# ATOMIC ENERGY CENTRAL SCHOOL NO.4 RAWATBHATA

## **CLASS 10 - ENGLISH**

## Confidence Examination -I (2020-21)

Time Allowed: 3 hours Maximum Marks: 80

## **General Instructions:**

- 1. This paper is divided into two sections: A and B. All questions are compulsory.
- 2. Separate instructions are given with each section and question, wherever necessary. Read these instructions very carefully and follow them.
- 3. Do not exceed the prescribed word limit while answering the questions.

### **Section A**

## 1. Read the passage given below and answer any 10 questions that follow:

[10]

I know poverty and misery and I quite appreciate by personal experience what it is to be poor, what it is to have no clothes, what it is to have no books, what it is to struggle through life, what it is to walk through the streets without an umbrella, without conveyance along miles on dusty roads. I have been through it all and I can understand the difficulties that most of you graduates have to face today. I am speaking from a long experience of 60 years. Please do not imagine that all the 60 years are milk and roses. To be able to accomplish something, I want to tell you that you have to go through such experiences.

I admit success in life is not always to be intelligent or be strong, and it is to some extent a bit of a gamble, but those who got their minds right and those who know their job sooner or later, will sooner perhaps than later make their way in life. But they should not be disappointed if they do not, they have to face up life and take it as they find it.

What I say is that the great things in life are not really great things in life. What I love is to enjoy the common things of life. I am happy that I am still able to sleep at night provided I have three miles walk in the evening. I am still able to enjoy a good lunch or a good dinner. I am still able to look at the blue sky and like it. I still like to walk in the open fields and like the smell of the Ragi or the Jowar.

We think that happiness consists of going to pictures and seeing thrilling films and technicolor dramas. Not at all, the great things in life are the God-given things which cost nothing. What you need is the desire to appreciate them. If you have your minds and hearts open, you have around your things which give you joy. There is the butterfly jumping about in flourishing colors on all sides. Look at the wonderful thing that God has given for our enjoyment.

We have to love nature and appreciate nature and appreciate her wonderful gifts, of nature's marvelous ingenuity, its resourcefulness, and infinite variety. It is the same thing that has inspired me all my life.

i. How had C.V. Raman's childhood been difficult?

- a. He had lived life as a poor
- b. He had access to books only
- c. He had to run on the streets
- d. He never drank milk as a child
- ii. Why has life been termed as a gamble?
  - a. It disappoints you always
  - b. Life is good to only hardworking people
  - c. Even an intelligent or strong person is unsure of success
  - d. CV Raman has lost money in this gamble
- iii. How does C.V. Raman's speech inspire us?
  - a. He told us easy ways to enjoy life
  - b. He told us one needs to be poor to succeed in life
  - c. He told us to work day and night
  - d. He told us that life is never easy
- iv. What according to C.V Raman consists of happiness?
  - a. Seeing thrilling films and technicolor dramas
  - b. Things that cost money
  - c. God-given gifts which cost nothing
  - d. A graduate student's life
- v. According to the text, what should we love?
  - a. Life
  - b. Gamble
  - c. C.V Raman
  - d. Nature
- vi. Which smell did he like in the fields?
  - a. Butterflies in fields
  - b. Ragi and Jowar
  - c. Dinner
  - d. Dusty Roads
- vii. What has inspired C.V Raman all his life?
  - a. Gamble
  - b. Family
  - c. Nature
  - d. Films
- viii. How many years of experience does C.V Raman have?
  - a. 6 years
  - b. 60 years
  - c. 16 years
  - d. 66 years

Choose the best option from the words given below which mean the same:

ix. despair

- a. disappointment
- b. hopelessness
- c. misery
- d. distress
- x. endless
  - a. unlimited
  - b. continuous
  - c. infinite
  - d. unreachable
- xi. prosperous
  - a. rich
  - b. flourishing
  - c. wealthy
  - d. fortunate

## xii. exciting

- a. joyful
- b. funny
- c. exhilarating
- d. thrilling

## 2. Read the passages given below and answer any 10 questions that follow them:

January 26 is celebrated as Republic Day in our country. It was on this day, in 1950, the new constitution of independent India came into force and India became a democratic republic. The Constituent Assembly headed by Dr. Rajendra Prasad, with Dr. B.R. Ambedkar as the Chairman of the Drafting Committee, took more than two years to bring the world's lengthiest constitution to its final shape.

The **enormous** task before the Constituent Assembly was to frame the basic law that would formalize India as a truly democratic nation. Democracy is aptly defined as a system of Government by the people, for the people and of the people. The founding fathers of the Constitution, therefore, had to ensure that the basic law of the land contained sufficient provisions for the fulfilment of the democratic aspirations of the people of India not only in the political sphere but also in the social and economic spheres. That explains the **inclusion** of a separate part in the Constitution, called the Directive Principles of State Policy. These principles signify the fact that the framers of the Constitution were well aware of the wide gaps and inequalities that existed among the various sections of the Indian population. The Constitution makers had the wisdom to appreciate that political democracy is meaningless when an overwhelming majority of the population is historically trapped in poverty, illiteracy, ill-health and superstition. The Central and State Governments were expected to frame policies so that every citizen is assured of a decent living standard irrespective of sex, caste, religion, language and region.

The makers of our Constitution describe India as a Union of States and not as a federation. Being well conversant with the diversity of the nation in terms of the language, religion, caste and region, and its implications on the intended socio-economic development of the [10]

country as a whole, the makers of the Constitution opted for a political system in which the Central Government is equipped with overwhelming administrative, legislative and financial muscle. Most of the nations' policies and programmes for socio-economic development originate at the Central Government, and the responsibility for their successful implementation is entrusted to the states.

-
i. The programmes for the socio-economic development originate at
a. state level
b. regional level
c. district level
d. central government level
ii. The British had left behind
a. a developed India
b. a wealthy India
c. a poverty-stricken, illiterate India
d. a strong and healthy India
iii. The constitution-makers describe India as a
a. Union of states
b. Union of nations
c. Union of territories
d. Union of districts
iv. The constitution-makers took more than two years to bring the world's
constitution to its final shape.
a. simplest
b. lengthiest
c. heaviest
d. shortest
v. Find the word from the passage which means the same as recognizing the good quality
of somebody.
a. overlook
b. appreciate
c. disparage
d. condemn
vi. Who is the Chairman of the Drafting Committee?
a. Dr. B.R. Ambedkar
b. Dr. Rajendra Prasad
c. Jawahar Lal Nehru
d. Sachchidananda Sinha
vii. Who is the Head of the Constituent Assembly?
a. Dr. B.R. Ambedkar
b. Dr. Rajendra Prasad

c. Jawahar Lal Nehru

	d. Sachchidananda Sinha	
viii.	is equipped with overwhelming administrative, legislative and financial muscle.	
	a. State Government	
	b. Constitution	
	c. Central Government	
	d. Supreme Court	
ix.	When did the Indian Constitution came into force?	
	a. 1949	
	b. 1947	
	c. 1948	
	d. 1950	
х.	In how much time our Constitution made?	
	a. In two years	
	b. More than two years	
	c. In one year	
	d. More than three year	
xi.	Antonyms of word <b>enormous</b> :	
	a. insignificant	
	b. mammoth	
	c. vast	
	d. humongous	
xii.	Synonyms of word <b>inclusion</b> :	
	a. omission	
	b. oversight	
	c. append	
	d. preclude	
Re	ad the passages given below and choose the appropriate option from the questions	5]
be	low:	
We	eeks went by and still, Wanda did not answer.	
Peg	ggy had begun to forget the whole business, and Maddie put herself to sleep at night making	
spe	eeches about Wanda, defending her from great crowds of girls who were trying to tease her	
	th, "How many dresses have you got?"	
	d before Wanda could press her lips together in a tight line, the way she did before	
	swering, Maddie would cry out, "Stop!"	
	en everybody would feel ashamed of the way she used to feel.	
	w it was Christmas time and there was snow on the ground.	
Ch	ristmas bells and a small tree decorated the classroom.	

On the last day of school before the holidays, the teacher showed the class a letter she had

a. What happened to Peggy when Wanda did not answer for weeks?

(i) She began to forget the whole episode related to Wanda

3.

received that morning.

- (ii) She cried inconsolably
- (iii) She planned to visit Wanda
- (iv) She started hating and abusing Wanda
- b. When did the teacher show Wanda's letter to the class?
  - (i) First day of the school after the holidays
  - (ii) Last day of the school before holidays
  - (iii) During the school holidays
  - (iv) Couple of days before the school holidays began
- c. Find out a word similar in meaning to embarrassed.
  - (i) Ashamed (ii) Defending (iii) Received (iv) Showed
- d. Who made up speeches about defending Wanda from other girls in her dreams?
  - (i) Peggy (ii) Miss Mason (iii) Maddie (iv) Wanda's father
- e. What did the teacher show the class on the last day of school before the holidays?
  - (i) Wanda's letter (ii) Wanda's drawings
  - (iii) Their exam result (iv) A trophy won in an inter-school competition

OR

## Read the passages given below and choose the appropriate option from the questions below:

"We have, at last, achieved our political emancipation". We pledge ourselves to liberate all our people from the continuing bondage of poverty, deprivation, suffering, gender and other discrimination.

- a. Who is the speaker?
  - (i) Nelson Mandela (ii) Zenani
  - (iii) Thabo Mbeki (iv) de Klerk
- b. What pledge does he take?
  - (i) To liberate his people from poverty
  - (ii) To make the nation free from suffering and deprivations
  - (iii) To devote himself to the wellbeing of his people
  - (iv) All of these
- c. Which word is the noun form of emancipate?
  - (i) Emancipation (ii) Emance
  - (iii) Emancipated (iv) Emancipating
- d. What has the speaker achieved?
  - (i) Political emancipation (ii) Nuclear power
  - (iii) Absolution (iv) Supremacy over the world
- e. Which country's president was the speaker?
  - (i) USA (ii) Australia
  - (iii) South Africa (iv) India

## 4. Read the extract given below and choose the appropriate option from the questions [5] below:

Don't bite your nails, Amanda!

Don't hunch your shoulders, Amanda!

Amanda!	
a. Name the poet of the above lines.	
(i) Robin Klein (ii) Robert Frost	
(iii) John Barrymore (iv) William Shakespeare	e
b. What is Amanda asked not to do?	
(i) Bite her nails (ii) Sit lazily	
(iii) Bent her shoulders (iv) All of these	
c. What is the meaning of <b>slouching</b> ?	
(i) Sitting or lying in a lazy drooling manner (	(ii) Screaming
(iii) Eating compulsively (iv) Sitting erect	
d. Amanda is getting instructions for what purp	oose?
(i) For looking presentable	
(ii) To become a fashion icon	
(iii) To participate in a school play	
(iv) For going to the boarding school	
e. What does Amanda do to her shoulders?	
(i) Keep them erect (ii) Hunches	
(iii) Keep them stiff (iv) Keep them loose	
0	DR .
lead the extract given below and choose the	appropriate option from the questions below:
think I could turn and live with animals, they a	are
o placid and self-contained	
stand and look at them long and long.	
a. Name the poet.	
(i) Walt Whitman (ii) Robert Frost	
(iii) Ruskin Bond (iv) WB Yeats	
b. What does the poet say about animals?	
(i) They are calm (ii) They have a pure soul	
(iii) They are self-contained (iv) All of these	
c. Trace a word from the extract that means <b>ser</b>	rene.
(i) Placid (ii) Self- contained	
(iii) Turn (iv) Long and long	
d. The poet looks at the animals	
(i) Recklessly (ii) Briefly	
(iii) For a long time (iv) Angrily	
e. What does the poet intend to become?	
<u>-</u>	
(i) A child (ii) A bird (iii) An animal (iv) God	ts to complete the note about Vandana [3]
(i) A child (ii) A bird (iii) An animal (iv) God  Choose the correct options to fill in the blank	
Choose the correct options to fill in the blank	to complete the note about variation [6]
	-

Stop that slouching and sit up straight,

	Vanda	na Suryawanshi of Vidya Valley School in N	Maharashtra is (b) middle school	
	educa	tor (c) has been teaching Biology, Ea	rth Science and General Science for 20 years.	
	She ha	as also been awarded by CBSE.		
	a. (i) t	he (ii) a (iii) one (iv) an		
	b. (i) t	he (ii) an (iii) of (iv) a		
	c. (i) v	which (ii) who (iii) that (iv) whose.		
6.	Choos	e the correct options to fill in the blanks	to complete the narration.	[3]
	Father	:: What are you going to do?		
	Son: I	will phone the warden.		
	Father	:: What's her name?		
	Son: Je	enny, she is a very helpful person.		
			n (ii) phone the warden. On this the	
			t it was Jenny. The son also said that she was	
	-	helpful person.		
		what he is going		
		what he has been going		
		what he was going		
		that he was going		
		asked that he would		
		replied that he would		
		told that he would		
		replied that he will		
		what her name was		
		that her name was		
		what was her name		
_		if her name was		F 43
7.		e the correct options for ANY FOUR of the s	•	[4]
	a)	Friday night?	ork on Thursday night this week instead of	
		, G		
		a) Might, Shall	b) Can, Did	
		c) Would, Will	d) May, Could	
	b)	He rather have tea than coffee.		
		a) might	b) should	
		c) would	d) could	
	c)	Babies when they are hungry.		
		a) cried	b) cry	
		c) cries	d) are crying	
	d)	Look at the drunken driver at the end of s	, ,	
		a) is having	b) will have	

- `	•	going	4 -	1
CI	10	$\sigma \cap m \sigma$	$T \cap$	nawa
· ·	13	SULLS	w	Have

d) has

e) The children of the man who works with me \_\_\_\_\_ broken the window this morning.

a) had

b) were

c) has

d) have

f) According to the studies, dolphins, whales and \_\_\_\_\_ other sea creatures use highly sophisticated navigation systems.

a) each

b) any

c) many

d) much

### **Section B**

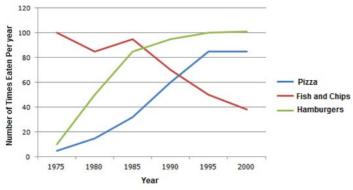
8. You are Ms. Monika Pundhir, the Sports Instructor in Army Public School, Agra. The Principal [5] asks you to place an order for buying necessary sports equipment required, you decide to place an order to M/s Sethi sports, Jalandhar. Write a letter placing an order for the same.

OR

The condition of the public park in your locality is miserable. Write a letter to the editor of a local newspaper with the help of the points given below. You are Ranjit/Reshma.

- Poorly managed parks
- Heaps of garbage everywhere
- Boundary wall is broken
- Very dirty animals resting there
- 9. The line graph below shows changes in the amount and type of fast food consumed by Indian teenagers from 1975 to 2000. Summarize the information by selecting and reporting the main features and make comparisons.

#### Consumption of Fast Food by Indian Teenagers



OR

The table below shows the results of a survey that asked 6800 Indian adults (aged 16 years and over) whether they had taken part in different cultural activities in the past 12 months. Write an analytical paragraph by selecting and reporting the main features and make comparisons where relevant (150-200 words).

