DELHI PUBLIC SCHOOL, BHILAI

DATE : 14.03.2022   ANNUAL EXAMINATION 2021-22   Time : 3 Hrs.
CLASS : IX   SUBJECT – SOCIAL SCIENCE   Max. Marks : 80

General Instructions :
➢ Question paper comprises 3 sections – A, B, and C. There 35 questions in the question paper. All questions are compulsory.
     Section A is History and Civics of 40 marks.
     Section B is Geography of 20 marks.
     Section C is Economics of 20 marks.
➢ Objective type questions should be answered as directed.
➢ Answer to 3 marks question should not exceed 80 words each.
➢ Answer to 5 marks question should not exceed 120 words each.
➢ Source based questions should be answered as directed.
➢ Map work should be done as directed in question.

SECTION – A HISTORY & CIVICS (40 MARKS)

Q.01 How can you say that the 'Liberals' were not 'democrats'?   (1)
Q.02 The Second World War started when Germany invaded ....   (1)
      (a) Spain   (b) Denmark   (c) Poland   (d) Russia

Q.03 Identify the hat that the Soviet soldier is wearing in the above picture, introduced as a part of army uniform after the Bolshevik Revolution.   (1)
      (a) Ushanka   (b) Cossack   (c) Budenovka   (d) None of these
Q.04 The world's biggest stock exchange located in the USA is ....   (1)
Q.05 Correct the following statement and rewrite :
      The Lok Sabha is the Council of States and the Rajya Sabha is the House of People.   (1)
                              OR
      The Prime Minister is the head of the State and the President is the head of the government.
Q.06 The minimum age to become a candidate for the Lok Sabha or the Vidhan Sabha election in India is ....   (1)
Q.07 The Mandal Commission was headed by ....   (1)
      (a) Devi Lal   (b) V.P. Singh   (c) B.P. Mandal   (d) None of these
                              OR
      The leader of the Janta Dal who implemented the Mandal Commission report was ....
      (a) Devi Lal   (b) V.P. Singh   (c) B.P. Mandal   (d) None of these
Q.08 .... was the slogan given by the Janta Party in the Lok Sabha election held in 1977.   (1)
                              OR
      Who appoints the Chief Election Commissioner of India?
Q.09 What were the demands of Lenin's 'April Theses'?   (3)
                              OR
      What were the differences between the Bolshevik and the Menshevik groups?
Q.10 Read the sources given below and answer the questions that follow :   (3)
      Source A : The Second World War
      Japan was expanding its power in the east. It had occupied French Indo-China and was planning attacks on US naval bases in the Pacific. When Japan extended its support to Hitler and bombed the US base at Pearl Harbor, the US entered the Second World War.

Source B : The Destruction of Democracy

On 3o January 1933, President Hindenburg offered the chancellorship, the highest position in the cabinet of ministers to Hitler. Having acquired power, Hitler set out to dismantle the structures of democratic rule. A mysterious fire that broke out in the German Parliament building in February facilitated his move. The Fire Decree of 28 February 1933 indefinitely suspended civic rights like freedom of speech, press and assembly that had been guaranteed by the Weimar Constitution.

Source C : Anti-Semitism in the Nazi Germany

Jews remained the worst sufferers in the Nazi Germany. Nazi hatred of Jews had a precursor in the traditional Christian hostility towards Jews. They had been stereotyped as killer of Christ and usurers. Until medieval times Jews were barred from owning land. They survived mainly through trade and money lending. They lived in separately marked areas called ghettos. They were often persecuted through periodic organized violence, and expulsion from the land.

Questions :

Q.10.1. Source A : What was the main reason that led the USA to join the Second World War?

Q.10.2 Source B : What was the first major step adopted by Hitler to dismantle the structures of democratic rule in Germany?

Q.10.3 Source C : Which was one of the main reasons for hatred against the Jews in the Nazi Germany?

Q.11 What were the main changes brought about by the Bolsheviks immediately after the October Revolution? (Any three) **(3)**

Q.12 What are the Model Code of Conduct for election campaigns in India? (Any three) **(3)**

Q.13 Described the powers and functions of the Indian Parliament. (Any three) **(3)**

Q.14 The Art of propaganda in the Nazi Germany was fairly responsible for establishing total control of the state over its people. Explain. **(5)**

OR

How did the Nazis proceed to realise their murderous racial ideology by eliminating the 'undesirable'? Explain.

Q.15 Describe any five challenges to free and fair elections in India. **(5)**

Q.16 Write any five powers of the Prime Minister of India. **(5)**

OR

Write any five powers of the President of India.

Q.17 Two countries are marked as A and B on the outline map of the world given below. Identify these countries and write their names in your answer script. **(2)**

WORLD - POLITICAL

SECTION – B GEOGRAPHY (20 MARKS)

Q.18 Which state of India gets largest portion of it's rainfall during the months of October and November? **(1)**

    (a) Himachal Pradesh   (b) Assam   (c) Tamilnadu   (d) Bihar

Q.19 Violent thunder storms, which occur in the hot weather season are called .... in W est Bengal. **(1)**

    (a) Loo   (b) Kaal Baisakhi   (c) Mango showers   (D) Dust Storms

Q.20 Which part of India experiences highest diurnal/daily range of temperature? **(1)**

    (a) Thar Desert   (b) Western Ghats   (c) Deccan Plateau   (d) Northern Plains

Q.21 Identify and name the forest type with the help of the given features. **(1)**

    (a) These are the most wide spread forests of India.

    (b) They are called Monsoon forests.

    (c) They are found in regions receiving rainfall between 200cm and 70cm.

Q.22 The Rann of Kachchh is the habitat of .... **(1)**

    (a) elephants   (b) yak   (c) tigers   (d) wild ass

OR

Which of the following medicinal plants is used to cure cough and cold?

    (a) Jamun   (b) Tulsi   (c) Neem   (d) Babul

Q.23 What are the main causes for the depletion of quite a few species of plants and animals in India? Write any 3 points. **(1+1+1=3)**

Q.24 Read the text given below and answer the following questions.

The character and extent of vegetation are mainly determined by temperature along with humidity in the air, precipitation and soil. The sandy soils of the desert support cactus and thorny bushes while wet, marshy, deltaic soils support mangroves and deltaic vegetation.

On the slopes of the Himalayas and the hills of the Peninsula above the height of 915 meters the fall in the temperature affects the type of vegetation and it's growth and changes it from tropical to sub tropical, temperate and alpine vegetation. Areas of heavy rainfall have more dense vegetation as compared to other areas of less rainfall. The western slopes of the Western Ghats are covered with thick forests and not the eastern slopes.

24.1. Cactus and thorny bushes are found in .... **(1)**

    (a) dry, sandy soils   (b) wet, marshy soils   (c) alluvial soils   (d) deltaic soils

24.2 Increase in altitude results in .... **(1)**

    (a) increase in temperature   (b) decrease in temperature

    (c) No change in temperature   (d) None of the above

24.3 The western slopes of the Western Ghats have thick forests because .... **(1)**

    (a) Western slopes lie on the leeward side.

    (b) Western slopes receive heavy rainfall.

    (c) Western slopes receive less rainfall.

    (d) None of the above.

24.4 Alpine vegetation are found in which vegetation type? **(1)**

    (a) Tropical Evergreen forests

    (b) Tropical Deciduous forests

    (c) Montane forests

    (d) Mangrove forests

Q.25 Discuss the mechanism of the monsoons (5 points) **(1+1+1+1+1=5)**

OR

Give an account of the weather conditions and characteristics of the cold weather season. (5 points)

Q.26 On the political outline map of India locate and label <u>any three</u> of the following : **(1+1+1=3)**

    (a) River Ganga   (b) Chilika Lake   (c) Wuler Lake

    (d) Manas National Park   (e) One area receiving less than 20cm of rainfall.

SECTION – C ECONOMICS (20 MARKS)

Q.27 A person is making envelopes with the help of paper. In which sector should his activity be included : **(1)**

    (a) Primary Sector   (b) Secondary Sector   (c) Tertiary Sector   (d) None of these

Q.28 What kind of people are a liability for the economy? **(1)**

    (a) Poor   (b) Healthy   (c) Elite   (d) Illiterate

Q.29 The question contains two statements, **(1)**

Assertion (A) and Reason (R). You have to select one of the four alternative.

Assertion (A) : Investment in human resource leads to low rate of return.

Reason (R) : Human Resource is a never ending resource.

    (a) Both assertion (A) and reason (R) are true, and (R) is the correct explanation of Assertion (A).

    (b) Both assertion (A) and reason (R) are true, and (R) is not the correct explanation of (A).

    (c) Assertion (A) is true, but reason (R) is false.

    (d) Assertion (A) is false, but reason (R) is true.

Q.30 Fill in the blank with appropriate answer : **(1)**

    The work force population of India includes people in the age group of ....

Q.31 Who are the poorest of poor? **(1)**

Q.32 **Read the case/source and answer the questions given below :** **(3)**

    A line, usually divides the population of the country as poor and non-poor. Accordingly, people having income below poverty line are called poor and people with income above poverty line are called non-poor. As per this measure, the number of people below poverty line are called "Head Count Ratio". While fixing a poverty line, we must take adequate care so that the poverty line is neither too high nor too low. Rather it should be a reasonable one.

    (a) Which measure is discussed in the above Paragraph?

    (b) What do you mean by "Head Count Ratio"?

    (c) Give various measurements of Poverty line in India.

Q.33 What do you mean by Economic activity? Explain the two types of economic activities. **(3)**

<div align="center">OR</div>

What are the measures taken by the government to improve literacy condition in India?

