

ASHANK DESAI CENTRE FOR POLICY STUDIES, IIT BOMBAY

MPP Entrance Test Paper

Part – 1: Analytical Skills and LOGIC [1 Hour]

Venue: LC 201/202 Time: 9:30-11:30 Date: 6th May, 2024 Total Duration: 2.0 hours

ADCPS Serial No.: _____

Candidates: Please write your answers to Section One in the Table Below:

ADCPS MPP Entrance Test May 06, 2024		
Section One - ANSWERS (MCQ)		
	Q. No.	Answer
Sect. 1 - Analytical Skills and Logic	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	

Only For The Examiner:

Total No. of Correct Answers	Total No. of Incorrect Answers

Only For The Examiner:

Q. No.	Part 1 (45)	Part 2: Essay (55)	Total: (100)
Marks			

Two Signatories: Checked A) _____ B) _____

Q1. If x and y are integers and $x + y = 5$, which of the following must be true?

- a) x and y are consecutive integers.
- b) If $x < 0$, then $y > 0$
- c) If $x > 0$, then $y < 0$
- d) Both x and y are even

Q2. At the IITB pond the cost to remove invasive weeds is given by the formula $\text{cost} = \text{INR } 1000x / (100 - x)$, where x refers to the % of weeds that needs to be removed. What is the extra cost of removing 90% of weeds compared to 80% of weeds?

- a) INR 5000
- b) INR 10000
- c) INR 15000
- d) INR 1000

Q3. Milk needs to be thinned to a ratio of 3 parts milk to 2 parts water. The milk man has accidentally added water such that he has 8 litres of milk which is half milk and half water. How much must he add to make the proportions of the mixture correct?

- a) 1 litre milk
- b) 1 litre water
- c) 3 litres milk
- d) 1.5 litres water
- e) 2 litres milk

Q4. A train 200 m long running at 36 kmph takes 55 seconds to cross a bridge. The length of the bridge is.

- a) 375 m
- b) 300 m
- c) 350 m
- d) 325 m
- e) 400 m

Q5. The revenue generated by Company X is divided between Doug and Moira in a 6 to 5 ratio respectively.

<u>Quantity A</u>	<u>Quantity B</u>
Moira's share when the total revenue generated by Company X is \$15,700	\$7,900

- a) A is greater than B
- a) B is greater than A
- b) Both are equal
- c) Their relationship cannot be determined with the given information

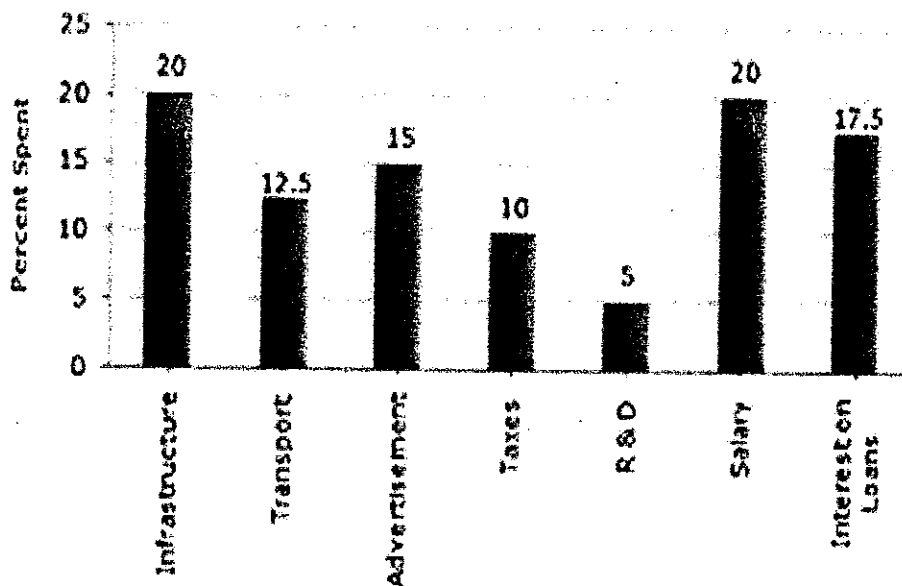
Q6. The Table below shows the number of employees in different companies (A, B, C) over three years.

Companies	Employees (Male + Female) in 2021	Employees (Male + Female) in 2022	Employees (Male + Female) in 2023
A	350	400	300
B	450	500	600
C	700	550	650

Number of employees in company B was increased by x in 2022. This changed the ratio of employees in company B between 2021 and 2022 to 3:4. Find the value of x .

- a) 250
- b) 100
- c) 50
- d) 300

Q7. The figure shown represent the various expenses for a company. The sum of expenses on infrastructure and salary is what percentage greater than the expenses on transport and interest on loan?



- a) 7.5%
- b) 10%
- c) 33.33%
- d) 25%

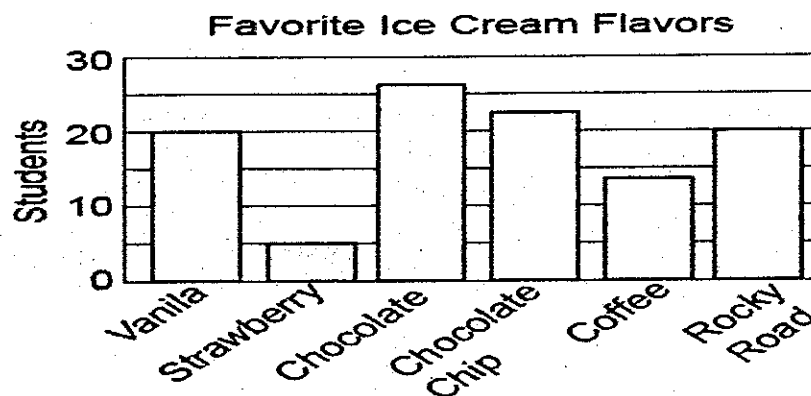
Q8. Train A leaves the platform from place X and Train B leaves the platform from place Y at the same time towards each other. The platforms X and Y are 150 km apart. A has a uniform speed of 15km/hr and B has a speed of 10km/hr in the first hour, with a uniform speed of 12.5 km/hr in the second hour and with a uniform speed of 15 km/hr in the third hour and so on. Which of the following is/ are correct?