Participation in cultural activities, by age							
16-24% 25-44% 45-74% All ages 16 and over %							
Any performance*	35	22	17	22			
Undertaking any crafts 11 17 22 19							

Cultural purchases	11	17	18	16
Any visual arts	30	16	11	15
Any writing	17	6	5	7
Computer-based	10	9	5	6

<sup>\*</sup> Dancing, singing, playing musical instruments and acting

- 10. Answer ANY TWO questions from (a) to (c) and ANY TWO questions from ((d) to (f) in 20-30 [8] words each:
  - a) What is the age of the girl in the poem 'Amanda'? How do you come to know her age?
  - b) Why did the narrator follow the pilot of another aeroplane?
  - c) In what way was Wanda different from the other children?
  - d) Mrs. Pumphrey said, "This is a triumph of surgery." What do you think about this statement?
  - e) What did Griffin tell Mrs. Hall about his uncommon appearance?
  - f) Does Bholi enjoy her first day at school?
- 11. Answer ANY TWO questions from (a) to (c) and ANY TWO questions from ((d) to (f) in 40-50 **[12]** words each:
  - a) Describe some of the activities of the tiger as stated by the poet.
  - b) Why did Jeanne not recognize her friend, Matilda?
  - c) What type of man was the postmaster? How did he react to reading the letter?
  - d) Why did Hari Singh's heart sink when Anil met him in the morning?
  - e) How did a book become a turning point in Richard Ebright's life?
  - f) What does Anne Frank tell about family in her diary?
- 12. Write a character sketch of Lencho.

OR

What made Anne decide to write a diary?

13. Mrs.Pumphrey has a deep love and care for Tricki. Explain.

'The Necklace' reveals that vanity is an evil. It may bring joy for a short period but ultimately it leads to ruin. Write your views.

OR

[5]

[5]

### **Solution**

## Class 10 - English

## Confidence Examination -I (2020-21)

#### **Section A**

- 1. i. He had lived life as a poor.
  - ii. Even an intelligent or strong person is unsure of success.
  - iii. He told us easy ways to enjoy life.
  - iv. God-given things which cost nothing.
  - v. Nature
  - vi. Ragi and Jowar
  - vii. Nature
- viii. 60 years
- ix. Disappointment
- x. Infinite
- xi. Flourishing
- xii. Thrilling
- 2. i. (d) central government level
  - ii. (c) a poverty-stricken, illiterate India
  - iii. (a) Union of states
  - iv. (b) lengthiest
  - v. (b) appreciate
  - vi. (a) Dr. B.R. Ambedkar
  - vii. (b) Dr. Rajendra Prasad
- viii. (c) Central Government
  - ix. (d) 1950
  - x. (b) More than two years
  - xi. (a) insignificant
- xii. (c) append
- 3. a. She began to forget the whole episode related to Wanda
  - b. Last day of the school before holidays
  - c. Ashamed
  - d. Maddie
  - e. Wanda's letter

OR

- i. Nelson Mandela
- ii. All of these
- iii. Emancipation
- iv. Political emancipation
- v. South Africa
- 4. i. Robin Klein
  - ii. All of these
  - iii. Sitting or lying in a lazy drooling manner
  - iv. For making her presentable
  - v. Hunches

OR

- a. Walt Whitman
- b. All of these
- c. Placid
- d. For a long time
- e. An animal
- 5. a. the

b. a

c. who

- 6. i. what he was going
  - ii. replied that he would
  - iii. what her name was
- 7. Choose the correct options for ANY FOUR of the six sentences given below.

a) (d) May, Could

Explanation: May, Could

b) (c) would

**Explanation:** He would rather have tea than coffee.

c) **(b)** cry

Explanation: cry

d) (c) is going to have

**Explanation:** is going to have

e) (d) have

Explanation: have

f) **(c)** many

Explanation: many

**Section B** 

8. Army Public School,

Agra

6th July 2018

M/s Sethi Sports

Rainak Bazaar

Jalandhar,

Sir,

### **Subject: Supply Of Sports Equipments For School**

Through this letter, the sports committee of our school has approved of certain items of sports materials manufactured by you.

The list of particulars are as follows:

- i. Hockey Sticks 15
- ii. Tennis Racquet 20
- iii. Cricket Kits 20
- iv. Tennis Ball 10
- v. Wickets 6
- vi. Volleyball Net 3

We request you to give a 15% discount on the purchase of the sports equipment and a further 10% discount that is usually granted to the institutional buyers. It goes without saying that you will have to bear the mail and other expenses involved in the dispatch and delivery of equipment.

All the items should be in good condition, well bound and packed properly. Any damage to these items during transportation will be your responsibility. Please dispatch the goods at your earliest convenience if our terms and conditions are acceptable to you.

Thanking you

Yours sincerely,

Monika Pundhir

(Sports instructor).

OR

A-6, 258, Paschim Vihar

Delhi-110 063

6th November 2018

The Editor

The Hindustan

Kasturba Gandhi Marg

Delhi

## Subject: Poor maintenance of public parks

Sir

Through the columns of your esteemed newspaper, I would like to draw the attention of the concerned authorities towards the poor maintenance of the public parks.

It saddens me to say that parks. Serve so many purposes in a community. It provides playing space to children, socializing space to adults and a healthy environment to people, are in a pathetic state these days. The gardeners are not regular and the plants are not pruned regularly as a result, the park gives an ugly look. Heaps of garbage can be seen everywhere, also the boundaries are broken. Also, the park has become the favorite halting place of stray cattle and dogs.

There is cow dung all around, making the place a breeding ground for insects and they, in turn, welcome diseases.

The same public park once used to be the pride of our society and a common place for community interaction. Children too are forced to play on the streets due to their unkempt condition.

Therefore, I would like to request the concerned authorities to improve the condition of the park for the convenience of the local residents.

I request you to give some space to my voice in your esteemed newspaper.

Thanking you,

Yours truly,

Reshma.

9. The line graph compares the fast food consumption of teenagers in India between 1975 and 2000, . Overall, the consumption of Vadapav and pav bhaji declined over the period, whereas the amount of pizza and burger and Kurkure and chips that were eaten increased.

In 1975, the most popular fast food with Indian teenagers was Vadapav and pav bhaji, being eaten 100 times a year. This was far higher than pizza and burger and Kurkure and chips, which were consumed approximately 5 times a year. However, apart from a brief rise again from 1980 to 1985, the consumption of Vadapav and pav bhaji gradually declined over the 25-year timescale to finish at just under 40. Pizza and burger consumption increased gradually until it overtook the consumption of Vadapav and pav bhaji in 1990. It then leveled off from 1995 to 2000.

OR

The table illustrates the results of research undertaken in India with adults aged from 16-74 to assess their involvement in a variety of cultural activities over a 12-month period. Overall, it is evident that participation in any performance and crafts were the most popular for all age groups.

The highest participation in any activities was seen in the 16-24 age group, with 35% and 30% respectively doing performance and visual arts. In contrast, other activities were much lower, particularly those computer-based, at only 10%.

Turning to the older age groups, like the under 25's, the highest participation rate seen for 25-44 years old was in performance, though this was much lower, at only 22%. A similar rate of 22% was evident for the most popular activity for the 45-74 age group, which was crafts. Again, the popularity of computers was very low for all those who were 25 plus, as interested in writing.

Taking all age groups together, it can be seen that performance and crafts were the most popular, at over 19%, whereas cultural purchases and visual arts were slightly less popular at 16% and 15% respectively. Finally, little interest was shown in writing and computing.

- 10. Answer ANY TWO questions from (a) to (c) and ANY TWO questions from ((d) to (f) in 20-30 words each:
  - a) Amanda is around 9-10 years old school going girl. We come to know about her age from the fact that her parents are trying to inculcate good habits in her. But she is very innocent and immature and does not really appreciate the nagging done by her mother. She still gets instructions from her mother to do her homework and tidy her room. So, we can say that she is a young girl.
  - b) .....
  - c) Wanda Petronski was an immigrant. Wanda was different from the other children. She did not have any friends. She came to school alone and went home alone. She did not talk much. She always sat at the back of the class and laughed rarely. She was a talented, patient and skilled girl. She was very

- good at drawing. She always wore a dull and faded dress. Unlike other children, she did not have different dresses to wear.
- d) Mrs. Pumphrey loved her pet dog, Tricki from the core of her heart. She overfed him out of love and concern. As a result, Tricki fell seriously ill. Mr. Herriot hospitalised him and gave nothing him to eat except water. He gave him a lot of exercise. When she came to take Tricki back, she saw that he had fully recovered and that's why she said, "This is a triumph of surgery."
- e) Griffin told to Mrs. Hall that an accident had affected his face. So he had to cover it with bandages, false nose, and big bussy side-whiskers. He also mentioned that he did not want to be disturbed as he wanted to enjoy his solitude. Mrs. Hall believed him because there was no reason for not believing him.
- f) When Bholi reaches the school, She is fearful. She doesn't know exactly what to do. But when she sees many other girls of her age, she feels comfortable and happy. She thinks that one of these girls might become her friend. After getting a book full of different pictures, She becomes happy. She never expects that it would be that wonderful. She feels happier there as compared to her house. It is a wonderful experience for her.
- 11. Answer ANY TWO questions from (a) to (c) and ANY TWO questions from ((d) to (f) in 40-50 words each:
  - a) The poet Leslie Morris, in his poem, 'The Tiger in the Zoo', has tried to depict the mental condition of a caged tiger. Some of the activities of the tiger as stated by the poet are walking along the cage, hearing the patrolling of cars, ignoring visitors and staring at the brilliant stars of the sky.
  - b) .....
  - c) The postmaster was a very kindhearted and amiable person. After reading the letter at first he laughed heartily but later on became too serious. He was impressed by his faith in God. So he decided to help him and not to shake his faith in God. His decision showed that he was a God loving person. It required more than goodwill, ink, and paper to answer the letter. He required one hundred pesos.
  - d) Hari Singh's heart sank when Anil met him in the morning because he thought that he had been caught. Anil was full of suspense because the bundle of the notes he had earned was wet. He felt that the notes had been taken by someone.
  - e) Ebright's mother brought him a book entitled The 'Travels of Monarch X' which became a turning point in his life. This book changed his life. This book explained how monarch butterflies migrate to central America. This book opened the world of science to him and proved to be a turning point in his life. At the end of the book, readers were invited to help study butterfly migration. He started to tag butterflies and then he caught a female butterfly and took its eggs. He observed its life cycle carefully.
  - f) .....
- 12. Lencho was a farmer. He lived on the crest of a hill. He worked like an animal in his fields, but still, he knew how to write. He had good faith in God, with that he used to live happily. He was so simple that he did not know about the reality of the outer world. Lencho was a very hard working farmer. It was the result of his hard work that his fields were full of ripped corn with flowers. He knew his fields deeply because he always remained busy in his fields. He was waiting for a downpour or a lite shower for his crop. Lencho was very naive. He writes a letter to God. He did not know that God cannot be addressed directly. God is the supreme power and no one can see or talk to him directly. He had immense faith in God. He believed that God won't let anyone die of hunger. When his crop was destroyed his only hope was the help of God. His faith was so strong that the postmaster was convinced to help him. We can say that Lencho had many qualities in his character but was very naive for the world.

OR

Anne Frank was born on 12th June 1929 in a Jewish family. At the time Nazi's had occupied power in German. So, the family had to move away to Amsterdam for safety. Since her childhood, she felt herself alone because of some intimate friend. She had a nice family, but she remained depressed and bored for want of a close friend.

She went on thinking. Then she realised that paper has more patience than people. She tried to find a real friend. She wanted to chronicle her feelings and make sense of the world around her. Of course, Anne was living in a pressure cooker. Hiding from Nazis with so many people in a small annexe was not easy. Ann used her diary as a therapy to cope with not only teenaged angst but to keep perspective and her sanity in such a closed environment. So, Anne decided to write a diary. It was her intimate friend in the shape of a diary.

13. Mrs. Pumphrey is a very rich woman. Her dog's name is Tricki. She has a deep love and cares for her pet dog. She does not treat it like a dog, but she treats it like her own child. This can be seen throughout the story. She provides it with a luxurious life. Tricki has cushions, bed, bowls and different types of clothes. Apart from this, she overfeeds Tricki out of her love and concern. She serves him cod-liver oil and malt between the main meals and Horlicks after dinner to give him strength. She never realizes that Tricki is a greedy dog and this will spoil his health. She does not even refuse to answer Tricki's drooling for cream cakes and chocolates. She gives it a very nutritious diet and no exercise at all. As a result, Tricki becomes too fat. It falls ill. Mrs. Pumphrey immediately calls Mr.Herriot, who is a veterinary surgeon. Mr. Herriot advises her to cut its diet and give it some exercise, but she does not follow his advice and Tricki's condition worsens. Even in the hospital, she continues to convey Tricki her love through eggs, wine and brandy. After the treatment, Tricki gets well. Thus, Mrs. Pumphrey has too much love for her dog.

OR

It is true that vanity is evil. It may bring joy for a short period but ultimately it leads to ruin. Matilda, to get a little pleasure and to show her vanity, borrows a diamond necklace to wear at the minister's party. She loses it. Mr. Loisel, her husband takes a big loan to replace it. For ten years, both of them work hard to repay the loan. Poor Matilda has to sacrifice her comfort, youth, softness and beauty. She becomes a crude, hard, poor lady with rough hair and hands. Later, the irony, Mrs. Forester tells her that it was a false diamond necklace only for 500 francs. If I, was in such a situation, I would tell my friend the truth. I would tell her that I feel extremely sorry for losing it and would assure her that I will replace it, only if she tells me where to get it from and its cost.

# ATOMIC ENERGY CENTRAL SCHOOL NO.4 RAWATBHATA

## **CLASS 10 - HINDI A**

## Confidence Examination - 1 (2020-21)

Time Allowed: 3 hours Maximum Marks: 80

## **General Instructions:**

- 1. इस प्रश्न-पत्र में दो खंड हैं खंड अ और खंड ब।
- 2. खंड-अ में कुल 9 वस्तुपरक प्रश्न पूछे गए हैं। सभी प्रश्नों में उप प्रश्न दिए गये है।
- 3. खंड-ब में कुल 8 वर्णात्मक प्रश्न पूछे गए हैं। प्रश्नों में आंतरिक विकल्प दिए गए हैं।
- 4. दिये गए निर्देशों का पालन करते हुए प्रश्नों के उत्तर दीजिए।

## खंड-अ वस्तुपरक प्रश्न

## 1. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए-

[5]

आवश्यकता के अनुरूप प्रत्येक जीव को कार्य करना पड़ता है। कर्म से कोई मुक्त नहीं है। अत्यंत उच्चस्तरीय आध्यात्मिक जीव जो साधना में लीन है अथवा उसके विपरीत वैचारिक क्षमता से हीन व्यक्ति ही कर्महीन रह सकता है। शरीर ऊर्जा का केंद्र है। प्रकृति से ऊर्जा प्राप्त करने की इच्छा और अपनी ऊर्जा से परिवेश को समृद्ध करने का भाव मानव के सभी कार्यव्यवहारों को नियंत्रित करता है। अतः आध्यात्मिक साधना में लीन और वैचारिक क्षमता से हीन व्यक्ति भी किसी न किसी स्तर पर कर्मलीन रहते ही हैं।

गीता में कृष्ण कहते हैं, 'यदि तुम स्वेच्छा से कर्म नहीं करोगे तो प्रकृति तुमसे बलात् कर्म कराएगी।' जीव मात्र के कल्याण की भावना से पोषित कर्म पूज्य हो जाता है। इस दृष्टि से जो राजनीति के माध्यम से मानवता की सेवा करना चाहते हैं उन्हें उपेक्षित नहीं किया जा सकता। यदि वे उचित भावना से कार्य करें तो वे अपने कार्यों को आध्यात्मिक स्तर तक उठा सकते हैं। यह समय की पुकार है। जो राजनीति में प्रवेश पाना चाहते हैं, वे यह कार्य आध्यात्मिक दृष्टिकोण लेकर करें और दिनप्रतिदिन आत्मविश्लेषण, अंतर्दृष्टि, सतर्कता और सावधानी के साथ अपने आप का परीक्षण करें, जिसमें वे सन्मार्ग से भटक न 'जाएँ। राजेंद्र प्रसाद के अनुसार "सेवक के लिए हमेशा जगह खाली पड़ी रहती है। उम्मीदवारों की भीड़ सेवा के लिए नहीं हआ करती। भीड तो सेवा के फल के बँटवारे के लिए लगा करती है जिसका ध्येय केवल सेवा है, सेवा का फल नहीं, उसको इस धक्का-मुक्की में जाने की और इस होड़ में पड़ने की कोई जरूरत नहीं है।