Q.34 The below graph shows percentage of poor is different social group. (a survey report of NSSO). **(4)**
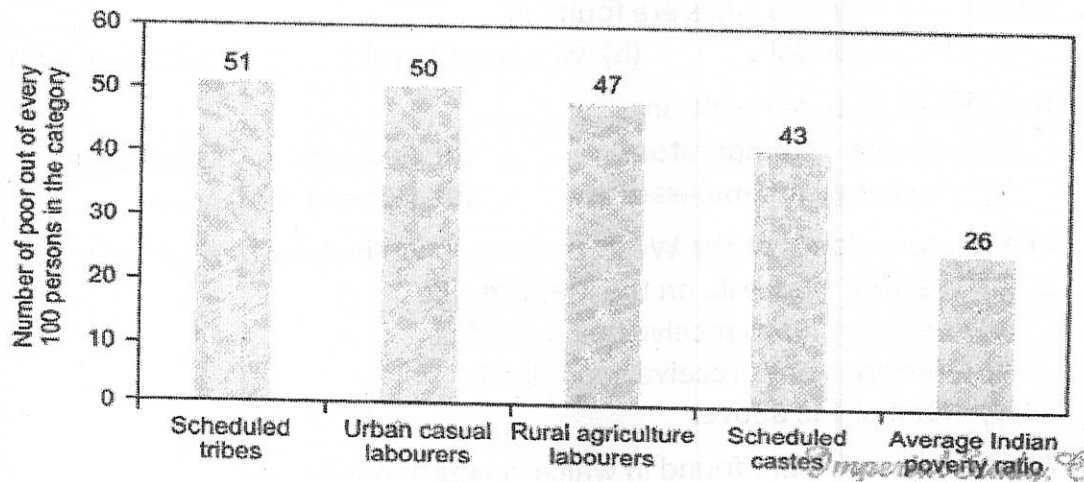
Answer the questions :

    (a) Which group shows the minimum percentage of poverty?

    (b) Categorise the groups in the graph into Socially vulnerable and Economically Vulnera blegroups?

    (c) Write any one indicator of rural poverty.

    (d) Suggest any two ways to reduce rural poverty.

Q.35 (a) Mention any two causes of poverty. **(2+3=5)**

    (b) Explain any three Poverty Alleviation Program being implemented in India.

<div align="center">OR</div>

    (a) Define Poverty. **(1+4=5)**

    (b) Mention the reasons of decline in Poverty ratio in the following states :

        (a) Kerala   (b) Punjab   (c) West Bengal   (d) Tamin Nadu

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DELHI PUBLIC SCHOOL, BHILAI

DATE : 16.03.2022   ANNUAL EXAMINATION 2021-22   Time : 2 Hrs.

CLASS : IX   SUBJECT – ARTIFICAL INTELLIGENCE   Max. Marks : 50

NOTE : All the Questions are compulsory.

SECTION A

Multiple Choice Questions   1x10=10

Q.01   An entrepreneur ....
- (a) enforces government regulations
- (b) take risk to earn profits
- (c) sets the interest rates at bank
- (d) manages financial investments

Q.02   What is the advantages of Cooperatives ?
- (a) income tax exemption
- (b) minimal government regulation
- (c) short life spam
- (d) single ownership

Q.03   Aptitudes are
- (a) learnt skills   (b) professional qualification   (c) memory skills   (d) Natural talent

Q.04   Human environment refers to the
- (a) the natural surrounding of humans
- (b) the surrounding made by humans
- (c) all the social institutions and organization
- (d) both b & c

Q.05   An ecosystem is any community of living and non-living things that
- (a) work together   (b) interact with each other   (c) are independent of each other   (d) all of these

Q.06   All natural resources needs to be conserved because
- (a) they will soon decay   (b) they will soon exhausted   (c) they are very costly   (d) none of these

Q.07   The current Artificial Neural Networks are part of
- (a) strong AI system   (b) weak AI system   (c) general AI system   (d) true AI system

Q.08   How many layers are required for constructing in Artificial Neural Networks ?
- (a) zero   (b) one   (c) two   (d) three

Q.09   On which of the following learning system are the ANN networks based depending on the feedback received by them ?
- (a) supervised learning   (b) un supervised learning   (c) forced learning   (d) reinforcement learning

Q.10   _____ is a person who takes a risk to produce goods and services in search of profit.
- (a) entrepreneur   (b) employee   (c) police   (d) bureaucrat

SECTION B

Q.11   **Find out errors in the following program lines (if any) & Write the correct line**   1x5=5

1) Print ("Hello World')
2) num=4
   print ("I am" + num + "years old")
3) x=int (input("enter any number"))
   y=x*6
   print(y)
4) 21y = 21E43
5) List = ["apple" , "mango" , "orange"]
   List.del(3):

Q.12   **State True/ False**   1x10=10

1) The variable names are case sensitive in Python
2) List is an example of data structure.
3) Python is capable of handling big data
4) "/" is used as floor division operator
5) C=d+21 is an example of expression
6) The adult brain is about 5% of total weight of body.
7) The adult human weight is about 1.3 kg.
8) The elephant brain is about 10 kg.
9) An average human brain has about 86 billions neurons in it.
10) Each typical neuron has around 100 – 1000 synapses.

SECTION C

Q.13   **Use Python Programming Language for following.........**   4x4=16

1) Write a program which accept three number from user and add them.
2) Write a program to calculate the remainder, taking divisor and dividend as input from user.
3) Create a python list containing the following elements and display it on the screen.
   Mangoes, Apples, Oranges, Grapes
4) Write a program to display multiplication table of any number entered by the user.

Q.14   What are some of the factors that causes imbalance in an ecosystem ?   3

Q.15   How is the human brain different from the Artificial Neuron Network models?   3

Q.16   What is idea behind the creation of Artificial Neural Network ?   3

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DELHI PUBLIC SCHOOL, BHILAI

DATE : 07.03.2022   ANNUAL EXAMINATION, 2021-22   Time : 3 Hrs.

CLASS : IX   SUBJECT – ENGLISH LANGUAGE AND LITERATURE   Max. Marks : 80

General Instructions :

Read the instructions carefully before answering the questions.

➤ The paper consists of 3 sections:

    Section A – Reading : (20 Marks)

    Section B – Writing and Grammar : (30 Marks)

    Section C – Literature : (30 Marks)

➤ All questions are compulsory.

➤ Any section can be attempted at a time.

➤ All the questions of that particular section must be attempted in the correct order.

SECTION – A : READING   (20 Marks)

1. Read the passage given below carefully and answer the questions that follow :

    1. The Nobel Prize is a set of annual international awards bestowed in a number of categories by Swedish and Norwegian committees in recognition of academic, cultural and/or scientific advances. The will of the Swedish inventor Alfred Nobel established the prizes in 1895. The prizes in Chemistry, Literature, Peace, Physics and Physiology or Medicine were first awarded in 1901. The Nobel Memorial Prize in Economic Sciences was established by Sweden's central bank in 1968.

    2. The Nobel Prize itself was made of a mixture of gold and silver with 24 carat or 4.8 g gold coating. Between 1901 and 2015, the Nobel Prizes and the Prize in Economic Sciences were awarded 573 times to 900 people and organisations. With some receiving the Nobel Prize more than once, this makes a total of 870 individuals (821 men and 49 women) and 23 organisations.

    3. The prizes are awarded in Stockholm, Sweden, except for the peace prize, which is awarded in Oslo, Norway. The Nobel Prize is widely regarded as the most prestigious award available in the fields of Literature, Medicine, Physics, Chemistry, Peace and Economics.

    4. The Royal Swedish Academy of Sciences awards the Nobel Prize in Physics, the Nobel Prize in Chemistry and the Nobel Memorial Prize in Economics Sciences; the Nobel Assembly at Karolinska Institute awards the Nobel Prize in Physiology or Medicine; the Swedish Academy grants the Nobel Prize in Literature; and the Nobel Peace Prize is awarded not by a Swedish organization but by the Norwegian Nobel Committee.

    5. Some of the Nobel Prize Winners from India are Rabindranath Tagore, Amartya Sen, CV Raman, Mother Teresa, Kailash Satyarthi, etc.

Based on your understanding of the passage, answer the following questions by choosing the correct option.   (1x8=08)

(i) The purpose of the above passage is to ....

    (a) Familiarize the reader with Nobel Prizes.

    (b) List the Nobel Prize Winners from India.

    (c) Praise the Nobel Prize and Alfred Nobel.

    (d) Inform the reader of how to win the Nobel Prize.

(ii) Select the option that is true for the two statements given below:

    (1) The Nobel Prize itself was made of a mixture of gold and silver with 24 carat or 4.8 mg gold coating.

    (2) A total of 870 people and 23 organisations have won the Nobel Prize.

       (a) (1) is true, (2) is false   (b) (1) is false, (2) is true

       (c) (1) is false, (2) is false   (d) (1) is true, (2) is true

(iii) In which year was the Nobel Prize established?

       (a) 1895   (b) 1901   (c) 1968   (d) 2015

(iv) According to the passage, the Nobel Prize is ....
   (a) Awarded twice in a year.
   (b) Awarded quadrennially.
   (c) Awarded yearly.
   (d) Awarded once in two years.

(v) Which of the following awards was established in 1968?
   (a) Nobel Prize for Chemistry   (b) Nobel Prize for Peace
   (c) Nobel Prize in Physiology   (d) Nobel Memorial Prize in Economic Sciences

(vi) This passage suggests that only one Nobel Prize is awarded in Norway. Which is it?
   (a) Nobel Prize for Medical Sciences   (b) Nobel Prize for Economic Sciences
   (c) Nobel Peace Prize   (d) Nobel Prize for Literature

(vii) According to the above passage, in which of the following fields is the Nobel Prize not awarded?
   (a) Engineering   (b) Medical Sciences   (c) Literature   (d) Both (a) and (b)

(viii) Find an appropriate word in the above passage which means the same as "confer or present an honour, right or gift". (Para 1)
   (a) memorial   (b) bestowed   (c) inventor   (d) recognition

2. Read the passage given below carefully and answer the questions that follow:

1. Sportsmanship can be conceptualized as an enduring and relatively stable characteristic or disposition such that individuals differ in the way they are generally expected to behave in sport situations. In general, sportsmanship refers to virtues such as fairness, self-control, courage and persistence and has been associated with interpersonal concepts of treating others and being treated fairly, maintaining self-control in dealing with others and respect for both authority and opponents. Sportsmanship is also looked at as being the way one reacts to a sport/game/player.

2. The four elements of sportsmanship are often shown as being in good form, the will to win, equity and fairness. All four elements are critical and a balance must be found among all four for true sportsmanship to be illustrated. These elements may also cause conflict, as a person may desire to win more than play in equity and fairness and thus resulting in a clash within the aspects of sportsmanship. This will cause problems as the person believes they are being a good sportsman, but they are defeating the purpose of this idea as they are ignoring two key components of being sportsman like. When athletes become too self-centred, the idea of sportsmanship is dismissed. Today's sporting culture, in particular the base of elite sport, places great importance on the idea of competition and winning and thus sportsmanship takes a back seat as a result. In most, if not all sports, sportsmen at the elite level make the standards on sportsmanship and no matter whether they like it or not, they are seen as leaders and role models in society.

