# **HOLIDAY HOMEWORK**

# **ENGLISH—CLASS-XI**

- 1. Draft a notice in not more than 50-words for your school notice board, informing the students about the sale of old sports goods of your school. You are Rohini/Rohan the secretary of the sports club of Alka Public School, Indira Nagar Faridabad.
- 2. Secretary of the Activity Club of your school, draft a notice for the school noticeboard, informing students of the Inter-class Quiz contest being organised by the school. You are Nafisa/Pankaj. [Word limit: 50]
- 3. The increasing amount of time spent playing indoor games has been a major cause of decreasing the outdoor appearance of children. With this concern, write a speech to be delivered in the morning assembly in 150-200 words. You are Parag/Pragati.
- 4. You are Ankit/Ankita. You have to deliver a speech on the topic "Education Gives One Power". You have jotted down the following notes: Education trains mind—sharpens skill and abilities—Education: a source of power—improve self—be independent—earn money—ignorance to knowledge—removes superstition—develops a free spirit—important for women: gives them freedom from social ills—independent—responsible. Write your speech in 150-200 words.
- 5. Solve 2 unseen passages
- 6. Practise MCQs of the chapters/poems given for PT-I

#### **CLASS- X (English)**

- 1. Solve sample question paper of Term-1 provided by CBSE and attach it in your notebook.
- 2. Solve at least one exercise of each grammar lesson ( Tenses, Modals, Subject- Verb Concord
- & Reported Speech).
- 3. Watch any movie of your choice and summarize the plot. Call your friend and discuss what you

liked and disliked about the movie.

#### **CLASS IX(English)**

- 1. Read all the chapters thoroughly of Term-1 and practice short answer type questions.
- 2. Solve at least one exercise of each grammar lesson (Tenses, Modals, Subject-Verb Concord & Reported Speech).
- 3. Watch any movie of your choice and summarize the plot. Call your friend and discuss what you liked and disliked about the movie.

# **CLASS VIII (English)**

1.Rea	nd the following chapters in detail and write atleast 25 word/meanings from the
chapt	
The F	ight
	it to Cambridge
	ort Monsoon Diary
	rite a bio-sketch of Mr. APJ Abdul Kalam.(100 words)
	aw a box in the backyard of my house . I was very surprised to see
	plete the story. Give a title.(100 words)
	with determiners(a, an, the)
	ve you ever seen lion?
	es Sohan have a car ?
	there bank nearby?
	ere isn't airport nearby.
	m is honest man.
	will return in hour.
0. пе	Will retain in nour.
took dogs. tiger.	ce there was (1) mouse. The mouse was always afraid of (2) cat. A magician pity on (3) mouse. He turned it into (4) cat. Now (5) cat was afraid of So, (6) magician turned (7) cat into (8) dog and finally into (9) (10) tiger began to fear hunters in (11) forest. Then (12) magician said, 13) mouse again. You are no better than (14) mouse at heart".
1.	CLASS – VII SUBJECT – ENGLISH  Read the following stories in the book 'An Alien Hand' and write their summaries in
	words:
•	Cop and the Anthem, Golu Grows a Nose
2.	You are Ravi Kumar, a student of XII C in Delhi Public School, Ranchi. You have found
	se containing cash in your school. Write a notice for the school notice board about it in
•	nore than 50 words.
3.	Read the following hints/cues and write a readable story. Also write a suitable title.
_	mer five sons were strong always quarrelled
	armer wanted them to stop quarrelling wanted to live in peace
	gave advice not have much effect called all his sons
	bundle of sticks break these sticks without separating
	tried one by one used their full strength the old man
	rated the sticks they could break the sticks easily farmer said
эсри	strong as long as it is tied up will be weak if you are divided.
4.	Change the following into Indirect Speech.
<del>т</del> . i.	He said to me, "You are a kind person"
ii.	Radha said to Mohan, "I am going to Delhi today."
iii.	I said to him' "What are you doing here?"
iv.	The teacher said to us, "The sun rises in the east."
	My mother said to me, "I have prepared breakfast for you."
v. 5.	Write 5 sentences of each of the following tenses:
э. i.	Simple Present Tense
	·
ii. 	Simple Past Tense Present Continuous Tense
iii.	

- iv. Past Continuous Tense
- v. Present Perfect Tense
- vi. Past Perfect Tense

# Holiday Home Work (AUTUMN BREAK) Class 6

- 1. Read all the lessons.(Extensive reading for preparation of MCQ)
- 2. Read any three stories from Panchatantra and write their summaries.
- 3. Write a paragraph on Durga Pooja/Dussehra.
- 4. Write definitions and kinds of NOUN and ADJECTIVES.

#### शरदकालीन अवकाश गृहकार्य

#### कक्षा 12

- 1. पढाए गए समस्त पाठों का अभ्यास करें।
- 2. टर्म-1 के पाठ्यक्रम का अभ्यास करें।
- 3. अपठित गद्यांश-पद्यांश का अभ्यास करें ।
- 4. अभिव्यक्ति और माध्यम के टर्म-1 के लिए निर्धारित पाठों का अभ्यास करें।
- 5. दीक्षा पोर्टल के प्रेक्टिस आइटम ।

#### कक्षा 11

- 1.पढाए गए समस्त पाठों का अभ्यास करें।
- 2.टर्म-1 के पाठ्यक्रम का अभ्यास करें।
- 3.अपठित गदयांश-पदयांश का अभ्यास करें।
- 4.अभिव्यक्ति और माध्यम के टर्म-1 के लिए निर्धारित पाठों का अभ्यास करें ।
- 5.दीक्षा पोर्टल के प्रेक्टिस आइटम ।

#### <u>कक्षा 10</u>

प्रश्न-1 निम्नलिखितपाठोंकोपढ़ेंइनकेप्रश्न-उत्तरयादकरें।प्रत्येकपाठसे 5-5 बहुविकल्पीयप्रश्न-उत्तरलिखकरभेजें।

#### पाठ- 1.सूरदासकेपद

- 2.राम- लक्ष्मणपरशुरामसंवाद
- 3.नेताजीकाचश्मा
- 4.बालगोबिनभगत

- प्रश्न-2 वाच्यकीपरिभाषा , प्रकारतिखेंएवंयादकरें।
- प्रश्न 3 रसकीपरिभाषा, भेद , उदहारणसहितलिखेंएवंयादकरें।
- प्रश्न 4 रचनाके आधारपरवाक्यभेद लिखें एवं यादकरें।
- प्रश्न 5 पदपरिचयकीपरिभाषा, प्रकारएवंउदहारणलिखकरभेजें।

#### <u>कक्षा 9</u>

- 1. सभी बच्चे अपनी पाठयप्स्तक सेअलंकार युक्त काव्य पंक्तियां छांट कर लिखे।
- 2. अभि, प्रति, बे, ला, नि, उपसर्ग से तथा इत, इया, नी, ता, ईला प्रत्यय से पांच पांच नए शब्दों का निर्माण करें।
- 3. समास की परिभाषा लिखे एवम सभी भेदों के दो दो उदाहरण लिखकर उनका समास विग्रह करें।
- 4. "राम पुस्तक पढ़ता है"। वाक्य को अर्थ के आधार पर वाक्य भेदों में रूपांतरित कीजिए। 5.पढ़ाए गए पाठों की पुनरावृति कीजिए।

#### कक्षा 8

- 1.अपनीपाठ्यप्स्तिकामेंचारपृष्ठ (पेज) स्लेखलिखिए ।
- 2.कबीरकेदसदोहोंकोयादकरकेलिखिए।
- 3.अपनेघरकेकार्योंमेंसेऐसेकार्योंकीसूचीबनाइयेजिन्हेंआपकरनेमेंसक्षमहैं।
- 4.समासकीपरिभाषाऔरउसकेभेदलिखियेतथाप्रत्येकभेदकेपाँच-पाँचउदाहरणलिखिए ।
- 5.हिंदीकेकिन्हीदसउपसर्गींसेदो-दोशब्दबनाकरलिखिए ।
- 6.भारतकीखोजपुस्तिकाकेनयीसमस्याएंपाठसेदसप्रश्नबनाकरउसकेउत्तरभीलिखिए ।

#### कक्षा 7

- वसंत पाठ्यपुस्तक के 'हम पंछी उन्मुक्त गगन के' से लेकर 'रहीम के दोहे' तक एवं बाल महाभारत में 'मायावी सरोवर' तक के पाठों को ध्यानपूर्वक पढ़ें और अभ्यास करें
- 2. लेटर-बॉक्स (लाल ताऊ) को सजीव पात्र मानते हुए डाकिए (पोस्ट-मैंन) और लेटर बॉक्स के बीच रोचक संवाद लिखिए
- 3. किन्हीं पांच पक्षियों का चित्र चिपकाकर उनके बारे में 5-5 वाक्य लिखें
- 4. पुस्तक बाल महाभारत के आधार पर यक्ष प्रश्नों को उत्तर सहित लिखिए
- 5. 5 पृष्ठ सुलेख लिखिए

#### <u>कक्षा 6</u>

1. वसंत पाठ्यपुस्तक के 'वह चिड़िया जो' से लेकर 'झाँसी की रानी' तक एवं 'बाल राम कथा' से 'अवधपुरी में राम' से लेकर 'दंडक वन में दस वर्ष' पाठों को ध्यानपूर्वक पढ़ें और अभ्यास करें

- 2. किन्हीं पांच स्वतंत्रता सेनानियों के चित्र चिपकाकर उनके बारे में 5-5 वाक्य लिखें
- 3. चित्रकूट में भरत पाठ के आधार पर भरत-मिलाप का वर्णन कीजिए
- 4. परीक्षा पर चर्चा करते हुए दो मित्रों के बीच संवाद लिखिए
- 5. 5 पृष्ठ सुलेख लिखिए

# शरदावकाश गृहकार्यम्

### कक्षा - अष्टमी

# विषयः - संस्कृतम्

- 1) युष्मद् एवं अस्मद् शब्द रूपों को लिखें और याद करें |
- 2) खाद् धातु के पांचों लकारों का रूप लिखें और याद करें |
- 3) सुभाषितानि, बिलस्य वाणी न कदापि मे श्रुता , डिजीभारतम् , सदैव पुरतो निधेहि चरणम् , कण्टकेनैव कण्टकम् , गृहं शून्यं सुता विना , भारतजनताहं , संसारसागरस्य नायकाः इन सभी पाठों और अभ्यासों को याद करें |
- 4) चित्रं दृष्ट्वा वाक्यानि रचयत |



मञ्जूषा - ( उद्यानम्/ महिला/पादपाः/पुष्पाणि/पुरुषः/चिनोति/चित्रं/गृहणाति/भवनानि/)

- 5) निम्न तद्भव शब्दों का तत्सम रूप लिखें सात,बहिन,संगठन,बाँस,आज,खेत
- 6) शब्दान् योजयित्वा वाक्यानि रचयत

वयं	रामायणं	पिबन्ति
ते	चित्रं	पश्यामः
युवां	कार्यं	गच्छन्ति
आवाम्	<b>ज</b> लं	लिखथ
यूयम्	विद्यालयं	पठथः
अहं	पुस्तकं	करोति
त्वं	लेखं	पठतः

सः	दुग्धं	पिबावः
तौ	दूरदर्शनं	रचयसि

# शरदावकाशगृहकार्यम्

कक्षा - सप्तमी

विषयः - संस्कृतम्

- 1) बालक,बालिका,किम्शब्द के ( पुल्लिंग ,स्त्रीलिंग )शब्दों को याद करें |
- 2) पठ धातु के पांचो लकारों ( लट्,लृट ,लङ्,लोट्,विधिलिङ् )का रूप लिखें और याद करें |
- 3) सुभाषितानि, दुर्बुद्धिः विनश्यित , स्वावलम्बनम् , हास्यबालकविसम्मेलनम् , पण्डिता रमाबाई , सदाचारः, सङ्कल्पः सिद्धिदायकः , त्रिवर्णः ध्वजः इन सभी पाठों और अभ्यासों को याद करें |
- 4) चित्रं दृष्ट्वा मञ्जूषा सहायतया वाक्यानि रचयत |



मञ्जूषा -( क्रीडाक्षेत्रम्/ वृक्षः/ बालकःबालिकाः/ क्रीडन्ति/पादकन्दुकं/दोला/भवनम्)

# 5) शब्दान् मेलयित्वा वाक्यानि रचयत

अहम्	द्रदर्शनं	पश्यावः
त्वं	चित्रं	रचयन्ति
सः	फलम्	पिबामः
आवां	दुग्धं	पठसि
युवां	पुस्तकं	लिखथ
तौ	लेखं	खादतः
ते	विद्यालयं	गच्छथः
वयं	कथां	कथयति
यूयं	क्रिकेटम्	क्रीडामि

# शरदावकाशगृहकार्यम्

कक्षा - षष्ठी

विषयः - संस्कृतम्

- 1) बालक एवं बालिका शब्दरूप को लिखें और याद करें |
- 2) पठ धातु के ( लट्, लृट और लङ् ) रूपों को लिखें और याद करें |
- 3) शब्दपरिचयः 1 , शब्दपरिचयः 2 , शब्दपरिचयः 3 , विद्यालयः, वृक्षाः, समुद्रतटः, बकस्य प्रतीकारः इन सभी पाठों और इनके अभ्यासों को याद करें |
- 4) शब्दान् मेलयित्वा वाक्यानि रचयत -

वयम्	रामायणं	पिबन्ति
ते	चित्रं	पश्यामः
युवाम्	कार्यं	गच्छन्ति
आवाम्	जलं	लिखथ
यूयम्	क्रिकेटम्	पठथः
अहम्	विद्यालयं	करोति
त्वं	पुस्तकं	पठतः
सः	लेखं	क्रीडामि
तौ	दुग्धं	पिबावः
बालकाः	दूरदर्शनं	रचयसि

# AUTUMN BREAK HOME ASSIGNMENT-2021

#### **BIOLOGY**

- Q.1. Explain with the help of a diagram the development of a mature embryo sac from a megaspore mother cell in angiosperm.
- Q.2. Why does pollen grain posses two male gametes? Explain.
- Q.3. How does the pollen mother cell develop into a mature pollen grain? Illustrate the stages with labeled diagram.
- Q.4. Placenta acts as endocrine gland. Explain.
- Q.5. Explain the property that prevent normal cells from becoming cancerous.
- Q.6. Explain the cause of global warming. why is it a warning to mankind.

- Q.7. Both wind and water pollinated flowers are not very colorful and do not produce nectar. Why it is so?
- Q.8. Explain the changes in the primary oocyte undergoes while in different follicular stages before ovulation.
- Q.9. Explain the event of oogenesis.
- Q.10. Name the malaria parasite where do the gametocytes of this parasite develop? Give a flow chart of its life cycle.
- 11. Do the assignment of unit 1 and Principle of Inheritance and Variation.
- 12. Prepare for the test of unit 1 and Principle of Inheritance and Variation.
- 13. Do the investigatory project on any topic related with Biology.
- 14. Collect video related to biology chapter (minimum two).

# KENDRIYA VIDYALAYA NO.2 DELHI CANTT (II SHIFT) CHEMISTRY AUTUMN BREAK HHW (2021-22) CLASS – XII

- Prepare 10 mcqs of below chapters of term-1 in your homework notebook:
  - 1.1. The solid state
  - 1.2. Solutions
  - 1.3. The p block elements
  - 1.4. Haloalkanes&haloarenes
  - 1.5. Alcohols, phenols & ethers
  - 1.6. Biomolecules
- 2. Complete 15 experiments in your chemistry practical notebook :
  - 2.1. 10 salt analysis
  - 2.2. 2 functional groups
  - 2.3. 2 titration
  - 2.4. 1 chromatography
- 3. Complete the chemistry investigatory project in file for term-1.

# KENDRIYA VIDYALAYA NO.2 DELHI CANTT (II SHIFT) PHYSICS AUTUMN BREAK HHW (2021-22) CLASS – XII

- 4. Prepare 20mcqs of below chapters of term-1 in your homework notebook:
  - 1. Electrostatic
  - 2. Current electricity
  - 3. Moving charges and magnetism
  - 4. EMI and AC

- 5. Complete 04raju.010164@kvsrodelhi.inexperiments in your chemistry practical notebook :
  - 1. Ohm's law
  - 2. Metre bridge
  - 3. E1/E2 by potentiometer
  - 4. Moving coil galvanometer
- 6. Complete 3 activities in file for term-1.

# **CLASS 11BIOLOGY HOLIDAY HOMEWORK**

- 1 Completeall assignments of Lesson 1,2,3,4,5 and 7 and upload on Biology google classroom.
- 2. Revise well for PT1 after Autumn Break.
- 3. Complete practicals in Practical notebook:
- (a) Parts of a compound microscope
- (b)Spotting of Pant Kingdom

#### © Spotting of Animal Kingdom

#### (d) Description of Family Liliaceae

## Holiday H.w Class 10

#### science

- 1)Draw well labelled diagrams of All the systems of life processes. Mention the functions of the organs associated with them.
- 2)Draw all the ray diagrams of concave mirror, convex mirror, concave lens and convex lens using a sharpened pencil and a scale .
- 3)Draw the diagram of a ray of light passing through a glass prism. Also label all its parts
- 4)Go through all the chapters of the first term.
- 5) Everyday a quiz / worksheet will be shared with you during the autumn break..Attempt all of them daily on regular basis.