- I. कर्म से मुक्ति संभव क्यों नहीं है?
  - i. क्योंकि कर्म ही ऊर्जा का साधन है
  - ii. क्योंकि कर्म ही श्रेष्ठ है
  - iii. क्योंकि कर्म करना आवश्यक है
  - iv. क्योंकि कर्म से कोई मुक्त नहीं है
- II. सच्चे सेवक की पहचान क्या है?
  - i. वह हमेशा भरी हुई जगह को भर देता है
  - ii. वह हमेशा खाली पडी जगह को भर देता है
  - iii. वह सच्ची सेवा करता है
  - iv. वह सेवा नहीं करता है
- III. मनुष्य स्वयं को आध्यात्मिक स्तर तक कब उठा सकता है ?
  - i. जब वह स्वेच्छा से कर्म करता है
  - ii. जब वह कल्याण की भावना से मानवता की सेवा नहीं कर सकता है

- iii. जब वह कल्याण की भावना से मानवता की सेवा करता है
- iv. जब वह स्वेच्छा से कर्म नहीं करता है
- IV. प्रकृति हमसे कब बलात कर्म करवाती है ?
  - i. जब हम स्वेच्छा से कर्म नहीं करते हैं
  - ii. जब हम स्वेच्छा से कर्म करते हैं
  - iii. जब हम आध्यात्मिक साधना में लीन होते हैं
  - iv. जब हम सेवा कार्य करते हैं
- V. किस प्रकार का कर्म पूज्य हो जाता है?
  - i. जो पूजनीय होता है
  - ii. जिसमें जीव मात्र की कल्याण भावना निहित होती है
  - iii. जिसमें जीवमात्र की कल्याणभावना निहित नहीं होती है
  - iv. इनमें से कोई नहीं

OR

## निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए-

जहाँ भी दो निदयाँ मिल जाती हैं, उस स्थान को अपने देश में तीर्थ कहने का रिवाज़ है। कई पहाड़ों, जंगलों और खेतों पर गिरी बारिश के पानी के संगम से निदयाँ बनती हैं। एक दूसरे से मिलकर ये निदयाँ बड़ी हो जाती हैं। सबसे बड़ी नदी वह होती है जिसका दूसरी निदयों से सबसे ज़्यादा संयोग होता है। अगर सागर से उलटी गंगा बहाएँ तो गंगा का स्रोत गंगोत्री या उद्गम गोमुख भर नहीं होगा। यमुनोत्री और तिब्बत में ब्रह्मपुत्र का स्रोत भी होगा, दिल्ली, बनारस और पटना जैसे शहरों के सीवर से निकलने वाला पानी भी होगा। बनारस या पटना में गंगा विशाल नदी है, लेकिन वहाँ उसका पानी मात्र शिव जी की जटा से निकलकर नहीं आता। भारतीय परिवेश में असली संगम वे स्थान हैं, वे सभाएँ तथा वे मंच हैं, जिन पर एक से अधिक भाषाएँ एकत्र होती हैं। निदयाँ अपनी धाराओं में अनेक जनपदों का सौरभ, आँसू और उल्लास लिए चलती हैं और उनका पारस्परिक मिलन वास्तव में नाना जनपदों के मिलन का प्रतीक है। यही हाल भाषाओं का भी है। अगर हिंदी और उर्दू, संस्कृत और फारसी को बड़ी भाषाएँ माना जाए, तो यह तय है कि इनका संगम कई दूसरी भाषाओं से हुआ होगा। अगर किसी भाषा का दूसरी भाषाओं से मेल-मिलाप बंद हो जाता है तो उसका बहना रुक जाता है, ठीक उस नदी के जैसे, जिसमें दूसरी निदयों का पानी मिलना बंद हो जाता है।

- I. हमारे देश में किसे तीर्थ कहने की परंपरा है?
  - i. जहाँ दो नदियाँ मिलती हैं
  - ii. जहाँ दो तीर्थ मिलते हैं
  - iii. जहाँ दो नदियाँ नहीं मिलती हैं
  - iv. जहाँ दो तीर्थ नहीं मिलते हैं
- II. सबसे बडी नदी किसे माना जाता है?
  - i. जो विशाल होती है
  - ii. जिसका दूसरी नदियों से सबसे ज्यादा संयोग होता है
  - iii. जो अधिक पूजनीय होती है
  - iv. जो समुद्र में मिलती है
- III. 'बनारस या पटना में गंगा विशाल नदी है लेकिन उसका पानी मात्र शिव की जटा से नहीं आता।' के माध्यम से लेखक क्या कहना चाहता है? स्पष्ट कीजिए।
  - i. गंगा अनेक नदियों और जल स्त्रोतों का मिलाजुला रूप हैं
  - ii. गंगा अनेक समुद्रों का मिलाजुला रूप है
  - iii. गंगा में अनेक नदियाँ आकर मिलती हैं
  - iv. गंगा एक विशाल नदी है
- IV. गद्यांश में असली संगम किसे माना गया है और क्यों?

i. जहाँ अनेक नदियाँ आकर मिलती हैं ii. जहाँ अनेक झरने मिलते हैं iii. जहाँ नदियाँ समुद्र में मिलती हैं iv. जहाँ एक से अधिक भाषाएँ एकत्र होती हैं V. भाषाओं का विकास कब अवरुद्ध होता है? i. जब अनेक भाषाओं का मेल बंद नहीं होता है ii. जब अनेक भाषाओं का मेल बंद हो जाता है iii. जब अनेक नदियों का मेल अवरुद्ध हो जाता है iv. जब अनेक नदियों का मेल अवरुद्ध नहीं होता है निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर नीचे दिए गए प्रश्नों के उत्तर दीजिए: कितने ही कटुतम काँटे तुम मेरे पथ पर आज बिछाओ, और अरे चाहे निष्ठुर कर का भी धुंधला दीप बुझाओ। किंतु नहीं मेरे पग ने पथ पर बढ़कर फिरना सीखा है। मैंने बस चलना सीखा है। कहीं छुपा दो मंज़िल मेरी चारों ओर निमिर-घन छाकर, चाहे उसे राख कर डालो नभ से अंगारे बरसाकर, पर मानव ने तो पग के नीचे मंजिल रखना सीखा है। मैंने बस चलना सीखा है। कब तक ठहर सकेंगे मेरे सम्मुख ये तूफ़ान भयंकर कब तक मुझसे लड़ा पाएगा इंद्रराज का वज्र प्रखरतर मानव की ही अस्थिमात्र से वज्रों ने बनना सीखा है। मैंने बस चलना सीखा है। I. मानव के सामने क्या नहीं टिक पाता? i. भयानक तूफ़ान ii. अदम्य साहस iii. निडरता iv. संघर्ष II. साहसी मानव की मंजिल कहाँ रहती है? i. उसकी नज़रों के तले। ii. उसके पांवों के तले। iii. उसके सर के तले। iv. आकाश के तले। III. 'अस्थिमात्र से वज्र बनना' इस पंक्ति से किस कथा की ओर संकेत किया गया है। i. अपनी हड्डियों का दान करना। ii. दधीचि द्वारा हड्डियाँ दान में देना। iii. अस्थि को रखना। iv. इनमें से कोई नहीं। IV. काव्यांश के अनुसार कवि ने क्या सीखा है? i. दौड़ना ii. भागना iii. रुकना

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- iv. चलना
- V. दधीचि ने अपनी अस्थियाँ किसे दान में दी?
  - i. इंद्र को
  - ii. स्वयं को
  - iii. गुरु को
  - iv. मनुष्य को

OR

## निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर नीचे दिए गए प्रश्नों के उत्तर दीजिए:

हम प्रचंड की नई किरण हैं, हम दिन के आलोक नवल। हम नवीन भारत के सैनिक, धीर, वीर, गंभीर, अचल। हम प्रहरी ऊँचे हिमाद्रि के, सुरभि स्वर्ग की लेते हैं। हम हैं शांति-दूत धरणी के, छाँह सभी को देते हैं। वीर प्रसू माँ की आँखों के, हम नवीन उजियाले हैं। गंगा, यमुना, हिंद महासागर के हम ही रखवाले हैं। तन-मन-धन तुम पर कुर्बान, जियो, जियो जय हिंदुस्तान! हम सपूत उनके, जो नर थे, अनल और मधु के मिश्रण। जिनमें नर का तेज प्रखर था, भीतर था नारी का मन। एक नयन संजीवन जिनका, एक नयन था हालाहल। जितना कठिन खड्ग था कर में उतना ही अंतर के मल। थर-थर तीनों लोक काँपते थे जिनकी ललकारों पर। स्वर्ग नाचता था रण में जिनकी पवित्र तलवारों पर। हम उन वीरों की संतान जियो, जियो जय हिंदुस्तान।

- ाजया, ।जया जय ।हदुस्तान। I. कविता में 'हम' कौन हैं?
  - i. नई पीढ़ी के नवयुवक
  - ii. सैनिक
  - iii. देशभक्त
  - iv. पुरानी पीढ़ी
- II. भारतवासी हिंदुस्तान पर क्या-क्या न्योछावर करना चाहते हैं?
  - i. धन
  - ii. सर्वस्व
  - iii. तन
  - iv. आन
- III. 'अनल और मधु के मिश्रण' किन्हें कहा गया है?
  - i. देशभक्तों को
  - ii. नागरिकों को
  - iii. भारतीयों के पूर्वजों को
  - iv. आग और शहद को
- IV. नवीन भारत के सैनिक कैसे हैं?
  - i. धीर गंभीर

	iii.	धीर - अगम्भीर		
	iv.	अधीर - अगम्भीर		
	V. 'वी	र प्रसू' किसे कहा गया है?		
	i.	भारत माता को		
		माता को		
		सैनिक को		
		पूर्वजों को		
3.		खित पाँच प्रश्नों में से किन्ही चार के उत्तर दीजिये:		[4]
	a)	निम्नलिखित वाक्यों को संयुक्त वाक्य में परिवर्तित कीजि	14 -	
		<ul> <li>रास्ते में कोहरा था।</li> <li>कोहरे के कारण मैं जा न सका।</li> </ul>		
		a) मुझे नहीं जाना था इसलिए रास्ते में कोहरा	b) चूँकि रास्ते में कोहरा था इसलिए मैं जा न	
		था।	सका।	
		c) रास्ते में कोहरा होने के कारण मैं जा न सका।	d) रास्ते में कोहरा था इसलिए मैं जा न सका।	
	b)	निम्नलिखित वाक्य का मिश्र वाक्य होगा -		
		चौकीदार आया। वह आवाज़ लगाकर चला गया।		
		a) चौकीदार आया तो था परन्तु वह आवाज़	b) चौकीदार आया और आवाज़ लगाकर चला ——	
		लगाकर चला गया।	गया।	
		c) आवाज़ लगाते ही चौकीदार आ गया।	d) चौकीदार आकर आवाज़ लगाकर चला गया।	
	c)	मैंने एक फूल देखा <u>जो खिल रहा थ</u> ा। रेखांकित उपवाक	य का भेद बताइए।	
		a) विशेषण उपवाक्य	b) प्रधान उपवाक्य	
		c) संज्ञा उपवाक्य	d) क्रिया विशेषण उपवाक्य	
	d)	पिताजी चाय पिएंगे या कॉफ़ी - रचना के आधार पर कौ	न से प्रकार का वाक्य है ?	
		a) संयुक्त वाक्य	b) मिश्र वाक्य	
		c) सरल वाक्य	d) क्रिया विशेषण	
	e)	उसने कहा। वह जयपुर जा रहा है। - वाक्य का उचित गि	मेश्र वाक्य होगा -	
		a) उसने कहा कि वह कल जयपुर जाएगा।	b) उसने अपने जयपुर जाने के के बारे में कहा।	
		c) वह कल जयपुर जाएगा उसने ऐसा कहा।	d) उसने कहा था वह कल जयपुर जाएगा।	
4.	निम्नलि	खित पाँच प्रश्नों में से किन्ही चार के उत्तर दीजिये:		[4]
	a)	बालक पत्र लिखता है - वाक्य का उचित कर्मवाच्य होगा	r <del>-</del>	
		a) बालक के द्वारा पत्र लिखा जाता है।	b) बालक ने पत्र लिखा था।	
		c) बालक पत्र लिखता था।	d) बालक ने पत्र लिखा।	
	b)	कर्तृवाच्य में किसकी प्रधानता होती है ?		
		a) कर्ता की	b) कर्म की	
		c) भाव की	d) क्रिया की	
	c)	कर्म की प्रधानता वाला वाच्य होता है -		

ii. अधीर - गंभीर

		a) भाववाच्य	b) य सभा	
		c) कर्तृवाच्य	d) कर्मवाच्य	
	d)	अब तो चला जाए - वाक्य के लिए उचित कर्तृवाच्य ह	ोगा -	
		a) अब तो चला नहीं जाता।	b) अब तो चले।	
		c) अब तो चलना पड़ेगा।	d) अब चलते हैं।	
	e)	प्रायः असमर्थता या विवशता प्रकट करने के लिए 'नह	ीं' के साथ का प्रयोग होता है।	
		a) कर्तृवाच्य	b) कर्मवाच्य	
		c) विशेषण	d) भाववाच्य	
5.	निम्नलि	खित पाँच प्रश्नों में से किन्ही चार के उत्तर दीजिये:		[4]
	a)	<u>शाबाश</u> ! तुमने बहुत अच्छा काम किया - रेखांकित प	ाद के लिए उचित पद परिचय चुनिए।	
		a) विस्मयादिबोधक	b) संबंधबोधक	
		c) समुच्चयबोधक	d) क्रियाविशेषण	
	b)	<u>रचना</u> काम कर रही है - रेखांकित पद के लिए उचित	परिचय होगा -	
		a) समूहवाचक संज्ञा	b) द्रव्यवाचक संज्ञा	
		c) जातिवाचक संज्ञा	d) व्यक्तिवाचक संज्ञा	
	c)	<u>वह</u> कल आएगा - वाक्य में रेखांकित पद के लिए उचि	ात पद परिचय होगा -	
		a) अन्य पुरुषवाचक सर्वनाम	b) सम्बन्धवाचक सर्वनाम	
		c) निजवाचक सर्वनाम	d) प्रश्नवाचक सर्वनाम	
	d)	यह मकान <u>किसका</u> है ?		
		a) अनिश्चयवाचक सर्वनाम	b) सम्बन्धवाचक सर्वनाम	
		c) संज्ञा	d) निश्चयवाचक सर्वनाम	
	e)	रीतिवाचक क्रियाविशेषण का उचित उदाहरण होगा -		
		a) काला <u>घोड़ा</u> तेज़ भागता है।	b) वह बाज़ार <u>जा रहा</u> है।	
		c) काला घोड़ा <u>तेज</u> ़ भागता है।	d) <u>काला</u> घोड़ा तेज़ भागता है।	
6.	निम्नलि	ाखित पाँच प्रश्नों में से किन्ही चार के उत्तर दीजिये:		[4]
	a)	कहत, नटत, खिझत, मिळत, खिलत, लजियात		
		भरें भौंन में करत हैं नैनन ही सौं बात।		
		उपर्युक्त पंक्ति में प्रयुक्त रस कौनसा है ?	13-9	
		a) रौद्र रस	b) वीर रस	
	1.	c) श्रृंगार रस	d) करुण रस	
	b)	वीर रस का स्थायी भाव कौनसा है ?		
		a) क्रोध	b) हास	
		c) उत्साह	d) शोक	
	c)	निम्नलिखित में से वीर रस का उचित उदाहरण चुनिए	ĬI	
		a) लाला तुम किस चक्की का आटा खाते हो	b) निसि दिन बरसत नैन हमारे।	

यूँ ही अपनी तोंद बढ़ाये जाते हो। सदा रहती पावस ऋतु हम पे जब तै स्याम सिधारे। c) मैं सत्य कहता हूँ सखे ! सुकुमार मत जानो d) मेरो तो गिरधर गोपाल दूसरों न कोई। मुझे , यमराज से भी युद्ध को प्रस्तुत सदा मानों मुझे।। रस के कितने अंग होते हैं ? a) चार b) दो c) तीन d) पाँच

नायक का कंपित और पुलकित होना किस रस का अनुभाव है? e)

a) श्रृंगार रस

b) वात्सल्य रस

c) करुण रस

d) शांत रस

#### निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए-7.

[5]

पानवाले के लिए यह एक मजेदार बात थी लेकिन हालदार साहब के लिए चिकत और द्रवित करने वाली। यानी वह ठीक ही सोच रहे थे। मूर्ति के नीचे लिखा 'मूर्तिकार मास्टर मोतीलाल' वाकई कस्बे का अध्यापक था। बेचारे ने महीने-भर में मूर्ति बनाकर पटक देने का वादा कर दिया होगा। बना भी ली होगी लेकिन पत्थर में पारदर्शी चश्मा कैसे बनाया जाए - काँचवाला - यह तय नहीं कर पाया होगा। या कोशिश की होगी और असफल रहा होगा। या बनाते-बनाते 'कुछ और बारीकी' के चक्कर में चश्मा टूट गया होगा। या पत्थर का चश्मा अलग से बनाकर फिट किया होगा और वह निकल गया होगा। उफ़.....!