3. Since every sport is rule driven, the most common offence of bad sportsmanship is the act of cheating or breaking the rules to gain an unfair advantage. A competitor who exhibits poor sportsmanship after losing a game or contest is often called a 'sore loser', while a competitor who exhibits poor sportsmanship after winning is typically called a 'bad winner'. Sore loser behaviour includes blaming others for the loss, not accepting responsibility for personal actions that contributed to the defeat, reacting to the loss in an immature or improper fashion, making excuses for the defeat, and citing unfavourable conditions or other petty issues as reasons for the defeat. A bad winner acts in a shallow fashion after his or her victory, such as by gloating about his or her win, rubbing the win in the face(s) of the opponent(s), and lowering the opponent(s)'s self-esteem by constantly reminding the opponent(s) of 'poor' performance in comparison (even if the opponent(s) competed well). Not showing respect to the other team is considered to be a bad sportsmanship display and could lead to demoralizing effects.

A. On the basis of your reading of the passage, answer the following questions in 30-40 words each. (2x4=08)
   (i) What are the four elements of sportsmanship? Is it necessary to strike a balance between all the four elements of sportsmanship?
   (ii) What qualities do the 'sore losers' display after a game?
   (iii) What does a bad winner do after the game?
   (iv) Why has sportsmanship taken a backseat today?

B. **Based on your understanding of the passage, answer the following questions by choosing the correct option:** **(1x4=04)**

(i) Select the option with the underlined words that can suitably replace 'enduring' (paragraph 1)
    (a) The motions of most lizards are executed with <u>great precision but not patiently</u> suffer rapidity.
    (b) These form <u>a timely</u> temporal monument to his fame.
    (c) They are good hunters who are wonderfully cunning and <u>long-standing.</u>
    (d) In this volume, you'll discover the Linking Rings, one of magic's <u>most painfully bearable</u> classics.

(ii) Select the option that suitably completes the dialogue with reference to the above passage.
        Syed : Captain, their midfielder is very weak. We can target him and win the match.
        Abhishek : ....

    (a) Yes, you are right he is very weak.
    (b) No Syed, we are going to play a guileful game.
    (c) No Syed, we are going to play a clean game.
    (d) Yes, that is the only way we will win today.

(iii) Choose the option that best conveys the message in -'every sport is rule driven'.
    (a) All sports must have rules.
    (b) All sports have to adhere to certain rules.
    (c) All sports have to flout certain rules.
    (d) All sports need not have set rules.

(iv) According to the above passage, select the option listing the qualities of a sportsman-
    (1) Respectful   (2) Fair   (3) Inciteful   (4) Apprehensive   (5) Tenacious
        (a) 1 and 2   (b) 2,3 and 4   (c) 1, 2 and 5   (d) 3,4 and 5

SECTION – B : WRITING ANG GRAMMAR   (30 Marks)

3. Write a descriptive paragraph in 100-120 words based on the visual clue given below.   **(08)**

OR

Write a descriptive paragraph, in 100-120 words on Helen Keller based on the clues given below.

Hints : Helen Keller, though deaf and blind from childhood exceptionally talented – parents helped her get education in good institutes – Anne Sullivan, her teacher, brought a revolutionary change in her life – she learned the uses of Braille writing – Miss Sullivan helped her study all the great literature of the world – know the wonders of the world – Helen had an invincible will power and strong determination – she is a role model to all the blind and the deaf people of the world.

4. Develop the following outline into an interesting story in 200-250 words. Also give a suitable title to it.   **(10)**
        He looked with pride at what he had created – the robot – amazing feats – sudden disorientation – technical defect – one human error – devastating impact.
                OR
Complete the story in 200-250 words which begins as the following :

        "Whenever John goes to Uncle Sam's house, he feels something different. He feels that Harry, Uncle Sam's son, has some supernatural powers. Whenever he is around..."

5. Fill in the blanks by choosing the correct options for the sentences given below. (1x4=04)
   (i) Because there have been .... accidents at that road junction, the council are going to install traffic lights there.
      (a) so many   (b) too much   (c) plenty   (d) much more
   (ii) If a store manager decides to take a shoplifter to court, the legal process .... both time-consuming and expensive.
      (a) have to be   (b) may be   (c) need to be   (d) are to be
   (iii) Clean snow .... as much as 87 percent of the sunlight that shines on it.
      (a) is reflecting   (b) has reflected   (c) was reflected   (d) reflects
   (iv) .... bus we were travelling on stopped suddenly because a tree had fallen across the road.
      (a) The   (b) A   (c) An   (d) Those

6. Complete the dialogue between you and your teacher. The conversation revolves around a zoo. (1x4=04)

   Teacher : (i) .... ?
   Student : We can see them in the zoo.
   Teacher : (ii) .... ?
   Student : Yes Sir, I have visited it in Chennai.
   Teacher : (iii) .... ?
   Student : I visited it last year.
   Teacher : (iv) .... ?
   Student : I visited it with my uncle.

   (i) (a) Where could we see wild animals, other than in the wild?
       (b) Where shall we see wild animals, other than in the wild?
       (c) Where might we see wild animals, other than in the wild?
       (d) Where can we see wild animals, other than in the wild?

   (ii) (a) Have you visited a zoo?   (b) Did you visit a zoo?
       (c) Had you visited a zoo?   (d) Do you visit a zoo?

   (iii) (a) When do you visit the zoo?   (b) When did you visit the zoo?
       (c) When you visited the zoo?   (d) When have you visited the zoo?

   (iv) (a) With whom did you visit the zoo?   (b) With whom had you visited the zoo?
       (c) With whom have you visited the zoo?   (d) With whom you visit the zoo?

7. Read the following conversation and complete the passage given below : (1x4=04)

   Mahesh : Can you come to my house today?
   Satish : Sorry, Mahesh. I can't make it today.
   Mahesh : Do you have any other programme for the day?
   Satish : No, actually my Uncle is coming from Australia today and I need to go to the airport to pick him up.

   Mahesh asked Satish (i) .... Satish replied that (ii) .... Mahesh asked him (iii) .... Satish replied in the negative and added that (iv)......... and he needed to go to the airport to pick him up.

   (i) (a) if he can come to his house today.
       (b) if he could come to his house today.
       (c) if he could come to his house that day.
       (d) if he can come to his house that day.

   (ii) (a) he could not made it that day.
       (b) he cannot make it that day.
       (c) he could not have made it today.
       (d) he could not make it that day.

   (iii) (a) if/ whether he had any other programme for the day.
       (b) if/whether he has any other programme for the day.
       (c) if/whether he have any other programme for the day.
       (d) if/whether he had some other programme for the day.

   (iv) (a) his uncle had been coming from Australia that day.
       (b) his uncle was coming from Australia that day.
       (c) his uncle have been coming from Australia today.
       (d) his uncle was coming from Australia today.

SECTION – C : LITERATURE   (30 MARKS)

8. Read the extracts given below and answer the questions that follow :   (1x4=04)

    No,
    The root is to be pulled out –
    Out of the anchoring earth;
    It is to be roped, tied,
    And pulled out-snapped out
    Or pulled out entirely,
    Out from the earth cave,
    And the strength of the tree exposed
    The source, white and wet,
    The most sensitive, hidden
    For years inside the earth.

    (i)   How does the earth anchors the tree?
          (a) The roots of the tree hold the soil firmly that the tree stands firm on the ground.
          (b) The soil spreads around the trunk of the tree and keeps it standing steady.
          (c) The tree is tied with ropes to the hooks fixed in the soil.
          (d) The tree pushes itself inside the soil to get anchored.

    (ii) 'The strength of the tree exposed' conveys that –
          (a) Roots of the tree are taken out of the earth   (b) Branches are withered
          (c) Trunks are withered   (d) All of the above

    (iii) In the above extract the word similar to 'chopped' is …………… .

    (iv) Find a word in the extract to complete the following:
                Entirely : Partially :: ……………………… : Weakness.
                        OR
          The snake trying
          to escape the pursuing stick,
          with sudden curvings of thin
          long body. How beautiful
          and graceful are his shapes!
          He glides through the water away
          from the stroke.

    (i)   The snake tried to escape -
          (a) Someone who was chasing it.   (b) Children who were throwing stones at it.
          (c) The mongoose – chasing it.   (d) The snake charmer who was trying to catch it.

    (ii) The snake in this poem is itself a –
          (a) bad omen   (b) victim   (c) attacker   (d) none of these

    (iii) In the above lines, the word similar to 'elegant' is …………… .

    (iv) 'the pursuing stick' means ……………… .

9. Answer any five of the following questions in 30-40 words each :   (2x5=10)
    (a) Montmorency, the dog, added to the excitement and confusion in packing. Justify.
    (b) Why did the narrator's wife urge the curator to give Baba back to her? What did the curator do?
    (c) In the poem, 'No Men are Foreign', how do we harm ourselves when we hate our brothers? Explain.
    (d) At the age of nine, what lesson had Maria Sharapova learnt?
    (e) In the lesson, 'Weathering the Storm in Ersama', 'His heart went cold' when he reached his
        village. Why?
    (f) What kind of a friend was Sue to Johnsy? What qualities were displayed by her at the time of
        Johnsy's illness?

10. Answer any one of the following questions in 100-150 words.   (08)
    "If I chose a correct and a rational path, the others around me had to change, not me," said Santosh
    Yadav. How does her life justify her words?
                                        OR
    Gerrard says, "In most melodramas the villain is foolish enough to delay his killing long enough to be
    frustrated." Does this statement holds good for the play, 'If I Were You'?

11. Answer any one of the following questions in 100-150 words.   (08)
    In the lesson 'A House is not a Home', who all helped the author overcome the loneliness. How
    does 'the help' change the author's understanding of life and people as a result?
                                        OR
    "You can lead a horse to water, but you can't make it drink". Justify the proverb with reference to
   the story 'The Beggar'.

DELHI PUBLIC SCHOOL, BHILAI

DATE : 09.03.2022　　　ANNUAL EXAMINATION 2021-22　　　**Time : 3 Hrs.**
CLASS : IX　　　SUBJECT – SCIENCE　　　**Max. Marks : 80**

....

General Instructions:--
  ➢ All questions are compulsory.
  ➢ There are three sections and total 30 questions in the question paper.
  ➢ In some questions internal choices are provided.
  ➢ A student has to attempt any one question out of the given alternatives.

....