#### SCIENCE HOLIDAYS HOMEWORK

#### **CLASS. -VIII**

#### **Subject – Science**

- 1.Learn all chapters of Periodic Test 2 syllabus.
- 2. Draw the diagrams of
- a) Drip irrigation system
- b) Amoeba
- c) Nitrogen cycle
- 3. Do the following questions in your notebook:
- a) .Differentiate between:
- (i) Antibody and Antibiotics
- (ii) Thermoplastic and Thermosetting plastic

- b) What are the weeds? How can we control them?
- c) Give examples which indicate that nylon fibres are very strong.
- d) Explain how the use of CNG in automobiles has reduced pollution in our cities?
- e) List changes in the body that take place at puberty?
- f) Where are chromosomes found in a cell? State their function?
- 4. Complete the multidisciplinary project as assigned by the class teacher.

Stay healthy & happy

Enjoy your autumn break

#### SCIENCE HOLIDAYS HOMEWORK: AUTUMN BREAK

#### CLASS. -VII

#### Subject - Science

- 1. Learn all chapters of Periodic Test 2 syllabus.
- 2. Draw the diagrams of
- a) Human respiratory system
- b) Human heart
- 3. Do the following questions in your note book:
- a) Why is it difficult to predict the weather of a place while it is easy to predict its climate?
- b)To expel hot air out of the kitchen, 'A' has an exhaust fan fitted on the window of her kitchen and 'B' has a similar exhaust fan fitted on the wall near the ceiling of her kitchen. Which of the exhaust fan will expel the hot air more effectively? Explain why?
- c) Why is it advisable not to shut all the doors and windows during a storm?
- d)Pahelikept an empty bottle made of plastic inside a refrigerator. After few hours, when she opened the refrigerator she found the bottle had collapsed. Explain the possible reason.
- e)Paheliparticipated in a 400 m race competition held at her school and won the race. When she came home she had mixed feelings of joy and pain as she had cramps in her leg muscles. After a massage she was relieved of the pain. Answer the following questions related to the situation.
- (1) What can be the possible reasons for the pain in her legs?
- (2) Why did she feel comfortable after a massage?

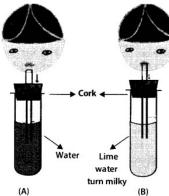


Fig. 10.2

- f)Observe the figure 10.2 carefully and answer the following questions.
- (a) Which process is being tested in the activity?
- (b) What is the result of the activity? Give reasons.

#### Complete the multidisciplinary project as assigned by the class teacher

Stay healthy & happy

Enjoy your autumn break

# **Class 6 science HHW**

- 1 complete the tasks of MDP(make one file)
- 2. Learn unit 1 to 10 for Term 1(H Y)
- 3. Write keywords of unit 11(Light, shadow and reflection)
- 4 Write definitions of the following

Ginning, spinning, carnivorous, herbivores, transparent, translucent, opaqe, filteration, evaporation, condensation, physical and chemical changes

- 5. Draw diagrams of the following
- 1)Parts of a flower
- 2) Filteration
- 3)tap root and fibrous root
- 6. Make and learn table 2.3 of text book

# KENDRIYA VIDYALAYA NO-2 DELHI CANTT, NEW DELHI-110010 (Shift-2)

SESSION 2021-22(Autumn Break Homework)

#### COMPUTER SCIENCE PRACTICAL LIST FOR CLASS XI

S.No.	Aim/Title	Date of practical	Page No.	Signature
1.	Write a python program to Input your name			

	and display welcome message.		
2.	Write a program to input principal ,rate and time from user and print simple interest.		
3.	Write a python program to input radius of circle and print its area and perimeter		
4.	Write a python program to Input three numbers and display the largest / smallest number.		
5.	Write a python program to input two integers $x$ and $n$ , compute $x^n$		

Daily Practice 1 online Quiz using link www.csiplearninghub.com

**SESSION 2021-22(Autumn Break Homework)** 

#### **COMPUTER SCIENCE PRACTICAL LIST FOR CLASS XII**

- 1. Write a python program to search an element in a list and display the frequency of element present in list and their location using Linear search by using user defined function. [List and search element should be entered by user]
- 2. Write a python program to pass list to a function and double the odd values and half even values of a list and display list element after changing
- 3. Write a Python program input n numbers in tuple and pass it to function to count how many even and odd numbers are entered.
- 4. Write a Python program to function with key and value, and update value at that key in dictionary entered by user.
- 5. Write a Python program to pass a string to a function and count how many vowels present in the string.
- 6. Write a Python program to generator (Random Number) that generates random numbers between 1 and 6 (simulates a dice) using user defined function.
- 7. Write a python program to implement python mathematical functions.
- 8. Write a python program to implement python string functions.
- 9. Write a python program to read and display file content line by line.

- 10. Write a python program using function to Read a text file and display how many times 'the' or 'The' word present in file.
- 11. Write a python program Read a text file and display the number of vowels/consonants/uppercase/lowercase characters in the file.
- 12. Write a python program to remove all the lines that contain the character 'a' in a file and write it to another file.
- 13. Write a python program to create a binary file with name and roll number. Search for a given roll number and display name, if not found display appropriate message.
- 14. Write a python program to create a binary file with roll number, name and marks. Input a roll number and update the marks.
- 15. Write a python program using function to create a CSV file by entering user-id and password, read and search the password for given userid.

Daily Practice 1 online Quiz using link www.csiplearninghub.com

# Autumn Holiday Homework

AUTUMN BREAKS HOLIDAY HOMEWORK
CLASS 6TH (S.ST) 2021-22

Q1. "Plants and animals are the main source of our food". Differentiate between the food items we eat nowadays and eaten by early man?



## Q2. "Animals are an important part of our life"

Write the name of any three milching animals of your village /locality. Write the name of any three food items which we obtain from animals. Paste the pictures of mulching animals and the food items that we gets from them.

One example of mulching animal is given below. Another find by yourself.



# Q.3 MAKE A POSTER ON SUBHASH CHANDER BOSE AND COLOUR IT PROPERLY.

Q.4 Write a poem on Subhash Chander Bose and make a video by reciting it.

SHARE THE LINK OF THE VIDEO.

Geography

## Learn MCQ and Q/A OF THE GIVEN CHAPTERS BELOW

#### **GEOGRAPHY**

- 1) The Earth in the solar system
- 2) Latitudes & Longitudes
- 3) Motions of the Earth
- 4) Maps

#### **CIVICS**

- 1. UNDERSTANDING DIVERSITY
- 2. DIVERSITY AND DISCRIMINATION
- 3. WHAT IS GOVERNMENT
- 4. KEY ELEMENTS OF THE GOVT.
- 5. PANCHAYATI RAJ

#### **HISTORY**

- 1. WHAT, WHERE, HOW & WHEN
- 2) FROM GATHERING TO GROWING FOOD
- 3) IN THE EARLIEST CITIES
- 4) WHAT BOOKS AND BURIAL TELL US
- 5) KINGDOMS, KINGS AND AN EARLY REPUBLIC
- 6) NEW QUESTIONS & IDEAS

#### <u>AUTUMN BREAK CLASS – VII</u>

- 1. Revise all the chapter which are taught in your class.
- 2. Prepare at least 10 multiple type question and answers from each chapter.
- 3. Azadi ka amrit mahotsav

write a short on – A. Rani laxmibai

- B. Nana sahib
- c. Kunwar singh
- d.Avanti bai
- 4. Locate following in map of india
- A. Jhansi
- B. Delhi
- c. Kanpur
- D. Lucknow

Autumn break holiday homework for class 8

शरद कालीन गृहकार्य कक्षा 8

1. Read all chapters for the syllabus for half yearly exam and learn different types of questions: MCQ, short answer, long answer and make notes for the content.

अर्धवार्षिक परीक्षा में आनेवाले सभी अध्यायों को ध्यान पूर्वक पढ़कर विभिन्न प्रकार के प्रश्नों: बहुविकल्पीय, लघु तथा विस्तृत उत्तरों को याद करो तथा उनके नोट्स बनाओ।

- 2. Do map practice for the concern chapters. संबन्धित अध्यायों में उपलब्ध मानचित्र अभ्यास को करो।
- 3. Prepare video documentary along with the write up on the unknown hero's of our independence movement according to the program [aazadi ka amrit mahautsav] celebrated by the government on the occasion of 75 years of our independence.

हमारी आज़ादी के उन अंजान वीरों पर एक विडियो और 150 शब्दों का एक आलेख तैयार करें यह काम भारत सरकार द्वारा शुरू किए गए कार्यक्रम [आज़ादी का अमृत महौत्सव] के अंतर्गत करना है जो आज़ादी के 75 वर्ष पुरे होने के उपलक्ष में मनाया जा रहा है।

- 4. For the celebration of special day on
  - 31 October prepare write up, recite poem, make posters on subhash Chandra bose.
  - 31 अक्तूबर को विशिष्ट दिवस मनाने के लिए सुभाष चंद्र बसु पर आलेख, कविता निर्माण पोस्टर निर्माण आदि कार्य करो।

#### **HOLIDAY HOMEWORK**

**AUTUMN BREAK** 

**SUBJECT-SST** 

CLASS - 9

- 1) Read and learn Chapter's -
- •History- The French revolution
- Geo- India Size and location , Physical features of India
- Civics- What is democracy? Why democracy? ,Constitution design
- Eco- The story of village palampur, People as resource
- 2) Write/ Make a video on unsung hero.
- 3) Map Work

On outline map of India locate and label the following -

- \* Standard Meridian of india
- \*Southern most part of india
- \*Northern most part of india

- \*Eastern most of india
- \*Western most part of india
- \*Strait separating Sri Lanka from India
- \* Smallest state of India
- •Plateaus Malwa and Chota Nagpur plateau
- •Costal plain Konkan, Malabar, Coromandel Coastal
- Mountain and hills The Aravali range, The Vindhyachal, The Shivalik, Karakoram Kanchanjunga, K2, Anai mudi
- 3) Outline map of France locate and label -
- Bordeaux , Nantes , Paris , Marseille

KV NO2 DELHI CANTT (SECOND SHIFT)

AUTUMN BREAK HOLIDAY HOMEWORK

CLASS - 10

SUB - SST

1 READ AND LEARN CH1 HISTORY-THE RISE OF NATIONALISM IN EUROPE

2 READ AND LEARN POL SC

**CH1- POWER SHARING** 

CH2- FEDERALISM

3 READ AND LEARN ECO-

CH1 DEVELOPMENT,

CH2- SECTORS OF INDIAN ECONOMY

4 READ AND LEARN GEO

CH1- RESOURCES AND DEVELOPMENT

# CH3- WATER RESOURCES (MAP WORK OF DAMS AND MULTI PURPOSE PROJECTS)

#### **CH4- AGRICULTURE**

#### 5 MAKE A 5 MIN VIDEO ON "UNSUNG HERO OF INDIA"

The video should be about a relatively lesser known freedom fighter of India about whom very few people know.

#### 6 PRACTICE MAP WORK

- LOCATE VARIOUS SOIL TYPES OF INDIA viz. RED SOIL, BLACK SOIL, ALLUVIAL SOIL, LATERITE SOIL, ARID SOIL
- LOCATE- BHAKRA NANGAL, SALAL DAM, RIHAND DAM, MAITHON DAM, TUNGBHADRA DAM, KRISHNARAJ SAGAR, RANA PRATAP SAGAR, GANDHI SAGAR, SARDAR SAROVAR DAM, KOYANA PROJECT
- LOCATE AREAS OF RICE CULTIVATION, WHEAT CULTIVATION, COTTON CULTIVATION, TEA CULTIVATION, COFFEE CULTIVATION, SUGARCANE CULTIVATION

XI Economics Autumn Holiday Homework

1. Wealth definition of Economics was

given by

- (a) Prof. Adam Smith
- (b) Prof. Alfred Marshall
- (c) Prof. Lionel Robbins
- (d) Prof. Samuelson

2. Choose the correct statement from the
given below.
(a) Economics and statistics goes hand in
hand.
(b) Economic laws are validated by statistical
information.
(c) Government needs statistical information
for making fiscal policies.
(d) All of the above are correct statement
3. Welfare definition of Economics was
given by
(a) Prof. Adam Smith
(b) Prof. Alfred Marshall
(c) Prof. Lionel Robbins
(d) Prof. Samuelson
4. According to Prof. Robbins, economic
problems arises due to
(a) resource scarcity
(b) unlimited human wants
(c) resources can be put to various uses
(d) All of the above
5. The word Economics is derived from

words.
(a) Latin (b) English
(c) Greek (d) None of these
6. An economic agent who works to earn
wages to buy various goods and
services is called
(a) consumer
(b) producer
(c) service provider
(d) service holder
7 is an economic agent who
produces various goods and services to
maximise profits.
(a) Service provider (b) Service receiver
(c) Producer (d) Consumer
8. All activities which involve money is
referred to as economic activity.
Choose the most appropriate option
from below for the given statement.
(a) True
(b) False
(c) Partially true

(d) Incomplete statement
9. If a farmer produces for selfconsumption,
then this activity will be
called as
(a) an Economic activity
(b) a Non-economic activity
(c) a Self-sufficient activity
(d) None of the above
10. Choose the correct pair from given below.  Column I Column II
A. Resources (i) Scarcity
B. Human wants (ii) Limited
C. Human needs (iii) Non-recurring
in nature
D. Natural resources (iv) Limited use
Codes
(a) A – (i) (b) B – (ii)
(c) C – (iii)
(d) All of the above pairs are correct
Direction (Q.Nos.11 to 14) There are

two statements marked as Assertion (A)

and Reason (R). Read the statements and

choose the appropriate option from the

options given below

- (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 correctexplanation of Assertion (A)
- (c) Assertion (A) is false, but Reason (R) is true
- (d) Both are false
- 11. Assertion (A) Scarcity of resources is a major cause of all economic problems in a country.

Reason (R) Human wants are unlimited while the resources have alternative uses as well.

12. Assertion (A) Welfare definition of economics only considers human needs to satisfy wants.

Reason (R) The means to fulfill human wants are limited in relation to the needs.

13. Assertion (A) Economic activity always involves buying and selling of a good or

services in the market to earn profits.

Reason (R) Any act of production of goods for self-consumption is a non-economic activity.

14. Assertion (A) Heterogeneous data in statistics should be placed in relation to each other.

Reason (R) A quantitative fact is not statistics unless it is comparable.

- 15. Which of the following is method of collecting second hand information?
- (a) Personal interview
- (b) Telephonic interview
- (c) Mailed questionnaire
- (d) None of the above
- 16. When the population under study is in finite, sample survey should be used.Choose the most appropriate option from the given below.
- (a) True
- (b) False
- (c) Partially true
- (d) Incomplete statement

17. Primary data should be preferred where
less time is available to collect the data.
Choose the most appropriate option
from the given below.
(a) True
(b) False
(c) Partially true
(d) Incomplete statement
18. In every ten-year, government of India
collects information about the
population using method.
(a) census
(b) sample
(c) case study
(d) None of the above
19. Which of the following is a limitation of
personal interview?
(a) Lacks accuracy
(b) Personal prejudices
(c) Not capable of covering wide area
(d) Both (b) and (c)

20. Which of the following things should be

kept in mind while collecting secondary data?

- (a) Purpose of study
- (b) Reliability of source
- (c) Competency of collecting authority
- (d) All of the above

Direction (Q.Nos. 21 to 24) There are two statements marked as Assertion (A) and Reason (R). Read the statements and choose the appropriate option from the options given below

- (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 correctexplanation of Assertion (A)
- (c) Assertion (A) is true, but Reason (R) is false
- (d) Assertion (A) is false, but Reason (R) is true
- 21. Assertion (A) Economics is the study of management of human resources in the presence of scarcity of resources.

  Reason (R) Resources are not scarce

always but they are scarce in relation to the human wants.

22. Assertion (A) Microeconomics and macroeconomics are two branches of economics which are studied in isolation of each other.

Reason (R) In economic sense, what applies in microeconomics doesn't holds true in macroeconomics.

23. Assertion (A) Positive science relates to the statements which are based upon value judgement.

Reason (R) Every economic statement can be classified either as positive science or normative science.

24. Assertion (A) Study of the central problem of "how to produce" depends upon the problem of choice of "what to produce".

Reason (R) All the central problems of an economy are interdependent on each other.

