Capital Colour			
26.	is to <b>Wood</b> as <b>Tailor</b> is to				
	A. Carpenter Cloth	B. Plumber Sewing			
	C. Table Cloth	D. Carpenter Sewing			
27is to <b>Stable</b> as <b>Dog</b> is to					
	A. Horse Shed	B. Cow House			
	C. Cow Kennel	D. Horse Kennel			
28.	is to <b>Thick</b> as <b>Silence</b> is to				
	A. Bold Loud	B. Bold Noise			
	C. Thin Noise	D. Thin Loud			
29.	29is to Weather as Dermatology is to				
	A. Meteorology Skin	B. Radiology Teeth			
	C. Meteorology Eyes	D. Radiology Skin			
30.	is to <b>Porous</b> as <b>Rubber</b> is to				
	A. Glass Elastic	B. Sponge Elastic			
	C. Sponge Solid	D. Glass Solid			

DO NOT START THE NEXT TEST UNTIL YOU ARE TOLD TO DO SO.

3-VR Folder.indd 4 20-09-2018 11:34:41

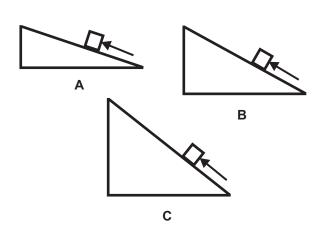
### **Instructions**

Find the space for MR-04 in your Answer Sheet. Answer all questions as directed.

In this test, there are 30 items. All items have questions along with figures like those given in the example below. Read each question carefully, look at the figures and find the correct answer from the four options- A, B, C and D.

Look at the example given below:

# Example X



A wooden block is pushed upwards by applying force as shown in figures A, B and C. In which figure, the force needed to be applied would be maximum?

- Figure A A.
- Figure B В.
- C. Figure C
- Equal force in all situations D.

In this example, the slope of the inclined plane is maximum in C. Therefore, it would require more force. The right answer is C. Darken the circle of option C in the answer sheet as shown below:

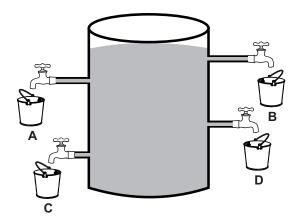
# Correct way of marking the answer $\Rightarrow (A)(B) \oplus (D)$







### **Practice Item**



In the given figure which one of the buckets will get filled first?

- Bucket A A.
- В. Bucket B
- C. Bucket C
- D. Bucket D

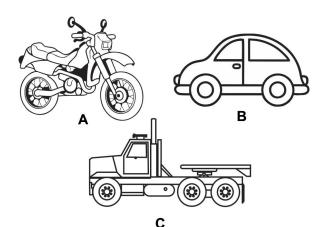
You are to mark the correct answer of the practice item in the answer sheet.

### Answer: C

You will have **10 minutes** for this test. Work as quickly as possible.

### DO NOT MARK ANYTHING ON THIS BOOKLET.

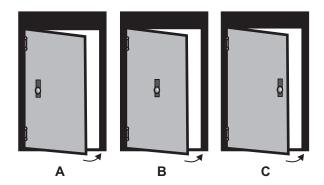
4-MR Folder.indd 19 20-09-2018 11:35:39



A motorcycle, a car and a truck are moving with equal momentum. Which one has the greatest kinetic energy?

- A. Motorcycle
- B. Car
- C. Truck
- D. All have same kinetic energy

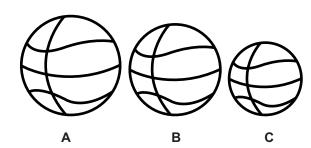
2.



The handles on doors A, B and C are placed in different positions as shown. Using the handle, which door would be closed by applying minimum force?

- A. Door A
- B. Door B
- C. Door C
- D. Same force in all

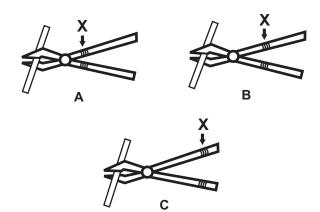
3.



Three balls A, B and C of same mass are dropped together in vacuum from a height of 6 meters. Which ball would reach first on the floor?

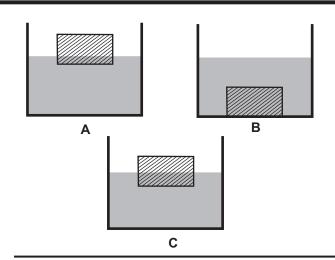
- A. Ball A
- B. Ball B
- C. Ball C
- D. All the balls at the same time

4.



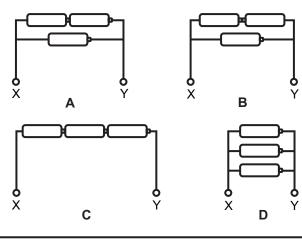
In which one of the given figures, the force is required to cut the wire will be minimum if force is applied at X?

- A. Figure A
- B. Figure B
- C. Figure C
- D. Equal force in all cases



Which of the given containers shows the heaviest object?

- A. Container A
- B. Container B
- C. Container C
- D. All objects have same weight

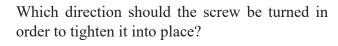


6.

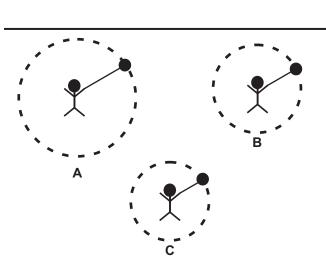
Three cells of 1.5V each are connected in four different ways as shown. Which arrangement will give 4.5V between points X and Y?

- A. Figure A
- B. Figure B
- C. Figure C
- D. Figure D

7.



- A. Clockwise
- B. Anti-clockwise
- C. Either clockwise or anti-clockwise
- D. Screw cannot be tightened



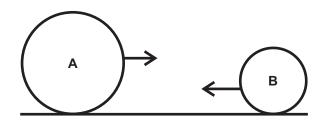
8.

Three persons in the figures are turning around a solid ball tied to a rope and making same number of rotations per second. If suddenly the rope is released, which one will fall at the maximum distance?