SECTION – A : PHYSICS (28 MARKS)

Q.01　Write any two differences between 'G' and 'g'.　(2)

Q.02　The figure given below shows the earth and the positions of some points related to earth.　(2)
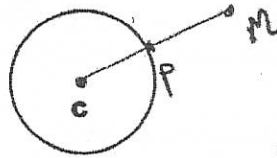
　(a) At which point, out of M and P, the value of 'g' is higher?
　(b) What is the value of 'g' at C?
　(c) Write an expression for 'g', showing it's dependence on radius of heavy body.

Q.03　What is the output power, in watt, of a 60 kg sprinter who accelerates from 0 to 10m/s in 3 sec?　(2)

OR

In a house, 3 bulbs of 25 W each, an iron of 1000 W and refrigerator of 1500 W are used for 5 hrs. a day. Calculate units of electricity consumed in the month of October.

Q.04　Define negative work and give one example to explain it.　(2)

Q.05　If a planet existed whose mass is twice that of the earth and radius is 3/2 times of radius of the earth, how much will 2 kg mass weigh on this planet?　(2)

OR

A force of 1.5N is acting between two objects of same mass placed at a distance of 2m. Calculate the mass of each body. (G = 6.67 X 10^{-11} Nm^2kg^{-2}).

Q.06　What should be the change in velocity of a body to maintain same K.E. if it' mass is increased 4 times. Show with the help of mathematical steps.　(2)

Q.07　(a) Define average power.
　　　(b) State any two situations of zero work with one example for each situation.　(3)

Q.08　(a) How will 'G' change with the change of distance between two objects? Justify your answer.
　　　(b) A car falls-off a ledge and drops to the ground in 0.5 second.
　　　　　(i) What will be it's speed while striking the ground?
　　　　　(II)How high is ledge from the ground? (g = 10 m/s^{-2}).　(3)

Q.09　Show that weight of object on moon is 1/6th of it's weight on surface of earth.　(3)

OR

　(a) Write the mathematical form of law of gravitation.
　(b) Two masses m_1 and m_2 are separated by a distance r. If one of the two masses increases by 3 times and distance between them becomes 1/4th of initial value, how will force of gravitation change? Explain mathematically.

Q.10　(a) How does g vary from equator to pole? Explain with the help of a suitable diagram.
　　　(b) Two quantities X and Y have quite different features. 'X' is scalar while 'Y' is vector. Y depends on 'g' but X doesn't depend on 'g'; the value of Y can be 0 but X can never be zero. If one of these two quantities is expressed in terms of 'N' then identify X and Y. Also write a relationship between X and Y.　(3)

Q.11　<u>Read the following and answer the questions given below: -</u>
When a pendulum moves from it's mean position P to the extreme position A or B, it's height 'h' above the mean position P goes on increasing as shown in figure. As a result, kinetic energy decreases and P.E. increases. Finally, at extreme position, P.E. becomes maximum and K.E. becomes zero. This observation is related to law of conservation of energy. This law also explains the energy transformation in case of freely falling body.
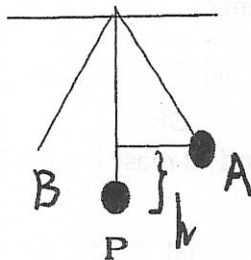
(a) How does total mechanical energy of pendulum vary from mean position to extreme position? (1)

(b) State law of conservation of energy. (1)

(c) Draw a graph showing variation of P.E. with height in case of freely falling body. Also write expression for P.E. (2)

OR

What are the factors affecting K.E.? Where is K.E. of pendulum maximum during it's vibration? What happens to K.E. of a freely falling body when it strikes the ground?

SECTION – B : CHEMISTRY (32 MARKS)

Q.12 (a) Define atomicity. (2)

(b) State the law of constant proportion.

Q.13 (a) Define atomic mass. (2)

(b) Calculate formula unit mass of ZnO (atomic masses of Zinc=65u, Oxygen=16u).

Q.14 Calculate the number of molecules of CO_2 present in 4.4g of CO_2. (2)

OR

Convert into mole (a) 20 g of water (b) 12 g of O_2

Q.15 Write the electronic configurations and valency of (a) Sodium (b) Silicon (2)

OR

What is an octet? How do elements attain an octet?

Q.16 What are isobars? Give one example. (2)

Q.17 (a) Define mole.

(b) What are polyatomic ions? Give two examples. (3)

Q.18 Write the chemical formulae of the following compounds. Name the cation & anion present in each case. (3)

(a) Magnesium Chloride (b) Calcium Carbonate (c) Aluminium Sulphate

Q.19 (a) Calculate the mass of 0.5 mole of N_2 gas. (3)

(b) If one mole of carbon atoms weighs 12 gram, What is the mass in gram of 1 atom of carbon?

OR

Find the ratio by number of atoms of the elements present in water molecule if the ratio of Hydrogen & oxygen is 1:8 by mass.

Q.20 The average atomic mass of a sample of an element X is 16.24. What are the percentages of isotopes $_{8}^{16}X$ and $_{8}^{18}X$ in the sample ? (3)

Q.21 (a) What are canal rays? (3)

(b) State any two drawbacks of Rutherford's nuclear model of an atom.

OR

State three conclusions made by Rutherford in his $\alpha - scattering$ experiment.

Q.22 (a) If Z=6, what would be the valency of the element? Also, name the element. (3)

(b) Draw a sketch of Bohr's model of an atom with atomic number 12.

Q.23 Read the following and answer the questions given below : (1x4=4)

The atomic number is the number of protons found in the nucleus of every atom of that element. The atomic number uniquely identifies a chemical element. It is identical to the charge number of the nucleus. The sum of atomic number and the number of neutrons gives the mass number of an atom. Atoms with the same atomic number but different mass number are known as isotopes.

(a) Which of the following statement is always correct for a neutral atom?

    (i) An atom has equal number of electrons & neutrons.

    (ii) An atom has equal number of protons & neutrons.

    (iii) An atom has equal number of electrons & protons.

    (iv) An atom has equal number of electrons, protons & neutrons.

(b) How many neutrons are present in the nucleus of Deuterium, Tritium & Protium?

    (i) 1,2,0   (ii) 2,1,0   (iii) 3,2,1   (iv) 2,2,0

(c) The isotope used in the treatment of goitre is

    (i) Co-60   (ii) U-235   (iii) I-131   (iv) C-14

(d) The number of electrons in an element X is 18 and the number of neutrons is 22. Which is the correct representation of the element?

    (i) $_{18}^{42}X$ (ii) $_{22}^{40}X$ (iii) $_{18}^{40}X$ (iv) $_{22}^{42}X$

OR

The atomic number of an element is 13 and its mass no. is 27. The correct order of electrons, protons and neutrons respectively in this atom is

    (i) 13, 13, 14   (ii) 14, 13, 13   (iii) 27, 13, 13   (iv) 27, 14, 13

SECTION – C : BIOLOGY (20 MARKS)

Q.24 What are vectors? Name the vector that transmits brain fever. (2)

Q.25 Give reason: (2)
     (a) Areolar tissue is a type of connective tissue.
     (b) Antibiotics are not useful for viral diseases.

Q.26 Differentiate between striated muscle, unstriated muscle and cardiac muscle on the basis of their structure and function. (3)

Q.27 It was diagnosed that the body of a patient has lost the power of fighting any infection. Name the disease the patient was suffering. Name the microbe causing the disease.
How does it spread from one person to another? (3)
<div align="center">OR</div>
A person is suffering from chest pain, breathlessness, loss of body weight, persistent cough and blood stained cough.
Name the disease the person is suffering from.
Name the causative organism.
How does it transmit from one person to another person?

Q.28 Draw a well labelled diagram of a neuron. (3)

Q.29 Health workers are exposed to more sick people than others in the community. Write any three preventive measures they take to avoid sickness. (3)

Q.30 Read the following questions and answer the questions given below :
A mother who had suffered from chicken pox in her childhood is now taking care of her child who is suffering from the same disease. (4)

    01.   What are the chances of the mother having chicken pox? Explain.
    02.   What is vaccine?
    03.   What is the principle of immunisation?
    04.   Name the causative organism of chicken pox.
<div align="center">OR</div>
    05.   Who produced the first vaccine?

<div align="center">ಅಂತ್ಯ ಖುಣು</div>

दिनाङ्कः – 11.03.2022   वार्षिकी परीक्षा, 2021-22   समयः – होरात्रयम्
कक्षा – नवमी   विषय - संस्कृतम्   पूर्णाङ्काः - 80

निर्देशाः
(i)   अस्मिन् प्रश्नपत्रे चत्वारः खण्डाः सन्ति।
(ii) निर्देशानुसारं सर्वे प्रश्नाः अनिवार्याः।
(iii) प्रश्नानाम् उत्तराणि संस्कृतभाषायामेव लेखनीयानि।

'क' खण्डः (अपठित–अवबोधनम्)

प्रश्न 01. अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत –   (10)

बीरबलः राज्ञः अकबरस्य नवरत्नेषु एकं रत्नम् आसीत्। सः अतीव बुद्धिमान् वाक्पटुः चतुरः च आसीत्। एकदा अकबरः बीरबलम् अवदत् – " यदि भवान् एतावान् बुद्धिमान् अस्ति तदा तव पिता तु त्वत् अपि चतुरतरः भविष्यति, अहं तव पितरं द्रष्टुम् इच्छामि " इति। गृहं गत्वा पिरतं अवदत् – " राजा भवन्तं द्रष्टुम् इच्छति, परं भवान् तस्य समक्षं तूष्णीं तिष्ठेत् " इति। बीरबलस्य पिता राज्ञः अकबरस्य राजभवनम् अगच्छत्। अन्यस्मिन् दिवसे यदा बीरबलः राजप्रासादम् आगच्छत्। तदा राजा बीरबलम् अपृच्छत् " यदि कोऽपि मूर्खः तव समक्षम् आगच्छेत् तदा किं कर्तव्यम् " ? बीरबलः प्रत्यवदत् " तूष्णीं स्थातव्यम् " इति।

(I)   एकपदेन उत्तरत – (केवलं प्रश्नद्वयम्)   (1x2=02)
(i)   कः अकबरस्य नवरत्नेषु एकं रत्नम् आसीत् ?
(ii) एकदा बीरबलं कः अवदत् ?
(iii) बीरबलः कस्य राज्ञः नवरत्नेषु एकं रत्नम् आसीत् ?

(II) पूर्णवाक्येन उत्तरत – (केवलं प्रश्नद्वयम्)   (2x2=04)
(i)   राजा बीरबलं किम् अपृच्छत् ?
(ii) बीरबलस्य पिता कुत्र अगच्छत्?
(iii) बीरबलः कीदृशः आसीत् ?

