Roll No. | | | | | |

INDIAN SCHOOL SALALAH

SECOND TERM EXAMINATION – FEB-MARCH 2026

Class: VIII **MATHEMATICS (041)** **Date: 11/03/2026**

Time: 3 hours **Maximum Marks: 80**

General Instructions:

a) All questions are compulsory.

b) This question paper consists of 30 questions divided into 5 sections.

c) Section A contains 6 questions (MCQs) of 1 mark each. Section B contains 6 questions of 2 marks each.

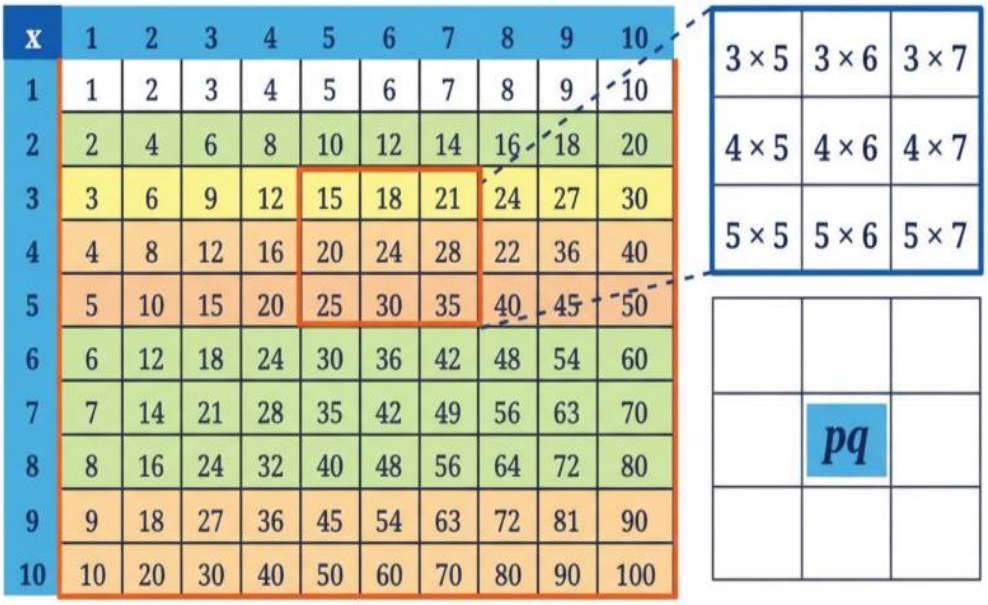
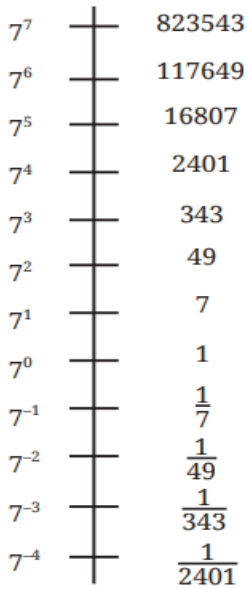
Section C contains 10 questions of 3 marks each. Section D contains 7 questions of 4 marks each and section E contains one case study question of 4 marks.

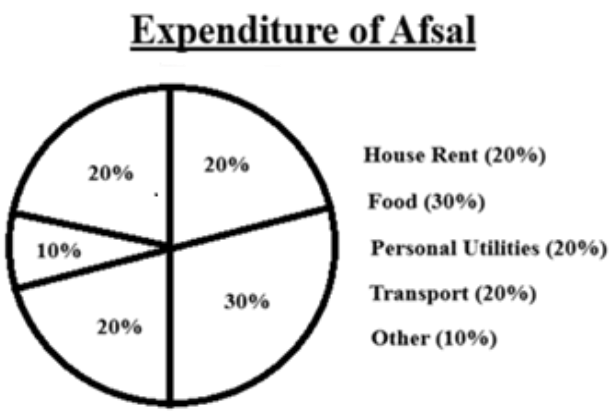
d) Internal choices have been provided in Section C and Section D. You have to attempt only one of the choices in such questions.

NO	SECTION A	MARKS
1	The common factor of a^3b^2 and a^4b is: A) a^4b^2 B) a^4b C) a^3b^2 D) a^3b	1
2	One cm (1 cm) is equal to how many millimeters? A) 10 B) 100 C) $\frac{1}{10}$ D) $\frac{1}{100}$	1
3	The factorisation of 8x + 4y is: A) 8 (x + 4y) B) 4 (2x + y) C) 8 (x + y) D) 4 (2x + 4y)	1
4	$18 \times 24 = 432$. If both 18 and 24 are increased by 1, the new product will be _____ A) 433 B) 434 C) 475 D) 474	1