- A. Person A
- B. Person B
- C. Person C
- D. All will fall at the same distance

Go on to the next page

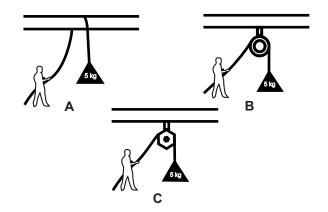
4-MR Folder.indd 21 20-09-2018 11:35:40



Two balls A and B, with different sizes but same density are rolling with the same speed and are moving towards each other to collide. What would happen to ball A after the collision?

- A. Ball A will stop
- B. Ball A will jump over the smaller ball B
- C. Ball A will start moving backward
- D. Ball A will keep moving forward

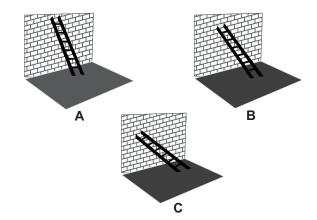
**10.** 



A man is lifting a mass of 5 kg. In which of the given figures, does he apply the minimum force?

- A. Figure A
- B. Figure B
- C. Figure C
- D. Equal force in all

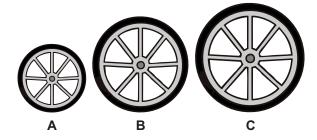
11.



In which of the given pictures, will the ladder be least stable or most likely to slip?

- A. Picture A
- B. Picture B
- C. Picture C
- D. Equal chance in all cases

12.

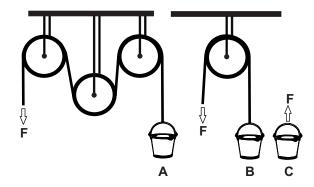


Three wheels A, B and C cover the same distance in same time. Which wheel rotates the fastest?

- A. Wheel A
- B. Wheel B
- C. Wheel C
- D. All wheels will rotate at the same rate

Go on to the next page

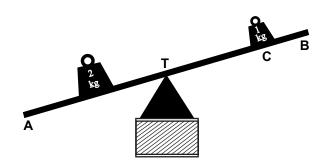
4-MR Folder.indd 22 20-09-2018 11:35:40



In which of the given situations, the force F needed to lift a bucket of water is the least?

- A. Situation A
- B. Situation B
- C. Situation C
- D. Equal force in all situations

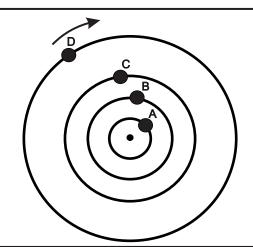
### 14.



Where should the smaller weight be shifted from C to balance the beam on fulcrum at T?

- A. Towards the fulcrum
- B. Away from the fulcrum
- C. By lifting up
- D. Cannot be done

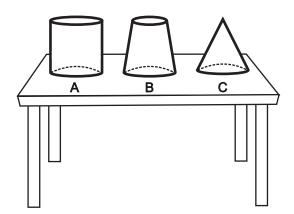
### 15.



In a rotating horizontal disc, which point will be at the fastest speed?

- A. Point A
- B. Point B
- C. Point C
- D. Point D

### **16.**

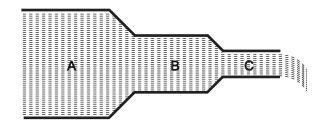


Which object is most likely to fall over first when the table is shaken/disturbed?

- A. Object A
- B. Object B
- C. Object C
- D. All objects will fall together

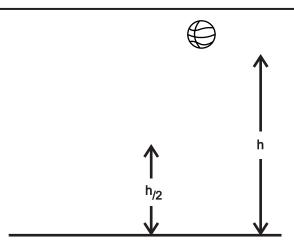
Go on to the next page

4-MR Folder.indd 23 20-09-2018 11:35:40



In the pipe given, at which point will the fluid have the maximum speed?

- A. Point A
- B. Point B
- C. Point C
- D. Speed is same at all points

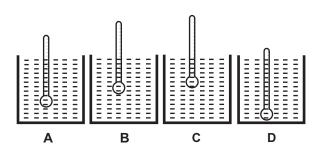


18.

A solid ball is dropped from a height 'h'. After it has fallen half of the distance, it possesses

- A. Only kinetic energy
- B. Only potential energy
- C. Half potential energy and half kinetic energy
- D. More kinetic energy less and potential energy





In which of the given figures, a lactometer would indicate the maximum water impurity in milk?

- A. Figure A
- B. Figure B
- C. Figure C
- D. Figure D

20.

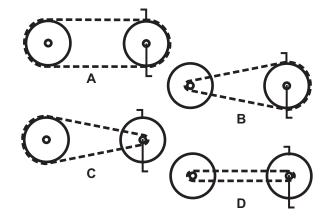






Look at the given pictures of three ballet dancers. Which one of them is likely to rotate at the highest speed?

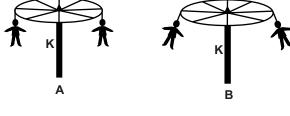
- A. Dancer A
- B. Dancer B
- C. Dancer C
- D. All dancers rotate at the same speed



In which of the given figures, will the force required to rotate the wheel is maximum?

- A. Figure A
- B. Figure B
- C. Figure C
- D. Figure D

22.



Two dolls are tied on the rim of a rotating wheel. Which one of the given wheels is turning the fastest due to rotation of the handle at K?

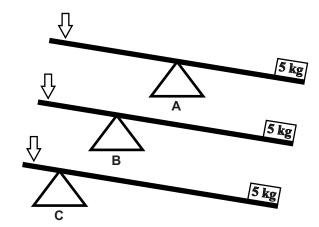
- A. Wheel A
- B. Wheel B
- C. Wheel C
- D. Wheel D



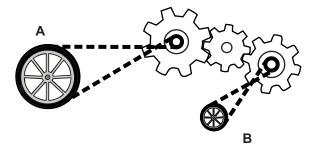
23.

In which one of the given figures, minimum force will be required to lift 5 kg?

- A. Figure A
- B. Figure B
- C. Figure C
- D. Same force in all



### 24.

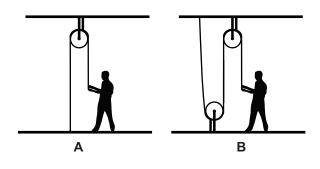


If wheel B moves anti-clockwise at a certain speed 'p' rotations/second, how does wheel A move?