25. Law of diminishing marginal utility was
originally propounded by
(a) Prof. Alfred Marshall (b) Prof. Hicks
(c) Prof. Samuelson (d) Prof. Gossen
26. Law of diminishing marginal utility is
also known as
(a) Fundamental law of consumption
(b) First psychological law of consumption
(c) Both (a) and (b)
(d) Neither (a) nor (b)
27. Law of DMU does not hold true in the
absence of its assumptions. Choose
from the option below.
(a) True
(b) False
(c) Partially true
(d) Incomplete statement
28. Which of the following is not an
assumption of law of diminishing
marginal utility?
(a) Cardinal measurement of utility
(b) No change in consumers income

(c) Different price for same commodity
(d) All of the above
29. According to Law of DMU, total utility
is the slope of marginal utility. Choose
from the option below.
(a) True
(b) False
(c) Partially true
(d) Incomplete statement
30. When marginal utility is zero, total
utility will be
(a) maximum
(b) maximum and constant
(c) constant
(d) minimum
31. When total utility increases at a
diminishing rate, marginal utility will be
(a) increasing
(b) diminishing
(c) constant
(d) diminishing but positive
32. Which of the following are the

# assumptions of Law of DMU? (i) Continuous consumption (ii) Standard units of consumption (iii) Price of good and income of consumer should remain constant (iv) Marginal utility of money should remain constant (v) Quality of goods should remain the same Choose from the options below. (a) (i), (ii) and (iv) (b) (ii), (iii) and (iv) (c) (iii), (iv) and (v) (d) (i), (ii), (iii), (iv) and (v) 33. An indifference curve which is drawn by taking economic bad commodity on both axis, will be (a) convex to the origin (b) concave to the origin (c) L-shaped (d) straight line 34. Budget line can change due to (a) change in income

(b) change in price of either good X or good Y

(c) change in price of both goods

(d) All of the above
35. What will be the impact of change in
income on the budget line?
(a) Shifts to the right
(b) Shifts to the left
(c) Either (a) or (b)
(d) Neither (a) nor (b)
36. What will be the impact of fall in price
of good X on the slope of budget line?
(a) Rise
(b) Fall
(c) Remain constant
(d) Not defined
37. What will be the impact of rise in price
of good Y on the budget line?
(a) Rotate inward from vertical axis
(b) Rotate outward from vertical axis
(c) Rotate inward from horizontal axis
(d) Rotate outward from horizontal axis
38. A set of indifference curve is known as

- (a) Indifference map (b) Indifference chart
- (c) Indifference curve (d) None of these
- 39. A consumer is in equilibrium, how will a consumer behave if

MRS XY < P X/PY?

- (a) Consumer will consume more of good X and less of good Y
- (b) Consumer will consume more of good Y and less of good X
- (c) Consumer will consume more of both goods
- (d) Consumer will consume less of both goods
- 40. For a consumer, MRS XY = 4 and
- PX = 40 and PY = 5. Which statement suits this situation?
- (a) Consumer is in equilibrium
- (b) Consumer will consume more of good X and less of good Y
- (c) Consumer will consume more of good Y and less of good X
- (d) None of the above

CLASS- XI Geog.

PRACTICE SAMPLE PAPERS.

PRACTICE MCQ OF CH-1,2,3 FROM FUNDAMENTALS OF PHYSICAL GEOGRAPHY AND CH-1,3 FROM INDIA PHYSICAL ENVIRONMENT.

PRACTICE ALL MAPS.

KENDRIYA VIDYALAYA, NO.2 DELHI CANTT 2<sup>nd</sup> Shift

SUB-HISTORY XIF

Autumn Break Home work

Note: ALL THE NEW HISTORICAL WORD SHOULD BE REMEMBERD

ALL STUDENTS SHOULD COMPLETE THE PROJECT WORK IN VACCATION.

Revise Chapter (2-4) complete all the taught question (esp.MCQ).carefully and also make the notes.

Make a video of (5 Minutes) and write up (150 Words) regarding Azadi ke amrita mahotsav which has been already discussed in class.

. Map work of chapter 2 to 3 Should be prepared. . .

Holiday Home work

Political Science

Class -XIF

Students kindly select your topics for term 1 project from NCERT textbook, for the same collect data related to your chosen topic, do research, collect pictures, maps, material related to your topic and make a Project file .

Suggested Toics -

- 1.Indian Constitution
- 2.Fundamental Rights
- 3.Local Governments
- 4. Election and Representation
- 5.legislature
- 6.Executive
- 7.Development
- \* Make notes of chapters done during classes
- \* Solve cartoon based questions of your Ncert book

## CBSE SAMPLE QUESTION PAPER -2021-22

## ECONOMICS (CLASS 12)

Q.NO.	QUESTIONS
	SECTION A
	(20 questions out of 24 questions are to be attempted)
1	The Government can achieve its budget objective of 'Redistribution of Income' by  (Fill up the blank with correct alternative)
	<ul> <li>a. managing the General Price Level in the economy to the desired level.</li> <li>b. increasing the Gross Domestic Products (GDP) of the economy.</li> <li>c. bringing the production of goods and services under its direct and absolute control.</li> <li>d. rationalisation of taxes in pro-poor direction.</li> </ul>
2	Balance of Payments of an economy records for a fiscal year.  . (Fill up the blank with correct alternative) a) income and expenditure of the government

b. inflow and outflow of funds of the government c. inflow and outflow of foreign exchange to/from the economy d. inflow and outflow of loans to/from the rest of the world Identify which of the following bank does not interact directly with the general 3 public? (Choose the correct alternative) a) Bank of India b. State Bank of India c. Central Bank of India d. Reserve Bank of India 4 Identify which of the following is not an example of 'invisible item' under Current Account of the Balance of Payments transactions: (Choose the correct alternative) a) Air and sea transport b. Postal and courier services c. Education-related travel d. Merchandise linked transactions 5 Read the following statements carefully and choose the correct alternative from the following: Statement 1 – Demonetization was the step taken by the Government of India in order to tackle the problems of corruption, black money, terrorism and circulation of fake currency in the Indian Economy. Statement 2 – Demonetization has ensured improved tax compliance in India over the period of time. Alternatives: a. Both the statements are true. b. Both the statements are false. c. Statement 1 is true and Statement 2 is false d. Statement 2 is true and Statement 1 is false

Ms. Sakshi, an economics teacher, was explaining the concept of 'minimum percentage of the total deposits to be kept by any commercial bank with the Central Bank of the country, as per norms and statute prevailing in the country'.

From the following, choose the correct alternative which specifies towards the concept explained by her?

- a. Cash Reserve Ratio
- b. Repo Rate
- c. Bank Rate
- d. Statutory Liquidity Ratio
- 7 Two friends Mira and Sindhu were discussing the exchange rate systems.

'Under this system, the exchange rates are determined by the market forces of demand and supply. However, deliberate efforts are made by the competent authority to keep the exchange rates within a specific range'.

The above-mentioned statement was given by Sindhu, identify the type of exchange rate system was she talking about?

- a. Fixed Exchange Rate
- b. Floating Exchange Rate
- c. Managed Floating Exchange Rate
- d. Managed Fixed Exchange Rate
- Read the following statements carefully and choose the correct alternative from the following: Statement 1 Public goods are those goods and services that are collectively consumed by the public.

Statement 2 – Public goods are excludable and rivalrous in nature.

- a. Both the statements are true.
- b. Both the statements are false.
- c. Statement 1 is true and Statement 2 is false
- d. Statement 2 is true and Statement 1 is false

9	Under the Balance of Payments structure of a nation, the two main categories of				
	accounts for the classification of the transactions are and (Fill up the blank				
	with correct alternative) i. current account				
	ii. unilateral transfer account				
	iii. capital account iv. loan account				
	in. Capital account iv. loan account				
	Identify the correct alternatives from the following:				
	Alternatives:				
	a. i and ii				
	b. i and iii				
	c. iii and iv				
	d. iv and i				
10	Identify which of the following is not a function of the Reserve Bank of India?				
	(Choose the correct alternative)				
	a. To act as the banker to the Government of India.				
	b. To act as the custodian of the gold reserve of India				
	c. To act as the financial advisor to the Government of India				
	d. To issue coins and one rupee note				
11	Industrial Policy Resolution (IPR) 1956 formed the basis of the Five Year				
11	Industrial Policy Resolution (IPR) 1956 formed the basis of the Five Year Plan.				
	(Fill up the blank with correct alternative) a) First				
	b. Fourth				
	c. Second				
	a) Third				
12	Occupational structure refers to (Fill in the blank with correct				
12	alternative) a) size of labour force in a country				
	·/ ·/ ·/				
	b. number of people living in a country				
	c. distribution of workforce among different sectors of an economy				
	d. nature of different occupations				

13	is the portion of agricultural produce which is sold in the market by		
	the farmers, after meeting their self-consumption requirements. (Fill in the blank with		
	correct alternative) a) Trade Surplus		
	b. Marketable Surplus		
	c. Producer Surplus		
	d. Consumer Surplus		
14	Read the following statements carefully and choose the correct alternatives given		
	below: Statement 1 –Poverty line in India is defined in terms of monetary value of the		
	minimum nutritional (calorific) requirements of an individual in a day.		
	Statement 2 – The definition of poverty line in monetary terms has not changed over		
	the years. Alternatives:		
	a. Both the statements are true.		
	b. Both the statements are false.		
	c. Statement 1 is true and Statement 2 is false		
	d. Statement 2 is true and Statement 1 is false		
15	Read the following statements carefully and choose the correct alternatives given		
	below: Statement 1 – India is often called as the 'outsourcing hub' of the world.		
	Statement 2 – Availability of skilled manpower is one of the prime factors		
	responsible for the status gained by India at the international platform.		
	Alternatives:		
	a Path the statements are true		
	a. Both the statements are true.  b. Both the statements are false.		
b. Both the statements are false.			
<ul><li>c. Statement 1 is true and Statement 2 is false</li><li>d. Statement 2 is true and Statement 1 is false</li></ul>			
	d. Statement 2 is true and Statement 1 is faise		
16	Before the advent of Green Revolution in 1960's, India was primarily dependent on		
	6 4		
	for the supply of food grains. (Fill in the blank with correct		
alternative) a) United States of America (USA)			
	b. Britain (United Kingdom)		
	c. Mexico		
	a) Union of Soviet Socialist Republics (USSR)		
17	From the following given sets of statements in column I and II, choose the correct		
	pair of statements.		

	Column I		Column II
A	Exports of goods and services	i	Excess of Exports of goods over the Imports of goods
В	Trade Surplus	ii	An element of invisible items
С	Current Transfers to rest of the world	iii	Recorded as a positive item in the BOP account
D	Portfolio Investments	iv	Foreign Institutional Investors

	Alternatives:
	a. A-i
	b. B-ii c. C-iii
	d. D-iv
18	National Bank for Agricultural and Rural Development (NABARD) was set up in
	1982 as a/thebody to coordinate the activities of all institutions involved
	in the rural financing
	system. (Fill in the blank with correct alternative) a) cooperative
	b. apex
	c. micro credit
	d. private credit
19	The Government of India has decided to vaccinate the adult population of India (with
	Covaxin/Covishield), without any charge. This would be categorized as
	(Fill in the blank with correct alternative) a) revenue nature income
	b. capital nature expenditure
	c. revenue nature expenditure
	d. capital nature income

20	is not a reason for poverty in India. (Fill in the blank with correct alternative) a) population explosion			
	b. rise in per capita GDP			
	c. low capital formation			
	d. socio-economic exclusion			
21	In a hypothetical economy, Mr. Neeraj has deposited ₹100 in the bank. If it is assumed that there is no other currency circulation in the economy, then the total money supply in the economy will be (Fill up the blank with correct alternative) a) zero			
	b. ₹ 100 c. not defined d. ₹ 120			
22	'Since independence, India has witnessed a considerable fall in the Infant Mortality			
	Rate in India'			
	Identify which of the following may not be one of the reasons for the fall in the Infant Mortality			
	Rate? (Choose the correct alternative)			
	a. Improvement in health facilities over the years			
	b. Improvement in educational standards over the years			
	c. Fall in standard of living of the population of the nation over the years			
	d. Technological expansion over the years			
23	Read the following statements carefully and choose the correct alternatives given below:			
	Statement 1 – Subsidies do not add any burden on the financial health of a nation.			
	Statement 2 – Complete removal of subsidies may violate the aim of equitable distribution of income.			
	Alternatives:			
	a. Both the statements are true.			
	b. Both the statements are false.			
	c. Statement 1 is true and Statement 2 is false			
	d. Statement 2 is true and Statement 1 is false			

24	Prior to India's independence, the stagnation in the agricultural sector was mainly			
	caused by			
	(Fill up the blank with correct alternative)			
	a. investment in technology			
	b. investment in agriculture facilities			
	c. advanced infrastructural facilities			
	d. land settlement system			
	SECTION B			
	(20 questions out of 24 questions are to be attempted)			
25	Read the following statements - Assertion (A) and Reason (R):			
	Assertion (A) – Acquisition of a domestic (Indian) company by a foreign			
	(Australian) company will be recorded on the credit side of Balance of Payment			
	Account.			
	Paggan(P) It leads to outflow of faraign ayahanga from the demostic			
	Reason(R) – It leads to outflow of foreign exchange from the domestic economy. From the given alternatives choose the correct one:			
	Alternatives:			
	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 and 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.			
26	Suppose in an economy, the initial deposits of ₹ 400 crores lead to the creation of			
	total deposits worth ₹ 4000 crores.			
	Under the given situation the value of reserve requirements would be			
	(Fill up the blank with correct alternative) a) 0.01			
	b. 1			
	c. 0.1			
	d. 0.4			

27 Read the following statements - Assertion (A) and Reason (R):

Assertion (A) – Major policy initiatives (land reforms and Green Revolution) helped India to become self-sufficient in food grains production.

Reason(R) – The proportion of people depending on agriculture did not decline as expected after the Green Revolution.

From the given alternatives choose the correct one:

#### Alternatives:

- 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 and 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.
- 28 Identify the incorrect statement from the following: (Choose the correct alternative)
  - a. Diversification in agriculture sector provides sustainable livelihood rural population.
  - b. Diversification includes change in cropping pattern, shift of workforce from agriculture to other allied activities and non-agriculture sector.
  - c. Objective of investment in new agricultural avenues (non-farm activities) increases financial risks for the rural population.
  - d. Diversification reduces the proportion of unemployed population in the rural areas to considerable limits.

# 29 Read the following statements - Assertion (A) and Reason (R):

Assertion (A) – Human capital treats human beings as a means to an end (increase in productivity).

Reason(R) – Human Capital Formation decreases by way of investments in education and health. From the given alternatives choose the correct one:

- 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 and 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.				
30	From the set of statements give	ven in Column I (Name of the Scheme) and C	olumn II		
	_	ation Program), choose the correct pair of state			
		Column II			
	Column I (Name	Column II			
	of the Scheme)	(Objective of Poverty Alleviation			
		Program)			
	A) Mahatma	i) developing infrastructure and			
	Gandhi housing conditions				
	National Rural				
	National Kurai				
	Employment				
	Guarantee Act				
	B) Poshan Abhiyan				
	(Mid Day Meal	ii) guaranteed wage employment to rural unskilled worker			
	Programme)	to rural unskilled worker			
		::) balaing an aifig annun			
	C) National Social	iii) helping specific group – elderly people by giving			
	Assistance Programme	them pensions			
		mem penoions			
	D) Valmiki Ambedkar	iv) improving food and nutritional			
	Awas Yojana	status of the poor			
	Suitus of the poor				
	1				

Alternatives:
a. A-i b. B-ii c. C-iii d. D-iv

On the basis of the given bar diagram, identify the states which are able to reduce the poverty level as compared to other states between 1973 -2012.

- a. Tamil Nadu, Gujrat, Bihar, Andhra Pradesh
- b. Bihar, Madhya Pradesh, West Bengal and Orissa
- c. Rajasthan, Madhya Pradesh, Bihar and Uttar Pradesh
- d. Andhra Pradesh, Rajasthan, West Bengal and Tamil Nadu

#### FOR VISUALLY CHALLENGED CANDIDATES:

Identify which of the following statements given below, is not true, regarding the poor people? a) lack assets as well as income

- b. lack human capital
- c. work in formal sector
- d. too much dependency on public health facilities

On the basis of the above-mentioned information answer the following question:

The Real Per Capita Income of India (as per the given data) has increased by

(approximately) between 1951 and 2016-17. (Fill up the blank with correct alternative)

- a. 915 %
- b. 1015 %
- c. 815 %
- d. 715 %

# Read the following statements - Assertion (A) and Reason (R):

Assertion (A) – The goal of equitable distribution of land was fully served by abolition of intermediaries, in the post-independence India.

Reason(R) – Big landlords challenged the land ceiling legislation, delaying the implementation and subsequently escaping from the legislation

From the given alternatives choose the correct one:

- 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 and 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.

Read the following statements carefully and choose the correct alternatives given below: Statement 1 – The emergence of Self-Help Groups (SHG's) ensured the reduction in the fissures of the formal credit system.

Statement 2 – The borrowings from SHGs mainly confined to consumption purposes by its members.

#### Alternatives:

- a. Both the statements are true.
- b. Both the statements are false.
- c. Statement 1 is true and Statement 2 is false
- d. Statement 2 is true and Statement 1 is false
- Read the following statements carefully and choose the correct alternatives given below: Statement 1 The value of money multiplier is determined by the reserve ratio prevailing in the monetary system.

Statement 2 – The process of credit creation directly relates to the value of reserve ratio.

#### Alternatives:

- a. Both the statements are true.
- b. Both the statements are false.
- c. Statement 1 is true and Statement 2 is false
- d. Statement 2 is true and Statement 1 is false
- 36 Arrange the following event in the correct chronological order:

(Choose the correct arrangements) i. The year of great divide

- ii. Establishment of Tata Iron and Steel Company (TISCO)
- iii. Introduction of Railways in India by the British iv. Opening of Suez Canal

- a. iv,ii,i,iii
- b. i,iv,iii,ii
- c. ii,iii,iv,i
- d. iii,iv,ii,i

Read the following statements -Assertion (A) and Reason(R), choose one of the correct alternatives given below:

Assertion (A): Trade of invisible items between two nations is a part of capital account of Balance of Payment

Reason(R): Transactions that affect the asset-liability status of a country in relation to the rest of the world are known as Capital Account transaction.