- I. Train A and B meet at 5 hours.
- II. Train A and B cross each other midway platform X and Y

Select the correct option:

- a) Both I and II
- b) I only
- c) II only
- d) Neither I nor II

Q9. The following question based on the bar graph below, which shows the results of a survey about favourite flavours of ice cream offered in the school cafeteria.



What percent of the students chose flavours in the top 2 categories?

- a) 25%
- b) 35%
- c) 50%
- d) 55%

Q10. According to the table below, of the total number of automobiles sold to U.S. institutions and foreign institutions during the 2002-03 model year, which of the following most closely approximates the percent that were standard models?

**WORLDWIDE SALES OF XYZ MOTOR COMPANY MODELS,
2002-03 MODEL YEAR**

	Automobile Model		
	Basic	Standard	Deluxe
U.S. institutions	3.6	8.5	1.9
U.S. consumers	7.5	11.4	2.0
Foreign institutions	1.7	4.9	2.2
Foreign consumers	1.0	5.1	0.8

Note: All numbers are in thousands.

- a) 24%
- b) 36%
- c) 41%
- d) 59%

For Questions 11 through 15 – read the paragraph and respond to the stated question:

Q11. Arrange the following sentences in a proper sequence to make a paragraph:

[1] However, nuclear power stations are not a viable source of energy for the future. [2] Nuclear reactors are more expensive to build than fossil fuelled power stations. [3] Fossil fuels such as coal, gas and oil are a dwindling resource so nuclear fuel offers a useful alternative for the future. [4] Nuclear reactors are also very expensive to decommission so may not be efficient over the longer term. [5] No truly safe way of storing nuclear fuel has yet been found. for it. [6] Research into alternative fuels has been underway for some time, with some success. [7] Solar power and use of methane from waste are just two alternatives to fossil fuels.

- a) 1, 4, 5, 7, 6, 3, 2
- b) 3, 1, 2, 4, 5, 6, 7
- c) 2, 4, 1, 7, 5, 3, 2
- d) 5, 7, 6, 4, 5, 2, 1

Q12. Arrange the following sentences in a proper sequence to make a paragraph:

[1] Pets add to the quality of life. [2] Any benefits outweigh the costs. [3] However, they can destroy household furniture. [4] Stroking pets is thought to reduce stress. [5] Property values can be affected by the odour animals leave behind them in carpets and curtains. [6] Many people find talking to a pet helps them sort out personal problems. [7] Problems with pets can be sorted out, so they are not insuperable.

- a) 1, 3, 6, 2, 5, 7, 4
- b) 1, 7, 3, 4, 5, 6, 2
- c) 1, 4, 6, 3, 5, 2, 7
- d) 1, 6, 7, 5, 4, 3, 2

Q13. Novelists cannot become great as long as they remain in academia. Powers of observation and analysis, which schools successfully hone, are useful to the novelist, but an intuitive grasp of the emotions of everyday life can be obtained only by the kind of immersion in everyday life that is precluded by being an academic.

Which one of the following is an assumption on which the argument depends?

- a) Novelists require some impartiality to get an intuitive grasp of the emotions of everyday life.
- b) No great novelist lacks powers of observation and analysis.
- c) Participation in life, interspersed with impartial observation of life, makes novelists great.
- d) Novelists cannot be great without an intuitive grasp of the emotions of everyday life.
- e) Knowledge of the emotions of everyday life cannot be acquired by merely observing and analysing life.

Q14. The aesthetic value of a work of art lies in its ability to impart a stimulating character to the audience's experience of the work.

Which one of the following judgments most closely conforms with the principle cited above?

- a) This poem is aesthetically deficient because it has little impact on its audience.
- b) This symphony is beautiful because, even though it does not excite the audience, it is competently performed.
- c) This sculpted four-inch cube is beautiful because it is carved from material which, although much like marble, is very rare.
- d) This painting is aesthetically valuable because it was painted by a highly controversial artist.
- e) This painting is aesthetically deficient because it is an exact copy of a painting done 30 years ago.

Q15. Those who support the continued reading and performance of Shakespeare's plays maintain that in England appreciation for his work has always extended beyond educated elites and that ever since Shakespeare's own time his plays have always been known and loved by comparatively uneducated people. Scepticism about this claim is borne out by examining early eighteenth-century editions of the plays. These books, with their fine paper and good bindings, must have been far beyond the reach of people of ordinary means.

Which one of the following describes a reasoning error in the argument?

- a) The argument uses the popularity of Shakespeare's plays as a measure of their literary quality.
 - b) The argument does not allow for the possibility that people might know Shakespeare's plays without having read them.
 - c) The argument anachronistically uses the standards of the twentieth century to judge events that occurred in the early eighteenth century.
 - d) The argument judges the literary quality of a book's text based on the quality of the volume in which the text is printed.
 - e) The argument bases an aesthetic conclusion about Shakespeare's plays on purely economic evidence.
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