- A. Clockwise, same speed
- B. Anti-clockwise, slower than 'p'
- C. Anti-clockwise, same speed
- D. Clockwise, slower than 'p'

Go on to the next page

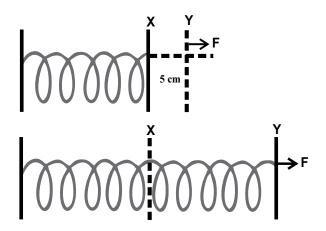
4-MR Folder.indd 25 20-09-2018 11:35:40



You are standing on a platform connected to a pulley shown in the figure. Which of the following will be the easiest way to lift you up?

- A. Pulley A
- B. Pulley B
- C. Same in both
- D. Not possible to lift

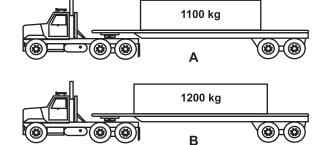
### 26.



A given spring is extended by 5 cm when pulled by a force F. Now two such springs are connected as shown in the figure. What will be the extension produced in this combination of springs by the same force?

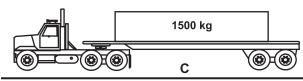
- A. 5 cm
- B. 2.5 cm
- C. 10 cm
- D. 7.5 cm

27.



Trucks A, B and C hit a wall with the same speed. Which truck would cause most damage to the wall?

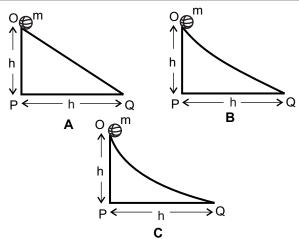
- A. Truck A
- B. Truck B
- C. Truck C
- D. All will cause equal damage



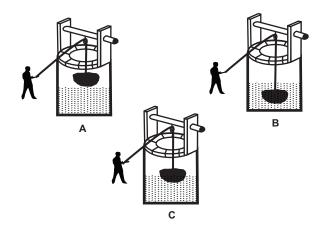
28.

Three identical balls each of mass 'm' are released simultaneously on three incline surfaces from the same height. In which of the following cases, the ball will reach the point Q first?

- A. A
- B. B
- C. C
- D. All will reach at the same time

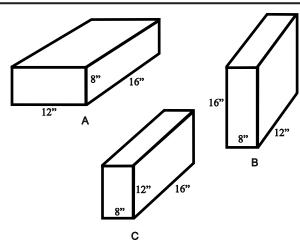






In which of the given situation, will the stone be felt the lightest by the person holding it?

- A. Situation A
- B. Situation B
- C. Situation C
- D. Equal weight in all three situations



30.

Which of the given boxes will exert maximum pressure on the floor?

- A. Box A
- B. Box B
- C. Box C
- D. All boxes will exert the same pressure

DO NOT START THE NEXT TEST UNTIL YOU ARE TOLD TO DO SO.

4-MR Folder.indd 27 20-09-2018 11:35:42

### **Instructions**

Find the space for NA-05 in your Answer Sheet. Answer all questions as directed.

This test consists of 30 arithmetical problems, some of which are numerical and some are word problems. Each problem is followed by four given options- A, B, C and D. You are to choose the correct answer and mark it in your answer sheet. Do calculations if any, on a Rough Sheet.

The following two questions have been solved for you as examples.

# Example X

What will come in place of '?' in the following question?

$$4656 + 1244 = ?$$

A. 6000

B. 5950

C. 5900

D. 7600

Adding 4656 and 1244 together, we get 5900.

In this example, right answer is "C", therefore, darken the circle of option C as shown below:

# Correct way of marking the answer $\Rightarrow$ $\triangle$ $\bigcirc$ $\bigcirc$







# **Example Y**

What is the value of five times of square of 2?

B. 20

C. 4

D. 16

The value of five times of square of 2 gives us the answer as 20.

In this example, right answer is "B", therefore, darken the circle of option B as shown below:

# Correct way of marking the answer $\Rightarrow \triangle \bigcirc \bigcirc$







# **Practice Items**

1373 + 2841 + 2254 = ?

A. 6368

B. 5468

C. 6468

D. 6458

### Answer: C

2. A bucket has a capacity of 11 liters. How many buckets of water is required to fill a tank of capacity of 121 liters?

A. 10

B. 11

C. 15

D. 13

You are to mark the correct answer of the practice items in the answer sheet.

### Answer:B

You will have 10 minutes for this test. Work quickly and solve as many problems as you can.

### DO NOT MARK ANYTHING ON THIS BOOKLET.

5-NA Folder.indd 1 20-09-2018 11:37:44

1. 
$$\frac{3}{5} - \frac{2}{5} = ?$$

A. 
$$\frac{1}{25}$$

B. 
$$-\frac{1}{5}$$

C. 
$$\frac{1}{5}$$

D. 
$$\frac{6}{25}$$

A. 
$$\frac{1}{25}$$
 B.  $-\frac{1}{5}$  C.  $\frac{1}{5}$ 

2.  $\frac{?}{24} = \frac{6}{18}$ 

3. 
$$\sqrt{5.76} = ?$$

4. Let 
$$x : y = 2 : 5$$
 What is the value of  $x : y$  in percentage?

A. 
$$\frac{(-3) \times 2}{6}$$

A. 
$$\frac{(-3)\times 2}{6}$$
 B.  $\frac{(-6)}{(-2)\times (-3)}$  C.  $\frac{2\times (-3)}{6}$  D.  $\frac{6}{(-3)\times (-2)}$ 

$$C. \frac{2 \times (-3)}{6}$$

D. 
$$\frac{6}{(-3)\times(-2)}$$

7. 
$$\sqrt[3]{216} = ?$$

8. 
$$0.023 \times 0.23 = ?$$

$$9. \qquad \frac{1}{3} \div \frac{1}{9} = ?$$

A. 
$$\frac{1}{9}$$

A. 
$$\frac{1}{9}$$
 B.  $\frac{1}{27}$ 

11. What is the next number in following number sequence ?

 $\sqrt{100}$ , 9,  $\sqrt{64}$ , 7,

A. 5

B.  $\sqrt{36}$ 

C.  $\sqrt{28}$ 

D. 8

12. If x = 10 then  $3x^2 - x =$ ?

A. 50

B. 200

C. 270

D. 290

13. What is  $710 \times 80$  rounded to nearest thousand?

A. 50000

B. 55000

C. 57000

D. 60000

14.  $\sqrt[3]{\frac{1}{8} \times \frac{125}{64}} = ?$ 

A.  $\frac{5}{8}$ 

B.  $\frac{125}{512}$ 

C.  $2\frac{1}{2}$ 

D.  $15\frac{5}{8}$ 

15. Which of the following number is exactly divisible by 3?

A. 766

B. 768

C. 796

D. 976

16. mn = y if y = 10, then m = ?