- I. पानवाले के लिए क्या बात मज़ेदार थी ?
  - i. पत्थर का चश्मा
  - ii. काँच का चश्मा
  - iii. मूर्ति

d)

- iv. मूर्ति पर चश्मा न होना
- II. हालदार साहब की दृष्टि में कस्बे का अध्यापक 'बेचारा' क्यों था?
  - i. क्योंकि वह मूर्ति पर चश्मा नहीं लगा पाया था
  - ii. क्योंकि उसने मूर्ति अच्छी नहीं बनाई थी
  - iii. क्योंकि उसने पत्थर का चश्मा बनाया
  - iv. क्योंकि चश्मा टूट गया था
- III. हालदार साहब ने नेताजी की प्रतिमा पर चश्मा न होने क्या कारण नहीं बताया ?
  - i. बारीकी के चक्कर में चश्मा टूट जाना
  - ii. पत्थर का चश्मा बनाना
  - iii. काँच का चश्मा
  - iv. मूर्ति का अच्छा नहीं होना
- IV. मूर्ति किसने बनाई थी?
  - i. हालदार साहब ने
  - ii. अध्यापक ने
  - iii. बच्चे ने
  - iv. पानवाले ने
- V. हालदार साहब के लिए चश्मे वाली बात कैसी थी?
  - i. मजेदार

		. चिकत और द्रवित		
	iv.	. दुखी करने वाली		
8.	निम्नलि	चित में से किन्ही 2 प्रश्नों के उत्तर सही विकल्प चुनक	र दीजिये:	[2]
	a)	नेताजी की मूर्ति कहाँ पर थी?		
		a) मोहल्ले में	b) शहर के बीचों बीच चौराहे पर	
		c) नगरपालिका में	d) शहर के मुख्य बाजार के मुख्य चौराहे पर	
	b)	हिंदी भाषी लोगों द्वारा किस भाषा की उपेक्षा से फ	ादर कामिल बुल्के दुखी होते थे?	
		a) उर्दू	b) अंग्रेज़ी	
		c) हिंदी	d) पंजाबी	
	c)	फादर बुल्के की मृत्यु किस बीमारी से हुई थी?		
		a) कोई नहीं	b) जहरबाद	
		c) टीबी	d) ज्वर	
9.	निम्नलि	विखित काव्यांशों को पढ़कर आधारित प्रश्नों के उत्तर दी	जिए-	[5]
		नुम हो अति बड़भागी।	·	
	`	् रहत सनेह तगा तैं, नाहिन मन अनुरागी।		
		पात रहत जल भीतर, ता रस देह न दागी।		
	ज्य जल	न माहूँ तेल की गागरिं, बूंद न ताका लागी।		
		ादी में पाउँ न बोर्दी, दृष्टि न रूप परागी।		
	'सूरदास	न' अबला हम भोरी, गुर चाँटी ज्यौं पागी।		
	I. इस	। पद में किस भाषा का प्रयोग हुआ है?		
	i.	. ब्रज भाषा		
	ii.	अवधी भाषा		
	iii.	. खड़ी बोली		
		. तत्सम प्रधान		
	II. गोर्	पेयों का उद्धव के सामने स्वयं को 'अबला' और 'भोली	' बताने का उद्देश्य क्या था?	
	i.	. कटाक्ष करना		
	ii.	मज़ाक उड़ाना		
	iii.	. झूठ बोलना		
	iv.	सच बताना		
	III. गोर्	पियाँ उद्धव को बड़ा भाग्यशाली क्यों कहतीं हैं?		
	i.	. उद्धव कृष्ण के समीप रहते हैं		
	ii.	उद्धव प्रेम के बंधन से मुक्त हैं		
	iii.	. उद्धव भगवान के भक्त हैं		
	iv.	. उद्धव गोकुल आए हैं		
	IV. गोर्	पेयाँ अपनी तुलना किससे कर रहीं हैं?		
	i.	् . पानी में तेल की मटकी से		
	ii.	सागर की लहरों से		
	iii.	गुड़ में लिपटी चींटियों से		

ii. हंसने वाली

	V. पुर	इनि पात का क्या अर्थ है?		
	i.	कमल का पत्ता		
	ii.	कमल का फूल		
	iii.	पुरवाई की हवा		
	iv.	पूरी तरह		
10.	निम्नलि	खित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिये:		[2]
	a)	क्षत्रियकुल से द्रोह करने वाले ऋषि थे।		
		a) वशिष्ठ	b) ये सभी	
		c) परशुराम	d) विश्वामित्र	
	b)	स्त्री जीवन का बंधन कवि ने किसको बताया है?		
		a) गृहस्थ जीवन	b) उपर्युक्त सभी	
		c) माता और पिता	d) वस्त्र और आभूषण	
		खंड-ब वण	त्मिक प्रश्न	
11.	निम्नलि	खित प्रश्नों के उत्तर 25-30 शब्दों में दीजिये:		[8]
	a)	बालगोबिन भगत की दिनचर्या लोगों के अचरज का क	ारण क्यों थी?	
	b)	लेखक को नवाब साहब के किन हाव-भावों से महसूर	न हुआ कि वे उनसे बातचीत करने के लिए उत्सुक नहीं हैं?	
	c)	नगरपालिका ने नेताजी की मूर्ति चौराहे पर लगवाने की	ो हड़बड़ाहट क्यों दिखाई थी?	
	d)	लेखक ने फ़ादर बुल्के को <b>मानवीय करुणा की दिव्य च</b>	<b>मक</b> क्यों कहा है?	
12.	निम्नलि	खित प्रश्नों के उत्तर दीजिये:		[6]
	a)	'कन्यादान' कविता में माँ ने बेटी को ऐसा क्यों कहा वि	s लड़की होना पर लड़की जैसी दिखाई मत देना।	
	b)	"घर घेर घोर गगन तथा काले धुंघराले" शब्द चित्र को '	उत्साह' कविता के आधार पर अपने शब्दों में स्पष्ट कर समझाइए	र्।।
	c)	लक्ष्मण ने वीर योद्धा की क्या-क्या विशेषताएँ बताई हैं	?	
13.	निम्नलि	खित प्रश्नों में से किन्ही दो प्रश्नों के उत्तर 40-50 शब्दों मे	दीजिये:	[6]
	a)	'माता का आँचल' के आधार पर लेखक के पिताजी की	ो विशेषताएँ लिखिए।	
	b)	रानी ऐलिजाबेथ के दर्जी की परेशानी का क्या कारण	था? उसकी परेशानी को आप किस तरह तर्क-संगत ठहराएँगे?	
	c)		किसी दुकान का न होना वरदान है, ऐसा क्यों? भारत के अन्य	
		प्राकृतिक स्थानों को वरदान बनाने में नवयुवकों की क	•	
14.	निम्नलि	खित में से किसी एक विषय पर 80-100 शब्दों में अनुच		[5]
	a)	<b>शारीरिक शिक्षा और योग</b> विषय पर दिए गए संकेत बि	दुओं के आधार पर अनुच्छेद लिखिए।	
		<ul> <li>शारीरिक शिक्षा का अर्थ एवं महत्त्व</li> </ul>		
		<ul> <li>शारीरिक शिक्षा और योग</li> </ul>		
		<ul> <li>प्रभाव और अच्छे परिणाम</li> </ul>		
	b)	<b>विज्ञापन की बढती हुई लोकप्रियता</b> विषय पर दिए गए	संकेत बिंदुओं के आधार पर अनुच्छेद लिखिए।	
		<ul> <li>विज्ञापन की आवश्यकता</li> </ul>		
		<ul> <li>विज्ञापनों से होने वाले लाभ</li> </ul>		
		<ul> <li>विज्ञापनों से होने वाली हानियाँ</li> </ul>		
	c)	मेरे जीवन का लक्ष्य विषय पर दिए गए संकेत बिंदुओं	के आधार पर अनुच्छेद लिखिए।	
		<ul> <li>जीवन में लक्ष्य की आवश्यकता</li> </ul>		
		<ul><li>आपका लक्ष्य क्या है?</li></ul>		

iv. कमल के पुष्प से

- लक्ष्य क्यों हैं?
- बनकर क्या करेंगे?
- 15. मोटर साइकिल सुविधा के लिए है-तेज चलाने, करतब दिखाने के लिए नहीं-यह समझाते हुए अपने छोटे भाई को एक पत्र [5] लिखिए।

OR

स्वच्छता अभियान के कारण लोगों के व्यवहार और मानसिकता में आए परिवर्तन पर अपने विचार प्रकट करते हुए किसी समाचार-पत्र के संपादक को लगभग 80-100 शब्दों में पत्र लिखिए।

16. आधुनिक तकनीक से तैयार **घड़ी** का विज्ञापन तैयार कीजिये।

[5]

OR

किसी शीतल पेय की बिक्री बढ़ाने वाला एक विज्ञापन तैयार कीजिए। (25-50 शब्दों में).

17. आप गिरीश सिंह हैं। किसी शर्मा जी का फोन आया है। वह आप के माता जी से बात करना चाहते हैं। लेकिन आपकी माता जी **[5]** घर पर नहीं हैं। इस विषय को ध्यान में रखते हुए 30-40 शब्दों में संदेश लिखिए।

OR

नववर्ष की शुभकामना देते हुए 30-40 शब्दों में एक संदेश लिखिए।

### **Solution**

### Class 10 - Hindi A

## Confidence Examination - 1 (2020-21)

## खंड-अ वस्तुपरक प्रश्न

- 1. I. (i) क्योंकि कर्म ही ऊर्जा का साधन है
  - II. (ii) वह हमेशा खाली पड़ी जगह को भर देता है
  - III. (iii) जब वह कल्याण की भावना से मानवता की सेवा करता है
  - IV. (i) जब हम स्वेच्छा से कर्म नहीं करते हैं
  - V. (ii) जिसमें जीवमात्र की कल्याण भावना निहित होती है

OR

- I. (i) जहाँ दो निदयाँ मिलती हैं
- II. (ii) जिसका दूसरी नदियों से सबसे ज्यादा संयोग होता है
- III. (i) गंगा अनेक नदियों और अन्य जलस्रोतों का मिला-जुला रूप है
- IV. (iv) जहाँ एक से अधिक भाषाएँ एकत्रित होती हैं
- V. (ii) जब अनेक भाषाओं का मेल बंद हो जाता है
- 2. I. (i) भयानक तूफ़ान।
  - II. (ii) उसके पाँवों के तले।
  - III. (ii) दधीचि द्वारा हड्डियाँ दान करना।
  - IV. (iv) चलना।
  - V. (i) इंद्र को।

OR

- I. (i) नई पीढ़ी के नवयुवक।
- II. (ii) सर्वस्व।
- III. (iii) भारतीयों के पूर्वजों को।
- IV. (i) धीर गंभीर।
- V. (i) भारत माता को।
- 3. निम्नलिखित पाँच प्रश्नों में से किन्ही चार के उत्तर दीजिये:
  - a) (d) रास्ते में कोहरा था इसलिए मैं जा न सका।

Explanation: 'रास्ते में कोहरा था' और 'मैं जा न सका' ये दोनों ही वाक्य स्वतंत्र हैं इसलिए उपयुक्त वाक्य यही होगा।

b) (a) चौकीदार आया तो था परन्तु वह आवाज़ लगाकर चला गया।

Explanation: एक प्रधान और एक आश्रित उपवाक्य होने के कारण यही उपयुक्त वाक्य होगा।

c) (a) विशेषण उपवाक्य

Explanation: इस वाक्य में 'जो खिल रहा था' 'फूल' की विशेषता बता रहा है इसलिए यह विशेषण उपवाक्य है।

d) (a) संयुक्त वाक्य

Explanation: ये संयुक्त वाक्य का उदाहरण है क्योंकि इसमें दोनों ही वाक्य पूर्ण अर्थ लिए हुए हैं।

e) (a) उसने कहा कि वह कल जयपुर जाएगा।

Explanation: कि वह कल जयपुर जाएगा - संज्ञा उपवाक्य होने के कारण मिश्र वाक्य है।

- 4. निम्नलिखित पाँच प्रश्नों में से किन्ही चार के उत्तर दीजिये:
  - a) (a) बालक के द्वारा पत्र लिखा जाता है।

Explanation: कर्तृवाच्य को कर्मवाच्य में बदलते समय कर्ता के साथ 'से' या 'के द्वारा' लगाया जाता है।

b) (a) कर्ता की

Explanation: कर्तृवाच्य में कर्ता की प्रधानता होती है और क्रिया कर्ता के अनुसार परिवर्तित होती है।

c) (d) कर्मवाच्य

Explanation: कर्मवाच्य की क्रिया कर्म के अनुसार परिवर्तित होती है इसलिए कर्मवाच्य में कर्म की प्रधानता होती है।

d) **(b)** अब तो चले।

Explanation: उचित कर्तृवाच्य यही होगा क्योंकि यहाँ कर्ता के अनुसार ही क्रिया है।

e) (d) भाववाच्य

Explanation: असमर्थता या विवशता के लिए प्रायः भाववाच्य का ही प्रयोग होता है।

- 5. निम्नलिखित पाँच प्रश्नों में से किन्ही चार के उत्तर दीजिये:
  - a) (a) विस्मयादिबोधक