(III) अस्य अनुच्छेदस्य समुचितं शीर्षकं लिखत।   (01)

(IV) यथानिर्देशम् उत्तरत – (केवलं त्रयाणाम्)   (1x3=03)
(i)   ' मूर्खः ' इति पदस्य विलोमपदं अनुच्छेदे किम् अस्ति ?
      (क) समक्षम्   (ख) धीमान्   (ग) बुद्धिमान्
(ii) ' अहं तव पितरं द्रष्टुम् इच्छामि '। अत्र क्रियापदं किम् ?
      (क) तव   (ख) पितरं   (ग) इच्छामि
(iii) ' अन्यस्मिन् दिवसे ' अनयोः पदयोः विशेषणपदं किम् ?
(iv) 'राजा भवन्तं द्रष्टुम् इच्छति ' अत्र कर्तृपदं किम् अस्ति ?
      (क) भवन्तम्   (ख) राजा   (ग) द्रष्टुम्

'ख' खण्डः (रचनात्मकं कार्यम्)

प्रश्न 02. भवान् शशांकः अस्ति। परीक्षापरिणामस्य विषये स्वपितरं प्रति लिखिते अस्मिन् पत्रे मञ्जूषायाः उचितपदानि चित्वा रिक्तस्थानानि पूरयतु।   (½ x10=05)

महर्षिविद्यामन्दिरम्
जयपुरतः

पूज्य पितृमहोदय!
(i)   ....

अतीव प्रसन्नतायाः विषयोऽस्ति यत् मम अर्द्धवार्षिक्याः परीक्षायाः (ii) ...... आगतः। अहं (iii) .... प्रतिशतं अङ्कान् प्राप्तवान्। किन्तु इदं ज्ञात्वा (iv) ...... अपि चिन्तितः भविष्यति यत् (v) ...... अहं उत्तमान् अङ्कान् प्राप्तु समर्थः न अभवम्। अद्यतः (vi) ...... गणितस्य अभ्यासं करिष्यामि। आशासे यत् (vii) ...... भवतः आशीर्वादेन च आगामिवार्षिकपरीक्षायां गणितविषये अपि नवतिः प्रतिशतं अङ्कान् (viii) ...... । मातरं अग्रजं प्रति (ix) ...... प्रणामाः कथनीयाः।
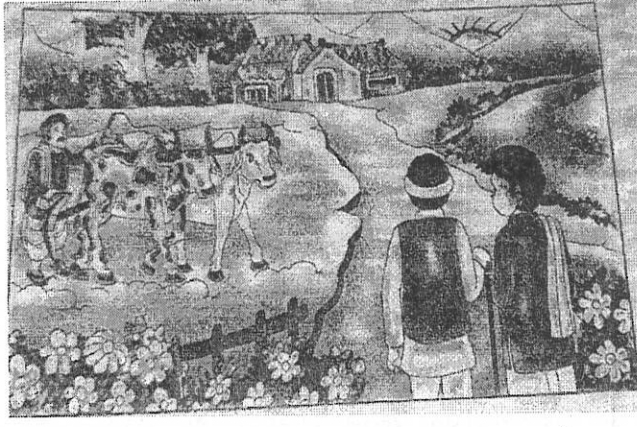
भवतः पुत्रः

(x)   ....

मञ्जूषा –

मम	शशांकः	चरणस्पर्शः	गणितविषये	नवतिः
भवान्	अभ्यासेन	अहम्	परिणामः	प्राप्स्यामि

Contd...2

प्रश्न 03. अधः प्रदत्तं चित्रं दृष्ट्वा मञ्जूषायां प्रदत्तशब्दानां सहायतया पञ्चवाक्यानि संस्कृतभाषायां लिखत – (1x5=05)

मञ्जूषा –

क्षेत्रम्,	ग्रामम्,	वृक्षाः,	सूर्यः,	कृषकः,	कृषकौः,	हलेन,	कुटीरम्,	सन्ति
उदेति,	अत्र,	परस्परम्,	पुष्पाणि,	विकसन्ति,	वृषभौ,	पर्वतः,	वार्तालापम्,	कर्षति

अथवा

' जन्तूशाला ' इति विषयम् अधिकृत्य मञ्जूषायां प्रदत्तशब्दानां सहायतया पञ्चवाक्यानि संस्कृतेन लिखत –

मञ्जूषा –

सिंहः,	तत्र,	स्थितः,	जन्तूशालायाः,	पंजरे,	दृश्यते,	न,	कर्त्तव्यम्,	एकस्मिन्,
कोणे,	चित्रम्,	चित्रकः,	धावति,	जनाः,	तीव्रम्,	मृगद्वयम्,	अगच्छाम,	वातावरणम्

प्रश्न 04. अधोलिखितानां वाक्यानां संस्कृतभाषायाम् अनुवादं कुरुत – (केवलं पञ्चानाम्) (1x5=05)

  (i) लता पत्र लिखती है ।   (ii) तुम कब खेलते हो ?

  (iii) तुम कब खेलते हो ?   (iv) हम सब पानी पीयेंगे ।

  (v) मोहन ने पत्र लिखा ।   (vi) तुम सच बोलो ।

  (vii) मैं घर जाता हूँ ।   (viii) हम सब गेंद से खेलेंगे ।

प्रश्न 05. रेखाङ्कितपदानां उचितविकल्पेभ्यः सन्धिं विच्छेदं वा कुरुत – (प्रश्न चतुष्टयम्) (1x4=04)

  (i) जनाः <u>देवालयं</u> गच्छन्ति ।

    (क) देव + आलयम्   (ख) देवो + आलयम्   (ग) देव + लय

  (ii) <u>लम्ब + उदरः</u> गणेशस्य नाम् अस्ति ।

    (क) लम्बादरः   (ख) लम्बोदरः   (ग) लम्बुदरः

  (iii) गुरुं प्रति <u>अध्ययनार्थं</u> गच्छ ।

    (क) अध + जनार्थम्   (ख) अध्ययन + अर्थम्   (ग) ध्ययन + अर्थम्

  (iv) <u>पो + अनः</u> मन्दं मन्दं वहति ।

    (क) पावनः   (ख) पोवनः   (ग) पवनः

प्रश्न 06. प्रदत्तविकलेभ्यः उचितम् उत्तरं चित्वा रिक्तस्थानानि पूरयत – (प्रश्न चतुष्टयम्) (1x4=04)

  (i) जनाः .... परितः भ्रमन्ति ।

    (क) उद्यानम्   (ख) उद्यानात्   (ग) उद्यानेन

  (ii) .... नमः ।

    (क) गुरुम्   (ख) गुरोः   (ग) गुरवे

  (iii) कृष्णः .... सह मथुराम् अगच्छत् ।

    (क) बलरामः   (ख) बलरामेण   (ग) बलरामात्

  (iv) अध्ययनसमये .... बहिः मा गच्छ ।

    (क) कक्षाम्   (ख) कक्षायाम्   (ग) कक्षायाः

  (v) .... विना सुखं नास्ति ।

    (क) धर्मः   (ख) धर्मम्   (ग) धर्मस्य

प्रश्न 07. रेखाङ्कितपदानां कृते विकल्पेभ्यः उचितं पदं लिखत –   (प्रश्न चतुष्टयम्) (1x4=04)

  (i) छात्राः <u>पठ् + तुमुन्</u> विद्यालयं गच्छन्ति ।

    (क) पाठितुम्   (ख) पठितुम्   (ग) पठतुम्

  (ii) बालकः <u>धावित्वा</u> उपवनं प्राविशत् ।

    (क) धव् + क्त्वा   (ख) धाव् + त्वा   (ग) धाव् + क्त्वा

  (iii) रमेशः <u>वि + हस् + ल्यप्</u> अवदत् ।

    (क) प्रहस्य   (ख) हस्य   (ग) विहस्य

  (iv) बालकाः चलचित्रं <u>दृष्ट्वा</u> प्रसन्नाः भवन्ति ।

    (क) दृश् + क्त्वा   (ख) दृश् + क्त   (ग) दृश् + ल्यप्

  (v) पथिकः जलं <u>पा + क्त्वा</u> सन्तुष्टः अभवत् ।

    (क) पीत्वा   (ख) पत्वा   (ग) पाक्त्वा

प्रश्न 08. रेखाङ्कितपदेभ्यः उपसर्गं चित्वा लिखत – (केवलं त्रयाणाम्) (1x3=03)

(i) सत्यं सदा <u>विजयते</u>।

(क) वि (ख) विज (ग) जयते

(ii) रामः मृगम् <u>अनुधावति</u>।

(क) धाव् (ख) अनु (ग) वति

(iii) बालकः मातुः हस्तात् अधः <u>निपतति</u>।

(क) पत् (ख) ति (ग) नि

(iv) गंगा हिमालयात् <u>प्रवहति</u>।

(क) प्र (ख) वि (ग) ति

'घ' खण्डः (रचनात्मकं कार्यम्)

प्रश्न 09. अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत – (06)

प्रकृतिः समेषां प्राणिनां संरक्षणाय यतते। इयं सर्वान् पुष्णाति विविधैः प्रकारैः, सुखसाधनैः च तर्पयति। पृथिवी, जलम्, तेजः, वायुः, आकाशः च अस्याः प्रमुखानि तत्त्वानि। तान्येव मिलित्वा पृथक्तया वाऽस्माकं पर्यावरणं रचयन्ति। आव्रियते परितः समन्तात् लोकः अनेन इति पर्यावरणम्। यथा अजातशिशुः मातृगर्भे सुरक्षितः तिष्ठति तथैव मानवः पर्यावरणकुक्षौ। परिष्कृतं प्रदूषणरहितं च पर्यावरणम् अस्मभ्यं सांसारिकं जीवनसुखं, सद्विचारं, सत्यसङ्कल्पं माङ्गलिकसामग्रीञ्च प्रददाति। प्रकृतिकोपैः आतङ्किको जनः किं कर्तुं प्रभवति ? जलप्लावनैः, अग्निभयैः, भूकम्पैः, वात्याचक्रैः, उल्कापातादिभिश्च सन्तप्तस्य मानवस्य क्व मङ्गलम् ?

(I) एकपदेन उत्तरत – (केवलं प्रश्नद्वयम्) (1x2=02)

(i) अजातशिशुः कुत्र सुरक्षितः तिष्ठति ?

(ii) प्रकृतिः केषां संरक्षणाय यतते ?

(iii) मानवः कुत्र सुरक्षितः तिष्ठति ?