A. 10-n

B. n-10

C.  $\frac{n}{10}$ 

D.  $\frac{10}{n}$ 

17.  $(3.1)^3 = ?$ 

A. 9.313

B. 9.213

C. 29.791

D. 29.971

18. Which of the following is the smallest number that is exactly divisible by 2, 4, 7, and 21?

A. 76

B. 168

C. 84

D. 42

19. Find the value of (?)

 $(12)^2 + (5)^2 + (3)^3 = (?)^2$ 

A. 16

B. 24

C. 14

D. 26

20. What is the next number in following number sequence?

8, 27, 64, 125, ?

A. 216

B. 196

C. 169

D. 225

- $\left[ (6^3)^{\frac{1}{3}} + (8^2)^{\frac{1}{2}} \right]^2 = ?$ 21.
  - A. 196
- B. 169
- C.  $(100)^2$
- D.  $(102)^2$
- What is  $\frac{84.189 \times 1.99}{6.889}$  rounded to nearest whole number? 22.
  - A. 28
- B. 24
- C. 20
- D. 25
- $a = \frac{1}{2}$  bh If b = 6 and a = 14, then h = ?
  - A.  $\frac{14}{3}$  B.  $\frac{7}{3}$  C.  $\frac{7}{6}$
- D.  $\frac{6}{7}$
- 24. Which one of the following has a sum greater than 1?
- A.  $\frac{1}{5} + \frac{3}{4}$  B.  $\frac{2}{3} + \frac{3}{8}$  C.  $\frac{8}{12} + \frac{1}{3}$  D.  $\frac{5}{8} + \frac{1}{4}$
- 25. If three qualities of sugar costing Rs. 22/kg, Rs. 25/kg and Rs. 30/kg are mixed in 1:2:3 ratio, respectively what is the cost of the resultant mixture per kg?
  - A. Rs 24/kg
- B. Rs 25/kg
- C. Rs 34/kg
- D. Rs 27/kg
- 26. Currently, my age is 11 times that of my daughter. In 4 years my age would be 6 times that of my daughter's age. What is my current age?
  - A. 22 years
- B. 63 years
- C. 44 years
- D. 33 years

- $\sqrt{9^2 + 5^2 + 38} = ?$ 27.
  - A. 24
- B. 8
- C. 18
- D. 12

- 999.99 99.99 + 9999 = ?28.
  - A. 10899.99
- B. 11899
- C. 11899**.**99
- D. 10899

- $(0.5 \times 0.625) \div 25 = ?$ 29.
  - A. 0.25
- B. 0.0125
- C. 0.125
- D. 0.025
- 30. The product of two numbers is 56 and the sum of these two numbers is 15. Find these two numbers.
  - A. 9 and 6
- B. 14 and 4
- C. 8 and 7
- D. 7 and 9

# DO NOT START THE NEXT TEST UNTIL YOU ARE TOLD TO DO SO.

### **Instructions**

Find the space for **SA-06** in your Answer Sheet. Answer all questions as directed.

This test consists of Part I and Part II.

### PART I

Part I has 20 items (Questions 1-20). Read instructions given at the top of each page carefully. Each item consists of a Problem Figure followed by Answer Figures. Each Answer Figure has four options- A, B, C and D. Only one among them is right answer. Select the right answer.

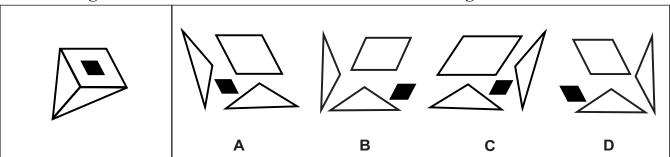
Look at the following example:

# Example X

Find out which options- A, B, C and D from the Answer Figure has parts that can make the Problem Figure.

## **Problem Figure**

## **Answer Figure**



When we arrange the parts given in the Answer Figure, only option "A" correctly forms the Problem Figure. Therefore, option "A" is the right answer. Darken the circle of option A in the answer sheet as shown below:

# Correct way of marking the answer $\Rightarrow \bigcirc \bigcirc \bigcirc \bigcirc$





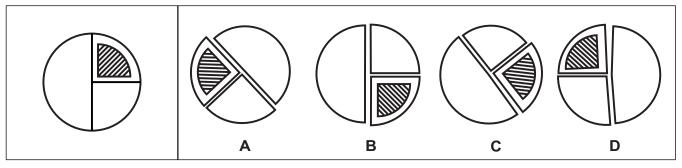


### **Practice Item**

Find out which options- A, B, C and D from the Answer Figure has parts that can make the Problem Figure.

# **Problem Figure**

### **Answer Figure**



You are to mark the correct answer of the practice item in your answer sheet.

