

St. Francis Xavier School
Session: 2022-2023
English Practice Paper
Class: IX S

Time :1 hour

Full Marks: 40

Answer to this practice paper must be written in the test copy

Question 1

Select any one of the following: [10]

- (a) Your friend has congratulated you because your name has featured in a newspaper as a mark of your achievement in an inter-school event. Your friend has also asked you about the secret of your success. Write a letter to him/ her describing the event and how you made a mark for yourself among so many participants.
- (b) The President of the debate club of your school has asked its members to suggest a topic which is relevant at present. As a member of the club, suggest one topic of your own choice in a letter giving reasons for its relevance.

Question 2

[5]

- (a) Your school is hosting an inter-school sit and draw competition. As the event in-charge, draft a notice for your school informing students about the event and inviting them to participate in it.
- (b) Write an e-mail to the Principal of a neighbouring school requesting him / her to send a team according to the age groups to participate in the event. [5]

Question 3

Read the following passage carefully and answer the questions that follow:

It was Saturday and Rajam had promised to come in the afternoon. Swaminathan was greatly excited. Where was he to entertain him? Probably in his own room; but his father often came in to dress and undress. No, he would be at Court, Swaminathan reminded himself with relief. He cleaned his table and arranged his books so neatly that his father was surprised and had a good word to say about it. Swaminathan went to his grandmother. 'Granny,' he said, 'I have talked to you about Rajam, haven't I?'

'Yes. That boy who is very strong but never passes his examination.'

'No. No. That is Mani.'

'Oh, now I remember, it is a boy who is called the Gram or something, that witty little boy.' Swaminathan made a gesture of despair. 'Look here granny; you are again mistaking the Pea for him. I mean Rajam, who has killed tigers, whose father is the Police Superintendent, and who is great.' 10

'Oh,' granny cried, 'that boy, is he coming here? I am so glad.'

'Hm... But I have got to tell you —'

'Will you bring him to me? I want to see him.'

'Let us see,' Swaminathan said vaguely, 'I can't promise.'

'But I have got to tell you, when he is with me, you must not call me or come to my room.'

'Why so?' asked granny.

'The fact is – you are, well you are too old,' said Swaminathan with brutal candour. Granny accepted her lot cheerfully.

That he must give his friend something very nice to eat haunted his mind. He went to his mother, who was squatting before a cutter with a bundle of plantain leaves beside her. He sat before her, nervously crushing a piece of leaf this way and that and tearing it to minute bits.²⁰

'Don't throw all those bits on the floor. I simply can't sweep the floor anymore.' She said.

'Mother, what are you preparing for the afternoon tiffin?'

'Time enough to think of it.' said mother.

'You had better prepare something very nice, something fine and sweet. Rajam is coming this afternoon. Don't make the sort of coffee that you usually give me. It must be very good and hot.' He remembered how in Rajam's house everything was brought to the room by the cook. 'Mother, would you mind if I don't come here for coffee and tiffin? Can you send it to my room?' He turned to the cook and said: 'Look here you can't come to my room in that dhoti. You will have to wear a clean, white dhoti and shirt.' After a while he said: "Mother, can you ask father to lend me his room for just an hour or two?" She said that she could not as she 30 was very busy. Why could he himself not go and ask?

'Oh, he will give more readily if you ask,' said Swaminathan.

He went to his father and said: 'Father, I want to ask you something.' Father looked up from the papers over which was bent.

'Father, I want your room.'

'What for?'

'I have to receive a friend,' Swaminathan replied.

'You have your own room,' father said.

'I can't show it to Rajam.' 40

'Who is this Rajam, such a big man?'

'He is the Police Superintendent's son. He is – he is not ordinary.'

'I see. Oh! Yes, you can have my room, but be sure not to mess up the things on the table.'

'Oh, I will be very careful. You are a nice father, father.'