Explanation: यह विस्मयादिबोधक अव्यय है क्योंकि हर्ष के कारण यहाँ विस्मय उत्पन्न हो रहा है।

b) (d) व्यक्तिवाचक संज्ञा

Explanation: 'रचना' व्यक्ति का नाम होने के कारण व्यक्तिवाचक संज्ञा है।

c) (a) अन्य पुरुषवाचक सर्वनाम

Explanation: 'वह' पुरुषवाचक सर्वनाम है और इसका प्रयोग अन्य के लिए होने के कारण यह अन्यपुरुषवाचक सर्वनाम है।

d) (a) अनिश्चयवाचक सर्वनाम

Explanation: यह अनिश्चयवाचक सर्वनाम है। इसका प्रयोग मकान के लिए हुआ है।

e) **(c)** काला घोड़ा <u>तेज़</u> भागता है।

Explanation: घोड़े के भागने की रीति बताने के कारण यही रीतिवाचक क्रियाविशेष्ण का उपयुक्त उदाहरण है।

- 6. निम्नलिखित पाँच प्रश्नों में से किन्ही चार के उत्तर दीजिये:
  - a) (c) श्रृंगार रस

Explanation: प्रेम की प्रधानता होने के कारण यहाँ श्रृंगार रस है।

b) **(c)** उत्साह

Explanation: वीर रस में उत्साह की प्रधानता होने के कारण इसका स्थायी भाव उत्साह है।

c) **(c)** 

मैं सत्य कहता हूँ सखे ! सुकुमार मत जानो मुझे , यमराज से भी युद्ध को प्रस्तुत सदा मानों मुझे।।

Explanation: यहाँ युद्ध के लिए मन में उत्साह की भावना होने के कारण वीर रस की प्रधानता है।

d) (a) चार

Explanation: रस के चार अंग होते हैं - स्थायी भाव, अनुभाव, विभाव और संचारी भाव।

e) (a) श्रंगार रस

**Explanation:** अपनी प्रिय को देखकर नायक अतिरेक प्रेम के कारण कम्पित और पुलकित हो जाता है इसलिए ये श्रृंगार रस का अनुभाव है।

- 7. I. (iv) मूर्ति पर चश्मा न होना
  - II. (i) क्योंकि वह मूर्ति पर चश्मा नहीं लगा पाया था
  - III. (iv) मूर्ति का अच्छा नहीं होना
  - IV. (ii) अध्यापक ने
  - V. (iii) चिकत और द्रवित
- 8. निम्नलिखित में से किन्ही 2 प्रश्नों के उत्तर सही विकल्प चुनकर दीजिये:
  - a) (d) शहर के मुख्य बाजार के मुख्य चौराहे पर

Explanation: शहर के मुख्य बाजार के मुख्य चौराहे पर

b) **(c)** हिंदी

Explanation: फादर कामिल बुल्के पूर्णतः हिंदी प्रेमी थे। भारतीयों द्वारा अपनी ही भाषा की उपेक्षा उन्हें कष्ट पहुँचाती थी।

c) **(b)** जहरबाद

Explanation: जहरबाद

- 9. I. ब्रजभाषा
  - II. कटाक्ष करना
  - III. उद्धव प्रेम के बंधन से मुक्त हैं
  - IV. गुड़ में लिपटी चींटियों से
  - V. कमल का पत्ता
- 10. निम्नलिखित प्रश्नों के उत्तर सही विकल्प चुनकर दीजिये:
  - a) (c) परशुराम

Explanation: क्योंकि परशुराम सैकड़ों बार इस धरती को क्षत्रियों से खाली कर ब्राह्मणों को दान दे चुके थे।

b) (d) वस्त्र और आभूषण

Explanation: वस्त्र और आभूषण

खंड-ब वर्णात्मक प्रश्न

#### 11. निम्नलिखित प्रश्नों के उत्तर 25-30 शब्दों में दीजिये:

- a) बालगोबिन भगत की दिनचर्या लोगों के अचरज का कारण इसलिए थी क्योंकि वे सुबह उठकर दो मील दूर नदी में स्नान करने जाते थे | किसी भी मौसम का कोई भी असर उन्हें रोक नहीं पाता था | दोनों समय ईश्वर के गीत गाना, ईश्वर की साधना में लगे होते हुए भी गृहस्थी के कार्यों से वे कभी भी विरत नहीं हुए | प्रत्येक वर्ष गंगा स्नान के लिए जाना और संत-समागम में भाग लेना उन्होंने अंत समय तक नहीं छोड़ा |
- b) लेखक को सेकंड क्लास के डिब्बे में आया देखकर नवाब साहब के चेहरे पर असंतोष के भाव साफ़ नज़र आने लगे | उन्हें अपने एकांत में बाधा का अनुभव होने लगा और अनमने भाव से वह खिड़की से बाहर देखने लगे | जैसे ही लेखक उनकी तरफ देखते वह उनसे नज़रें फेर लेते | नवाब साहब के इन हाव-भाव को देखकर लेखक ने अनुमान लगाया कि नवाब साहब उनसे बात करने के लिए किंचित भी उत्सुक नहीं हैं |
- c) मूर्ति को देख कर ऐसा लगता था कि नगरपालिका को देश के अच्छे मूर्ति कारों की जानकारी नहीं होगी और अच्छी मूर्ति बजट से ज्यादा की होने के कारण काफी समय प्रशासनिक पत्राचार में लग गया,साथ ही प्रशासनिक अधिकारी के शासन अविध समाप्त होने में बहुत कम समय शेष था इसीलिए नजदीकी हाई स्कूल के ड्रॉइंग मास्टर को मूर्ति बनाने का काम सौंपा गया। प्रशासनिक अधिकारियों की हड़बड़ाहट का अंदेशा मूर्ति देखकर लगाया जा सकता है।
- d) फादर बुल्के मानवीय गुणों से लबरेज़ थे | उनके मन में मानव के प्रति कल्याण, अपनत्व, ममत्व और करुणा की भावना थी | अपनी सहृदयता के कारण ही वे सबके प्रिय थे | वात्सल्यता का सागर तो उनकी नीली आँखों में तैरता रहता था | उनके हाथ सदैव दूसरों को आशीर्वाद देने के लिए उठते थे | संकट के समय वे अपने प्रियजन को इस प्रकार सांत्वना देते थे कि वह सारा दुःख भूलकर शांतचित्त हो जाता था | इन्हीं कारणों से लेखक ने फादर को 'मानवीय करुणा की दिव्य चमक' कहा है |

## 12. निम्नलिखित प्रश्नों के उत्तर दीजिये:

- a) माँ चाहती है कि उसकी पुत्री में लड़िकयों जैसी सरलता, धैर्य, निस्वार्थता आदि गुण तो रहें, लेकिन वह लड़की होने के नाते किसी भी प्रकार की हीनता, दुर्बलता और भीरता से ग्रस्त न हो। शोषण और अन्याय का दृढ़ता से सामना करे। उसे लड़की समझकर कोई उसके साथ अशोभनीय आचरण न कर सके।और लड़की का सरल स्वभाव देखकर उसके ससुराल वाले उसके साथ में विपरीत व्यवहार ना करें लड़की होने के साथ-साथ अगर कोई भी व्यक्ति उसके साथ विपरीत व्यवहार करता है या बुरा व्यवहार करता है तो उसको वह तुरंत प्रभाव से जवाब दें और सही जवाब दें।
- b) बादल काले और घुँघराले हैं | वे भयानक गर्जना करते हुए बरसते हैं | गर्जना करते समय वे पूरे आकाश को घेर लेते हैं | काले और घुँघराले बादल देखने में कवि को बहुत सुन्दर लग रहे हैं |
- c) लक्ष्मण ने किसी भी वीर योद्धा की विशेषताओं के बारे में कहा था कि वे व्यर्थ ही अपनी वीरता की ढींगे नहीं हाँकते बल्कि युद्ध भूमि में युद्ध करते हैं। अपने अस्त्र-शस्त्रों से वीरता के जोहर दिखाते हैं। शत्रु को सामने पाकर जो अपने प्रताप की बातें करते हें, वे तो कायर होते हैं।

## 13. निम्नलिखित प्रश्नों में से किन्ही दो प्रश्नों के उत्तर 40-50 शब्दों में दीजिये:

- a) 'माता का आँचल' के आधार पर लेखक के पिताजी की विशेषताएँ निम्नलिखित हैंi.उनकी दिनचर्या को देखकर कहा जा सकता है कि वे धार्मिक प्रवृत्ति के थे | ii.वे सुबह जल्दी उठकर अपने बेटे को भी नहलाकर पूजा में बैठ जाते | iii.उनका अपने बच्चे से अत्यधिक जुड़ाव था | iv.अपने पुत्र के प्रत्येक कार्य में वे सहयोग देते | v.अपने पुत्र के प्रत्येक खेल में वे शामिल रहते |
- b) रानी ऐलिज़ाबेथ के दर्जी की परेशानी का कारण रानी के पहनावे को लेकर था कि जब रानी हिन्दुस्तान, पाकिस्तान और नेपाल के दौरे पर जाएँगी तो वह क्या पहनेंगी? उसकी परेशानी तर्कसंगत है क्योंकि प्रत्येक व्यक्ति अपने काम की प्रशंसा चाहता है। वह चाहती थी कि उसके कार्य को लोग देखें और सराहें। यदि उसके कार्य को भारतीय उपमहाद्वीप में सराहा गया तो राज परिवार में उनकी प्रतिष्ठा बढ़ेगी,आर्थिक फायदा होगा साथ ही साथ दुनिया में नाम होगा।
- c) अपनी प्राकृतिक सुन्दरता के कारण कटाओ को भारत का स्विट्जरलैण्ड कहा जाता है या यों भी कह सकते हैं कि यह उससे भी कहीं अधिक सुन्दर है। इसकी यह सुन्दरता इसलिए भी विद्यमान हैं क्योंकि यहाँ एक भी दुकान नहीं है। क्योंकि दुकानें प्रदूषण फैलाने का एक जिरया बन जाती हैं। लोग सामान खरीदते और कचरे को वहीं पड़ा छोड़ देते; जिसके कारण इसकी सुन्दरता नष्ट हो जाती। दुकानदार भी इस और कोई ध्यान नहीं देते। बिखरा कचरा गंदगी को बढ़ावा देता है। जिससे अन्य सैलानियों को भी गंदगी का सामना करना पड़ता है। भारत के अन्य प्राकृतिक स्थानों को भी इसी के समान सुन्दर बनाने के लिए नवयुवकों के द्वारा जनजागरण के कार्यक्रम चलाए जाने चाहिए। प्रकृति का महत्व समझाया जाए जिसके माध्यम से प्राकृतिक स्थानों के महत्व को स्पष्ट किया जाना चाहिए। लोगों को यह समझाना चाहिए कि उन्हें प्राकृतिक सौन्दर्य को बर्बाद नहीं करना चाहिए अपितु प्राकृतिक संपदा का समुचित उपयोग सिखाया जाए जिससे आने वाली पीढ़ी इसका सदुपयोग कर सके।

## 14. निम्नलिखित में से किसी एक विषय पर 80-100 शब्दों में अनुच्छेद लिखिये:

## a) **शारीरिक शिक्षा और योग**

शारीरिक शिक्षा का तात्पर्य ऐसी शिक्षा से है, जिसमें शारीरिक गतिविधियों के द्वारा शरीर को स्वस्थ रखने की कला सिखाई जाती है। शारीरिक विकास के साथ-साथ इससे व्यक्ति का मानसिक, सामाजिक एवं भावनात्मक विकास भी होता है। शारीरिक शिक्षा में योग का स्थान बहुत महत्त्वपूर्ण है। इसका उद्देश्य शरीर, मन एवं आत्मा के बीच संतुलन स्थापित करना होता है। यह मन शांत एवं स्थिर रखता है, तनाव को दूर कर सोचने की क्षमता, आत्मविश्वास एवं एकाग्रता को बढ़ाता है। नियमित रूप से योग करने से शरीर स्वस्थ तो रहता ही है, साथ ही यदि कोई रोग है तो इसके द्वारा उसका उपचार भी किया जा सकता है।

कुछ रोगों में तो दवा से अधिक लाभ योग करने से होता है। तमाम शोधों से यह प्रमाणित हो चुका है कि योग संपूर्ण जीवन की चिकित्सा पद्धिति है। पश्चिमी देशों में भी योग के प्रति लोगों का आकर्षण बढ़ रहा है और लोग तेज़ी से इसे अपना रहे हैं। योग की बढ़ती लोकप्रियता एवं महत्त्व का ही प्रमाण है कि संयुक्त राष्ट्र संघ ने भी योग का समर्थन करते हुए 21 जून को योग दिवस घोषित कर दिया है।

- वर्तमान परिवेश में योग न सिर्फ हमारे लिए लाभकारी है, बल्कि विश्व के बढ़ते प्रदूषण एवं मानवीय व्यस्तताओं से उपजी समस्याओं के निवारण में इसकी सार्थकता और भी बढ़ गई है। यही कारण है कि धीरे-धीरे ही सही, आज पूरी दुनिया योग की शरण ले रही है।
- b) आज के युग को विज्ञापनों का युग कहा जा सकता है। आज सभी जगह विज्ञापन-ही-विज्ञापन नज़र आते हैं। बड़ी-बड़ी कंपनियाँ एवं उत्पादक अपने उत्पाद एवं सेवा से संबंधित लुभावने विज्ञापन देकर उसे लोकप्रिय बनाने का हर संभव प्रयास करते हैं। किसी नए उत्पाद के विषय में जानकारी देने, उसकी विशेषता एवं प्राप्ति स्थान आदि बताने के लिए विज्ञापन की आवश्यकता पड़ती है। विज्ञापनों के द्वारा किसी भी सूचना तथा उत्पाद की जानकारी, पूर्व में प्रचलित किसी उत्पाद में आने वाले बदलाव आदि की जानकारी सामान्य जनता को दी जा सकती है। विज्ञापन का उद्देश्य जनता को किसी भी उत्पाद एवं सेवा की सही सूचना देना है, लेकिन आज विज्ञापनों में अपने उत्पाद को सर्वोत्तम तथा दूसरों के उत्पादों को निकृष्ट कोटि को बताया जाता है। आजकल के विज्ञापन भ्रामक होते हैं तथा मनुष्य को अनावश्यक खरीदारी करने के लिए प्रेरित करते हैं। अतः विज्ञापनों का यह दायित्व बनता है कि वे ग्राहकों को लुभावने दृश्य दिखाकर गुमराह नहीं करें, बल्कि अपने उत्पाद के सही गुणों से परिचित कराएँ। तभी उचित सामान ग्राहकों तक पहुँचेगा और विज्ञापन अपने लक्ष्य में सफल होगा।

c) मेरे जीवन का लक्ष्य

जीवन में निश्चित सफलता के लिए एक निश्चित लक्ष्य को होना भी अत्यंत आवश्यक है। जिस तरह निश्चित गंतव्य तय किए बिना, चलते रहने का कोई अर्थ नहीं रह जाता, उसी तरह लक्ष्य विहीन जीवन भी निरर्थक होता है।

एक व्यक्ति को अपनी योग्यता एवं रुचि के अनुरूप अपने लक्ष्य का चयन करना चाहिए। जहाँ तक मेरे जीवन के लक्ष्य की बात है, तो मुझे बचपन से ही पढ़ने-लिखने का शौक रहा है, इसलिए मैं एक शिक्षक बनना चाहता हूँ। शिक्षा मनुष्य के व्यक्तित्व का विकास करती है और इस प्रक्रिया में शिक्षक की भूमिका सर्वाधिक महत्त्वपूर्ण होती है।