### Answer: B

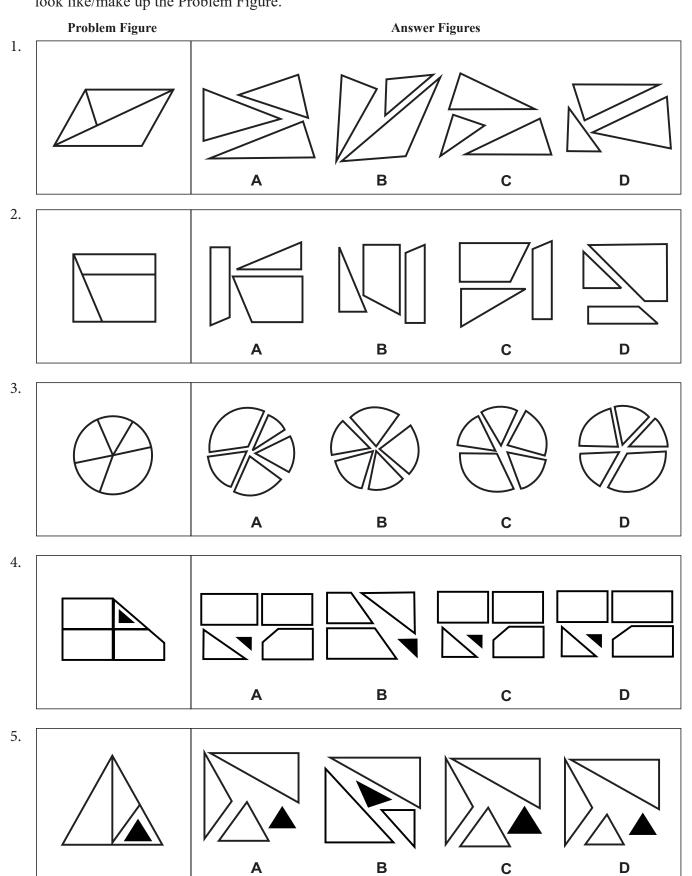
You will have 10 Minutes for this test Part I, and II. Work as quickly as possible.

### DO NOT MARK ANYTHING ON THIS BOOKLET.

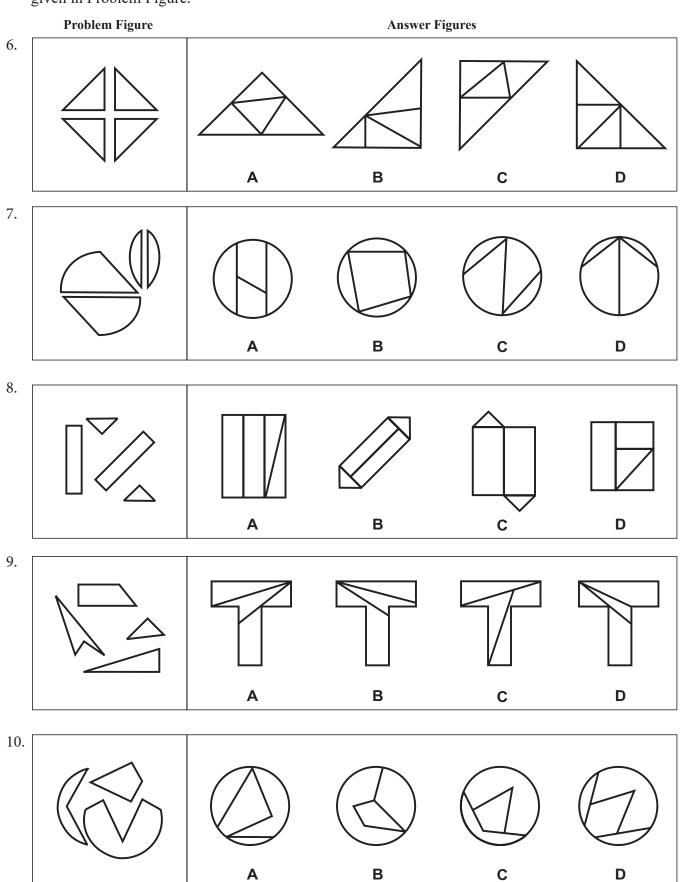
6-SA Folder.indd 1 20-09-2018 11:37:25

# **PART I**

**INSTRUCTION:** Find out which parts given in Answer Figure A, B, C and D when combined will look like/make up the Problem Figure.



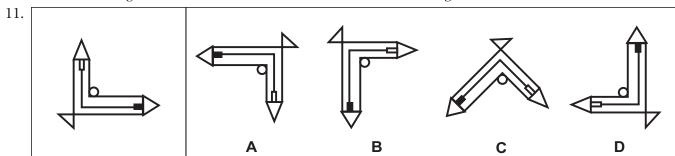
**INSTRUCTION**: Find out which of the Answer Figure A, B, C and D will be formed from the parts given in Problem Figure.



**INSTRUCTION**: If the Problem Figure is rotated anti-clockwise at 90°, which of the Answer Figures among options- A, B, C and D will it look like.



### **Answer Figures**



12.

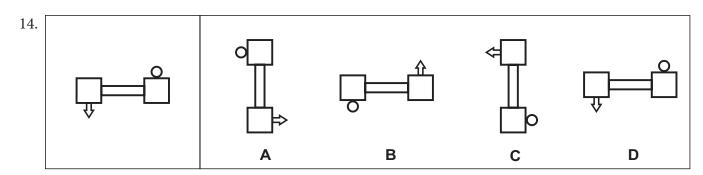
A

B

C

D

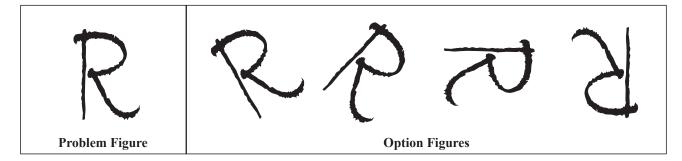
13. A B C D



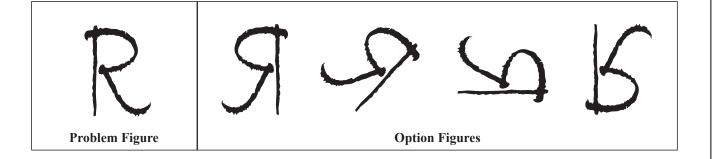
15. A B C D

# Now let us understand the following example

Look at the Problem Figure and see how the options are same and only **turned around** in different ways.