#### Alternatives:

- 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 and 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.
- Demand Deposits include \_\_\_\_ and \_\_\_\_.(Fill up the blank with correct alternative) i. Saving account deposits
  - ii. Fixed deposits
  - iii. Current Account Deposits iv. Post Office Savings

#### Alternatives:

- a. i and ii
- b. ii and iii
- c. i and iii
- d. i and iv
- Read the following statements -Assertion (A) and Reason(R), Choose one of the correct alternatives given below:

Assertion (A): Since the default rates of farm loans have become chronically high due to multiple reasons, the rural banks are facing a lot of cash crunch.

Reason(R): Due to lack of proper storage facilities a lot of farm produce is wasted.

#### Alternatives:

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 and 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.

Read the following statements -Assertion (A) and Reason(R), Choose one of the correct alternatives given below:

Assertion (A): Since Independence, the economic condition of many farmers across India has improved as they have adopted horticulture as a secondary source of income.

Reason(R): Varying climatic and soil conditions have given India an added advantage to be the producer of diverse horticultural crops.

#### Alternatives:

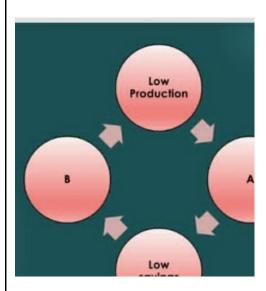
- a. Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).
- b. Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A).
- c. Assertion (A) is true but Reason (R) is false.
- d. Assertion (A) is false but Reason (R) is true.
- Read the following statements -Assertion (A) and Reason(R), Choose one of the correct alternatives given below:

Assertion (A): Demand Deposits are considered as a convenient mode of payment for execution of even the high value transactions.

Reason(R): Demand Deposits are non-withdrawable in nature and cannot be withdrawn against issue of cheques and other similar instruments of payment.

#### Alternatives:

- 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 and 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.
- 42 Choose the correct alternatives to be filled in given blanks A and B.



- a. Low level of income and Low level of investment
- b. Low level of investment and Low level of Income
- c. Low Mobilization of savings and Low level of investment
- d. Low level of Investment and Low savings

#### FOR VISUALLY CHALLENGED CANDIDATES:

Read the following statements and choose the correct alternative from the following

Statement 1: Economists identify the poor on the basis of their occupation and ownership of assest.

Statement 2: Urban poor are mostly an overflow of rural poor.

- a. Both the statements are true.
- b. Both the statements are false.
- c. Statement 1 is true and Statement 2 is false
- d. Statement 2 is true and Statement 1 is false

Ms Ramanpreet has started a new business venture, she intends to spend a huge amount towards 'on-the-job training' of her workers before putting them to work. It exhibits the right step in the direction of Human Capital Formation.

Spot which of the following does not directly contributes to the process of human capital formation by Ms Ramanpreet:-

- a. adds skills and expertise
- b. improves efficiency
- c. ensures gender equity
- d. increases output productivity
- Suppose that the Balance of Trade (BOT) of a nation, exhibits a surplus of ₹ 20,000 crores. The import of merchandise of the nation is half of the exports of merchandise to the rest of the world.

The value of exports would be ₹\_\_\_\_\_ crores. (Fill up the blank with correct alternative)

- a. 30,000
- b. 40,000
- c. 24,000
- d. 35,000
- Read the following statements carefully and choose the correct alternatives given below: Statement 1 Government of India adopted 'Trickle Down Approach' to alleviate poverty to benefit the last man at the bottom of the pyramid.

Statement 2 – Empirical data over the years have shown that trickle-down theory did not yield desired results in India.

- a. Both the statements are true.
- b. Both the statements are false.
- c. Statement 1 is true and Statement 2 is false
- d. Statement 2 is true and Statement 1 is false

Read the following statements -Assertion (A) and Reason(R), Choose one of the correct alternatives given below:

Assertion (A): If the receipts and payments on the current account are equal to each other, it depicts a situation of Current Account Surplus.

Reason(R): A surplus current account means that the nation is a lender to other countries and a deficit current account means that the nation is a borrower from other countries.

- 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 and 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.
- 47 Identify the correct statement from the following: (Choose the correct alternative)
  - a. Restrictive policies of commodity production, trade and tariff pursued by the colonial government adversely affected the structure, composition and volume of India's foreign trade.
  - b. Effective trade policies of commodity production, trade and tariff pursued by the colonial government favorably affected the structure, composition and volume of India's foreign trade.
  - c. Liberal policies of commodity production, trade and tariff pursued by the colonial government adversely affected the structure, composition and volume of India's foreign trade.
  - d. Restrictive policies of commodity production, trade and tariff pursued by the colonial government favorably affected the structure, composition and volume of India's foreign trade.

48	Match	the situations given in Column I wi	th thei	r respective implications given in
	Colun	nn II:		
	(Choo	se the correct alternative)		
		Column I		Column II
	A	Migration	i.	reduced in per capita economic growth
	В	Low level of academic standards	ii.	Imbalance between demand and supply of human resource
	С	Population- High Growth rate	iii.	Brain Drain
	D	Lack of proper manpower planning	iv.	Mismatch between required skill and academic standards
	b.	A-ii; B-iii; C-iv; D-i A-iii; B-iv; C-i; D-ii A-i; B-ii; C-iii; D-iv		
	d.	A-ii; B-iv, C-i; D-iii		

	SECTION C
	(10 questions out of 12 questions are to be attempted)
49	b. What is fiscal deficit

50	b. What is budget	
51	Identify which of the following is not an example of tax revenue for the government:	
	(Choose the correct alternative) a) Wealth Tax	
	b. Special Assessments	
	c. Income Tax	
	d. Corporate Tax	
52	Identify the correct formula to calculate Fiscal Deficit	
	<ul> <li>a. Total expenditure - Total Receipt (other than borrowings)</li> <li>b. Revenue Expenditure- Revenue Receipt</li> <li>c. Capital Expenditure- Capital Receipt</li> <li>d. Revenue Expenditure + Capital expenditure - Revenue Receipt</li> </ul>	
53	Read the following statements carefully and choose the correct alternatives given below: Statement 1 – Revenue and Capital receipts are increasing but borrowings and other liabilities are reducing.  Statement 2 – Grants and aid for creation of capital assets decreased from 2019 to 2021 Alternatives:	
	<ul><li>a. Both the statements are true.</li><li>b. Both the statements are false.</li><li>c. Statement 1 is true and Statement 2 is false</li><li>d. Statement 2 is true and Statement 1 is false</li></ul>	

54	of Primary Deficit for the year 2020-21, would be ₹ crores.
	(Fill up the blank with correct alternative)

Q.No. 55-60 are to be answered on the basis of the following data:

India's post-1990 economic strategy entailed three important breaks with the past:

- To dismantle the vast network of controls and permits that dominated the economic system.
- To redefine the role of the state as a facilitator of economic transactions and as a neutral regulator rather than the primary provider of goods and services.
- To move away from a regime of import substitution and to integrate fully with the global trading system.

The 1991 reforms unleashed the energies of Indian entrepreneurs and gave untold choice to the consumers and changed the face of the Indian economy. The reform agenda constituted a paradigm shift, and has defined the broad contours of economic policymaking for three decades.

Liberalization was adopted as the guiding principle of governance and all governments since 1991, have broadly stuck to that path.

Today we don't need a paradigm shift. We need to look at individual sectors and see which one of these needs, reforms to create a competitive environment and improve efficiency. The power sector, the financial system, governance structures and even agricultural marketing need reforms.

Today's reforms also require much more discussion and consensus-building. The central government needs to work in tandem with state governments and consult different stakeholders impacted by reform decisions. Timing and sequencing are critically important in the new reforms' agenda.

Source: Excerpts from 'Like 1991, the 2021 crisis presents an opportunity, by C.Rangarajan, 22<sup>nd</sup> January 2021(<u>livemint.com</u>)

- According to the given text, \_\_\_\_\_ was adopted as the guiding principle of governance and all governments since 1991.
  - a. Modernization
  - b. Liberalisation
  - c. Privatization
  - d. Globalization

Read the following statements carefully and choose the correct alternatives given below:

Statement 1 - 1991 was a landmark moment in India's post-independence history as that changed the nature of the economy in fundamental ways.

Statement 2 –India's economic establishment launched a multipronged reforms agenda to repair India's macroeconomic balance sheet and ignite growth.

#### Alternatives:

- a. Both the statements are true.
- b. Both the statements are false.
- c. Statement 1 is true and Statement 2 is false
- d. Statement 2 is true and Statement 1 is false

#### Read the following statements - Assertion (A) and Reason (R):

Assertion (A) – India's pre-1990 economic strategy dismantles the vast network of controls and permits that dominated the economic system.

Reason (R) – The 1991 reforms unleashed the energies of Indian entrepreneurs, gave untold choice to consumers and changed the face of the Indian economy.

From the given alternatives choose the correct one:

- 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 and 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.

- In the light of the given text and common knowledge, identify the incorrect statement:
  - a. A severe balance of payments problem triggered an acute economic crisis in 1991.
  - b. In 1991, the economic and political leadership launched a multipronged reforms agenda to repair the macroeconomic situation of the nation.
  - c. In post 1991 situation, the state was given the role of primary regulator of the economy.
  - d. Post pandemic, individual sectors should be looked closely. Sectors that need reforms should be identified and corrective action should be taken.
- Read the following statements carefully and choose the correct alternatives given below:

Statement 1 - Timing and sequencing are critically important in the post-economic reform agenda.

Statement 2 – Post pandemic reforms in India require a paradigm shift.

#### Alternatives:

- a. Both the statements are true.
- b. Both the statements are false.
- c. Statement 1 is true and Statement 2 is false
- d. Statement 2 is true and Statement 1 is false
- Read the following statements Assertion (A) and Reason (R):

Assertion (A) – The 1991 reforms released the vitalities of Indian businesspersons.

Reason (R) – The reform agenda established a paradigm shift and defined the broad outlines of economic policymaking for years to come.

From the given alternatives choose the correct one:

# Alternatives:

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 and 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.

#### KENDRIYA VIDYALAYA, NO.2 DELHI CANTT

SUB -HISTORY XII F

Autumn Break Home work

Note: ALL THE NEW HISTORICAL WORD SHOULD BE REMEMBERD

ALL STUDENTS SHOULD COMPLETE THE PROJECT WORK IN VACCATION.

Revise Chapter (1-6) complete all the taught question (esp.MCQ).carefully and also make the notes.

Solve 5 sample papers based on CBSE board pattern.

And see the sample paper of term1 exam carefully and prepare for the term1 exam.

Make a video of (5 Minutes) and write up (150 Words) regarding Azadi ke amrita mahotsav which has been already discussed in class.

. Map work of chapter 1 to 6 Should be prepared. . .

Holiday Home work

XII F

Subject Political Science

- Revise chapters of Term -1 exam
- Solve MCQ of all chapters of Term -1
- Complete your Term -1 Project
- Solve all sample papers given during your classes

1.	Which	of these statements about the princely states is incorrect:
	a.	Some of the princely states clearly wanted to become part of the Indian Union.
	<b>b</b> .	The Indian government was ready to give autonomy to some regions.
	c.	First of all, the ruler of Junagarh announced that the state had decided
	.1	on Independence.
	a.	Princely states covered one third of the land area of the British Indian Empire.
2.		acts as a think tank of the Union Government.
		a. NITI Aayog
		b. Yojana Aayog
		c. Election Commission of India
		d. Ministry of External Affairs
3.	Which	set of the Countries belonged to the NATO Group?
a) Pol	and, Br	itain, Romania
	b.	USA, Czech Republic, France
	c.	Britain, France, west Germany
	d.	Spain, France, East Germany
2.	Global	lisation leads to each culture becoming
a)	More D	Different
	b.	More Transparent
	c.	More Distinctive
	d.	More Different and Distinctive
2.	Which democ	factors contributed to Pakistan's failure in building a stable racy?
	a.	Dominance of the Military
	b.	Dominance of the clergy
	c.	Dominance of the landowning aristocracy
	d.	All of the above

• Write the answers of following questions

6.	Arab S	Spring began with
a) Russ	sian Re	evolution
	b.	Tunisian Revolution
	c.	Egyptian Revolution
d)Syria	ın Rev	olution
7.	'Choos	se the wrong statement:
	a.	Six- point proposal of Sheikh Mujibur Rehman for greater autonomy to East
Pak	istan.	
	b.	India and Pakistan conduct nuclear tests in 1998.
	c.	SAFTA signed at the 7 <sup>th</sup> SAARC Summit in Islamabad.
	d.	India and Bangladesh sign the Farakka Treaty for sharing of the Ganga waters in 1996
8.	In the	decade of 1960's, the Congress Party under the leadership of Indira
Gandhi	i was a	ffected by
a) Viol	ence	
	b.	Defection
	c.	Internal conflicts
	d.	Censorship
9	F	Policy has been adopted by NITI Aayog. 1
a) Mak	e in In	dia
	a.	Made in India
	b.	Start-up India
	c.	Ayushman Bharat
10) Firs	t Gulf	War was known as 1 a) Operation Infinite Reach
a.	Operat	ion Enduring Freedom

- b. Operation Desert Storm
- c. Operation Iraqi Freedom
- Write about India Russia Relations
- India US Relations
- India Israel Relations
- India China Relations

# KV NO.2, DELHI CANTT. (SHIFT-II)

# **AUTUMN BREAK ASSIGNMENT**

### **SUBJECT – MATHS**

# <u>CLASS – 6</u>

- 1. LEARN AND WRITE SQUARES OF NUMBERS FROM 1 TO 20.
- 2. COMPLETE YOUR WORK OF CHAPTER:,6,7,8
- 3. DO THE FOLLOWING WORKSHEETS:-

<u>(A)</u>

# Prime Time Numbers

You can put numbers into groups because of ways they are the same and different. Early mathematicians discovered that most numbers can be written as the product of two numbers. Here are some examples:

$$4 \times 2 = 8$$
  $6 \times 6 = 36$ 

But some numbers cannot be written this way. They can only be shown as the product of 1 and the number itself. Here are some examples:

$$1 \times 5 = 5$$
  $1 \times 17 = 17$ 

These are called *prime numbers*. A prime number is any number greater than 1 that can only be divided by itself and 1 evenly. Here are the first five prime numbers:

Circle all the prime numbers below:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

# **CHAPTER: UNDERSTANDING GEOMETRICAL SHAPES**

Choo	se the correct option:-
Q1	The angle formed between the east and the north direction is
	a) 60°
	b) 80°
	c) 90°
	d) 180°
Q2	A triangle can have right angles.
	a) One
	b) Two
	c) Three
	d) None of these
Q3	If a bicycle wheel has 36 spokes, then the angle between a pair of adjacent spokes is
	a) 10°
	b) 15°
	c) 12°
	d) 20°
Q4	An angle more than 180° and less than 270° is called
	a) Zero angle
	b) Right angle
	c) Reflex angle
	d) Straight angle
Q5	What fraction of a clockwise revolution does the hour hand of a clock turn through, w
	(a) 6 to 12 (b) 5 to 8
Q6	Which direction will you face if you start facing
	(i) West and make $\frac{1}{2}$ of a revolution clockwise?

(ii) East and make one full revolution?

	(i) North and turn clockwise to face west?
	(ii) South and turn anticlockwise to face west?
Q8	Where will the hour hand of a clock stop if it starts:
	(i) from 7 and turns through 1 right angle?
	(ii) from 11 and turns through 3 right angles?
Q9	Fill in the blanks using appropriate signs (< , > or = )
	(i) The measure of one complete angle 360°
	(ii) The measure of reflex angle 180°
	(iii) The measure of an obtuse angle90°
	(iv) The measure of an acute angle90"
	(v) The measure of right angle90*
Q10	Write all the alphabets that are made of perpendicular lines.
Q11	Name the type of triangles:
	(i) 6.5 cm, 8cm, 8.5 cm
	(ii) 9 cm, 9 cm, 9 cm
	(iii) 30°, 60°, 90°
	(iv) 99°, 50°, 31°
	(v) 46°, 58°, 76°
	(vi) ∆ABC with ∠ B=90°, AB = BC = 6cm
Q12	Fill in the blanks:
	(i) The opposite sides of a rectangle are
	(ii) A rectangle whose adjacent sides are equal is called

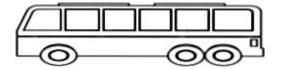
	(ii)parallelograms are also trapeziums.
	(iii)rhombuses are squares.
	(iv)trapeziums are quadrilaterals.
	(v)squares are rhombuses.
	(vi)trapeziums are isosceles.
	(vii)equilateral triangles are isosceles.
Q14	Define a regular polygon.
Q15	Give two examples of each from your daily life: Cuboid, Cone, Cube, Cylinder, Sphere
Q16	Complete the following table:

S.No	Solid Figure	Vertices	Faces	
1	Cuboid			
2	Cone			
3	Cube			
4	Cylinder			
5	Sphere			
6	Triangular Pyramid			
7	Square Pyramid			
8	Triangular Prism			

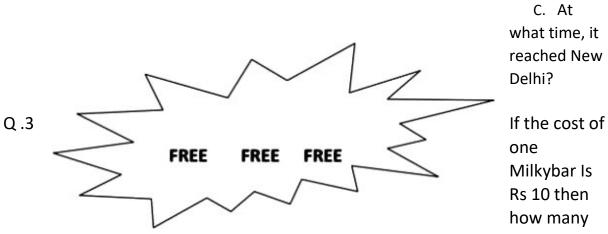
# Creative and Critical Thinking Worksheet Class : VI

**Q.1**CTU buses leave Chandigarh Bus Stand after every 30 minutes.

A passenger asked at the enquiry desk about the bus timings. The clerk told him that the bus had already left ten minutes ago and next bus will be leaving at 9.35 am. At what time did the clerk give this information to the passenger?