(II) पूर्णवाक्येन उत्तरत – (केवलं प्रश्नद्वयम्) (1x2=02)

(i) प्रकृतेः प्रमुखतत्त्वानि कानि सन्ति ?

(ii) परिष्कृतं पर्यावरणं अस्मभ्यं किं किं प्रददाति ?

(iii) सन्तप्तः मानवः कैः आतङ्कितः अस्ति ?

(III) भाषिककार्यम् (केवलं प्रश्नद्वयम्) (1x2=02)

(i) 'सन्तप्तः मानवः' अनयोः पदयोः विशेष्यपदं किम् ?

(ii) 'प्रकृतिः प्राणिनां संरक्षणाय यतते' अत्र क्रियापदं किम् ?

(iii) 'कुविचारम्' इति पदस्य विलोमपदं गद्यांशे किम् ?

(क) दुःखम्   (ख) सद्विचारम्   (ग) सांसारिकम्

प्रश्न 10. अधोलिखितं पद्यांशं पठित्वा प्रश्नान् उत्तरत – (06)

वृद्धोऽहं त्वं युवा धन्वी सरथः कवची शरी।

न चाप्यादाय कुशली वैदेहीं मे गमिष्यसि ।।

(I) एकपदेन उत्तरत – (केवलं प्रश्नद्वयम्) (1x2=02)

(i) कः स्वयं (आत्मानं) वृद्धं वदति ?

(ii) कः सरथः अस्ति ?

(iii) रावणः कां नीत्वा न गमिष्यति ?

(II) पूर्णवाक्येन उत्तरत – (केवलं प्रश्नद्वयम्) (1x2=02)

(i) अत्र रावणः कीदृशः वर्णितः अस्ति ?

(ii) कः वैदेहीं आदाय कुशली न गमिष्यति ?

(III) निर्देशानुसारम् उत्तरत – (केवलं प्रश्नद्वयम्) (1x2=02)

(i) अस्मिन् श्लोके 'वृद्धः' पदस्य कः विपर्ययः (विलोमः) अस्ति ?

(क) त्वम् (ख) युवा (ग) धन्वी

(ii) 'त्वम्' इति कर्तृपदस्य क्रियापदं किम् ?

(क) कुशली (ख) आदाय (ग) गमिष्यसि

(iii) ' आदाय ' अस्य पर्यायपदं श्लोके किम् अस्ति ?

(क) नीत्वा (ख) त्वम् (ग) शरी

प्रश्न 11. अधोलिखितं नाट्यांशं पठित्वा प्रश्नान् उत्तरत – (06)

तपोदत्तः – (सवैलक्ष्यम् आत्मगतम्)

अये! मामेवोद्दिश्य भद्रपुरुषोऽयम् अधिक्षिपति! नूनं सत्यमत्र पश्यामि। अक्षरज्ञानं विनैव वैदुष्यमवाप्तुम् अभिलषामि। तदियं भगवत्याः शारदायाः अवमानना। गुरुगृहं गत्वैव विद्याभ्यासो मया करणीयः। पुरुषार्थैरेव लक्ष्यं प्राप्यते।

(प्रकाशम्)

भो नरोत्तम! नाऽहं जाने यत् कोऽस्ति भवान्। परन्तु भवदिभः उन्मीलितं मे नयनयुगलम्। तपोमात्रेण विद्यामवाप्तुं प्रयतमानः अहमपि सिकताभिरेव सेतुनिर्माणप्रयासं करोमि। तदिदानीं विद्याध्ययनाय गुरुकुलमेव गच्छामि।

(सप्रणामं गच्छति)

(I) एकपदेन उत्तरत — (केवलं प्रश्नद्वयम्)   (1x2=02)
    (i) तपोदत्तः किं विना वैदुष्यं प्राप्तुम् अभिलषति ?
    (ii) तपोदत्तः विद्याध्ययनार्थं कुत्र गच्छति ?
    (iii) कः गुरुकुलं गच्छति ?

(II) पूर्णवाक्येन उत्तरत — (केवलं प्रश्नद्वयम्)   (1x2=02)
    (i) तपोमात्रेण विद्यां प्राप्तुं तपोदत्तः कीदृशं प्रयासं करोति ?
    (ii) कैः लक्ष्यं प्राप्यते ?
    (iii) कस्याः अवमानना वर्णिता अस्ति ?

(III) निर्देशानुसारम् उत्तरत — (केवलं प्रश्नद्वयम्)   (1x2=02)
    (i) 'असत्यम्' इति पदस्य विपर्ययपदं (विलोम) किं प्रयुक्तम् ?
       (क) विद्या   (ख) सत्यम्   (ग) सेतुम्
    (ii) 'अभिलषामि' इति क्रियापदस्य कर्तृपदं किम् ?
       (क) त्वम्   (ख) अहम्   (ग) प्रयत्नः
    (iii) 'भद्रः पुरुषः' अनयोः पदयोः विशेषणपदं किम् ?

प्रश्न 12. अधोलिखितयोः श्लोकयोः मञ्जूषातः उचितं शब्दं चित्वा अन्वयं पूरयत —   (½ x8=04)

(I) यो मां पुत्रप्रीत्या पोषयति स्वामिनो गृहे तस्य ।
    रक्षानियोगकारणान्न मया भ्रष्टव्यमीषदपि ।।
    अन्वयः — यः पुत्रप्रीत्या .... पोषयति तस्य ....गृहे .... करणात् मया ईषत् अपि न .... ।

    मञ्जूषा — | स्वामिनः,   माम्,   रक्षानियोग,   भ्रष्टव्यम् |

(II) सा तदा करुणा वाचो विलपन्ती सुदुःखिता । वनस्पतिगतं गृध्रं ददर्शायतलोचना ।।
    अन्वयः — .... सुदुःखिता करुणा .... विलपन्ती ....सा (सीता) वनस्पतिगतं गृध्रं .... ।

    मञ्जूषा — | ददर्श,   तदा,   वाचः,   आयतलोचना |

प्रश्न 13. अधोलिखितवाक्यानि घटनाक्रमानुसारं लिखत —   (½ x8=04)
    (i) सः पाठशालागमनवेलायां क्रीडितुम् अगच्छत् ।
    (ii) चटका अवदत् — अहं नीडनिर्माणे व्यस्ता अस्मि ।
    (iii) बालः एकं कुक्कुरम् अपश्यत् ।
    (iv) अन्ते धनं सम्पत्तिं च प्राप्नोत् ।
    (v) एकदा एकः भ्रान्तः बालः आसीत् ।
    (vi) पुष्पोद्याने सः मधुकरम् अपश्यत् ।
    (vii) कुक्कुरः स्वामिनः सेवायां लीनः आसीत् ।
    (viii) सः पठितुं विद्यालयम् अगच्छत् ।

प्रश्न 14. रेखाङ्कितपदानि अधिकृत्य प्रश्ननिर्माणं कुरुत — (केवलं षट्)   (1x6=06)
    (i) कुक्कुरः मानुषाणां मित्रम् अस्ति ।
       (क) कः   (ख) केभ्यः   (ग) केषाम्
    (ii) तपोदत्तः मित्रैः गर्हितः अभवत् ।
       (क) का   (ख) कः   (ग) कैः
    (iii) गुरुगृहं गत्वैव विद्याभ्यासः करणीयः ।
       (क) के   (ख) कस्य   (ग) कुत्र
    (iv) जटायुः चरणाभ्यां रावणस्य गात्रे व्रणं चकार ।
       (क) कैः   (ख) कः   (ग) काभ्याम्
    (v) वनवृक्षाः निर्विवेकं छिद्यन्ते ।
       (क) का   (ख) के   (ग) कीदृशाः
    (vi) अजातशिशुः मातृगर्भे सुरक्षितः तिष्ठति ।
       (क) के   (ख) कः   (ग) का
    (vii) पुरुषः नद्यां सिकताभिः सेतुं निर्मातुं प्रयतते ।
       (क) कां   (ख) कुत्र   (ग) काभिः

प्रश्न 15. पर्यायपदानि मेलयत —   (1x4=04)

'क'	'ख'
आशु	पृथिव्याम्
कवची	अपतत्
पपात	कवचधारी
भुवि	शीघ्रम्

प्रश्न 16. विशेषण विशेष्यपदानि मेलयत —   (1x4=04)

'क'	'ख'
स्वार्थान्धः	मधुकरम्
बहुमूल्यानि	रावणः
सरथः	वस्तूनि
व्रजन्तम्	मानवः

ॐॐॐॐ ꧁꧂꧂꧂

दिनांक - 11.03.2022   वार्षिक परीक्षा, 2021-22   समय – 3 घण्टे

कक्षा - नवमी   विषय - हिन्दी 'ब'   पूर्णांक - 80

सामान्य निर्देश :–

- इस प्रश्न-पत्र में दो खण्ड हैं – खण्ड 'अ' और खण्ड 'ब'।
- दिए गए निर्देशों का पालन करते हुए प्रश्नों के उत्तर दीजिए।

खण्ड – 'अ'

प्रश्न 01. निम्नलिखित पद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए -   (2+2+1=05)

क्रमशः कंठ क्षीण हो आया,
शिथिल हुए अवयव सारे,
बैठा था नव-नव उपाय की
चिंता में मैं मनमारे।
जान सका न प्रभात सजग से
हुई अलस कब दोपहरी,
स्वर्ण-घनों में कब रवि डूबा,
कब आई संध्या गहरी।

सभी ओर दिखलाई दी बस,
अंधकार की ही छाया,
छोटी-सी बच्ची को ग्रसने
कितना बड़ा तिमिर आया !
ऊपर विस्तृत महाकाश में,
जलते-से अंगारों से,
झुलसी-सी जाती थी आँखे
जगमग जगते तारों से।

(क) पिता को चिन्ता की अधिकता के कारण क्या ज्ञान नहीं हुआ ?

(ख) 'जगमग तारे' पिता को कैसे प्रतीत हो रहे थे ?