5	Ram put some buttons on the table. There were 4 blue, 7 red, 3 black and 6 white buttons in all. Suddenly, a cat jumped on the table and knocked one button onto the floor. What is the probability that the button on the floor is blue? A) $\frac{7}{20}$ B) $\frac{3}{5}$ C) $\frac{1}{5}$ D) $\frac{1}{4}$	1
	Question 6 contains two statements: an ASSERTION and a REASON, followed by four choices, with only one correct answer.	
6	**Assertion (A):** 7^{11} can also be written as $7^7 \times 7^4$. **Reason (R):** When multiplying powers with the same base, we add the exponents. A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A). B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A). C) Assertion (A) is true but reason (R) is false. D) Assertion (A) is false but reason (R) is true.	1
	SECTION B	
7	Using identity $(a - b)^2$, expand $(x-14)^2$.	2
8	Factorise: $100 - (m - 10)^2$.	2
9	Find the area of the trapezium with parallel sides 12 cm and 28 cm and the height is 7 cm.	2
10	Simplify the expression: $\frac{p^5 \times q^6}{p^2 \times q^3}$.	2
11	If $3^x = 9^2 \times 27$, find the value of x.	2
12	A carpenter makes a box which has a volume of 13,400 cm^3. The base has an area of 670 cm^2. What is the height of the box?	2
	SECTION C	
13	Express the number 14400 as a product of its prime factors and represent the prime factors in their exponential form.	3

<table>
<tr><td>14</td><td>Find the values of
a) 104^2 using the identity $(a + b)^2$.
b) 38×42 using the identity $(a – b)(a + b)$.</td><td>3</td></tr>
<tr><td>15</td><td>A milk tank is in the form of a cylinder whose radius is 1.5 m and length is 7m. Find the quantity of milk in litres that can be stored in the tank.</td><td>3</td></tr>
<tr><td>16</td><td>Factorise: $15mn + 15 + 9n + 25m$.</td><td>3</td></tr>
<tr><td>17</td><td>a) Factorise: $(p^3q^6 – p^6q^3) \div p^3q^3$
OR
b) Factorise: $a^4 – 16$</td><td>3</td></tr>
<tr><td>18</td><td>A cuboid has dimensions 6 m, 9 m and 12 m. Find its total surface area.</td><td>3</td></tr>
<tr><td>19</td><td>Which is larger 14×25 or 16×23? Find out without fully computing the product.</td><td>3</td></tr>
<tr><td>20</td><td>Find the value of each of the following:
a) $3^2 \times 10^{-1}$ (Write in decimal number)
b) $(– 5)^3 \times (– 2)^3$</td><td>3</td></tr>
<tr><td>21</td><td>Factorise: $(m^2 – 14m – 32) \div (m + 2)$</td><td>3</td></tr>
<tr><td>22</td><td>On a particular day, the sales (in rupees) of different items of a baker’s shop are given below. Draw a pie chart for this data:
<table>
<tr><td>Ordinary bread</td><td>32</td></tr>
<tr><td>Cakes and pastries</td><td>10</td></tr>
<tr><td>Biscuits</td><td>16</td></tr>
<tr><td>Others</td><td>14</td></tr>
<tr><td>Total</td><td>72</td></tr>
</table></td><td>3</td></tr>
<tr><td></td><td>SECTION D</td><td></td></tr>
<tr><td>23</td><td>a) A godown is in the form of a cuboid of measures 60 m × 40 m × 20 m. How many cuboidal boxes can be stored in it if the volume of one box $0.8m^3$.
OR
b) A cuboidal vessel is 20 cm long and 15 cm wide. How high it must be made to hold 1200 cm^3 of a liquid? Also find its lateral surface area.</td><td>4</td></tr>
</table>

24	Observe the multiplication grid below. Each number inside the grid is formed by multiplying two numbers. If the middle number of a 3 × 3 frame is given by the expression pq, as shown in the figure, write the expressions for the other numbers in the grid.  	4
25	Use the power line for 7 to answer the following questions. a) Find 117649 ÷ 2401. b) Find $\frac{1}{7} \times \frac{1}{343}$. c) Find 343 × 49 d) Find 2401 × $\frac{1}{343}$  	4
26	Factorise the expressions and divide them as directed. a) 52xyz (x + y) (y + z) (z + x) ÷ 104xy(y + z) (z + x) b) $33y^3$ ($50y^2$ – 98) ÷ $22y^2$ (5y + 7)	4
27	The circumference of the base of the cylindrical vessel is 132 cm, and its height is 25 cm. How many litres of water can it hold? (Assume π = 22/7).	4

28	Study the following statements and write True or False. a) 2.8009×10^9 into its usual form is 28009000000. b) The standard form of 12300000 is 1.23×10^8. c) The sum of 2.64×10^{24} kg and 4.0035×10^{30} kg is $4.00350264 \times 10^{30}$ kg. d) The value of $\frac{1}{5^{-2}}$ is 25.	4
29	The following algebraic expressions have been expanded and simplified. Verify each simplification. If there is a mistake, explain the error and write the correct expression. a) $2(x - 1) + 3(x + 4)$ $= 2x - 1 + 3x + 4$ $= 5x + 3$ b) $(p + 2)(q + 4)$ $= pq + 8$	4
	SECTION E **Case-study based question. Read the following passage and answer the questions given below:**	
30	The following Pie chart shows the expenditure of Afsal in a year. His annual income is ₹ 5 lakhs.  Study the above information and answer the following questions: a) What is the amount he spent for House rent? b) Find the amount he spent on food. c) On which item did he spend the maximum amount? d) How much more did he spend on food than on house rent?	4