- A. 9:10 am
- B. 8:55 am
- C. 9:05 am
- D. 9:15 am
- Q.2 A train started from Chandigarh for New Delhi. After travel time of 1 hour 45 minutes, train halted at Kamal for 35 minutes. It left Karnal at 11:40 am for New Delhi. If it takes 2 hours 15 minutes to reach New Delhi, then answer the following questions:
  - A. At what time did the train start from Chandigarh?
  - B. At what time, it reached Kamal?



Milkybars will you get for Rs 60, if you get one free chocolate on a purchase of three chocolates?

C) 10 D) 12

NOTE: Do the questions in the Maths FC.

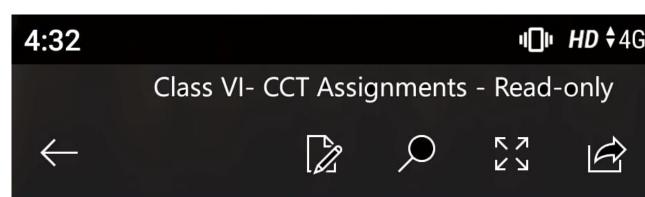
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Module 7

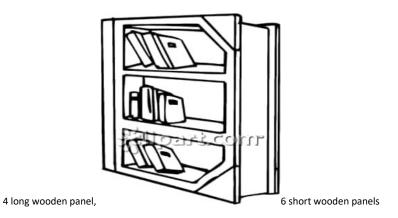
Mathematics

Class: VI

Question 1: BOOKSHELVES



To complete one set of bookshelves a carpenter needs the following components:



12 small clips 2 large clips 14 screws.

The carpenter has in stock 26 long wooden panels, 33 short wooden panels, 200 small clips, 20 large clips and 510 screws.

How many complete sets of bookshelves can the carpenter make?

Answer: "-----

Question 2: THE BEST CAR

A car magazine uses a rating system to evaluate new cars, and gives the award of "The Car of the Year" to the car with the highest total score.

Five new cars are being evaluated, and their ratings are shown in the table.

Car	Safety Features	Fuel Efficiency	External	Internal Fittings
			Appearance	
	2	2	2	2
Sp	3	1	3	2
NI	1	3	3	3
KK	3	2	3	2

## **Unit 1: Messy Integers**

Lad a roctless nic

Surabhi has been studying Integers in class. She even had a restless night trying to sort integers inher dreams.

If RISE is coded as 6 8 21, TEAR is coded 914 6 and REACH is coded as 61 4 7 3.

What will be the code for TEACHER?

## Did you know?

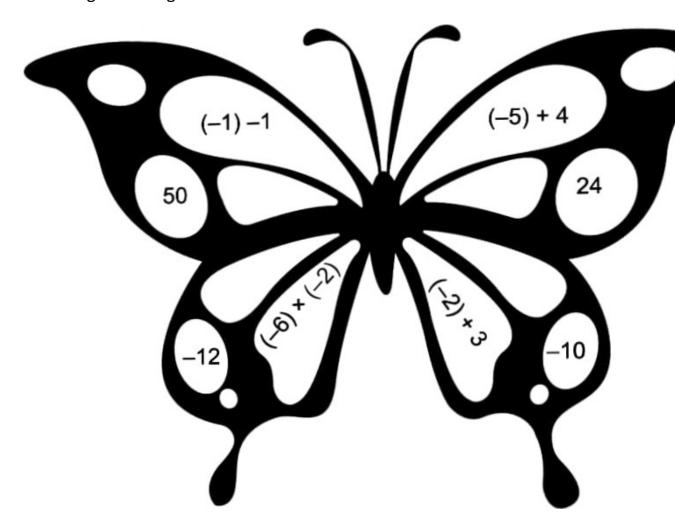
We forget 50% of our dreams within 5 minutes of waking up and 100% within 10 minutes. And, not everyone dreams in colour. 14% people dream in black and white!

A I—ittteMathemagic

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## Unit 2: Kainbow integers

2.1 Solve the questions in the image below. Next, identify the integers and then colour all sections with positive integers yellow, and all sections with negative integers as red.

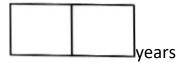


2.2 Adwaita a tortorise in Alipore Zoo in Kolkatta has the longest recorded life span in the world. She lived for more than 200 years.

I am Tapu, the tortoise. Although I am not as old as Adwaita was, can you guess my age with the help of clues given below:



- a. B oth my digits are odd.
- b. One of my digits is 3
- c. My ten's place is three times the digitat one's place.
- d. lammore than 50 years old, butless than 100 years.



Yes! Many
On ants to take
Alcon blue, ants

B utterflies use ants as babysitters? Really?

members of a butterfly family Lycaenids depend care Of their babies. In some species, like the carry the babies back to their nest, and heartily

protect them from parasites too!

How's that for insect solidarity!

A Little Mathemagic

## Unit 14: Olympic Mathlete Competition

There were 8 contestants who competed in the Olympic mathlete competition

D

Ali BabitaChintu David Ellie Fahim Geeta Hari

There are 3 medals available - Gold, Silver and Bronze. Each medal is awarded to one student only:

- 1. Gold medal being awarded first in the ceremony. How many candidates are there for the gold medal?
- 2. Once the gold medal is awarded, how many candidates are there for the silver medal?
- 3. Once the gold and silver medals are awarded, how many candidates are there for the bronze medal?
- 14.4In how many ways can we award the medals among the 8 contestants?

[Hint: We have to choose 3 people out of 8. To do this, we start with all options (8), then take them away one at a time (7, then 6) until we ran out of medals].

Aah! So that's what happened!



•Lots of people accept that the medal (form and content), was invented by the Italian painter Antonio Pisano (1395--1455), called Pisanello.

The gold, silver andbronze Olympic medals were firstused at the 1904Summer Olympics.

At one time, Olympic gold medals were real solid gold. A solid gold medal was awarded at the 1912 Stockholm Olympics for the last time. After that, gold medals were made of sterling silver that were plated with gold.

32 A Little Mathemagic

## Holiday homework of class 7

- 1) Learn and write table 2 to 20
- 2) solve examples of chapter 1 to chapter 8 in notebook.
- 3) Revise chapter 1 to chapter 8
- 4) Make Bar graph Temperature of atleast 6 cities of different states

#### **HOLIDAY HOME WORK**

#### CLASS 9

#### **MATHS**

- 1. Revise all chapters of first term
- 2. Attempt the following multiple choice questions

**TOPIC :- REAL NUMBERS** 

- 1.) Can we write 0 in the form of p/q?
  - a. Yes
  - b. No
  - c. Cannot be explained
  - d. None of the above
- 2.) The three rational numbers between 3 and 4 are:
- a. 5/2, 6/2, 7/2
- b. 13/4, 14/4, 15/4
- c. 12/7, 13/7, 14/7
- d.11/4, 12/4, 13/4
- 3.) In between any two numbers, there are:

a. Only one rational number
b. Two rational numbers
c. Infinite rational numbers
d. No rational number
4.) Every rational number is:
a. Whole number
b. Natural number
<ul><li>c. Integer</li><li>d. Real number</li></ul>
5.) √9 is number.
a. A rational
b. An irrational
c. Neither rational nor irrational
d. None of the above
6.) Which of the following is an irrational number?
a. √16 b. √(12/3) c. √12 d. √100
7.) 3v6 + 4v6 is equal to:
<ul><li>a. 6√6</li><li>b. 7√6</li><li>c. 4√12</li><li>d. 7√12</li></ul>
8.) √6 x √27 is equal to:
a. 9√2

- b. 3√3
- c. 2√2
- d. 9√3

9.) Which of the following is equal to x<sup>3</sup>?

- a.  $x^6 x^3$ b.  $x^6 \cdot x^3$

c. 
$$x^6/x^3$$

d. 
$$(x^6)^3$$

10.) Which of the following is an irrational number?

- a. √23
- b.  $\sqrt{225}$
- c. 0.3796
- d. 7.478478

#### **TOPIC - LINEAR EQATION IN TWO VARIABLES**

- 1. The linear equation 4x 10y
  - = 14 has: a) A unique

solution

- b) Two solutions
- c) Infinitely many

solutions d) No

solutions

- 2. Find the number of solutions of the following pair of linear equations. x + 2y 8 = 0 and 2x + 4y = 16:
- a. 0
- b. 1

C.	2
d.	Infinite
3.	If (2, 0) is a solution of the linear equation $2x + 3y = k$ , then the value of k is: a) 4
b) 6 c) 5 d) 2	
3.	The graph of the linear equation $2x + 3y = 6$ cuts the y-axis at the point:
a.	(2, 0)
b.	(0, 3)
C.	(3, 0)
d.	(0, 2)
5.	The equation y = 5, in two variables, can be

written as: a) 1.x + 1.y = 5

5. Any point on the line y = x is of the form:

7. The graph of 
$$x = 5$$
 is a line:

a. Parallel to x-axis at a distance 5 units from the origin

b. Parallel to y-axis at a distance 5 units from the origin

c. Making an intercept 5 on the x-axis

d. Making an intercept 5 on the y-axis

8. x = 9, y = 4 is a solution of the linear equation: a) 2x + y = 17

b) 
$$x + y = 17$$

c) 
$$x + 2y = 17$$

d) 
$$3x - 2y =$$

17

8. Any point on the x-axis is of the form:

10. If a linear equation has solutions (-3, 3), (0, 0) and (3, -3), then it is of the form: a)y - x = 0

$$b)x + y = 0$$

c) 
$$-2x + y =$$

$$0 d) -x + 2y$$

= 0

#### **TOPIC :- COORDINATE GEOMETRY**

1. Which graph is parallel to x-axis?

a. 
$$y = x+1$$

- b. y = 2
- c. x = 3
- d. x = 2y
- 2. Which point lies on x-axis?
  - a. (3, 2)
  - b. (-3, 2)
  - c. (2, 0)
  - d. (-1,-2)
- 3. Which point lies on y-axis?

	a.	y = 2x+1
	b.	2y = 2x-6
	C.	2y = x+7
	d.	y = 3x + 1
6.	Which	point lies on the left of y-axis?
	a.	(2, 0)
	b.	(-2,-4)
	c.	(5, 2)
	d.	(3, 6)
7.	Which	point lies in IV quadrant?
	a.	(-3,-4)
	b.	(2,-4)
	c.	(-2, 3)
	d.	(0, 1)
8.	Which	point lies above x-axis?
	a.	(-1, 2)
	b.	(2, 0)
	c.	(-1,-5)
	d.	(0,-3)
	ie coord on of y	linates of the point which lies on y-axis at a distance of 4 units in negative -axis is
a.	(5, 4)	
	(4, 0)	
	(0, -4)	
	(-4, 0)	
٠.	\ ., \	

a. (1, 3)b. (0, 3)c. (5, 2)d. (-2,-3)

a. (0, 3)b. (-2,-1)c. (3, 5)d. (-3,-2)

4. Which point lies to the right of y-axis?

5. Which line is parallel to y=x-2?

## Q.10 Points (1, -2), (1, -3), (-4, 5), (0, 0), (3, -3)

- a. Lie in III quadrant
- b. Lie in II quadrant
- c. Lie in IV quadrant
- d. Do not lie in the same quadrant

#### **TOPIC:-TRIANGLES**

1. In triangle ABC, if AB=BC and  $\angle$ B = 70°,  $\angle$ A will be: a. 70°

b.

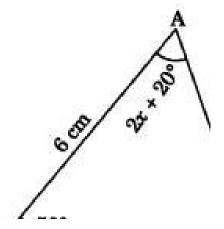
110°

c. 55°

2.	For two triangles, if two angles and the included side of one triangle are equal to two angles and the included side of another triangle. Then the congruency rule is:
a. SSS b. ASA c. SAS	
d. Non	e of the above
4.	The angles opposite to equal sides of a triangle are: a. Equal
b. Une	qual
	ementary angles d. mentary angles
4.	If E and F are the midpoints of equal sides AB and AC of a triangle ABC. Then: a. BF=AC
b. BF=, c. CE=, d. BF = CE	AB
4.	In triangles ABC and PQR, AB = AC, $AC = AP$ and $AB = AQ$ . The two triangles are

a.	Isosceles and congruent
b.	Isosceles but not congruent
C.	Congruent but not isosceles
d.	Neither congruent nor isosceles
7) In Δ PC	QR, $\angle$ R = $\angle$ P and QR = 4 cm and PR = 5 cm. Then the length of PQ is
a.	2 cm
b.	2.5 cm
C.	4 cm
d.	5 cm
8.	If ABC is an equilateral triangle, then each angle equals to: a. 90°
B.180 ° c. 120° d. 60°	

8. In given figure, the measure of ∠BAC is



(a) 60°

b. 50°
c. 70°
d. 80°
10 le a vielet triemele, the leavest
10. In a right triangle, the longest side is: a. Perpendicular
0.00 10. 0. po
b. Hypotenuse
c. Base
d. None of the above
TOPIC:- HERONS FORMULA
1. The area of a triangle is 150 cm <sup>2</sup> and its sides are in the ratio 3:4:5. What is its
perimeter?
a. 10 cm
b. 30 cm
c. 45 cm
d. 60 cm
2. What in the area of an equilateral triangle with side 2 cm?
a. $\sqrt{6}$ cm <sup>2</sup>
b. $\sqrt{3}$ cm <sup>2</sup>
c. √8cm²
d. 4cm <sup>2</sup>
2. What is the length of each side of an equilateral triangle having an area of
$4\sqrt{3}$ cm <sup>2</sup> ?
473 UII ?

a. 4cmb. 5cmc. 5cm

- d. 6cm
- 2. The sides of a triangle are 3 cm, 5 cm and 6 cm. What is its area?
  - a.  $2\sqrt{3}$ cm<sup>2</sup>
  - b. 4v14cm<sup>2</sup>
  - c. 5 $\sqrt{12}$ cm<sup>2</sup>
  - d.  $2\sqrt{5}$ cm<sup>2</sup>



- 2. What is the area of an equilateral triangle with side
  - a. 2/27 cm<sup>2</sup>
     b. 2/15 cm<sup>2</sup>
  - c. 3/16 cm<sup>2</sup>
  - d.  $3/14 \text{ cm}^2$
- 6. length of one of the equal sides of an isosceles triangle is 4 cm. If its be is 2 cm then what is its area?
  - a.  $\sqrt{15}$ cm<sup>2</sup>
  - b. V13cm<sup>2</sup>c. V12cm<sup>2</sup>

  - d.  $\sqrt{14}$ cm<sup>2</sup>

?

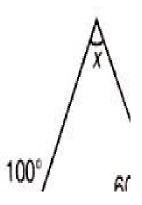
d. 6√200cm²
<ul> <li>9. The sides of a triangle are 15 cm, 17 cm and 8 cm. What is its area?</li> <li>a. 20cm<sup>2</sup></li> <li>b. 40cm<sup>2</sup></li> </ul>
c. 60cm <sup>2</sup>
d. 80cm <sup>2</sup>
<ul> <li>9. The sides of a triangle are in the ratio of 3:4:5. If its perimeter is 36 cm, then what is its area?</li> <li>a. 32 cm<sup>2</sup></li> <li>b. 54 cm<sup>2</sup></li> </ul>
c. 67 cm <sup>2</sup>
d. 72cm <sup>2</sup> TOPIC :- STATISTICS
<ol> <li>The ratio of the sum of observations and the total number of observations is called: a. Mean</li> </ol>
b. Median c. Mode
d. Central tendency d. Mode

2.	Find the range of the following data: 25, 18, 20, 22, 16, 6, 17, 15, 12, 30, 32, 10, 19, 8, 11, 20. a. 10
b. 15 c. 18 d. 26	
3.	What is the class mark of the class interval 90-120?
a.	90
b.	105
c.	115
d.	120
4.	In the class intervals 10-20, 20-30, 20 is included in which interval? a. 10-20
b. 20-3	30
c. Both	n the intervals
d. Non	ne of the intervals
4.	Find the class width for the grouped frequency distribution of the class intervals 1-20, 21-40, 41-60,
a. 10 b. 15 c. 17 d. 20	
4.	The difference between the maximum and minimum values of the given observation is called

- a. Class
- b. Class interval
- c. Classmark
- d. Range
- 7. Find the maximum value if the range is 38 and the minimum value is 82. a. 60
- b. 76
- c.
- 120
- d. 82

#### **TOPIC :- LINES AND ANGLES**

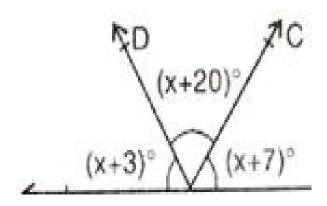
1. Value of *x* in the figure below is:



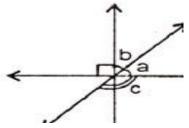
- a. 20°
- b. 40°
- c. 80°
- d. 160°
- 2. If two complementary angles are in the ratio 13 : 5, then the angles are: a)  $13x^{\circ}$ ,  $5x^{\circ}$

2. The diagonals of the rectangle ABCD intersect at O. If 
$$\angle$$
COD = 78°, then  $\angle$ OAB is: a) 35°

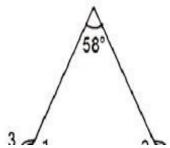
2. If 
$$AB = x + 3$$
,  $BC = 2x$  and  $AC = 4x - 5$ , then for what value of 'x', B lies on AC?