(ग) रेखांकित शब्दों के अर्थ लिखिए।

प्रश्न 02. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए -   (2+2+1=05)

धर्म की उपासना के मार्ग में कोई भी रुकावट न हो। जिसका मन जिस प्रकार चाहे, उसी प्रकार धर्म की भावना को अपने मन में जगावे। धर्म और ईमान, मन का सौदा हो, ईश्वर और आत्मा के बीच का संबंध हो, आत्मा को शुद्ध करने और ऊँचे उठाने का साधन हो। वह, किसी दशा में भी, किसी दूसरे व्यक्ति की स्वाधीनता को छीनने या कुचलने का साधन न बने। आपका मन चाहे, उस तरह का धर्म आप मानें, और दूसरों का मन चाहे, उस प्रकार का धर्म वह माने। दो भिन्न धर्मों के मानने वालों के टकरा जाने के लिए कोई भी स्थान न हो। यदि किसी धर्म के मानने वाले कहीं ज़बरदस्ती टाँग अड़ाते हों, तो उनका इस प्रकार का कार्य देश की स्वाधीनता के विरुद्ध समझा जाए।

(क) कौन-सा कार्य देश की स्वाधीनता के विरुद्ध समझा जाए ?

(ख) धर्म और ईमान कैसा होना चाहिए ?

(ग) धर्म के नाम पर क्या-क्या नहीं होना चाहिए ?

प्रश्न 03. निम्नलिखित प्रश्नों के संक्षिप्त उत्तर लिखिए – (कोई 10)   (10x1=10)

(i) अतिथि कितने दिनों से लेखक के घर में रह रहा था ?

(ii) ' भावनाएँ गालियों का स्वरूप ग्रहण कर रही हैं, पर तुम जा नहीं रहे। ' वाक्य लेखक ने किसे संबोधित करते हुए लिख है ?

(iii) लेखक के अनुसार धर्म के स्पष्ट चिह्न क्या हैं ? ' धर्म की आड़ ' पाठ के आधार पर लिखिए !

(iv) ज्वर से पीड़ित सुखिया अपने पिता से क्या माँगती है ?

(v) मंदिर में प्रवेश करने के अपराध में सुखिया के पिता को कितने दिन की सज़ा हुई ?

(vi) ' खुशबू रचते हैं हाथ ' कविता में पीपल के पत्ते-जैसे नए हाथ किसके हैं ?

(vii) ' खुशबू रचते हैं हाथ ' कविता के कवि का क्या नाम है ?

(viii) गिलहरी का छोटा बच्चा कितने दिन में ठीक हुआ ?

(ix) गिल्लू को समाधि कहाँ दी गई ?

(x) लेखक तक्षशिला (पाकिस्तान) क्यों गया था ?

(xi) गाँधीजी को नदी पार कराने की ज़िम्मेदारी किसे दी गई, जिसे लोगों ने 'निषाद राज' कहना शुरू कर दिया?

(xii) कुएँ वाली घटना के समय लेखक श्रीराम शर्मा की आयु कितनी थी ?

Contd..2

प्रश्न 04. निम्नलिखित प्रश्नों के उत्तर 25–30 शब्दों में दीजिए – (कोई 4)   (4x3=12)

(क) ' एक फूल की चाह ' कविता में वर्णित भगवान के भक्तों की चारित्रिक विशेषताओं का वर्णन कीजिए।

(ख) ' खुशबू रचते हैं हाथ ' कविता के लिखने का मुख्य उद्देश्य क्या है ?

(ग) अतिथि को जाने के लिए लेखक ने किस-किस तरह के संकेत दिए ?

(घ) लेखक गणेश शंकर विद्यार्थी ने ऐसा क्यों कहा है कि ' धन की मार से ज्यादा बुरी है बुद्धि की मार।'

(ङ) ' धर्म की आड़ ' पाठ के आधार पर स्पष्ट कीजिए कि तत्कालीन समाज में धर्म एवं ईमान की जो स्थिति थी, वह आज भी समाज में विद्यमान है।

प्रश्न 05. निम्नलिखित प्रश्नों उत्तर लगभग 60–70 शब्दों में दीजिए (कोई 2)   (5+5=10)

(क) ' खुशबू रचते हैं हाथ ' कविता में आर्थिक रूप से अशक्त लोग जीवन-निर्वाह करने के लिए गंदी बस्तियों में रहते हैं तथा ' एक फूल की चाह ' कविता में असहाय पिता अपनी पुत्री की अंतिम इच्छा पूरी नहीं कर पाता। दोनों की असमर्थता या विवशता में क्या अंतर है ? अपने शब्दों में लिखिए।

(ख) ' हामिद खाँ ' लेखक को अपना अतिथि मानकर खाने के पैसे भी नहीं लेता जबकि ' तुम कब जाओगे अतिथि ' पाठ में लेखक अतिथि की उपस्थिति से दुखी एवं परेशान है। दोनों के आतिथ्य में क्या अंतर हैं और क्यों?

(ग) धर्म का सच्चा बोध किस प्रकार हमें मानवतावादी एवं सदाचारी बना सकता है ? ' धर्म की आड़ ' पाठ को ध्यान में रखते हुए उत्तर दीजिए।

प्रश्न 06. निम्नलिखित प्रश्नों के उत्तर लगभग 40–50 शब्दों में दीजिए (कोई 3)   (3x4=12)

(क) निरीह एवं मूक जीव–जन्तुओं के जीवन को संकट में डालने वाले स्वार्थी मनुष्यों को ' गिल्लू ' पाठ के माध्यम से लेखिका क्या संदेश देना चाहती है ?

(ख) किन कारणों से लेखक ने चिट्ठियों को कुँए से निकालने का निर्णय लिया ?

(ग) ' हामिद खाँ ' पाठ के अनुसार ईमानदारी और प्रेम मानवीय रिश्तों को कैसे प्रभावित करते हैं ?

(घ) " इनसे आप लोग त्याग और हिम्मत सीखें " –गाँधीजी ने यह किसके लिए और किस संदर्भ में कहा ?

खण्ड – 'ख'

प्रश्न 07. दिए गए संकेत बिन्दुओं के आधार पर किसी एक विषय पर लगभग 80–100 शब्दों में अनुच्छेद लिखिए।(6)

(क) अच्छा स्वास्थ्य : महावरदान

(i) प्रस्तावना   (ii) स्वास्थ्य का महत्त्व   (iii) स्वास्थ्य के लिए संतुलित आहार

(iv) संतुलित विचार   (v) निष्कर्ष

(ख) मित्रता

(i) छात्रावास में मित्रता   (ii) मित्रता का महत्त्व   (iii) मित्रता के लाभ

(iv) मित्र के चुनाव में सावधानी   (v) निष्कर्ष

(ग) मेरा देश महान

(i) विश्व में स्थान   (ii) अद्भुत प्राकृतिक सौन्दर्य   (iii) अनेक धर्मों और संस्कृतियों का संगम

(iv) अनेकता में एकता   (v) उपसंहार

प्रश्न 08. आप 53 ए, निराला नगर, बिलासपुर के विदित / विदिता शर्मा हैं। अपने जन्मदिन पर चाचाजी द्वारा उपहार के रूप में भेजे गए ' हिन्दी शब्द कोष ' के लिए धन्यवाद प्रकट करते हुए एक पत्र लिखिए (5)

अथवा

बड़े भाई की ओर से कुमित्रों से सावधान रहने की सीख देते हुए छोटे भाई को एक पत्र लिखिए।

प्रश्न 09. ' मातृदिवस ' के अवसर पर अपनी माता के लिए शुभकामना संदेश लिखिए।   (5)

अथवा

' गणतंत्रदिवस ' पर देशवासियों को शुभकामना संदेश लिखिए।

प्रश्न 10. ' छात्रों द्वारा मोबाइल फोन के सदुपयोग ' पर दो अभिभावकों के मध्य हो रही चर्चा को संवाद शैली में लगभग 50–60 शब्दों में लिखिए।   (5)

अथवा

कोरोना वायरस से संक्रमित होने के कारण चौदह दिन के एकांतवास में रहने के बाद दो मित्रों के मध्य होने वाले संवाद को 50–60 शब्दों में लिखिए।

प्रश्न 11. पर्यावरण-संरक्षण के प्रति लोगों को जागरुक करने हेतु दो नारे लिखिए।   (5)

अथवा

हिन्दी दिवस के अवसर पर हिन्दी का महत्त्व बताते हुए दो नारे लिखिए।

General Instructions :
- ➤ *This Question Paper contains two parts, A and B.*
- ➤ *Both Part A and Part B have internal choices*

PART A : It consists of two sections I and II
  - Section I has 16 questions of 1 Mark each. Internal choice is provided in 5 questions.
  - Section II has 4 questions on case study. Each case study has 5 case based sub parts.
  - An examinee has to attempt any 4, out of 5 sub-parts.

PART B : Question Numbers 21 to 26 are very short answer type questions of 2 marks each.
  - Questions Numbers 27 to 33 are short answer type questions of 3 marks each.
  - Question Numbers 34 to 36 are long answer type questions of 5 marks each.;
  - Internal Choice is provided in 2 questions of 2 marks, 2 questions of 3 marks and 1 question of 5 marks.

PART A
SECTON : 1

01. Find the value of a polynomial $p(x) = x^3 - 2x^2 + x + 2$ at $x = 2$
               OR
     Find $p(0) for p(x) = 10x - 4x^2 - 3$

02. Find $\angle x$ in the following fig.
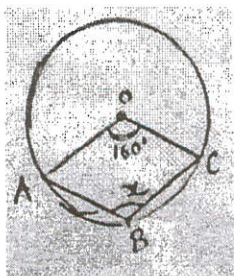
03. In the given figure, ABCD is a $\parallel^m$. If $\angle A = 65^0$, find the value of $\angle B + \angle D$.
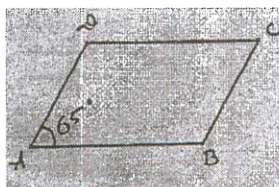
04. Find the product, using suitable identify
     $(3x + 2y) (9x^2 - 6xy + 4y^2)$

05. If the diagonals of a quadrilateral bisect each other at right angles, then what the quadrilateral is called as ?

06. If the surface area of a Sphere is $256\pi \ an^2$, then find the radius of the sphere.

07. Find the slant height of a conical tent, whose base radius is 24m and height is 10 m.
               OR
     What is the formula for finding the total surface area of a right circular cylinder ?

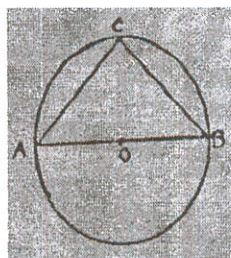08. A card is drawn from a well shuffled park of cards. What is the probability of obtaining a face card ?

09. What is the degree of a constant polynomial ?

10. If three angles of a quadrilateral are, 100^0, 75^0 and 105^0, find the measure of Fourth angle.

11. What is the measure of an angle, inscribed in a semicircle ?
               OR
     In the given figure, AOB is a diameter and AC=BC. Find $\angle CAB$.