मैं शिक्षक बनकर समाज हित में ग्रामीण क्षेत्र में नियुक्ति प्राप्त करना चाहूँगा, क्योंकि ग्रामीण क्षेत्रों में अच्छे एवं समर्पित शिक्षकों का अभाव है। एक आदर्श शिक्षक के रूप में मैं धार्मिक कट्टरता, प्राइवेट ट्यूशन, नशाखोरी आदि से बचाने हेतु सभी छात्रों का उचित मार्गदर्शन करूँगा। मैं सही समय पर विद्यालय जाऊँगा और अपना कार्य पूर्ण ईमानदारी से करूँगा। शिक्षण को प्रभावी बनाने के लिए सहायक सामग्रियों का भरपूर प्रयोग करूँगा, साथ ही छात्रों को हमेशा अच्छे कार्य करने के लिए प्रेरित करूँगा। छात्रों पर नियंत्रण रखने के लिए शैक्षणिक मनोविज्ञान का अच्छा ज्ञान प्राप्त करूँगा। मुझे आज के समाज की आवश्यकताओं का ज्ञान है, इसलिए मैं इस उद्देश्य की पूर्ति हेतु छात्रों को उनके नैतिक कर्तव्यों का ज्ञान कराऊँगा। अतः मेरे जीवन का लक्ष्य होगा आदर्श शिक्षक बनकर समाज की सेवा करना तथा देश के विकास में योगदान देना।

## 15. नेहरू नगर ,नई दिल्ली

२३ मार्च २०१९

प्रिय गोविन्द

सदैव प्रसन्न रहो

मुझे यह जानकर अतीव प्रसन्नता हुई कि इस बार हाईस्कूल परीक्षा में 90 प्रतिशत अंक लाने पर पिताजी ने तुम्हें मोटर-साइकिल उपहार में देकर तुम्हारी इच्छा पूरी कर दी। मेरे भाई मोटरसाइकिल की तुम्हें बहुत आवश्यकता थी,कोचिंग आदि जाने में समस्या थी | अतः पिताजी ने तुम्हारी जरूरतों को देखते हुए तुम्हारे लिए इसे खरीदा है। परन्तु इसका इस्तेमाल करते हुए तुम्हें कुछ बुनियादी बातें ध्यान में रखनी हैं अर्थात जोश में होश कायम रखना अन्यथा दुष्परिणाम हो सकते हैं।

कभी भी अपनी मोटरसाइकिल किसी अन्य को न देना अन्यथा तुम्हें हानि उठानी पड़ सकती है। हो सकता है वह तुम्हारी मोटरसाइकिल का दुरुपयोग करे किन्तु उसका खामियाजा तुम्हें उठाना पड़ेगा। हमेशा ड्राइविंग लाइसेन्स और गाड़ी के कागज साथ में रखना और हेलमेट का प्रयोग बहुत जरूरी है। कभी भी दोस्ती में तीन सवारी मत करना।

ध्यान रहे कि मोटर साइकिल सुविधा के लिए है | समय बचाने के लिए है तेज चलाने या करतब दिखाने के लिए नहीं।

तेज चलाने वाले लोग अकसर दुर्घटना कर बैठते हैं और जिससे स्वयं भी चोटिल हो सकते हैं दूसरे को भी चोट लग सकती है। 40-50 किमी प्रति घण्टा से अधिक की स्पीड पर मोटर साइकिल नहीं चलानी चाहिए। वैसे तो तुम खुद बहुत समझदार हो लेकिन समझाना मेरा कर्तव्य है उम्मीद है तुम ध्यान रखोगे। तुम्हारा भाई

गौतम सिंह

OR

सेवा में

श्रीमान संपादक जी,

नव भारत टाइम्स,

कार्यालय दिल्ली

विषय : स्वच्छता अभियान के कारण लोगों में आये बदलाव की ओर आपका ध्यान आकर्षित करना।

महोदय,

आपको बताते हुए हमें बड़ा ही हर्ष हो रहा है कि सरकार की ओर से चलाये गए स्वच्छता अभियान का हमारे आसपास के लोगों पर बहुत ही अच्छा प्रभाव पड़ा है। इस प्रभाव का श्रेय आपको भी जाता है। इस अभियान को सफल बनाने में आपका महत्त्वपूर्ण योगदान रहा क्योंकिं आपने स्वच्छता अभियान को अपने दैनिक पेपर में लगातार जगह दी जिससे इस अभियान को आंदोलन का रूप मिल सका। स्वच्छता अभियान के कारण लोगों की मानसिकता और उनके व्यवहार में भी अंतर देखने को मिला है। अब लोग जगह-जगह कूड़ा करकट नहीं डालते, जिससे अब यहाँ प्रदूषण गुणवत्ता में लगातार सुधार देखने को मिल रहा है।

आपके द्वारा चलाये गए स्वच्छता अभियान को लेकर हमारे सभी दिल्ली वासियों की ओर से आपको तहेदिल से धन्यवाद करते हैं और साथ ही आशा करते हैं कि ऐसे ही आप स्वच्छता अभियान को अपने दैनिक पेपर में जगह देते रहेंगे जिससे हमारा देश प्रदूषण मुक्त देश कहला सके। धन्यवाद।

## रोलेक्स की घडियाँ



🛮 प्रथम १००० क्रेताओं को १०% की विशेष छूट !

जानी-मानी प्रतिष्ठित घड़ी निर्माता कम्पनी पेश करती है आधुनिक तकनीक से लैश, समय ठीक करने और सेल बदलने के झंझट से मुक्ति । जो शरीर के तापमान से स्वतः चालित होती हैं। ये स्वतः ही समय और दिनांक ठीक करने में सक्षम हैं। बारिश में भीगने या पानी में गिरने पर भी खराब होने का कोई भी डर नहीं। दिखने में आकर्षक और वाज़िब दाम ।

पता

२५/३ गौरव मार्किट

वैशाली नगर ,जयपुर

16. दूरभाष- ९००१२५####

OR

## ठंडा मतलब-----? कोका कोला





संदेश

12 अक्तूबर 2020

प्रातः 10:30 बजे

आदरणीय माता जी,

कुछ समय पहले शर्मा अंकल जी का फोन आया था। आप घर पर उपस्थित नहीं थी। मैंने फोन उठाया, उन्होंने कहा की जैसे ही आप आएँ मुझसे फोन पर बात अवश्य करें। हाँ, उन्होंने यह भी कहा है कि आपके ईमेल पर कुछ संदेश है, उसे अवश्य पढ़ लें।

गिरीश 17.

OR

संदेश

दिनांक: 31 दिसंबर, 2020 समय: रात्रि 12:01 बजे

प्रिय गोविन्द

नव वर्ष की पावन बेला में मेरी यही शुभकामनाएँ है कि प्रत्येक दिन आपके जीवन में एक शुभ संदेश लेकर आए। आपको व आपके परिवार को मेरी ओर से नववर्ष की हार्दिक शुभकामनाएँ।

आपका परम मित्र

गिरीश

## ATOMIC ENERGY CENTRAL SCHOOL NO.4

## **RAWATBHATA**

## **CLASS 10 - MATHEMATICS**

## Confidence Examination (2020-21)

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

## **General Instructions:**

- 1. This question paper contains two parts A and B.
- 2. Both Part A and Part B have internal choices.

## Part - A consists 20 questions

- 1. Questions 1-16 carry 1 mark each. Internal choice is provided in 5 questions.
- 2. Questions 17-20 are based on the case study. Each case study has 5 case-based sub-parts. An examinee is to attempt any 4 out of 5 sub-parts.

## Part – B consists 16 questions

- 1. Question No 21 to 26 are Very short answer type questions of 2 mark each,
- 2. Question No 27 to 33 are Short Answer Type questions of 3 marks each
- 3. Question No 34 to 36 are Long Answer Type questions of 5 marks each.
- 4. Internal choice is provided in 2 questions of 2 marks, 2 questions of 3 marks and 1 question of 5 marks.

## Part-A

OR

1. Find the HCF and LCM of 1376 and 15428 using fundamental theorem of arithmetic.

Classify  $\sqrt{21}$  as rational or irrational.

Determine whether the given values are solutions of the given equation or not: 2.

[1]

[1]

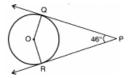
$$x^2 + x + 1 = 0$$
,  $x = 0$ ,  $x = 1$ 

3. Determine the values of m and n so that the following system of linear equations have infinite [1] number of solutions:

$$(2m - 1)x + 3y - 5 = 0$$

$$3x + (n - 1)y - 2 = 0$$

4. If PQ and PR are two tangents to a circle with centre O. If  $\angle$ QPR = 46°, find  $\angle$ QOR [1]



Write down the first four terms of the sequences whose general terms are  $T_n = 3^{n+1}$ 5.

[1]

OR

- Find 11<sup>th</sup> term of the A.P. 10.0,10.5,11.0,11.5,....
- 6. Find the common difference of the A.P. and write the next two terms: 75, 67, 59, 51,...

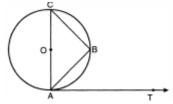
[1]

7. Determine the set of values of p for which the following equation has real roots:  $px^2 + 4x + 1 = \begin{bmatrix} 1 \end{bmatrix}$ 

OR

If the equation  $x^2$  - mx + 1 = 0 has two real and equal roots, then find m.

8. In the given figure, AB is a chord of the circle and AOC is its diameter such that  $\angle$ ACB = 50°. If AT is the tangent to the circle at the point A, find  $\angle$ BAT

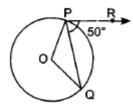


9. If a line intersects a circle in two distinct points, what is it called?

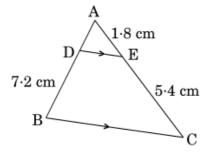
[1]

OR

In figure, if O is the centre of a circle, PQ is a chord and the tangent PR at P makes an angle of  $50^{\circ}$  with PQ. Find  $\angle$ POQ.



10. In Fig, DE | BC. Find the length of side AD, given that AE = 1.8 cm, BD = 7.2 cm and CE = 5.4 cm. [1]



11. Find the sum of given AP: 9,7,5,3,... to 14 terms.

[1]

- 12. Prove the trigonometric identity:  $\tan \theta \cot \theta = \frac{2 \sin^2 \theta 1}{\sin \theta \cos \theta}$ 
  - [4]

13. Prove that:  $\tan \theta + \tan (90^\circ - \theta) = \sec \theta \sec (90^\circ - \theta)$ .

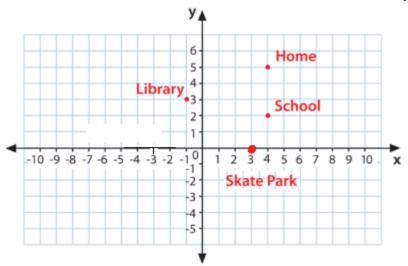
[1]

[1]

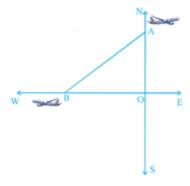
- 14. If a cone and a sphere have equal radii and equal volumes. What is the ratio of the diameter [1] of the sphere to the height of cone?
  - [1]
- 15. Find the 21st term of the A.P:  $-4\frac{1}{2}, -3, -1\frac{1}{2}, \dots$
- 16. A card is drawn at random from a well shuffled deck of playing cards. Find the probability of [1] drawing
  - i. a face card
  - ii. card which is neither a king nor a red card.
- 17. Two brothers Ramesh and Pulkit were at home and have to reach School. Ramesh went to

  [4]
  Library first to return a book and then reaches School directly whereas Pulkit went to Skate

Park first to meet his friend and then reaches School directly.



- i. How far is School from their Home?
  - a. 5 m
  - b. 3 m
  - c. 2 m
  - d. 4 m
- ii. What is the extra distance travelled by Ramesh in reaching his School?
  - a. 4.48 metres
  - b. 6.48 metres
  - c. 7.48 metres
  - d. 8.48 metres
- iii. What is the extra distance travelled by Pulkit in reaching his School? (All distances are measured in metres as straight lines)
  - a. 6.33 metres
  - b. 7.33 metres
  - c. 5.33 metres
  - d. 4.33 metres
- iv. The location of the library is:
  - a. (-1, 3)
  - b. (1, 3)
  - c. (3, 1)
  - d. (3, -1)
- v. The location of the Home is:
  - a. (4, 2)
  - b. (1, 3)
  - c. (4, 5)
  - d. (5, 4)
- 18. An aeroplane leaves an Airport and flies due north at 300 km/h. At the same time, another aeroplane leaves the same Airport and flies due west at 400 km/h.



- i. Distance travelled by the first aeroplane in 1.5 hours
  - a. 450 km
  - b. 300 km
  - c. 150 km
  - d. 600 km
- ii. Distance travelled by the second aeroplane in 1.5 hours
  - a. 450 km
  - b. 300 km
  - c. 150 km
  - d. 600 km
- iii. Which of the following line segment shows the distance between both the aeroplane?
  - a. OA
  - b. AB
  - c. OB
  - d. WB
- iv. Which aeroplane travelled a long distance and by how many km?
  - a. Second, 150 km
  - b. Second, 250 km
  - c. First, 150 km
  - d. Fist, 250 km
- v. How far apart the two aeroplanes would be after 1.5 hours?
  - a. 600 km
  - b. 750 km
  - c. 300 km
  - d. 150 km
- 19. The agewise participation of students of a school in the International Yoga day Celebration **[4]** that was held in Central City Ground Patna is shown in the following distribution. By Analysing the data given below answer the questions that follow:



Age(in years)	5 - 7	7 - 9	9 - 11	11 - 13	13 - 15	15 - 17	17 - 19
Number of students	х	15	18	30	50	48	X

Find the Following when the sum of frequencies is 181.

- i. The mode of the data is:
  - a. 17.81
  - b. 11.81
  - c. 18.41
  - d. 14.81
- ii. The value of missing frequency(x) is:
  - a. 12
  - b. 10
  - c. 13
  - d. 14
- iii. The modal class is:
  - a. 13 15
  - b. 11 13
  - c. 15 17
  - d. 17 19
- iv. The upper limit of the modal class is:
  - a. 17
  - b. 19
  - c. 15
  - d. 13
- v. The construction of the cumulative frequency table is useful in determining the:
  - a. Mean
  - b. Median
  - c. Mode
  - d. All of the above
- 20. Due to heavy floods in a state, thousands of people were homeless. 50 schools collectively offered to the state government to provide the place and the canvas for 1500 tent to be fixed by the government and decided to share the whole expenditure equally. The lower part of each tent is cylindrical of base radius 2.8 m and height 3.5 m, with the conical upper part of the same base radius but of height 2.1 m. [use  $\pi = \frac{22}{7}$ ]

[4]



- i. Area of canvas used to make the tent is
  - a. TSA of cylindrical portion + CSA of the conical portion
  - b. CSA of cylindrical portion + CSA of the conical portion
  - c. CSA of cylindrical portion + TSA of the conical portion
  - d. TSA of cylindrical portion + TSA of the conical portion
- ii. The volume of the tent is
  - a.  $\pi r^2(\frac{1}{3}r+h)$  cubic units
  - b.  $\frac{1}{3}\pi r^2(r+h)$  cubic units
  - c.  $\frac{4}{3}\pi r^2 h$  cubic units
  - d. none of these
- iii. If the canvas used to make the tent cost ₹120 per sq.m, find the amount to be paid by the schools for making the tents.
  - a. ₹ 11098
  - b. ₹ 88889
  - c. ₹ 11088
  - d. ₹ 99998
- iv. Amount shared by each school to set-up the tents.
  - a. ₹ 442640
  - b. ₹ 222640
  - c. ₹ 332640
  - d. ₹ 552640
- v. According to the given information, what is the ratio of the curved surface area of the cylindrical portion to the conical portion:
  - a. 1:2
  - b. 2:3
  - c. 4:1
  - d. 2:1

- Write the denominator of the rational number  $\frac{13}{125}$  in the form  $2^m \times 5^n$ , where m, n are non-[2] 21. negative integers. Hence, write its decimal expansion, without actual division.
  - [2]
- 22. In what ratio does the point P(2, -5) divide the line segment joining A(-3, 5) and B(4, -9)?