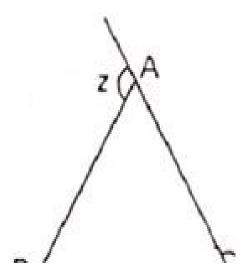
- a. 40°
- b. 50°
- c. 60°
- d. 80°
- 6. In the given figure, if the angles a and b are in the ratio 2:3, then angle c is:



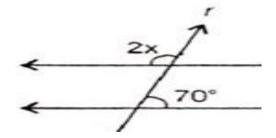
- a. 9 0 0
  - b) 1 2 6 0
- c. 144°
- c. Obtuse angle
- 7. In the given figure,  $\angle 1 = \angle 2$  then the measurements of  $\angle 3$  and  $\angle 4$  are:



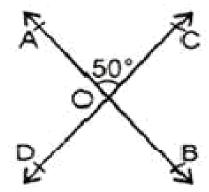
- a. 58°, 61° b. 61°, 61°
- c. 119°, 61°
- d. 119°, 119°
- 8. In the figure, if x, y and z are exterior angles of  $\triangle ABC$  then x + y + z is:



- a. 90°
- b. 180°
- c. 270°
- d. 360°
- 9. In the figure,  $p \mid \mid q$ . The value of x is:



- a. 35°
- b. 55°
- c. 70°
- d. 110°
- $10.\;$  In the given figure, if  $\angle$  AOC = 50° then ( $\angle$ AOD +  $\angle$ COB) is equal to:



a. 1	.00
------	-----

- b. 130°
- c. 140°
- d. 260°

## **MCQs**

#### <u>CH-1</u>

- 1. The decimal expansion of 22/7 is
- (a) Terminating
- (b) Non-terminating and repeating
- (c) Non-terminating and Non-repeating
- (d) None of the above
- 2. For some integer n, the odd integer is represented in the form of:
- (a) n
- (b) n + 1
- (c) 2n + 1

(d) 2n
3. HCF of 26 and 91 is:
(a) 15
(b) 13
(c) 19
(d) 11
4. Which of the following is not irrational?
(a) $(3 + \sqrt{7})$
(b) $(3 - \sqrt{7})$
(c) $(3 + \sqrt{7}) (3 - \sqrt{7})$
(d) 3√7
5. The addition of a rational number and an irrational number is equal to:
(a) rational number
(b) Irrational number
(c) Both
(d) None of the above
6. The multiplication of two irrational numbers is:
(a) irrational number
(b) rational number
(c) Maybe rational or irrational
(d) None
7. If p and q are integers and is represented in the form of p/q, then it is a:
(a) Whole number
(b) Rational number
(c) Natural number
(d) Even number
8. The largest number that divides 70 and 125, which leaves the remainders 5 and 8, is:

(c) a/b
(d) a × b
<u>CH-2</u>
1. The zeroes of x <sup>2</sup> -2x -8 are:
(a) (2,-4)
(b) (4,-2)
(c) (-2,-2)
(d) (-4,-4)
2. What is the quadratic polynomial whose sum and the product of zeroes is $\sqrt{2}, \sqrt[4]{3}$ respectively?
(a) $3x^2-3\sqrt{2}x+1$
(b) $3x^2+3\sqrt{2}x+1$
(c) $3x^2+3\sqrt{2}x-1$
(d) None of the above
3. If the zeroes of the quadratic polynomial ax²+bx+c, c≠0 are equal, then
(a) c and b have opposite signs
(b) c and a have opposite signs
(c) c and b have same signs
(d) c and a have same signs
4. The degree of the polynomial, $x^4 - x^2 + 2$ is
(a) 2
(b) 4
(c) 1
(d) 0
5. If one of the zeroes of cubic polynomial is $x^3+ax^2+bx+c$ is -1, then product of other two zeroes is:
(a) b-a-1

(b) b-a+1
(c) a-b+1
(d) a-b-1
6. If $p(x)$ is a polynomial of degree one and $p(a) = 0$ , then a is said to be:
(a) Zero of p(x)
(b) Value of p(x)
(c) Constant of p(x)
(d) None of the above
7. Zeroes of a polynomial can be expressed graphically. Number of zeroes of polynomial is equal to number of points where the graph of polynomial is:
(a) Intersects x-axis
(b) Intersects y-axis
(c) Intersects y-axis or x-axis
(d) None of the above
8. A polynomial of degree n has:
(a) Only one zero
(b) At least n zeroes
(c) More than n zeroes
(d) At most n zeroes
9. The number of polynomials having zeroes as -2 and 5 is:
(a) 1
(b) 2
(c) 3
(d) More than 3
10. Zeroes of $p(x) = x^2-27$ are:
(a) ±9√3
(b) $\pm 3\sqrt{3}$
(c) $\pm 7\sqrt{3}$

(d) None of the above
11. Given that two of the zeroes of the cubic polynomial $ax^3 + bx^2 + cx + d$ are 0, the third zero is
(a) -b/a
(b) b/a
(c) c/a
(d) -d/a
12. If one zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is
(a) 10
(b) -10
(c) 5
(d) -5
13. A quadratic polynomial, whose zeroes are –3 and 4, is
(a) $x^2 - x + 12$
(b) $x^2 + x + 12$
(c) $(x^2/2) - (x/2) - 6$
(d) $2x^2 + 2x - 24$
14. The zeroes of the quadratic polynomial $x^2 + 99x + 127$ are
(a) both positive
(b) both negative
(c) one positive and one negative
(d) both equal
15. The zeroes of the quadratic polynomial $x^2 + 7x + 10$ are
(a) -4, -3
(b) 2, 5
(c) -2, -5
(d) -2, 5
16. If the discriminant of a quadratic polynomial, D > 0, then the polynomial has

(a) two real and equal roots
(b) two real and unequal roots
(c) imaginary roots
(d) no roots
17. If the graph of a polynomial intersects the x-axis at three points, then it contains zeroes.
(a) Three
(b) Two
(c) Four
(d) More than three
<u>CH-3</u>
1. The pairs of equations x+2y-5 = 0 and -4x-8y+20=0 have:
(a) Unique solution
(b) Exactly two solutions
(c) Infinitely many solutions
(d) No solution
2. If a pair of linear equations is consistent, then the lines are:
(a) Parallel
(b) Always coincident
(c) Always intersecting
(d) Intersecting or coincident
3. The pairs of equations $9x + 3y + 12 = 0$ and $18x + 6y + 26 = 0$ have
(a) Unique solution
(b) Exactly two solutions
(c) Infinitely many solutions
(d) No solution
4. If the lines $3x+2ky - 2 = 0$ and $2x+5y+1 = 0$ are parallel, then what is the value of k?

(a) 4/15
(b) 15/4
(c) <sup>4</sup> / <sub>5</sub>
(d) 5/4
5. If one equation of a pair of dependent linear equations is -3x+5y-2=0. The second equation will be:
(a) -6x+10y-4=0
(b) 6x-10y-4=0
(c) 6x+10y-4=0
(d) -6x+10y+4=0
6.The solution of the equations x-y=2 and x+y=4 is:
(a) 3 and 1
(b) 4 and 3
(c) 5 and 1
(d) -1 and -3
7. A fraction becomes 1/3 when 1 is subtracted from the numerator and it becomes 1/4 when 8 is added to its denominator. The fraction obtained is:
(a) 3/12
(b) 4/12
(c) 5/12
(d) 7/12
8. The solution of 4/x+3y=14 and 3/x-4y=23 is:
(a) ½ and -2
(b) $\frac{1}{3}$ and $\frac{1}{2}$
(c) 3 and $\frac{1}{2}$
(d) 2 and ⅓
9. Ritu can row downstream 20 km in 2 hours, and upstream 4 km in 2 hours. Her speed of rowing in still water and the speed of the current is:
(a) 6km/hr and 3km/hr

(b) 7km/hr and 4km/hr
(c) 6km/hr and 4km/hr
(d) 10km/hr and 6km/hr
10. The angles of cyclic quadrilaterals ABCD are: $A = (6x+10)$ , $B=(5x)^\circ$ , $C = (x+y)^\circ$ and $D=(3y-10)^\circ$ . The value of x and y is:
(a) $x=20^{\circ}$ and $y = 10^{\circ}$
(b) $x=20^{\circ}$ and $y=30^{\circ}$
(c) x=44° and y=15°
(d) x=15° and y=15°
11. The pair of equations $x = a$ and $y = b$ graphically represents lines which are
(a) parallel
(b) intersecting at (b, a)
(c) coincident
(d) intersecting at (a, b)
12. The pair of equations $5x - 15y = 8$ and $3x - 9y = 24/5$ has
(a) one solution
(b) two solutions
(c) infinitely many solutions
(d) no solution
13. The pair of equations $x + 2y + 5 = 0$ and $-3x - 6y + 1 = 0$ have
(a) a unique solution
(b) exactly two solutions
(c) infinitely many solutions
(d) no solution
14. The value of c for which the pair of equations $cx - y = 2$ and $6x - 2y = 3$ will have infinitely many solutions is
(a) 3
(b) -3
(c) -12

(d) no value
15. If the lines representing the pair of linear equations $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ are coincident, then
(a) $a_1/a_2 = b_1/b_2$
(b) $a_1/a_2 = b_1/b_2 = c_1/c_2$
(c) $a_1/a_2 \neq b_1/b_2$
(d) $a_1/a_2 = b_1/b_2 \neq c_1/c_2$
16. A pair of linear equations which has a unique solution $x = 2$ , $y = -3$ is
(a) $x + y = -1$ ; $2x - 3y = -5$
(b) $2x + 5y = -11$ ; $4x + 10y = -22$
(c) $2x - y = 1$ ; $3x + 2y = 0$
(d) $x - 4y - 14 = 0$ ; $5x - y - 13 = 0$
17. The father's age is six times his son's age. Four years hence, the age of the father will be four times his son's age. The present ages, in years, of the son and the father are, respectively
(a) 4 and 24
(b) 5 and 30
(c) 6 and 36
(d) 3 and 24
18. If the pair of linear equations has a unique solution, then the lines representing these equations will
(a) coincide
(b) intersect at one point
(c) parallel to each other
(d) parallel to x-axis
19. Which of the following method(s) is/are used to find the solution of a pair of linear equations algebraically?
(a) Substitution Method
(b) Elimination Method
(c) Cross- multiplication Method

(d) All the above

20. The graphical representation of a pair of equations $4x + 3y - 1 = 5$ and $12x + 9y = 15$ will be
(a) parallel lines
(b) coincident lines
(c) intersecting lines
(d) perpendicular lines
<u>CH-6</u>
1. D and E are the midpoints of side AB and AC of a triangle ABC, respectively and BC = 6 cm. If DE $\parallel$ BC, then the length (in cm) of DE is:
(a) 2.5
(b) 3
(c) 5
(d) 6
2. The diagonals of a rhombus are 16 cm and 12 cm, in length. The side of rhombus in length is:
(a) 20 cm
(b) 8 cm
(c) 10 cm
(d) 9 cm
3. Corresponding sides of two similar triangles are in the ratio of 2:3. If the area of small triangle is 48 sq.cm, then the area of large triangle is:
(a) 230 sq.cm.
(b) 106 sq.cm
(c) 107 sq.cm.
(d) 108 sq.cm
4. If perimeter of a triangle is 100 cm and the length of two sides are 30 cm and 40 cm, the length of third side will be:
(a) 30 cm
(b) 40 cm

(c) 50 cm
(d) 60 cm
5. If triangles ABC and DEF are similar and AB=4 cm, DE=6 cm, EF=9 cm and FD=12 cm, the perimeter of triangle is:
(a) 22 cm
(b) 20 cm
(c) 21 cm
(d) 18 cm
6. The height of an equilateral triangle of side 5 cm is:
(a) 4.33 cm
(b) 3.9 cm
(c) 5 cm
(d) 4 cm
7. If ABC and DEF are two triangles and AB/DE=BC/FD, then the two triangles are similar if
(a) ∠A=∠F
(b) ∠B=∠D
(c) ∠A=∠D
(d) ∠B=∠E
8. Sides of two similar triangles are in the ratio 4: 9. Areas of these triangles are in the ratio
(a) 2: 3
(b) 4: 9
(c) 81: 16
(d) 16: 81
9. Which of the following are not similar figures?
(a) Circles
(b) Squares
(c) Equilateral triangles
(d) Isosceles triangles

10. In triangle ABC,  $\angle$ BAC = 90° and AD  $\perp$  BC. Then (A) BD . CD =  $BC^2$ (B)  $AB \cdot AC = BC^2$ (C) BD . CD =  $AD^2$ (D) AB . AC =  $AD^2$ 11. In triangles ABC and DEF,  $\angle$ B =  $\angle$ E,  $\angle$ F =  $\angle$ C and AB = 3 DE. Then, the two triangles are (a) congruent but not similar (b) similar but not congruent (c) neither congruent nor similar (d) congruent as well as similar 12. It is given that  $\triangle$ ABC ~  $\triangle$ PQR, with BC/QR = 1/4 then, ar( $\triangle$ PRQ)/ar(ABC) is equal to (a) 16 (b) 4 (c) 1/4(d) 1/16 13. It is given that  $\triangle ABC \sim \triangle DFE$ ,  $\angle A = 30^{\circ}$ ,  $\angle C = 50^{\circ}$ , AB = 5 cm, AC = 8 cm and DF = 7.5 cm. Then, the following is true: (a) DE = 12 cm,  $\angle$ F = 50° (b) DE = 12 cm,  $\angle$ F = 100° (c) EF = 12 cm,  $\angle D = 100^{\circ}$ (d) EF = 12 cm,  $\angle D = 30^{\circ}$ 14. If triangle ABC is similar to triangle DEF, then, (a) AB/FD = BC/EF = CA/DE (b) AB/DE = BC/DF = CA/EF (c) AB/DE = BC/EF = CA/FD

(d) AB/BC = CA/DE = EF/FD

(a) AAA

15. Which of the following is not a similarity criterion for two triangles?

(b) SAS
(c) SSS
(d) ASA
16. The ratio of the areas of two similar triangles is equal to
(a) square of the ratio of their corresponding sides
(b) cube of the ratio of their corresponding sides
(c) square root of the ratio of their corresponding sides
(d) twice the ratio of their corresponding sides
17. In $\triangle$ ABC, AB = $6\sqrt{3}$ cm, AC = 12 cm and BC = 6 cm. The angle B is
(a) 120°
(b) 60°
(c) 90°
(d) 45°
<u>CH-7</u>
1. The points (- 1, – 2), (1, 0), (- 1, 2), (- 3, 0) forms a quadrilateral of type:
1. The points (- 1, - 2), (1, 0), (- 1, 2), (- 3, 0) forms a quadrilateral of type:  (a) Square
(a) Square
(a) Square (b) Rectangle
<ul><li>(a) Square</li><li>(b) Rectangle</li><li>(c) Parallelogram</li></ul>
<ul><li>(a) Square</li><li>(b) Rectangle</li><li>(c) Parallelogram</li><li>(d) Rhombus</li></ul>
<ul> <li>(a) Square</li> <li>(b) Rectangle</li> <li>(c) Parallelogram</li> <li>(d) Rhombus</li> <li>2. If the distance between the points A(2, -2) and B(-1, x) is equal to 5, then the value of x is:</li> </ul>
<ul> <li>(a) Square</li> <li>(b) Rectangle</li> <li>(c) Parallelogram</li> <li>(d) Rhombus</li> <li>2. If the distance between the points A(2, -2) and B(-1, x) is equal to 5, then the value of x is:</li> <li>(a) 2</li> </ul>
<ul> <li>(a) Square</li> <li>(b) Rectangle</li> <li>(c) Parallelogram</li> <li>(d) Rhombus</li> <li>2. If the distance between the points A(2, -2) and B(-1, x) is equal to 5, then the value of x is:</li> <li>(a) 2</li> <li>(b) -2</li> </ul>
<ul> <li>(a) Square</li> <li>(b) Rectangle</li> <li>(c) Parallelogram</li> <li>(d) Rhombus</li> <li>2. If the distance between the points A(2, -2) and B(-1, x) is equal to 5, then the value of x is:</li> <li>(a) 2</li> <li>(b) -2</li> <li>(c) 1</li> </ul>
(a) Square (b) Rectangle (c) Parallelogram (d) Rhombus  2. If the distance between the points A(2, -2) and B(-1, x) is equal to 5, then the value of x is: (a) 2 (b) -2 (c) 1 (d) -1

(b) (2,-4)
(c) (0, 0)
(d) (-2,-4)
4. The distance of point A(2, 4) from x-axis is
(a) 2 units
(b) 4 units
(c) -2 units
(d) -4 units
5. The distance between the points P(0, 2) and Q(6, 0) is
(a) 4√10
(b) 2√10
(c) √10
(d) 20
6. If $O(p/3, 4)$ is the midpoint of the line segment joining the points $P(-6, 5)$ and $Q(-2, 3)$ . The value of p is:
(a) 7/2
(b) -12
(c) 4
(d) -4
7. The point which divides the line segment of points P(-1, 7) and (4, -3) in the ratio of 2:3 is:
(a) (-1, 3)
(b) (-1, -3)
(c) (1, -3)
(d) (1, 3)
8. The ratio in which the line segment joining the points P(-3, 10) and Q(6, $-$ 8) is divided by O(-1, 6) is:
(a) 1:3
(b) 3:4
(c) 2:7