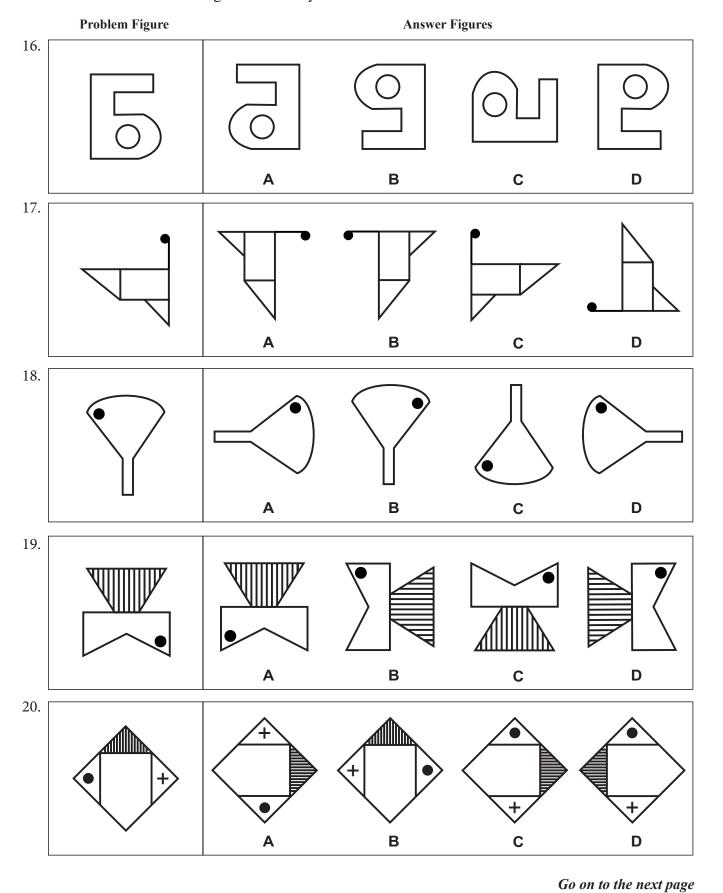


Here, at the Problem Figure see how the options are Flipped Over and turned around in different ways.



6-SA Folder.indd 5 20-09-2018 11:37:26

**INSTRUCTION:** In the Answer Figures given below, three options are Flipped Over and turned around. One of them is Same as the Problem Figure but is only turned around. Find the figure which is Same as the Problem Figure and is only turned around.



### PART II

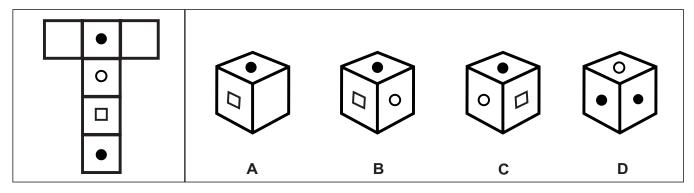
**Part II** has 10 items (Questions 21-30). Each item has a Problem Figure followed by Answer Figures. You are required to imagine how the Problem Figure will look like when it is folded. Choose from the options given in the Answer Figures-A, B, C and D. Only one among the suggested options is correct.

Look at the following example:

# **Example Y**

# **Problem Figure**

# **Answer Figure**



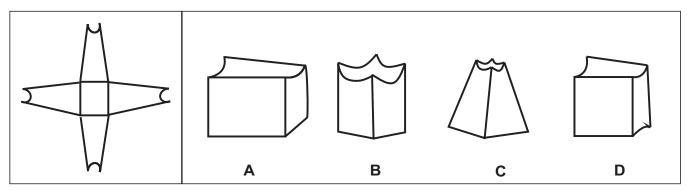
When the Problem Figure is folded such that the bottom most side (with a dot) is at the top then the side above it (which has a small square on it) will be visible in front and the side (with no pattern on the outside) will be on the right side. Thus option "A" is the most appropriate option. Darken the circle of option A in the answer sheet as shown below:

Correct way of marking the answer ⇒ • B © D

### **Practice Item:**

# **Problem Figure**

# **Answer Figure**

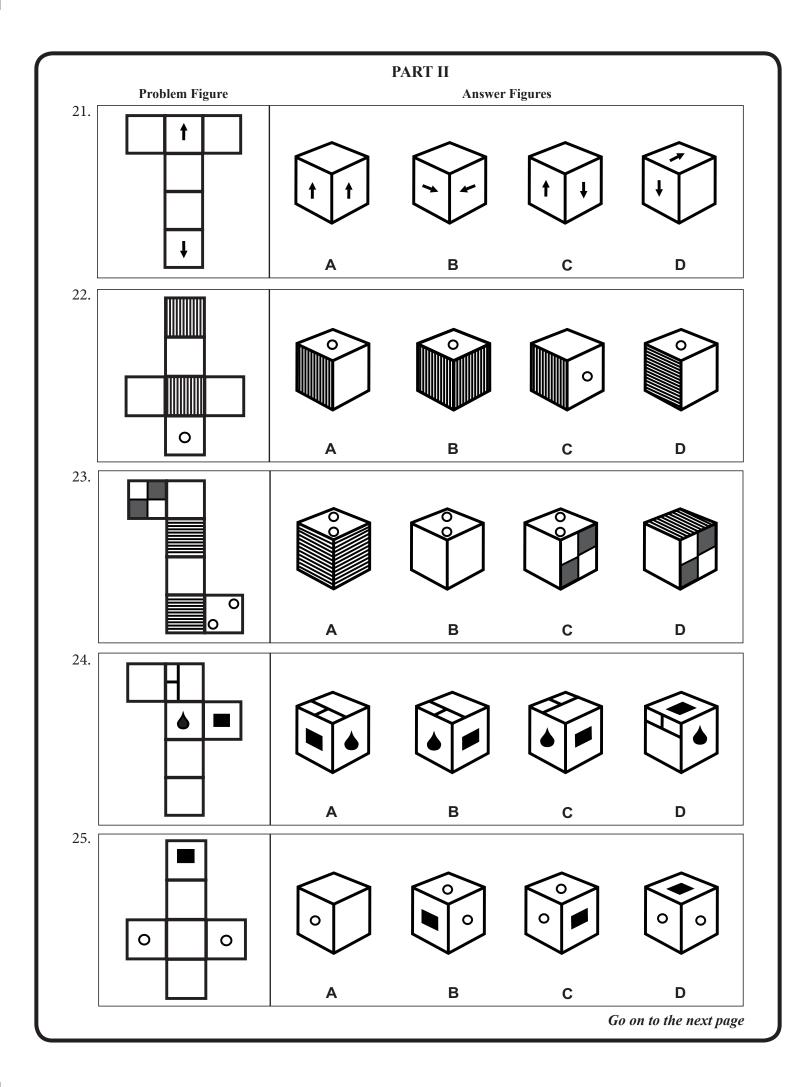


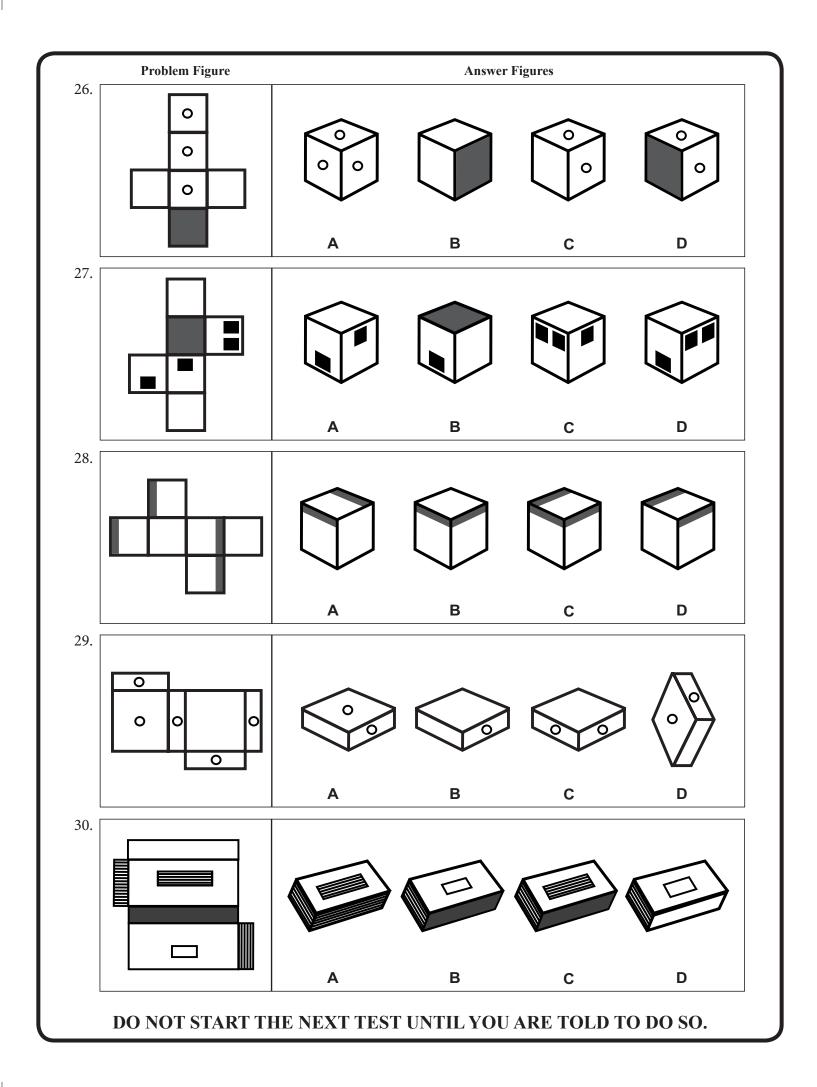
You are to mark the correct answer of the practice item in your answer sheet.

### Answer: C

### DO NOT MARK ANYTHING ON THIS BOOKLET.

6-SA Folder.indd 7 20-09-2018 11:37:26





### **Instructions**

Find the space for PA-07 in your Answer Sheet. Answer all questions as directed.

This test consists of 60 items, which are designed to see how quickly and accurately you can compare letter and/or number combinations.

First, you will be shown a test item consisting of numbers, letters or letter- number combination. Then, it is followed by four options, viz. A, B, C and D which have the same test numbers/ letters/ letter-number combination, but in a different order. Only one of these options is exactly the **same** as the test item. Select the correct option that i.e which is same as the test item and mark on the answer sheet.

# Example X

### 39461084

- A. 39416084
- B. 39461840
- C. 39461084
- D. 39461480

All the combinations given in the options appear similar. However the sequence of numbers is different except in 'C'.

In this example, right answer is "C", therefore, while marking answer C in the answer sheet, darken the circle of option C as shown below:

# Correct way of marking the answer ⇒ AB □

### **Practice Item:**

### L7LL77L2

- A. L7LLL772
- B. L7LL7L72
- C. L7L7LL72
- D. L7LL77L2

You are to mark the correct answer of the practice item in the answer sheet.

### Answer: D

You will have 10 minutes for this test. Work as quickly and accurately as possible.