Prove that in a right-angled triangle, the mid-point of the hypotenuse is equidistant from the vertices.

- 23. A teacher after teaching the chapter polynomial in class 10th wrote the sum and product of zeros respectively on the blackboard to test the skill grasped by his students. Find out the Polynomials that the teacher have in his mind.
  - [2]

- i. 0 and  $\sqrt{2}$
- ii.  $2+\sqrt{3}$  and  $2-\sqrt{3}$
- iii.  $2\sqrt{5}$  and  $-\sqrt{5}$
- iv.  $\frac{3}{2}$  and  $-\frac{1}{2}$

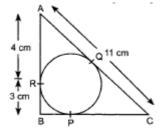
25.

- 24. Draw two concentric circles of radii 3 cm and 5 cm. Taking a point on outer circle construct [2] the pair of tangents to the other. Measure the length of a tangent and verify it by actual calculation.
  - Prove the identity, where the angles involved are acute angles for which the expressions are [2]
  - defined:  $\sqrt{rac{1+\sin A}{1-\sin A}}=\sec A+\tan A$

OR

Prove the identity:  $(\csc A - \sin A)$  ( $\sec A - \cos A$ ) ( $\tan A + \cot A$ ) = 1

26. In figure,  $\triangle$ ABC is circumscribing a circle. Find the length of BC. [2]



- Using Euclid's division algorithm, find whether the pair of numbers 231, 396 are co-prime. 27. [3]
- 28. The sum of the ages of a man and his son is 45 years. Five years ago, the product of their ages [3] was four times the man's age at the time. Find their present ages.

Find the values of k for which the given equation has real and equal roots:

$$x^2 + k(4x + k - 1) + 2 = 0$$

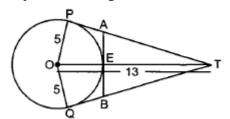
- [3] Find the zeroes of the polynomial  $4x^2 + 5\sqrt{2}x - 3$  by factorisation method and verify the 29. relationship between the zeroes and coefficient of the polynomial.
- P and Q are points on the sides CA and CB respectively of  $\Delta$ ABC right angled at C. Prove that 30. [3]  $AO^2 + BP^2 = AB^2 + PO^2$ .

OR

In a  $\triangle ABC$ , D and E are points on the sides AB and AC respectively. Show that DE | BC : AB = 10.8 cm, BD = 4.5 cm, AC = 4.8 cm, and AE = 2.8 cm.

31. A bag contains 24 balls of which x are red, 2x are white and 3x are blue. A ball is selected at [3] random. What is the probability that it is

- i. Not red?
- ii. White?
- 32. In figure, O is the centre of a circle of radius 5 cm. T is a point such that OT = 13 cm and OT intersects circle at E. If AB is a tangent to the circle at E, find the length of AB. where TP and TQ are two tangents to the circle.



33. The mean of the following frequency distribution is 57.6 and the total number of observations [3] is 50.

Class	0 - 20	20 - 40	40 - 60	60 - 80	80 - 100	100 - 120
Frequency	7	$f_1$	12	$f_2$	8	5

Find  $f_1$  and  $f_2$ .

- 34. Find the difference of the areas of two segments of a circle formed by a chord of length 5 cm [5] subtending angle of 90° at the centre.
- 35. Five years hence, father's age will be three times the age of his son. Five years ago, father was [5] seven times as old as his son. Find their present ages.
- 36. There are two poles, one on either bank of a river just opposite to each other. One pole is 60 m [5] high. From the top of this pole, the angle of depression to the top and foot of the other pole are 30° and 60° respectively. Find the width of the river and height of the other pole.

#### **Solution**

#### **Class 10 - Mathematics**

#### **Confidence Examination (2020-21)**

Part-A

1. 
$$1376 = 2 \times 2 \times 2 \times 2 \times 2 \times 43 = 2^5 \times 43$$
  
 $15428 = 2 \times 2 \times 7 \times 19 \times 29 = 2^2 \times 7 \times 19 \times 29$   
HCF =  $2^2 = 4$   
LCM =  $2^5 \times 43 \times 7 \times 19 \times 29 = 5307232$ 

OR

 $\sqrt{21}$  =  $\sqrt{3} \times \sqrt{7}$  is an irrational number because  $\sqrt{3}$  and  $\sqrt{7}$  are irrational being square roots of prime numbers.

2. We have the following equation,

$$x^2 + x + 1 = 0$$

Substituting x = 0, we get

$$(0)^2 + 0 + 1$$

$$= 0 + 0 + 1$$

$$= 1 \neq RHS$$

:. For x = 1, 
$$x^2 + x + 1 \neq 0$$
.

Hence, x = 1 and 0 are solution of  $x^2 + x + 1$ .

3. We have to determine the values of m and n so that the following system of linear equations have infinite number of solutions:

$$(2m - 1)x + 3y - 5 = 0$$

$$3x + (n - 1)y - 2 = 0$$

It is given that (2m - 1)x + 3y - 5 = 0...(i)

where 
$$a_1 = 2m - 1, b_1 = 3, c_1 = -5$$

$$3x + (n - 1)y - 2 = 0$$
 ...(ii)

where 
$$a_2 = 3, b_2 = n - 1, c_2 = 2$$

For a pair of linear equations to have infinite number of solutions

$$\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$$

or 
$$\frac{2m-1}{3} = \frac{3}{n-1} = \frac{5}{2}$$

$$\frac{2m-1}{3} = \frac{5}{2}$$

or 
$$2(2m-1) = 15$$

or, 
$$4m - 2 = 15$$

or, 
$$4m = 17$$

$$m = \frac{17}{4}$$

$$m=rac{17}{4}$$
 and  $rac{3}{n-1}=rac{5}{2}$ 

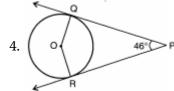
or, 
$$5(n-1) = 6$$

or, 
$$5n - 5 = 6$$

or, 
$$5n = 11$$

or, 
$$n = \frac{11}{5}$$

Hence, 
$$m=\frac{17}{4}, n=\frac{11}{5}$$



Since, 
$$OQ \perp OP \ and \ OR \perp RP$$

$$\angle QOR + \angle QPR + \angle PRQ + \angle QOR = 360^{\circ}$$

```
or, \angle QOR + 46^{\circ} = 180^{\circ}
  or, \angle QOR = 180^{\circ} - 46^{\circ} = 134^{\circ}
5. T_n = 3^{n+1}
  \Rightarrow T_1 = 3^{1+1} = 9,
  T_2 = 3^{2+1} = 27,
  T_3 = 3^{3+1} = 81,
  T_4 = 3^{4+1} = 243
  1st four terms are 9, 27, 81 and 243.
  A.P = 10.0, 10.5, 11.0, 11.5......
  To find any term we need to have first term and common difference.
  Now, here first term(a) = 10.0
  Common difference (d) = 10.5 - 10.0 = 0.5
  We have,
  a_n = a + (n - 1)d
  \Rightarrow a_{11} = 10 + (11 - 1) \times 0.5
  = 10 + 10 \times 0.5
  = 10 + 5
  = 15
6. Given AP: 75, 67, 59, 51,...
  Common difference = 67 - 75 = -8
  5th term = 51 - 8 = 43
  6th term = 43 - 8 = 35
```

7. 
$$px^2 + 4x + 1 = 0$$

The equation has real roots if  $D \geqslant 0$ 

i.e. 
$$(4)^2 - 4p \geqslant 0$$

i.e. 
$$16-4p\geqslant 0$$

$$\Rightarrow$$
16  $\geqslant$  4p

$$\Rightarrow p \geqslant 4$$

OR

OR

The given equation is  $x^2 - mx + 1 = 0$ . Here, a = 1, b = -m and c = 1

$$D = (-m)^2 - 4 \times 1 \times 1 = m^2 - 4$$

The given equation will have real and equal roots, if

$$D \geq 0 \Rightarrow m^2 - 4 \geq 0$$

$$\Rightarrow m^2 \geq 4$$

$$\Rightarrow m \geq \sqrt{4}$$

$$\Rightarrow m \ge \pm 2$$

$$m = -2 \ and \ m = 2.$$

 $8. : \angle ACB = 50^{\circ}$ 

 $\angle CBA = 90^{\circ}$  (Angle in semi-circle)

$$\therefore \angle OAB = 90^{\circ} - 50^{\circ}$$

$$=40^{\circ}$$

$$\angle BAT = 90^{\circ} - \angle OAB$$

$$=90^{\circ}-40^{\circ}$$

$$=50^{\circ}$$

9. The line which intersects a circle in two distinct points is called secant.

 $OP \perp PR$  [: Tangent and radius are  $\perp$  to each other at the point of contact]  $\angle OPQ = 90^{\circ} - 50^{\circ} = 40^{\circ}$ 

$$\angle OPQ = 90 - 50 = 40$$

OP = OQ [By isosceles triangle's property]

$$\angle OPQ = \angle OQP = 40^{\circ}$$

In  $\triangle$ OPQ,

$$\Rightarrow \angle O + \angle P + \angle Q = 180^{\circ}$$
$$\Rightarrow \angle O + 40^{\circ} + 40^{\circ} = 180^{\circ}$$
$$\angle O = 180^{\circ} - 80^{\circ} = 100^{\circ}.$$

10. Here,

$$\frac{AD}{BD} = \frac{AE}{CE} \Rightarrow \frac{AD}{7.2} = \frac{1.8}{5.4}$$

$$\therefore AD = \frac{7.2 \times 1.8}{5.4} = 2.4 \text{cm}$$

11. Here,  $a=9,\ d=7-9=-2\ and\ n=14$ 

Now, 
$$S_n = \frac{n}{2}[2a + (n-1)d]$$

$$S_{14} = \frac{14}{2}[2 \times 9 + (14 - 1)(-2)]$$

$$= 7[18 - 26]$$

$$= 7 \times (-8)$$

$$= -56$$

12. We have,

LHS = 
$$\tan \theta - \cot \theta$$
  

$$\Rightarrow LHS = \frac{\sin \theta}{\cos \theta} - \frac{\cos \theta}{\sin \theta}$$

$$\Rightarrow LHS = \frac{\sin^2 \theta - \cos^2 \theta}{\sin \theta \cos \theta} = \frac{\sin^2 \theta - (1 - \sin^2 \theta)}{\sin \theta \cos \theta}$$

$$\Rightarrow LHS = \frac{\sin^2 \theta - 1 + \sin^2 \theta}{\sin \theta \cos \theta} = \frac{2 \sin^2 \theta - 1}{\sin \theta \cos \theta} = RHS$$

13. LHS =  $\tan\theta$  +  $\tan(90^{\circ} - \theta)$ 

$$\begin{array}{l} = \tan\theta + \cot\theta = \frac{\sin\theta}{\cos\theta} + \frac{\cos\theta}{\sin\theta} = \frac{\sin^2\theta + \cos^2\theta}{\sin\theta\cos\theta} = \frac{1}{\sin\theta\cos\theta} \\ = \sec\theta\cos ec\theta = \sec\theta\sec(90^\circ - \theta) = \mathrm{RHS} \end{array}$$

14. Let the radius of both sphere & cone be r.

Let the height of the cone be h.

Volume of sphere = 
$$\frac{4}{3}\pi r^3$$

and volume of cone = 
$$\frac{1}{3}\pi r^2 h$$

ATQ, 
$$\frac{4}{3}\pi r^3=\frac{1}{3}\pi r^2 h$$
 (given, volumes are equal)

Or, 
$$4r = h$$

So, Height of cone = 4r

Diameter of sphere = 2r

diameter of sphere: height of cone = 2r: h = 2r: 4r = 1:2

15. Given A.P is: 
$$-4\frac{1}{2}, -3, -1\frac{1}{2}$$
  
Here,  $a=-4\frac{1}{2},\ d=1\frac{1}{2}$ 

21st term is given by

$$a_{21} = a + 20d$$
 $= \frac{-9}{2} + 20 \times \frac{3}{2}$ 
 $= \frac{-9+60}{2}$ 
 $= \frac{51}{2}$ 
 $= 25\frac{1}{2}$ 

16. Total number of outcomes = 52

- i. Number of face cards = 12 Probability of drawing a face card =  $\frac{12}{52} = \frac{3}{13}$
- ii. Number of cards which are neither a king nor red = 24

  Probability of drawing a card which is neither a king nor a red card =  $\frac{24}{52} = \frac{6}{13}$
- 17. Let Home represented by point H(4, 5), Library by point L(-1, 3), Skate Park by point P(3, 0) and School by S(4, 2).
  - i. (b) Distance between Home and School, HS =  $\sqrt{{(4-4)}^2+{(2-5)}^2}$  = 3 metres

ii. (c) Now, HL = 
$$\sqrt{(-1-4)^2+(3-5)^2}=\sqrt{25+4}=\sqrt{29}$$
  
LS =  $\sqrt{\left[4-(-1)\right]^2+\left(2-3\right)^2}=\sqrt{25+1}=\sqrt{26}$ 

LS = 
$$\sqrt{\left[4-(-1)\right]^2+\left(2-3\right)^2}=\sqrt{25+1}=\sqrt{26}$$

Thus, HL + LS =  $\sqrt{29} + \sqrt{26}$  = 10.48 metres

So, extra distance covered by Ramesh is = HL + LS - HS = 10.48 - 3 = 7.48 metres

iii. (d) Now, HP = 
$$\sqrt{(3-4)^2+(0-5)^2}=\sqrt{1+25}=\sqrt{26}$$

PS = 
$$\sqrt{{[4-3]}^2+{(2-0)}^2}=\sqrt{1+4}=\sqrt{5}$$

Thus, HP + PS =  $\sqrt{26} + \sqrt{5}$  = 7.33 metres

So, extra distance covered by Pulkit is = HP + PS - HS = 7.33 - 3 = 4.33 metres

- iv. (a) (-1, 3)
- v. (c) (4, 5)
- 18. i. (a) 450 km
  - ii. (d) 600 km
  - iii. (b) AB
  - iv. (a) Second, 150 km
  - v. (b) 750 km
- 19. Sum of the frequencies = 181

$$\Rightarrow$$
 x + 15 + 18 + 30 + 50 + 48 + x = 181

$$\Rightarrow$$
 2x + 161 = 181

$$\Rightarrow$$
 x = 10

Thus, the missing frequencies are 10 and 10.

Clearly, the modal class is 13 - 15, as it has the maximum frequency.

$$\therefore l = 13$$
, h = 2, f<sub>1</sub> = 50, f<sub>0</sub> = 30, f<sub>2</sub> = 48

$$egin{aligned} \mathsf{Mode}, \mathsf{M_0} &= l + \left\{ h imes rac{(f_1 - f_0)}{(2f_1 - f_0 - f_2)} 
ight\} \ &= 13 + 2 \left\{ rac{50 - 30}{2(50) - 30 - 48} 
ight\} \end{aligned}$$

$$=13+2\left\{rac{50-30}{2(50)-30-48}
ight\}$$

$$=13+2\times \frac{20}{22}$$

- i. (d) 14.81
- ii. (b) 10
- iii. (a) 13 15
- iv. (c) 15
- v. (b) Median
- 20. i. (b) CSA of cylindrical portion + CSA of the conical portion
  - ii. (a)  $\pi r^2(\frac{1}{3}r+h)$  cubic units
  - iii. (c) ₹ 11088
  - iv. (c) ₹ 332640
  - v. (d) 2:1

#### Part-B

21. The given rational number is  $\frac{13}{125}$ .

It's seen that,  $125 = 5^3$  is of the form  $2^m \times 5^n$ , where m = 0 and n = 3.