(d) 2:5
9. The coordinates of a point P, where PQ is the diameter of a circle whose centre is $(2, -3)$ and Q is $(1, 4)$ is:
(a) (3, -10)
(b) (2, -10)
(c) (-3, 10)
(d) (-2, 10)
10. The area of a rhombus if its vertices are (3, 0), (4, 5), (-1, 4) and (-2,-1) taken in order, is:
(a) 12 sq.units
(b) 24 sq.units
(c) 30 sq.units
(d) 32 sq.units
11. The distance of the point P(-6, 8) from the origin is
(a) 8 units
(b) $2\sqrt{7}$ units
(c) 10 units
(d) 6 units
12. The perimeter of a triangle with vertices (0, 4), (0, 0) and (3, 0) is
(a) 5
(b) 12
(c) 11
(d) $7 + \sqrt{5}$
13. If the points A(1, 2), O(0, 0) and C(a, b) are collinear, then
(a) a = b
(b) a = 2b
(c) 2a = b
(d) $a = -b$

14. If the points A(6, 1), B(8, 2), C(9, 4) and D(p, 3) are the vertices of a parallelogram, taken in order, then the value of p is

(a) 4
(b) -6
(c) 7
(d) -2
15. A line intersects the y-axis and x-axis at the points P and Q, respectively. If (2, -5) is the midpoint of PQ, then the coordinates of P and Q are, respectively
(a) (0, -5) and (2, 0)
(b) (0, 10) and (-4, 0)
(c) (0, 4) and (-10, 0)
(d) (0, -10) and (4, 0)
16. The perpendicular bisector of the line segment joining the points A(1, 5) and B(4, 6) cuts the yaxis at
(a) (0, 13)
(b) (0, -13)
(c) (0, 12)
(d) (13, 0)
<u>CH-8</u>
1. In $\triangle$ ABC, right-angled at B, AB = 24 cm, BC = 7 cm. The value of tan C is:
(a) 12/7
(b) 24/7
(c) 20/7
(d) 7/24
2. 1 – cos <sup>2</sup> A is equal to:
(a) sin <sup>2</sup> A
(b) tan <sup>2</sup> A
(c) $1 - \sin^2 A$
$(d) sec^2 A$

3. If $\cos X = \frac{2}{3}$ then $\tan X$ is equal to:
(a) 5/2
(b) √(5/2)
(c) √5/2
(d) 2/√5
4. If cos X = a/b, then sin X is equal to:
(a) $(b^2-a^2)/b$
(b) (b-a)/b
(c) $\sqrt{(b^2-a^2)/b}$
(d) √(b-a)/b
5. The value of sin 60° cos 30° + sin 30° cos 60° is:
(a) 0
(b) 1
(c) 2
(d) 4
6. 2 tan $30^{\circ}/(1 + \tan^2 30^{\circ}) =$
(a) sin 60°
(b) cos 60°
(c) tan 60°
(d) sin 30°
7. sin 2A = 2 sin A is true when A =
(a) 30°
(b) 45°
(c) 0°
(d) 60°
8. The value of (sin 45° + cos 45°) is
(a) 1/√2

(b) √2
(c) √3/2
(d) 1
9. If sin A = 1/2 , then the value of cot A is
(a) √3
(b) 1/√3
(c) √3/2
(d) 1
10. If $cos(\alpha + \beta) = 0$ , then $sin(\alpha - \beta)$ can be reduced to
(a) $\cos \beta$
(b) cos 2β
(c) $\sin \alpha$
(d) $\sin 2\alpha$
11. If $\sin A + \sin^2 A = 1$ , then the value of the expression $(\cos^2 A + \cos^4 A)$ is
(a) 1
(b) 1/2
(c) 2
(d) 3
12. The value of the expression $\sin^6\theta + \cos^6\theta + 3\sin^2\theta \cos^2\theta$ is
(a) 0
(b) 3
(c) 2
(d) 1
<u>CH-12</u>
1. The perimeter of a circle having radius 5cm is equal to:

(a) 30 cm

(b) 3.14 cm
(c) 31.4 cm
(d) 40 cm
2. Area of the circle with radius 5cm is equal to:
(a) 60 sq.cm
(b) 75.5 sq.cm
(c) 78.5 sq.cm
(d) 10.5 sq.cm
3. The largest triangle inscribed in a semi-circle of radius r, then the area of that triangle is;
(a) $r^2$
(b) 1/2r <sup>2</sup>
(c) 2r <sup>2</sup>
(d) $\sqrt{2}r^2$
4. If the perimeter of the circle and square are equal, then the ratio of their areas will be equal to:
(a) 14:11
(b) 22:7
(c) 7:22
(c) 11:14
5. The area of the circle that can be inscribed in a square of side 8 cm is
(a) $36 \text{ m cm}^2$
(b) $16 \text{ m cm}^2$
(c) $12 \text{ m cm}^2$
(d) $9 \text{ m cm}^2$
6. The area of the square that can be inscribed in a circle of radius 8 cm is
(a) 256 cm <sup>2</sup>
(b) 128 cm <sup>2</sup>
(c) 642 cm <sup>2</sup>
(6) 042 011

(d) 64 cm <sup>2</sup>
7. The area of a sector of a circle with radius 6 cm if the angle of the sector is 60°.
(a) 142/7
(b) 152/7
(c) 132/7
(d) 122/7
8. In a circle of radius 21 cm, an arc subtends an angle of $60^\circ$ at the centre. The length of the arc is;
(a) 20cm
(b) 21cm
(c) 22cm
(d) 25cm
9. In a circle of radius 21 cm, an arc subtends an angle of $60^\circ$ at the centre. The area of the sector formed by the arc is:
(a) 200 cm <sup>2</sup>
(b) 220 cm <sup>2</sup>
(c) 231 cm <sup>2</sup>
(d) 250 cm <sup>2</sup>
10. Area of a sector of angle p (in degrees) of a circle with radius R is
(a) $p/180 \times 2\pi R$
(b) p/180 × $\pi$ R <sup>2</sup>
(c) p/360 × 2πR
(d) $p/720 \times 2\pi R^2$
11. If the area of a circle is 154 cm <sup>2</sup> , then its perimeter is
(a) 11 cm
(b) 22 cm
(c) 44 cm
(d) 55 cm

12. If the sum of the areas of two circles with radii $R_1$ and $R_2$ is equal to the area of a circle of radius $R$ , then
(a) $R_1 + R_2 = R$
(b) $R_1^2 + R_2^2 = R^2$
(c) $R_1 + R_2 < R$
(d) $R_1^2 + R_2^2 < R^2$
13. If $\theta$ is the angle (in degrees) of a sector of a circle of radius r, then the length of arc is
(a) $(\pi r^2 \theta)/360$
(b) $(\pi r^2 \theta)/180$
(c) (2πrθ)/360
(d) (2πrθ)/180
14. It is proposed to build a single circular park equal in area to the sum of areas of two circular parks of diameters 16 m and 12 m in a locality. The radius of the new park would be
(a) 10 m
(b) 15 m
(c) 20 m
(d) 24 m
15. The radius of a circle whose circumference is equal to the sum of the circumferences of the two circles of diameters 36 cm and 20 cm is
(a) 56 cm
(b) 42 cm
(c) 28 cm
(d) 16 cm
16. Find the area of a sector of circle of radius 21 cm and central angle 120°.
(a) 441 cm <sup>2</sup>
(b) 462 cm <sup>2</sup>
(c) 386 cm <sup>2</sup>
(d) 512 cm <sup>2</sup>
17. The wheel of a motorcycle is of radius 35 cm. The number of revolutions per minute must the wheel make so as to keep a speed of 66 km/hr will be

(a) 50
(b) 100
(c) 500
(d) 1000
18. If the perimeter and the area of a circle are numerically equal, then the radius of the circle is
(a) 2 units
(b) $\pi$ units
(c) 4 units
(d) 7 units
19. The area of a quadrant of a circle with circumference of 22 cm is
(a) 77 cm <sup>2</sup>
(b) 77/8 cm <sup>2</sup>
(b) 35.5 cm <sup>2</sup>
(c) 77/2 cm <sup>2</sup>
20. In a circle of radius 14 cm, an arc subtends an angle of 30° at the centre, the length of the arc is
(a) 44 cm
(b) 28 cm
(c) 11 cm
(d) 22/3 cm
<u>CH-15</u>
1. The probability of event equal to zero is called;
(a) Unsure event
(b) Sure Event
(c) Impossible event
(d) Independent event
2. The probability that cannot exist among the following:

(a) <sup>2</sup> / <sub>3</sub>
(b) -1.5
(c) 15%
(d) 0.7
3. If P(E) = 0.07, then what is the probability of 'not E'?
(a) 0.93
(b) 0.95
(c) 0.89
(d) 0.90
4. A bag has 3 red balls and 5 green balls. If we take a ball from the bag, then what is the probability of getting red balls only?
(a) 3
(b) 8
(c) 3/8
(d) 8/3
5. A bag has 5 white marbles, 8 red marbles and 4 purple marbles. If we take a marble randomly, then what is the probability of not getting purple marble?
(a) 0.5
(b) 0.66
(c) 0.08
(d) 0.77
6. A dice is thrown in the air. The probability of getting odd numbers is
(a) ½
(b) 3/2
(c) 3
(d) 4
7. If we throw two coins in the air, then the probability of getting both tails will be:
(a) ½
(b) ½

(c) 2
(d) 4
8. If two dice are thrown in the air, the probability of getting sum as 3 will be
(a) 2/18
(b) 3/18
(c) 1/18
(d) 1/36
9. A card is drawn from the set of 52 cards. Find the probability of getting a queen card.
(a) 1/26
(b) 1/13
(c) 4/53
(d) 4/13
10. A fish tank has 5 male fish and 8 female fish. The probability of fish taken out is a male fish:
(a) 5/8
(b) 5/13
(c) 13/5
(d) 5
11. The sum of the probabilities of all the elementary events of an experiment is
(a) 0.5
(b) 1
(c) 2
(d) 1.5
12. A card is selected at random from a well shuffled deck of 52 playing cards. The probability of its being a face card is
(a) 3/13
(b) 4/13
(c) 6/13
(d) 9/13

13. If an event cannot occur, then its probability is
(a) 1
(b) 3/4
(c) 1/2
(d) 0
14. An event is very unlikely to happen. Its probability is closest to
(a) 0.0001
(b) 0.001
(c) 0.01
(d) 0.1
15. If P(A) denotes the probability of an event A, then
(a) $P(A) < 0$
(b) P(A) > 1
(c) $0 \le P(A) \le 1$
$(d) -1 \le P(A) \le 1$
16. The probability that a non leap year selected at random will contain 53 Sundays is
(a) 1/7
(b) 2/7
(c) 3/7
(d) 5/7
17. If the probability of an event is p, the probability of its complementary event will be
(a) p – 1
(b) p
(c) 1 – p
(d) $1 - 1/p$
18. A card is drawn from a deck of 52 cards. The event E is that card is not an ace of hearts. The number of outcomes favourable to E is
(a) 4

(b) 13
(c) 48
(d) 51
19. The probability of getting a bad egg in a lot of 400 is 0.035. The number of bad eggs in the lot is
(a) 7
(b) 14
(c) 21
(d) 28
20. Two players, Sangeeta and Reshma, play a tennis match. It is known that the probability of Sangeeta winning the match is 0.62. The probability of Reshma winning the match is
(a) 0.62

## CASE STUDY-1, CH-1

(b) 0.38

(c) 0.58

(d) 0.42

To enhance the reading skills of grade X students, the school nominates you and two of your friends to set up a class library. There are two sections- section A and section B of grade X. There are 32 students in section A and 36 students in section B.



1. What is the minimum number of books you will acquire for the class library, so that they can be distributed equally among students of Section A or Section B?

- a) 144
- b) 128

c) 288
d) 272
2. If the product of two positive integers is equal to the product of their HCF and LCM is true then, the HCF (32 , 36) is $\frac{1}{2}$
a) 2
b) 4
c) 6
d) 8
3. 36 can be expressed as a product of its primes as
a) $2^2 \times 3^2$
b) $2^1 \times 3^3$
c) $2^3 \times 3^1$
d) $2^0 \times 3^0$
4. 7 × 11 × 13 × 15 + 15 is a
a) Prime number
b) Composite number
c) Neither prime nor composite
d) None of the above
5. If p and q are positive integers such that $p = ab^2$ and $q = a^2b$ , where a , b are prime numbers, then the LCM $(p, q)$ is
a) ab
b) a <sup>2</sup> b <sup>2</sup>
c) $a^3b^2$
d) $a^3b^3$
CASE STUDY 2: CH-1

A seminar is being conducted by an Educational Organisation, where the participants will be educators of different subjects. The number of participants in Hindi, English and Mathematics are 60, 84 and 108 respectively.



1. In each room the same number of participants are to be seated and all of them being in the same subject, hence maximum number participants that can accommodated in each room are
a) 14
b) 12
c) 16
d) 18
2. What is the minimum number of rooms required during the event?
a) 11
b) 31
c) 41
d) 21
3. The LCM of 60, 84 and 108 is
a) 3780
b) 3680
c) 4780
d) 4680

4. The product of HCF and LCM of 60,84 and 108 is

a) 55360

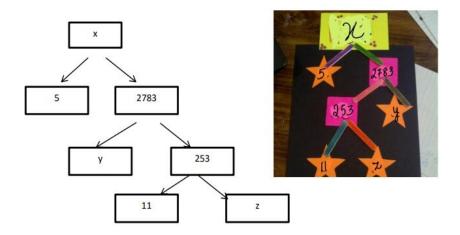
b) 35360

c) 45500

- d) 45360
- 5. 108 can be expressed as a product of its primes as
- a)  $2^3 \times 3^2$
- b)  $2^3 \times 3^3$
- c)  $2^2 \times 3^2$
- d)  $2^2 \times 3^3$

#### **CASE STUDY 3:CH-1**

A Mathematics Exhibition is being conducted in your School and one of your friends is making a model of a factor tree. He has some difficulty and asks for your help in completing a quiz for the audience.



Observe the following factor tree and answer the following:

- 1. What will be the value of x?
- a) 15005
- b) 13915
- c) 56920
- d) 17429
- 2. What will be the value of y?
- a) 23
- b) 22
- c) 11

- d) 19
- 3. What will be the value of z?
- a) 22
- b) 23
- c) 17
- d) 19
- 4. According to Fundamental Theorem of Arithmetic 13915 is a
- a) Composite number
- b) Prime number
- c) Neither prime nor composite
- d) Even number
- 5. The prime factorisation of 13915 is

a) 
$$5 \times 11^3 \times 13^2$$

b) 
$$5 \times 11^3 \times 23^2$$

c) 
$$5 \times 11^2 \times 23$$

d) 
$$5 \times 11^2 \times 13^2$$

#### **CASE STUDY 1:CH-2**

The below picture are few natural examples of parabolic shape which is represented by a quadratic polynomial. A parabolic arch is an arch in the shape of a parabola. In structures, their curve represents an efficient method of load, and so can be found in bridges and in architecture in a variety of forms.

- •
- •
- •
- •









- 1. In the standard form of quadratic polynomial,  $ax^2 + bx + c$ , a, b and c are
- a) All are Polynomials.
- b) All are rational numbers.
- c) 'a' is a non zero real number and b and c are any Polynomials.
- d) All are integers.
- 2. If the roots of the quadratic polynomial are equal, where the discriminant  $D = b^2 4ac$ , then
- a) D > 0
- b) D < 0
- c) D ≥ 0
- d) D = 0
- 3. If  $\alpha$  and  $1/\alpha$  are the zeroes of the quadratic polynomial 2x2 x + 8k, then k is
- a) 4
- b) 1/4
- c) -1/4
- d) 2
- 4. The graph of  $x^2+1=0$

a) Intersects x-axis at two distinct points.

b)Touches x-axis at a point.

c) Neither touches nor intersects x-axis.

d)Either touches or intersects x- axis.

5. If the sum of the roots is -p and product of the roots is -1/p, then the quadratic polynomial is

a) 
$$k(-px^2 + x/p + 1)$$

b) 
$$k(px^2 - x/p - 1)$$

c) 
$$k(x^2 + px - 1/p)$$

d) 
$$k(x^2 - px + 1/p)$$

## CASE STUDY 2: CH-2

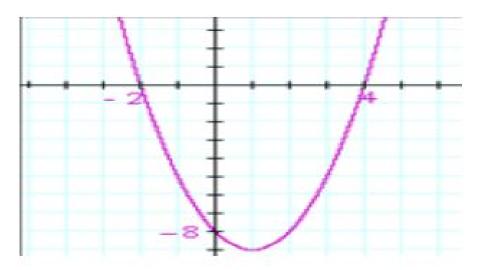
An asana is a body posture, originally and still a general term for a sitting meditation pose, and later extended in hatha yoga and modern yoga as exercise, to any type of pose or position, adding reclining, standing, inverted, twisting, and balancing poses. In the figure, one can observe that poses can be related to representation of quadratic polynomial.





1. The shape of the poses shown is

- a) Spiral b) Ellipse
- c) Linear
- d) Parabola
- 2. The graph of parabola opens downwards, if \_\_\_\_\_
- a) a ≥ 0
- b) a = 0
- c) a < 0
- d) a > 0
- 3. In the graph, how many zeroes are there for the polynomial?



