

केंद्रीय विद्यालय संगठन , कोलकाता संभाग
KENDRIYA VIDYALAYA SANGATHAN, KOLKATA REGION
अर्ध-वार्षिक परीक्षा / Half-Yearly Examination – 2026-27

कक्षा /CLASS- VII
विषय / SUB - CT & AI

अधिकतम अंक / MAX MARKS – 60
समय / TIME- 2.30 घंटे /Hours

QUESTION PAPER (SET-2)

General Instructions:

- 1. All questions are compulsory.**
- 2. This Question Paper consists of 37 questions in four sections: A,B,C & D.**
- 3. Section A has MCQs, Section B has Fill in the Blanks, Section C has Short Answer Questions, and Section D contains “Identify the AI Domain” type questions.**
- 4. All questions of a particular section must be attempted in the correct order.**

Q.No.	QUESTIONS	MARKS
A	SECTION-A: MCQ (All questions are compulsory)	14x1=14
1	Riju is making a 5-digit number using the digits 1, 2, 3, 4 and 5, using each digit exactly once. She wants to make the largest possible number. Which number should she write? a)54,321 b)54,231 c)53,421 d)54,312	1
2	A shopkeeper recorded the sales of two days as follows: Monday: 45,678 Tuesday: 54,678 How many more items were sold on Tuesday than on Monday? (a) 9,000 (b) 9,100 (c) 8,000 (d) 10,000	1
3	A school database contains student admission numbers. The teacher needs to select an admission number having six digits. Which of the following numbers can be selected? (a) 99,999 (b) 1,00,000 (c) 9,999 (d) 1,00,00	1
4	Which number can be formed using 3, 6, 8 and 9 exactly once and is closest to 9,000? (a) 9,368 (b)9,836 (c) 9,683 (d) 8,936	1
5	A number follows the pattern: 2 → 6, 3 → 12, 4 → 20, 5 → 30 What is the code for 8? (a) 56 (b) 76 (c)72 (d) 80	1
6	A student is comparing the results of different mathematical expressions on a calculator. According to the BODMAS rule, which expression will give the smallest value??	1

	(a) $8 \times 3 + 2$ (b) $8 \times 3 + 2$ (c) $8 - 3 \times 2$ (d) $8 \times 3 - 2$	
7	Which number should replace the blank to make the equation correct? $18 \times 3 + \square = 75$ (a) 20 (b) 21 (c) 22 (d) 23	1
8	During a classroom activity, four students solve different mathematical calculations. The teacher asks the class to identify the calculation that contains an incorrect result. Which one should they identify? (a) $8 + 4 = 12$ (b) $9 \times 2 = 18$ (c) $15 - 7 = 8$ (d) $24 \div 6 = 5$	1
9	Which AI domain works with images and videos? (a) NLP (b) Computer Vision (c) Data Science (d) Science	1
10	A school uses different automated devices. One device simply follows a fixed set of instructions without learning from data or making intelligent decisions. Which of the following is least likely to be an AI system? (a) A chatbot (b) A face-recognition system (c) A language translation system (d) A device following fixed instructions	1
11	A factory uses AI to analyse data, predict equipment problems and automate repetitive tasks. What is the most likely benefit of using AI in this situation? (a) It makes work slower (b) It stops the use of technology (c) It helps the industry work quicker and smarter (d) It eliminates the need to collect data	1
12	Aman finds fractions and percentages difficult to understand. His learning application uses AI to identify the topics he struggles with and provides simpler explanations and extra practice questions. How is AI helping Aman? (a) By removing mathematics from his studies (b) By stopping his lessons (c) By giving him only examinations (d) By providing simpler explanations and additional practice	1
13	Which of the following is an example of structured data? (a) Student marks in a table (b) Audio recordings (c) Social media posts (d) Videos	1
14	A teacher has collected students' marks and wants to create a meaningful chart showing the class performance. Some entries contain errors and are not arranged properly. What should the teacher do before creating the chart? (a) Delete all the data (b) Clean and organise the data	1

	(c) Convert data into videos (d) Randomly arrange the data	
B	SECTION-B Fill in the Blanks (All questions are compulsory)	10x1=10
15	The greatest 4-digit number formed using 2, 5, 7 and 9 without repetition is _____.	1
16	A number divisible by 2 must have _____ as its last digit.	1
17	If a number multiplied by 5 gives 45, the number is _____.	1
18	If + and – are interchanged, then $18 + 7 - 5$ becomes _____.	1
19	The three main parts of a dataset are training, validation and _____ datasets.	1
20	NLP stands for _____.	1
21	Traffic control systems use _____ and cameras to monitor vehicles on roads.	1
22	AI models can examine _____ and MRI images.	1
23	Unstructured data includes _____ and videos.	1
24	Accuracy refers to how close a measurement is to the _____ value.	1
C	Section-C: Short Answer (All questions are compulsory)	8x2=16
25	What is the difference between the greatest and smallest 5-digit numbers formed using 1, 3, 5, 7 and 9 without repetition?	1+1
26	A number is multiplied by 3 and then 5 is added. The answer is 26. Find the number.	1+1
27	What is Computer Vision? Give two real-life examples.	2
28	What is regression? How is it different from classification?	2
29	How does AI help in healthcare?	2
30	How does AI improve transport systems?	2
31	Differentiate between structured and unstructured data.	2
32	Why is data format important?	2
D	Section-D: Identify the AI Domain (All questions are compulsory)	5 x 4 =20
33	Number A transport office has the digits 3, 2, 0, 5, 6 and 8 for creating six-digit pass numbers. i. What is the greatest six-digit number possible?	1+1+1+1

	ii. What is the smallest six-digit number possible? iii. What is the difference between the two numbers? iv. Why cannot 0 be placed in the first position?	
34	A school bus starts with 32 students. At the first stop, 7 students get off and 12 get in. At the second stop, 5 get off and 9 get in. How many students are on the bus now?	4
35	Identify the AI Domain.	
	Recommending products based on past purchases	
	Chatbot answering customer queries	
	Analysing MRI scans	
	Text summarization of long articles	
		1+1+1+1
36	A city wants to use AI to improve its public services. The authorities want to: i. help doctors detect diseases earlier, ii. provide students with personalised learning, iii. reduce traffic congestion, iv. help people communicate despite language differences. If you were advising the city, explain how AI could be used to solve each of these problems.	1+1+1+1
37	Identify the Skill Used.	
	SITUATION	SKILLS USED (Data Collection / Data Organisation / Data Visualisation / Data Analysis)
	A student counts how many classmates come to school by bus.	
	The cricket team captain arranges match scores in rows and columns.	
	Duplicate entries are removed before preparing a chart.	
	A pie chart is created to show favourite sports in the class.	
		1+1+1+1

*****END*****