12. A box of 550 bulbs contains 22 defective bulbs. One bulb is taken out at random from the box. Find the probability of getting a good bulb.
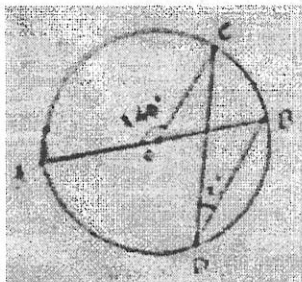
13. The area of four walls of a cube (lateral surface area) is 324cm². Find the side of the cube.

OR

In each side of a cube is doubled, find the new total surface area.

14. In the given figure find $\angle x$.

15. Find the zero of the polynomial $p(t) = 2t - \dfrac{5}{2}$.

16. If the probability of winning a game is 0.3, what is the probability of losing it?

OR

A coin is tossed 500 times and we get head 285 times and tail 215 times. If a coin was tossed at random, find the probability of getting a tail.

SECTION – II
Case Study (1)

17. Chikoo went to shop to purchase a child's game. He selected one child's game, which has 9 circular face cards, out of which 3 are blue and rest are red. There are 10 square face cards out of which 5 are blue and rest are red. While checking the game, one face card is lost at random.
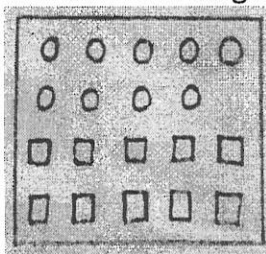
   (i) How many circular face cards are of red colour and how many square face cards are of red colour?
      (a) 5, 4   (b) 4, 5   (c) 6, 5   (d) 8, 6
   (ii) What is the probability that the lost face card is a square ?
      (a) $\dfrac{5}{10}$ (b) $\dfrac{9}{10}$ (c) $\dfrac{10}{19}$ (d) $\dfrac{9}{19}$
   (iii) Find the probability that the lost face card is a circle ?
      (a) $\dfrac{9}{19}$ (b) $\dfrac{10}{19}$ (c) $\dfrac{9}{10}$ (d) $\dfrac{4}{9}$
   (iv) Find the probability that the lost face card is a square of blue colour ?
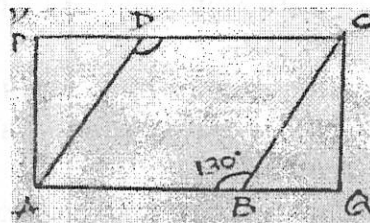   (a) $\dfrac{4}{19}$ (b) $\dfrac{5}{19}$ (c) $\dfrac{1}{3}$ (d) $\dfrac{5}{18}$
   (v) Find the probability that, the lost face card is a circle of blue colour.
      (a) $\dfrac{5}{19}$ (b) $\dfrac{1}{13}$ (c) $\dfrac{5}{10}$ (d) $\dfrac{6}{19}$

Case Study (2)

18. In the middle of a city, there is a Ram Leela ground ABCD such that AB=CD, $AB \parallel CD$ and AD=BC, $AD \parallel BC$. Municipality converted this ground into a rectangular form AQCP and both the triangular shapes $\triangle APD$ and $\triangle BQC$ of land were converted into flower beds.

   (i) What type of quadrilateral is ABCD.
      (a) Square   (b) rectangle   (c) parallelogram   (d) Rhombus
   (ii) the value of $\angle PDA$ is
      (a) 60⁰   (b) 90⁰   (c) 50⁰   (d) 180⁰
   (iii) the value of $\triangle CQB$ is
      (a) 90⁰   (b) 60⁰   (c) 30⁰   (d) none of these
   (iv) PD is equal to which side ?
      (a) AB   (b) QB   (c) AD   (d) CD
   (v) $\triangle ABC$ and $\triangle CDA$ are congruent by which criteria ?
      (a) SSS   (b) SAS   (c) RHS   (d) both (a) and (b)

Case Study (3)

19. DPS Bhilai decided different types of tours for the students to educate them. So, in class IX, $\frac{1}{12}$ times the square of total number of students planned to visit historical monuments, $\frac{7}{12}$ times the number of students planned to visit old age homes, while 15 students decided to teach children of slum area.

(b) Using this information, express the total number of students as a polynomial, in terms of x.

(a) $\frac{x^2}{4} + \frac{7}{4}x + 12$ (b) $\frac{7x^2}{12} + \frac{1}{12} + 10x$ (c) $\frac{x^2}{12} + \frac{7}{12}x + 15$ (d) $\frac{x^2}{4} + \frac{7}{4}x + 15$

(ii) Write the coefficient of x in the polynomial.

(a) $\frac{9}{13}$ (b) $\frac{7}{12}$ (c) $\frac{11}{12}$ (d) $\frac{13}{12}$

(iii) What is the degree of the polynomial ?

(a) 0 (b) 1 (c) 2 (d) 3

(iv) The name of the polynomial on the basis of its degree is

(a) Cubic Polynomial (b) Constant Polynomial
(c) Quadratic Polynomial (d) Bi-Quadratic Polynomial

(v) What is the constant term in this polynomial ?

(a) 7 (b) 5 (c) 10 (d) 15

Case Study (4)

20. A teacher drew two lines segments PQ and QR so that PQ=8 cm and QR=6 cm. He asked all the students to draw these lines in their note book and draw a circle, passing through three points P, Q and R.
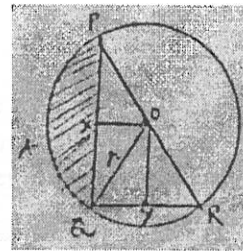
(1) One student drew PQ and QR as per the figure.
(2) He drew 1" bisectors OX and OY of the line segments PQ and QR.
(3) OX and OY intersects at O.
(4) Now, taking O as centre and OQ as radius, he draws a circle which passes through P, Q and R.
(5) He noted that P, Q and R are collinear.

(i) What you will call the line POR
(a) Arc (b) diameter (c) Radius (d) Chord

(ii) The measure of $\angle PQR$ is
(a) 60^0 (b) 45^0 (c) 90^0 (d) $75^{0\backslash}$

(iii) What you will call the shaded portion PAQ ?
(a) arc (b) sector (c) Major Segment (d) Minor Segment

(iv) The radius of the circle is
(a) 5 cm (b) 4 cm (c) 3 cm (d) $\sqrt{5}$ cm

(v) What is the measure of PX ?
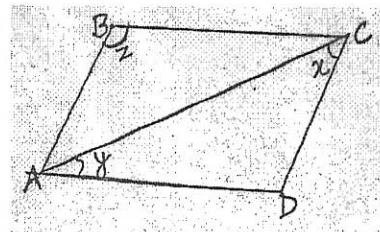(a) 8 cm (b) 6 cm (c) 4 cm (d) 3 cm

PART B

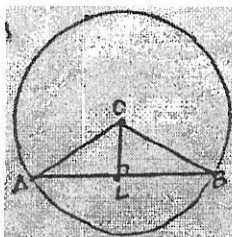21. Find the zeros of the following polynomial
$p(x) = x^2 + 3x + 2$

OR

Express the product without multiplying directly 104x96.

22. In the given figure, ABCD is a parallelogram. What is the sum of angles $x, y \text{ and } z$?

23.

If the length of the chord AB is 16 cm, and it is at the distance of 15 cm. from the centre of the circle. Find the radius of the circle.

Contd...4

24. A survey of 600 students about their liking on coffee was conducted and recorded as under:

Opinion	Like	Dislike
No. of Students	360	240

Out of there students, one is chosen at random. What is the probability he chosen student ...
    (i) Like coffee   (ii) Dislike coffee

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25. Construct a perpendicular bisector of line segment of length 7 cm.

OR

Construct an angle of 120^0 using compass.

26. A hemispherical bowl made of brass has inner diameter 10.5 cm. Find the cost of tin plating it on the inside, at the rate of ₹ 13 per m^2.

27. A joker's cap is in the form of a eight circular cone of base radius 7 cm and height 24 cm. Find the area of the sheet required of make 10 such caps.

28. Construct a triangle ABC, in which BC=7 cm, $\angle B = 70°$ and $AB + AC = 13cm$. (No justification, No steps of construction)

OR

Construct a triangle ABC, in which BC=8 cm, $\angle B = 45°$ and $AB - AC = 3.5cm$. No justification, No steps of construction)

29. Factorize : $x^3 - 2x^2 - x + 2$

OR

Identify the types of the following polynomial on the basis of their degrees :-
    (i)   5
    (ii)   2x-3
    (iii) $5x - 3x^2 - 4 + 2x^3$
    (iv) $7x + 4x^2 - 9 - 4x^2$
    (v) $2x^4 - 5x^3 + 4x^2 - 3x - 2$
    (vi) $8x^2 - 3$

30. Show that the line segment joining the mid points of the opposite sides of a quadrilateral bisect each other.

31. Two opposite angles of a $\|^n$ are $(3x - 2)$ and $(50 - x)$:
Find the measure of each angle of the parallelogram.

32. If two equal chords of a circle intersect within the circle, prove that the line joining the point of intersection to the centre makes equal, angles with the chords.
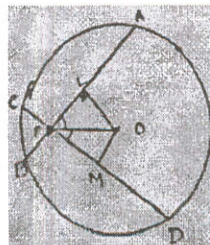
33. Three coins are tossed simultaneously 100 times with the following frequencies of different outcomes.

Outcomes	No head	One head	Two heads	Three heads
Frequency	14	38	36	12

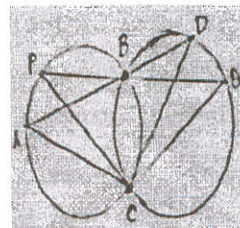What is the probability of getting
    (i)   3 heads   (ii) more tails than heads   (iii) No heads

34. If the non parallel sides of a trapezium are equal, prove that it is cyclic.

OR

Two circles intersect at two points B and C. Through B, two line segments ABD and PBQ are drawn to intersect the circles at A, D and P, Q respectively. Prove that $\angle ACP = \angle QCD$.

35. If $a + b + c = 5$, and $ab + bc + ca = 10$, then prove that $a^3 + b^3 + c^3 - 3abc = -25$.

36. It costs ₹ 2200 to pain the inner curved surface of a cylindrical vessel 10 m. deep. If the cost of painting is at the rate of ₹ 20 per m^2. find :-
    (a) Inner curved surface area of the vessel.
    (b) Radius of the base.
    (c) Capacity of the vessel.

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