- a) 0
- b) 1
- c) 2
- d) 3
- 4. The two zeroes in the above shown graph are
- a) 2, 4
- b) -2, 4

5. The zeroes of the quadratic polynomial  $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$  are

a) 
$$\frac{2}{\sqrt{3}}, \frac{\sqrt{3}}{4}$$

b) 
$$-\frac{2}{\sqrt{3}}, \frac{\sqrt{3}}{4}$$

c) 
$$\frac{2}{\sqrt{3}}, -\frac{\sqrt{3}}{4}$$

d) 
$$-\frac{2}{\sqrt{3}}, -\frac{\sqrt{3}}{4}$$

Answer: b) 
$$-\frac{2}{\sqrt{3}}, \frac{\sqrt{3}}{4}$$

## **CASE STUDY 3:CH-2**

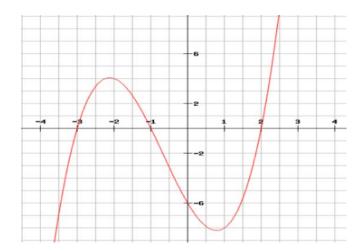
Basketball and soccer are played with a spherical ball. Even though an athlete dribbles the ball in both sports, a basketball player uses his hands and a soccer player uses his feet. Usually, soccer is played outdoors on a large field and basketball is played indoor on a court made out of wood. The projectile (path traced) of soccer ball and basketball are in the form of parabola representing quadratic polynomial.





- 1. The shape of the path traced shown is
- a) Spiral

- b) Ellipse
- c) Linear
- d) Parabola
- 2. The graph of parabola opens upwards, if \_\_\_\_\_
- a) a = 0
- b) a < 0
- c) a > 0
- d) a ≥ 0
- 3. Observe the following graph and answer



In the above graph, how many zeroes are there for the polynomial?

- a) 0
- b) 1
- c) 2
- d) 3
- 4. The three zeroes in the above shown graph are
- a) 2, 3,-1
- b) -2, 3, 1

5. What will be the expression of the polynomial?

a) 
$$x^3 + 2x^2 - 5x - 6$$

b) 
$$x^3 + 2x^2 - 5x + 6$$

c) 
$$x^3 + 2x^2 + 5x - 6$$

d) 
$$x^3 + 2x^2 + 5x + 6$$

#### **CASE STUDY-1: CH-3**

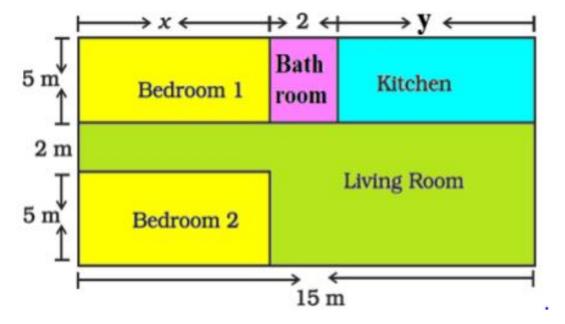
A test consists of 'True' or 'False' questions. One mark is awarded for every correct answer while ¼ mark is deducted for every wrong answer. A student knew answers to some of the questions. Rest of the questions he attempted by guessing. He answered 120 questions and got 90 marks.

Type of Question	Marks given for correct answer	Marks deducted for wrong answer
True/False	1	0.25

- 1. If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly?
- 2. How many questions did he guess?
- 3. If answer to all questions he attempted by guessing were wrong and answered 80 correctly, then how many marks he got?
- 4. If answer to all questions he attempted by guessing were wrong, then how many questions answered correctly to score 95 marks?

# **CASE STUDY-2:**

Amit is planning to buy a house and the layout is given below. The design and the measurement has been made such that areas of two bedrooms and kitchen together is 95 sq.m.



Based on the above information, answer the following questions:

- 1. Form the pair of linear equations in two variables from this situation.
- 2. Find the length of the outer boundary of the layout.
- 3. Find the area of each bedroom and kitchen in the layout.
- 4. Find the area of living room in the layout.
- 5. Find the cost of laying tiles in kitchen at the rate of Rs. 50 per sq.m.

#### Case study-3

It is common that Governments revise travel fares from time to time based on various factors such as inflation (a general increase in prices and fall in the purchasing value of money) on different types of vehicles like auto, Rickshaws, taxis, Radio cab etc. The auto charges in a city comprise of a fixed charge together with the charge for the distance covered. Study the following situations:



Name of the city	Distance travelled (Km)	Amount paid (Rs.)
City A	10	75
	15	110
City B	8	91
	14	145

Situation 1: In city A, for a journey of 10 km, the charge paid is Rs 75 and for a journey of 15 km, the charge paid is Rs 110.

Situation 2: In a city B, for a journey of 8km, the charge paid is Rs91 and for a journey of 14km, the charge paid is Rs 145.

#### Refer situation 1

1. If the fixed charges of auto rickshaw be Rs x and the running charges be Rs y km/hr, the pair of linear equations representing the situation is

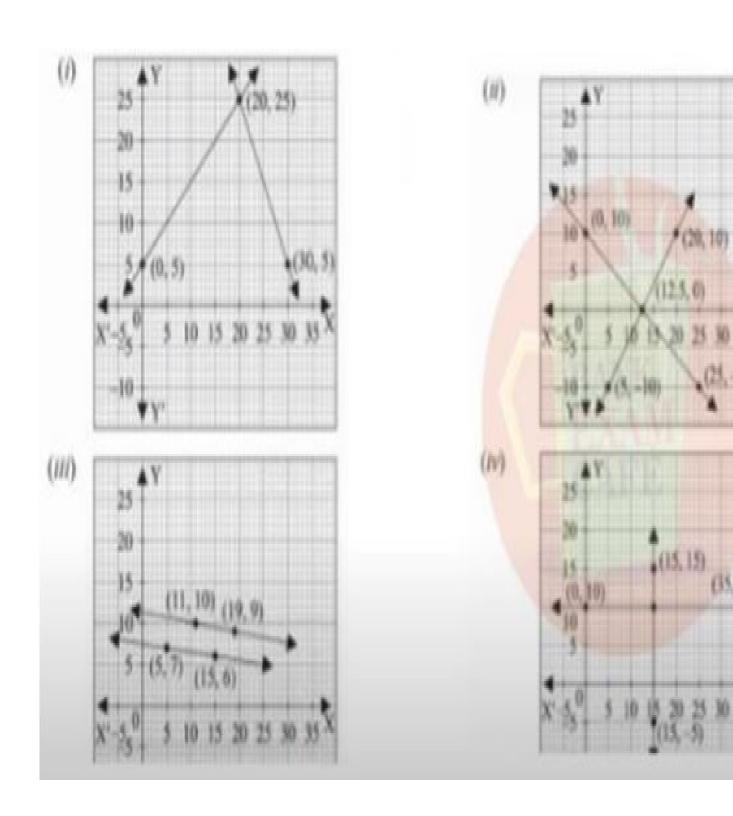
a) 
$$x + 10y = 110$$
,  $x + 15y = 75$ 

b) 
$$x + 10y = 75$$
,  $x + 15y = 110$ 

c) 
$$10x + y = 110$$
,  $15x + y = 75$ 

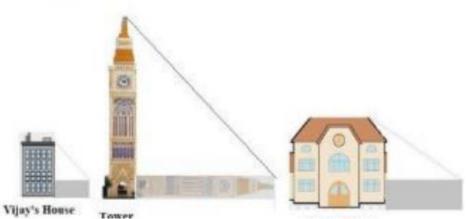
d) 
$$10x + y = 75$$
,  $15x + y = 110$ 

2. A person travels a distance of 50km. The amount he has to pay is	
a) Rs.155	
b) Rs.255	
c) Rs.355	
d) Rs.455	
Refer situation 2	
3. What will a person have to pay for travelling a distance of 30km?	
a) Rs.185	
b) Rs.289	
c) Rs.275	
d) Rs.305	
4. The graph of lines representing the conditions are: (situation 2)	



CH-8

CASE STUDY 1:



Vijay is trying to find the average height of a tower near his house. He is using the properties of similar triangles. The height of Vijay's house if 20m when Vijay's house casts a shadow 10m long on the ground. At the same time, the tower casts a shadow 50m long on the ground and the house of Ajay casts 20m shadow on the ground.
1. What is the height of the tower?
a) 20m
b) 50m
c) 100m
d) 200m
2. What will be the length of the shadow of the tower when Vijay's house casts a shadow of 12m?
a) 75m
b) 50m
c) 45m
d) 60m
3. What is the height of Ajay's house?
a) 30m
b) 40m
c) 50m
d) 20m
4. When the tower casts a shadow of 40m, same time what will be the length of the shadow of Ajay's house?

a) 16m

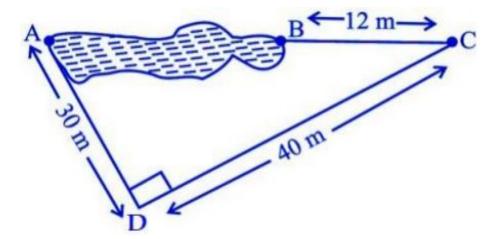
- b) 32m
- c) 20m
- d) 8m

5. When the tower casts a shadow of 40m, same time what will be the length of the shadow of Vijay's house?

- a) 15m
- b) 32m
- c) 16m
- d) 8m

#### **CASE STUDY 2**

Rohan wants to measure the distance of a pond during the visit to his native. He marks points A and B on the opposite edges of a pond as shown in the figure below. To find the distance between the points, he makes a right-angled triangle using rope connecting B with another point C are a distance of 12m, connecting C to point D at a distance of 40m from point C and the connecting D to the point A which is are a distance of 30m from D such the  $\angle$ ADC=90°.

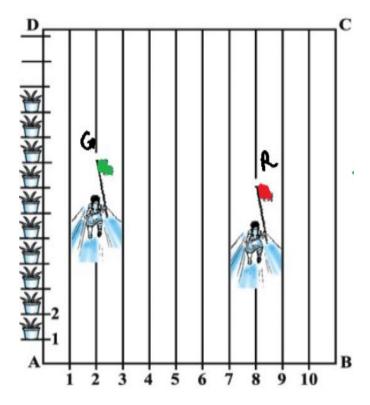


- 1. Which property of geometry will be used to find the distance AC?
- a) Similarity of triangles
- b) Thales Theorem
- c) Pythagoras Theorem
- d) Area of similar triangles
- 2. What is the distance AC?
- a) 50m

d) 70m
3. Which is the following does not form a Pythagoras triplet?
a) (7, 24, 25)
b) (15, 8, 17)
c) (5, 12, 13)
d) (21, 20, 28)
4. Find the length AB?
a) 12m
b) 38m
c) 50m
d) 100m
5. Find the length of the rope used.
a) 120m
b) 70m
c) 82m
d) 22m
<u>CH-7</u>
CASE STUDY
In order to conduct Sports Day activities in your School, lines have been drawn with chalk powder at a distance of 1 m each, in a rectangular shaped ground ABCD, 100 flower pots have been placed at a distance of 1 m from each other along AD, as shown in given figure below. Niharika runs 1/4 th the distance AD on the 2nd line and posts a green flag. Preet runs 1/5th distance AD on the eighth line and posts a red flag.

b) 12m

c) 100m



- 1. Find the position of green flag
- a) (2,25)
- b) (2,0.25)
- c) (25,2)
- d) (0, -25)

**Answer:** a) (2,25)

- 2. Find the position of red flag
- a) (8,0)
- b) (20,8)
- c) (8,20)
- d) (8,0.2)

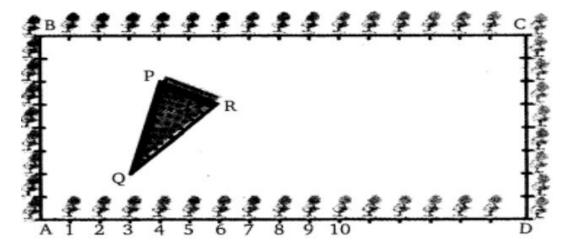
**Answer:** c) (8,20)

- 3. What is the distance between both the flags?
- a) √41
- b) √11
- c) √61

- d) √51
- 4. If Rashmi has to post a blue flag exactly halfway between the line segment joining the two flags, where should she post her flag?
- a) (5, 22.5)
- b) (10,22)
- c) (2,8.5)
- d) (2.5,20)
- 5. If Joy has to post a flag at one-fourth distance from green flag , in the line segment joining the green and red flags, then where should he post his flag?
- a) (3.5,24)
- b) (0.5,12.5)
- c) (2.25,8.5)
- d) (25,20)

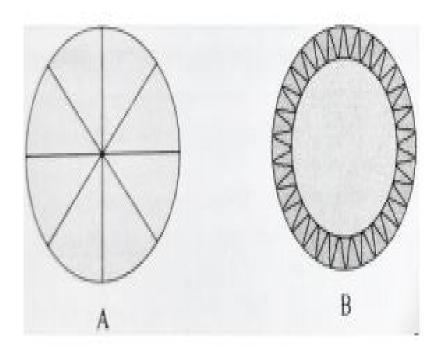
#### **CASE STUDY 2:**

The class X students school in krishnagar have been allotted a rectangular plot of land for their gardening activity. Saplings of Gulmohar are planted on the boundary at a distance of 1 m from each other. There is triangular grassy lawn in the plot as shown in the figure. The students are to sow seeds of flowering plants on the remaining area of the plot.



- 1. Taking A as origin, find the coordinates of P
- a) (4,6)
- b) (6,4)
- c)(0,6)

d) (4,0)
2. What will be the coordinates of R, if C is the origin?
a) (8,6)
b) (3,10)
c) (10,3)
d) (0,6)
3. What will be the coordinates of Q, if C is the origin?
a) (6,13)
b) b) (-6,13)
c) (-13,6)
d) (13,6)
4. Calculate the area of the triangles if A is the origin
a) 4.5
b) 6
c) 8
d) 6.25
5. Calculate the area of the triangles if C is the origin
a) 8
b) 5
c) 6.25
d) 4.5
<u>CH-12</u>
CASE STUDY 2:
A brooch is a small piece of jewellery which has a pin at the back so it can be fastened on a dress, blouse or coat. Designs of some brooch are shown below. Observe them carefully.





**Design A:** Brooch A is made with silver wire in the form of a circle with diameter 28mm. The wire used for making 4 diameters which divide the circle into 8 equal parts.

**Design B:** Brooch b is made two colours - Gold and silver. Outer part is made with Gold. The circumference of silver part is 44mm and the gold part is 3mm wide everywhere.

#### Refer to Design A

#### 1. The total length of silver wire required is

- a) 180 mm
- b) 200 mm
- c) 250 mm
- d) 280 mm

## 2. The area of each sector of the brooch is

- a) 44 mm<sup>2</sup>
- b) 52 mm<sup>2</sup>
- c) 77 mm<sup>2</sup>
- d) 68 mm<sup>2</sup>

#### Refer to Design B

#### 3. The circumference of outer part (golden) is

a) 48.49 mm
b) 82.2 mm
c) 72.50 mm
d) 62.86 mm
4. The difference of areas of golden and silver parts is
a) 18 π
b) 44 π
c) 51 <b>π</b>
d) 64 $\pi$
5. A boy is playing with brooch B. He makes revolution with it along its edge. How many complete revolutions must it take to cover 80 mm?
a) 2
b) 3
c) 4
d) 5
<u>CH-15</u>
CASE STUDY 1:
On a weekend Rani was playing cards with her family. The deck has 52 cards. If her brother drew one card.



# 1. Find the probability of getting a king of red colour.

- a) 1/26
- b) 1/13
- c) 1/52
- d) 1/4

# 2. Find the probability of getting a face card.

- a) 1/26
- b) 1/13
- c) 2/13
- d) 3/13

# 3. Find the probability of getting a jack of hearts.

- a) 1/26
- b) 1/52
- c) 3/52
- d) 3/26

- 4. Find the probability of getting a jack of hearts. a) 3/13
- b) 1/13
- c) 1/52
- d) 1/4
- 5. Find the probability of getting a jack of hearts.
- a) 1/26
- b) 1/13
- c) 1/52
- d) 1/4

## **CASE STUDY 2**

Rahul and Ravi planned to play Business (board game) in which they were supposed to use two dice.





- 1. Ravi got first chance to roll the dice. What is the probability that he got the sum of the two numbers appearing on the top face of the dice is 8?
- a) 1/26
- b) 5/36
- c) 1/18
- d) 0
- 2. Rahul got next chance. What is the probability that he got the sum of the two numbers appearing on the top face of the dice is 13?
- a) 1

b) 5/36
c) 1/18
d) 0
3. Now it was Ravi's turn. He rolled the dice. What is the probability that he got the sum of the two numbers appearing on the top face of the dice is less than or equal to 12?
a) 1
b) 5/36
c) 1/18
d) 0
4. Rahul got next chance. What is the probability that he got the sum of the two numbers appearing on the top face of the dice is equal to 7?
a) 5/9
b) 5/36
c) 1/6
d) 0
5. Now it was Ravi's turn. He rolled the dice. What is the probability that he got the sum of the two numbers appearing on the top face of the dice is greater than 8?
a) 1
b) 5/36
c) 1/18
d) 5/18
ATUMN BREAK HOME WORK CLASS XI MATHS
EX 1.4 -Q.NO. 6
EX.1.6- Q.NO. 7,8
EXAMPLE 31 PAGE 25
MISC. CHAPTER 1 Q.NO. 6,9,15

EX.2.3-Q.NO. 2(I)

EX. Q.NO. 3,9,10,11

MISC. Q.NO.1,4,6,11,15,16,17,19

EX.9.1 Q.NO.14

EX.9.2 Q.NO. 4,7,9,11,14