### DO NOT MARK ANYTHING ON THIS BOOKLET.

7-PA Folder.indd 1 20-09-2018 11:38:27

- A. 48219357
- B. 48129357
- C. 48219537
- D. 48291357

### 2. PYDXZLQI

- A. PYDZXLQI
- B. PYDXZQLI
- C. PYDXZLQI
- D. PYDXZIQL

### 3. ZZZzZeEz

- A. ZzZzZeEz
- B. ZZZZZeEz
- C. ZzZzZeEz
- D. ZZZzZeEz

### 4. vWtfMnIL

- A. VWtfMnIL
- B. vWtfMnIL
- C. vWTfMnIL
- D. vWtfMNIL

### **5. 7F7EFEE7**

- A. 7F7EFEE7
- B. 7f7EFEE7
- C. 7F7fFEE7
- D. 7F7EFeE7

### 6. 29483148

- A. 29483184
- B. 29481348
- C. 29438148
- D. 29483148

### 7. 46249051

- A. 46240951
- B. 46249051
- C. 46429051
- D. 42649051

### 8. 14114411

- A. 14414111
- B. 14411411
- C. 14114411
- D. 14114441

### 9. 25798461

- A. 25798461
- B. 25978461
- C. 25798641
- D. 25789461

### 10. j9a99j9a

- A. j9a9j99a
- B. j99a9j9a
- C. j9a99j9a
- D. ja999j9a

### 11. 2a22k2ak

- A. 2a22k2ak
- B. 2a22ak2k
- C. 2a22ka2k
- D. 22ka22ak

### 12. 44372274

- A. 43472274
- B. 44372274
- C. 44372724
- D. 44327724

### 13. 32983403

- A. 39283403
- B. 39238403
- C. 32938043
- D. 32983403

### 14. 66292422

- A. 66292422
- B. 64292622
- C. 66429622
- D. 66229242

### 15. 66348648

- A. 66384648
- B. 63648468
- C. 66348648
- D. 63684648

### 16. aMhoFOFU

- A. amhoFOFU
- B. aMhoFOFU
- C. aMhoFFOU
- D. aMhOoFFU

Go on to the next page

7-PA Folder.indd 2 20-09-2018 11:38:27

### 17. hBseUvWH

- A. HBseUvWH
- B. hBSeUvWH
- C. hBseUvWH
- D. hBsEUvWH

### 18. edYieSVc

- A. edyieSVc
- B. eDYiEsVc
- C. EdYiSeVc
- D. edYieSVc

### 19. 51617141

- A. 51617114
- B. 51617141
- C. 51611417
- D. 51614711

### 20. UaMPPfKL

- A. UaMPPfKL
- B. UAmPfPKL
- C. UampPfKL
- D. UAMppfKL

### 21. eWuVSpOF

- A. ewuVSpOF
- B. eWuVSpOF
- C. eWuSVpoF
- D. ewUVSpoF

### 22. yXvghpBd

- A. yXvghbPd
- B. vXygHpBd
- C. yXvghpBd
- D. yxVGhpBd

### 23. kHMs8092

- A. KhMs8092
- B. kHMs8092
- C. Khms8092
- D. KhMs8092

### 24. reCA0821

- A. reCA0281
- B. reCA8021
- C. erCA0821
- D. reCA0821

### 25. hGBz6216

- A. hGBz6216
- B. hGBz6261
- C. hGBz6621
- D. hgBz6216

### 26. jzVw3978

- A. jzvw3978
- B. jZVw3978
- C. jzVw3978
- D. JzVw3978

### 27. 3037KxRd

- A. 3073KxRd
- B. 3037KxRd
- C. 3037KXRd
- D. 3073KxRD

### 28. nViP9797

- A. NviP9797
- B. nViP7979
- C. nVIP9797
- D. nViP9797

### 29. 88RBbD17

- A. 88RBBD17
- B. 88RbBD17
- C. 88RBbD17
- D. 88RBbd17

### 30. 97JkGs90

- A. 97JkGs90
- B. 97JKGs90
- C. 97JkGS90
- D. 97Jkgs90

### 31. 51FfEe61

- A. 51fFeE61
- B. 51FfeE61
- C. 51FfEe61
- D. 51eEfF61

### 32. MN3643NN

- A. Mn3643NN
- B. MN3643NN
- C. MN3643nN
- D. MN6343NN

Go on to the next page

7-PA Folder.indd 3 20-09-2018 11:38:27

### 33. vs6389nU

- A. vs6389NU
- B. vs6398nU
- C. vS6389nU
- D. vs6389nU

### 34. VO8073wN

- A. VO8073wN
- B. Vo8073wN
- C. VO8073WN
- D. VO8037wN

### 35. 435901dB

- A. 345901dB
- B. 435910dB
- C. 435901db
- D. 435901dB

### 36. j7004gsJ

- A. j7004gsJ
- B. i7004gSJ
- C. J7004gsJ
- D. j0704gsJ

### 37. 169429nm

- A. 169249nm
- B. 169429mn
- C. 169429nm
- D. 169249mn

# 38. 4825syBp

- A. 4825syBP
- B. 4825syBp
- C. 4852syBp
- D. 8425SyBp

### 39. AV3853Va

- A. Av3853Va
- B. AV3583Va
- C. AV3853Va
- D. AV3853va

### 40. UL8013TQ

- A. UL8103TQ
- B. UL8103tQ
- C. UL8013tQ
- D. UL8013TQ

### 41. BYfpaoSM

- A. ByFpaOsM
- B. ByfPAosM
- C. BYfpaoSM
- D. BYFpAosM

### 42. pdLrcVEc

- A. pDLrcvEC
- B. pdlRCvEC
- C. pdlRCVEc
- D. pdLrcVEc

### 43. 87249117

- A. 82794117
- B. 87942171
- C. 87249117
- D. 89724171

### 44. WuNRReHZ

- A. WUnRREhZ
- B. WuNRrehZ
- C. WUNrreHZ
- D. WuNRReHZ

### 45. AXoBDqEG

- A. AxObDQeG
- B. AXoBDqEG
- C. AXobdqEG
- D. AxOBdQeG

# 46. TCzhjyGp

- A. TcZHjYGP
- B. TCzhJYgP
- C. TCZhjygP
- D. TCzhjyGp

### 47. LJNx9269

- A. LiNX9296
- B. LJNx9269
- C. LJnx2969
- D. LjnX9629

### 48. scVB3874

- A. scVB3874
- B. scVb3784
- C. sCvB3847
- D. scVb8374

Go on to the next page

7-PA Folder.indd 4 20-09-2018 11:38:27

### 49. yFDw7117

- A. yFdW1717
- B. yfDw1177
- C. yFDw7117
- D. yfdW1771

### 50. kaCQ5883

- A. kaCQ5883
- B. kAcQ5838
- C. kaCq8583
- D. kAcQ8853

### 51. 4334HzPA

- A. 4343HZpA
- B. 4334hZPA
- C. 4343hzpA
- D. 4334HzPA

### 52. mZuA7919

- A. mZUa7199
- B. mZuA7919
- C. mzUA7991
- D. mzua7919

### 53. 66TNfS52

- A. 6T6Nfs52
- B. 66TnFS25
- C. 66tNFs52
- D. 66TNfS52

### 54. 85GJCx08

- A. 85GjCX08
- B. 85GJCx08
- C. 85gjCx08
- D. 85GJcx80

### 55. 47IrFa90

- A. 47iRFA90
- B. 47IRfa09
- C. 47IrFa90
- D. 4I7rFA09

### 56. XW3883HH

- A. XW3883HH
- B. Xw3838HH
- C. Xw3883hH
- D. XW3838hh

### 57. zS5296mI

- A. Zs5269mI
- B. zS5296mI
- C. zS5269MI
- D. ZS2596MI

### 58. QW6144bX

- A. QW6414Bx
- B. Qw6441bX
- C. Qw6144BX
- D. QW6144bX

### 59. 835372EF

- A. 835372EF
- B. 853372eF
- C. 833527EF
- D. 835327eF

### 60. qp9057LJ

- A. qP9075LJ
- B. qp0975lJ
- C. qp9057LJ
- D. qP0957lJ

DO NOT START THE NEXT TEST UNTIL YOU ARE TOLD TO DO SO.

7-PA Folder.indd 5 20-09-2018 11:38:27