Father guffawed and said: 'Now run in, boy, and sit at your books.'

a) Give the meaning of each of the following as used in the passage. One-word answers or short phrases will be accepted. [3]

(i) despair (line 09)

(ii) haunted (line 19)

(iii) mess (line 43)

b) Answer the following questions briefly in your own words.

i) What was Swaminathan excited about? [2]

ii) From the conversation between Swami and his grandmother, what can you make out about the relationship they shared? [2]

iii) What requests did Swami make to his mother about the food and coffee for his friend? [2]

iv) Why do you think he made those requests? [1]

v) What were Swami's instructions to the cook? [2]

c) In not more than 50 words describe how Swaminathan convinced his father to use his room for his friend's visit in the afternoon. [8]

St. Francis Xavier School
Session: 2022-2023
Mathematics Practice Paper
Class: IX

Time :1 hour

Full Marks: 40

Answer to this practice paper must be written in the test copy

1. Show that $\frac{1}{3-\sqrt{8}} + \frac{1}{\sqrt{7}-\sqrt{6}} + \frac{1}{\sqrt{5}-2} - \frac{1}{\sqrt{8}-\sqrt{7}} - \frac{1}{\sqrt{6}-\sqrt{5}} = 5$ [3]
2. A certain sum of money amounts to ₹ 7260 in 2 years and ₹ 7986 in 3 years interest being compounded annually. Find the rate percent per annum. [3]
3. If $a^2 - 4a + 1 = 0$ find (i) $a - \frac{1}{a}$ (ii) $a + \frac{1}{a}$ (iii) $a^2 + \frac{1}{a^2}$ [4]
4. $\log(m+n) = \log m + \log n$ show that $\frac{m}{n-1}$ [3]
5. Factorise : (i) $x^4 + x^2y^2 + y^4$ [3]
6. In the figure, ABCD is a parallelogram, E is the mid - point of BC. DE produced meets AB produced at L. Prove that (i) $AB = BL$ (ii) $AL = 2 DC$ [3]
7. Solve the equation by elimination method : $\frac{x+y-8}{2} = \frac{x+2y-14}{3} = \frac{3x+y-12}{11}$ [4]
8. Simplify : $\frac{7^{2n+3} - 49^{n+2}}{[(343)^{n+1}]^{2/3}}$ [3]
9. Prove that $\left(\frac{x^a}{x^b}\right)^{a+b-c} \left(\frac{x^b}{x^c}\right)^{b+c-a} \left(\frac{x^c}{x^a}\right)^{c+a-b} = 1$ [3]
10. The marks obtained by 40 students of a class in an examination are given below. Present the data in the form of a frequency distribution using equal class – size, one such class being 10 – 15 (15 not included)
 3, 20, 13, 1, 21, 13, 3, 23, 16, 13, 18, 12, 5, 12, 5, 24, 9, 2, 7, 18, 20, 3, 10, 16, 8, 16, 17, 8, 23, 21, 6, 23, 15.
 Form the cumulative frequency distribution of the following data. [4]
11. If $\cos \theta = \frac{2x}{1+x^2}$ find the values of $\sin \theta$ and $\tan \theta$ in terms of x . [3]
12. Construct a frequency table from the following data: [4]

Age (in years)	Number of Students
less than 10	6
less than 20	14
less than 30	30
less than 40	52
less than 50	65
less than 60	70

St. Francis Xavier School
Session: 2022-2023
Physics Practice Paper
Class: IX

Time :1 hour

Full Marks: 40

Answer to this practice paper must be written in the test copy

Question 1

[5 x 2 = 10]

- (a) Name the physical quantities of which the units are: (i) watt and (ii) ampere
- (b). Explain why water pipes in colder countries often burst in winter
- (c) An object is placed symmetrically between two plane mirrors inclined at an angle of 60° . Find the number of images formed.
- (d) Draw a ray diagram to show the formation of image of an object kept in front of a convex mirror.
- (e) State the laws of reflection.

Question 2

[5 x 2 = 10]

- (a) Complete the following:
- (i) $10 \text{ bar} = \dots\dots\dots \text{N/m}^2$
- (ii) $1 \text{N/m}^2 = \dots\dots\dots \text{dyne/cm}^2$
- (b) A body is dropped from the top of a tower. It acquires a velocity 40 m/s on reaching the ground. Calculate the height of the tower (Take $g = 10 \text{ m/s}^2$)
- (c) State any two factors on which the pressure at a point in a liquid depends.
- (d) Define gravitational constant G . Write its S.I. unit.
- (e) State two differences between density and relative density.

Question 3

- (a) Draw a ray diagram to show the formation of image of an object placed between focus and centre of curvature of a concave mirror. State two characteristics of the image. **[4]**
- (b) How many images are formed for a point object kept in between the two plane mirrors at an angle 90° to each other? Show them by drawing a ray diagram. **[4]**
- (c) State any two factors on which the speed of sound in a gas does not depend. **[2]**

Question 4

- (a) State any three properties of magnetic field lines. **[3]**
- (b) A current of 5.0 A flows through a conductor for 10 s . What amount of charge passes through the conductor? **[2]**
- (c) Why does the magnetic field lines doesn't intersect each other? **[2]**
- (d) Write three differences between primary cell and secondary cell. **[3]**

St. Francis Xavier School
Session: 2022-2023
Chemistry Practice Paper
Class: IX

Time :1 hour

Full Marks: 40

Answer to this practice paper must be written in the test copy

1. **Identify the gas that:- [5]**
 - a. turns moist lead acetate paper black.
 - b. has reddish brown colour.
 - c. turns colourless Nessler's reagent brown.
 - d. burns with a blue flame.
 - e. turns lime water milky and does not change the colour of acidified potassium dichromate solution.
2. **State the colour of the residue left when the following substances are heated:- [5]**
 - a. Blue vitriol.
 - b. Ammonium dichromate
 - c. Copper(II) carbonate
 - d. Zinc carbonate
 - e. Copper(II) nitrate.
3. **Answer the following questions:-**
 - a) A violet crystalline solid A on strong heating forms violet vapours. A filter paper dipped in a solution of B, turns blue when it is brought in contact with vapour of A. The vapour also turns paper dipped in solution C yellow. Identify A,B,C.
[3]
 - b) What happens when ammonia gas is passed through CuSO_4 initially a little and then passed in excess? [2]
 - c) An element M has atomic mass 40 and that of another chemically similar element N is 88. If M, N, Q (Q being also chemically similar to M,N) form a Dobereiner Triad, where Q has the maximum atomic mass between these, find the approximate atomic mass of Q. Also give the statement of the law mentioned here. [2]
 - d) An element X has three shells all of which are complete. Element Y has to accept 2 more electrons to get the configuration of X.
[3]
 - i. Which one of the following statements is true about Y?
 - A. Y will form ionic bonds only.
 - B. Y will form covalent bonds only.
 - C. Y can form both ionic and covalent bonds.
 - ii. Draw orbit diagram of the compound formed between hydrogen and Y.
- 4.a. **Answer the following regarding Rutherford's experiment: [5]**
 - i. Name the metal selected for this experiment. Give reason for the selection.
 - ii. Which part of the atom was discovered here?
 - iii. What did he conclude when very few α particles rebounded on hitting the centre?
 - iv. What was the main defect of the atomic model proposed by him?

b. Correct few words or phrase from the following statements and rewrite them:[5]

- i) The protons and electrons are collectively called nucleons.
- ii) Absorption of energy occurs when an electron jumps from higher shell to lower one.
- iii) The mass number added to the atomic number will give the number of neutrons.
- iv) Cause of chemical combination is the tendency of an atom to get nearest noble gas configuration in their innermost shell and become stable.
- v) Pnictogens have 2 valence electrons.

5. a. Distinguish between the following:- [4]

- i. Hydrogen sulphide gas and sulphur dioxide gas
- ii. Zinc nitrate (s) and lead nitrate(s).

b. Consider three elements A, B, C with atomic numbers 8,12,18 respectively.

[6]

- i. Which of these is a metal?
- ii. Which of these can combine together?
- iii. Show the formation of the compound formed by the elements mentioned by you with the help of orbit diagram.
- iv. What type of element is C?
- v. Write the common name of the group to which A belongs.