So, the given number has terminating decimal expansion.

$$\therefore \frac{13}{125} = \frac{(13 \times 2^3)}{(125 \times 2^3)} = \frac{104}{1000} = 0.104$$

22. Let the required ratio be k:1.

Then, by the section formula, the coordinates of P are

$$P\left(rac{4k-3}{k+1},rac{-9k+5}{k+1}
ight)$$

$$\therefore \frac{4k-3}{k+1} = 2 \text{ and } \frac{-9k+5}{k+1} = -5 \text{ [} \because P(2,5) \text{ is given]}$$

$$\Rightarrow$$
 4k - 3 = 2k + 2 and -9k + 5 = -5k - 5

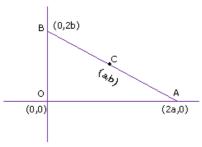
$$\Rightarrow$$
 2k = 5 and 4k = 10

$$\Rightarrow k = rac{5}{2}$$
 in each case.

So, the required ratio is  $\frac{5}{2}$ : 1, which is 5:2

Hence, P divides AB in the ratio 5:2.

OR



Let A(2a, 0), B(0, 2b) and O(0, 0) are the vertices of right-angled triangle

Coordinate of 
$$C\left(\frac{2a+0}{2},\frac{0+2b}{2}\right)$$

i.e. (a, b)

$$OC = \sqrt{a^2 + b^2}$$

$$AC = \sqrt{a^2 + b^2}$$

$$BC = \sqrt{a^2 + b^2}$$

Hence, C is Equidistant from the vertices.

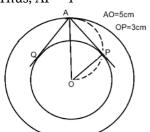
- 23. i. Quadratic polynomial is  $x^2 (sum\ of\ zeros)x + product\ of\ zeros$ 
  - $\therefore$  Required polynomial  $= x^2 (0) + \sqrt{2} = x^2 + \sqrt{2}$
  - ii. Quadratic polynomial is  $x^2 (sum\ of\ zeros)x + product\ of\ zeros$ 
    - $\therefore$  Required polynomial  $=x^2-(2+\sqrt{3})x+(2-\sqrt{3})$
  - iii. Quadratic polynomial is  $x^2 (sum\ of\ zeros)x + product\ of\ zeros$ 
    - $\therefore$  Required polynomial  $=x^2-2\sqrt{5}x-\sqrt{5}$
  - iv. Quadratic polynomial is  $x^2 (sum\ of\ zeros)x + product\ of\ zeros$ 
    - $\therefore$  Required polynomial =  $2x^2 3x 1$
- 24. A tangent to a circle is perpendicular to the radius at the point of tangency.

Using this property and Pythagoras Theorem,

$$AO^2 = AP^2 + OP^2$$

$$5^2 = AP^2 + 4^2$$

Thus, AP = 4



25. L.H.S. 
$$\sqrt{\frac{1+\sin A}{1-\sin A}}$$

$$= \sqrt{\frac{1+\sin A}{1-\sin A}} \times \sqrt{\frac{1+\sin A}{1+\sin A}}$$

$$=\sqrt{rac{\left(1+\sin A
ight)^2}{1-\sin^2 A}}\left[\because(a+b)(a-b)=a^2-b^2
ight]$$

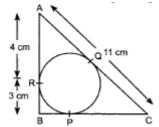
$$=\sqrt{rac{\left(1+\sin A
ight)^{2}}{\cos^{2}A}}\left[\because 1-\sin^{2} heta=\cos^{2} heta
ight]$$

$$=\frac{1+\sin A}{\cos A}=\frac{1}{\cos A}+\frac{\sin A}{\cos A}=\sec A+\tan A=R\cdot H.S.$$

OR

$$\begin{aligned} &(\csc A - \sin A)(\sec A - \cos A)(\tan A + \cot A) = 1 \\ &= \left(\frac{1}{\sin A} - \sin A\right) \left(\frac{1}{\cos A} - \cos A\right) \left(\frac{1}{\cot A} + \cot A\right) \\ &= \left(\frac{1 - \sin^2 A}{\sin A}\right) \left(\frac{1 - \cos^2 A}{\cos A}\right) \left(\frac{1 + \cot^2 A}{\cot A}\right) \\ &= \frac{\cos^2 A}{\sin A} \cdot \frac{\sin^2 A}{\cos A} \cdot \frac{\cos ec^2 A}{\cot A} \\ &= \sin A \cdot \cos A \frac{\cos ec^2 A}{\cot A} \\ &= \sin A \cdot \cos A \cdot \frac{1}{\sin^2 A} \cdot \frac{\sin A}{\cos A} \\ &= 1 = \text{R.H.S. proved.} \end{aligned}$$

26. Given,



$$AR = 4 cm$$
.

Also, 
$$AR = AQ \Rightarrow AQ = 4cm$$

Now, 
$$QC = AC - AQ$$

$$= 11cm - 4cm = 7cm$$
 ...(i)

Also, 
$$BP = BR$$

$$\therefore$$
 BP = 3 cm and PC = QC

$$BC = BP + PC$$

$$=3cm+7cm$$

$$=10cm$$

27. Let us find HCF of 396 and 231 using Euclid's division algorithm

$$396 = 231 \times 1 + 165$$

$$231 = 165 \times 1 + 66$$

$$165 = 66 \times 2 + 33$$

$$66 = 33 \times 2 + 0$$

$$So\ HCF(396,231) = 33$$

So 33 is common factor of 396 and 231

and co-prime numbers have common factor of 1 only.

- ∴ The 396 and 231 are not co-prime.
- 28. Let the present age of father be x years.

So, Son's present age = (45 - x) years. (Since sum of their ages is 45)

Five years ago:

Father's age = (x - 5) years

Son's age = (45 - x - 5) years

= (40 - x) years

It is given that five years ago, the product of their ages was four times the man's age at the time.

$$(x-5)(40-x) = 4(x-5)$$

$$\Rightarrow$$
(x - 5) (40 - x) - 4(x - 5) =0

$$\Rightarrow$$
 (x - 5)[40 - x - 4] =0

$$\Rightarrow$$
 (36- x) (x - 5) =0

$$\Rightarrow$$
 x = 36 [:: Father age can never be 5 years :: x - 5  $\neq$  0]

 $\Rightarrow$  Present age of man's = 36 years

Hence, present age of son's = 45 - x

$$=45 - 36$$

OR

Given, 
$$x^2 + k(4x + k - 1) + 2 = 0$$

$$x^2 + 4kx + k^2 - k + 2 = 0$$
.

Here, a = 1, b = 4k, c = 
$$k^2$$
-k + 2 = 0

Now equation has real roots, D = 0

i,e. 
$$b^2 - 4ac = 0$$

$$(4k)^2 - 4 \times 1 \times (k^2-k+2) = 0$$

$$16k^2 - 4k^2 + 4k - 8 = 0$$

$$12k^2 + 4k - 8 = 0$$

$$4(3k^2 + k - 2) = 0$$

$$3k^2 + 3k - 2k - 2 = 0$$

$$3k(k+1)-2(k+1) = 0$$

$$(3k-2)(k+1) = 0$$

$$k = \frac{2}{3}$$
 or  $k = -1$ 

29. 
$$4x^2 + 5\sqrt{2}x - 3$$

= 
$$4x^2$$
 +  $6\sqrt{2}x$  -  $\sqrt{2}x$  -  $3$ 

$$=2\sqrt{2}x(\sqrt{2}x+3)-1(\sqrt{2}x+3)$$

$$=(2\sqrt{2}x-1)(\sqrt{2}x+3)$$

$$=(2\sqrt{2}x-1)(\sqrt{2}x+3)$$
  
 $\Rightarrow x=rac{1}{2\sqrt{2}}$  and  $x=-rac{3}{\sqrt{2}}$  are zeroes of the polynomial

If given polynomial is 
$$4x^2 + 5\sqrt{2}x - 3$$
, then a = 4, b =  $5\sqrt{2}$  and c = -3  
Now, Sum of zeroes =  $\frac{1}{2\sqrt{2}} + \frac{-3}{\sqrt{2}} = \frac{1-6}{2\sqrt{2}} = \frac{-5}{2\sqrt{2}}$  ...... (i)

Also, 
$$\frac{-b}{a} = \frac{-5\sqrt{2}}{4} = \frac{-5}{2\sqrt{2}}$$
 ......(ii)

From (i) and (ii)

Sum of zeroes = 
$$\frac{-b}{a}$$

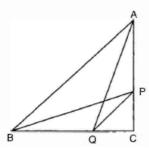
Product of zeroes = 
$$\frac{1}{2\sqrt{2}} \times \frac{-3}{\sqrt{2}} = \frac{-3}{4}$$
 ..... (iii)

Also, 
$$\frac{c}{a} = \frac{-3}{4}$$
 ...... (iv)

From (iii) and (iv)

Product of zeroes = 
$$\frac{c}{a}$$

30. In right-angled triangles ACQ and PCB, we have



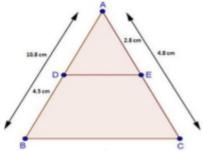
$$AQ^2 = AC^2 + CQ^2$$
 and  $PB^2 = PC^2 + CB^2$ 

$$\Rightarrow$$
 AQ<sup>2</sup> + BP<sup>2</sup>= (AC<sup>2</sup> + CQ<sup>2</sup>) + (PC<sup>2</sup> + CB<sup>2</sup>)

$$\Rightarrow AQ^2 + BP^2 = (AC^2 + BC^2) + (PC^2 + QC^2)$$

$$\Rightarrow AQ^{2} + BP^{2} = AB^{2} + PQ^{2} \begin{bmatrix} By \text{ Pythagoras theorem, we obtain} \\ AC^{2} + BC^{2} = AB^{2} \text{ and } PC^{2} + QC^{2} = PQ^{2} \end{bmatrix}$$

We have,



AB = 10.8 cm, BD = 4.5 cm, AC = 4.8 cm and AE = 2.8 cm.

$$\Rightarrow$$
 AD = 6.3 cm

And, 
$$EC = AC - AE$$

$$=4.8 - 2.8$$

$$\Rightarrow$$
 EC = 2 cm

Now, 
$$\frac{AD}{DB} = \frac{6.3}{4.5} = \frac{7}{5}$$
 [: AD = 6.3 cm]

Now, 
$$\frac{AD}{DB} = \frac{6.3}{4.5} = \frac{7}{5}$$
 [:: AD = 6.3 cm]  
And,  $\frac{AE}{EC} = \frac{2.8}{2} = \frac{28}{20} = \frac{7}{5}$  [:: C = 2 cm]

Thus, DE divides AB and AC of  $\triangle$ ABC in the same ratio.

Therefore, by the converse of basic proportionality theorem,

We have,

31. Given that, A bag contains total number of balls = 24

Let, number of red balls = x

number of white balls = 2x

and number of blue balls = 3x

By condition, 
$$x + 2x + 3x = 24$$

$$\Rightarrow$$
 6x = 24

$$\Rightarrow$$
 x = 4

 $\therefore$  Number of red balls = x = 4

Number of white balls =  $2x = 2 \times 4 = 8$ 

and number of blue balls =  $3x = 3 \times 4 = 12$ 

So, total number of outcomes for a ball selected at random in a bag contains 24 balls.

$$\Rightarrow$$
 n(S) = 24

1. Let  $E_1$  = Event of selecting a ball which is not red i.e., can be white or blue.

 $\therefore$  n(E<sub>1</sub>) = Number of white balls + Number of blue balls

$$\Rightarrow$$
:  $n(E_1) = 8 + 12 = 20$ 

$$\therefore$$
 Required probability  $= \frac{n(E_1)}{n(S)} = \frac{20}{24} = \frac{5}{6}$ 

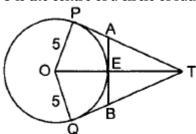
2. Let  $E_2$  = Event of selecting a ball which is white

$$\therefore$$
 n (E<sub>2</sub>) = Number of white ball = 8

So, required probability 
$$=\frac{n(E_2)}{n(S)}=\frac{8}{24}=\frac{1}{3}$$

32. According to the question,

O is the centre of a circle of radius 5 cm. T is a point such that OT = 13 cm and OT intersects circle at E.



:: OP  $\perp$  TP [Radius from point of contact of the tangent]

In right  $\triangle$ OPT \*

$$OT^2 = OP^2 + PT^2$$

$$\Rightarrow$$
 (13)<sup>2</sup> = (5)<sup>2</sup> + PT<sup>2</sup>  $\Rightarrow$  PT = 12 cm

Let 
$$AP = x \text{ cm } AE = AP \Rightarrow AE = x \text{ cm}$$

and 
$$AT = (12 - x)cm$$

$$TE = OT - OE = 13 - 5 = 8 \text{ cm}$$

: OE  $\perp$  AB [Radius from the point of contact]

$$\therefore$$
  $\angle$ AEO = 90°  $\Rightarrow$   $\angle$ AET = 90°

In right  $\triangle$ AET,

$$AT^2 = AE^2 + ET^2$$

$$(12 - x)^2 = x^2 + 8^2$$

$$\Rightarrow 144 + x^2 - 24x = x^2 + 64$$

$$\Rightarrow$$
  $24x = 80 \Rightarrow x = \frac{80}{24} = \frac{10}{3} \text{cm}$ 

Also BE = AE = 
$$\frac{10}{3}$$
 cr

Also BE = AE = 
$$\frac{10}{3}$$
 cm  

$$\Rightarrow AB = \frac{10}{3} + \frac{10}{3} = \frac{20}{3}$$
 cm

#### 33. Table:

Class Interval	Frequency(f <sub>i</sub> )	Mid value x <sub>i</sub>	$(f_i \times x_i)$
0 - 20	7	10	70
20 - 40	f <sub>1</sub>	30	30f <sub>1</sub>
40 - 60	12	50	600
60 - 80	f <sub>2</sub> = 18 - f <sub>1</sub>	70	1260 - 70f <sub>1</sub>
80 - 100	8	90	720
100 - 120	5	110	550
	$\Sigma f_i = 50$		$\Sigma\left(f_i imes x_i ight)=3200-40f_1$

We have,

$$7+12+f_1+f_2+8+5=50$$

$$\Rightarrow$$
 f<sub>2</sub> = (18 - f<sub>1</sub>)

we know that, mean 
$$rac{\Sigma(f_i imes x_i)}{\Sigma f_i}=rac{3200-40f_1}{50}$$
 = 57.6

$$\Rightarrow 93200 - 40f_1 = 2880$$

$$\Rightarrow$$
40 $f_1$  = 320

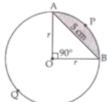
$$\Rightarrow$$
f<sub>1</sub> = 8

Hence, 
$$f_1 = 8$$
 and  $f_2 = (18 - 8) = 10$ 

34. Chord AB = 5 cm divides the circle into two segments minor segment APB and major segment AQB. We have to find out the difference in area of major and minor segment.

Here, we are given that  $\theta$  = 90°

Area of 
$$\triangle$$
OAB =  $\frac{1}{2}$ Base  $\times$  Altitude =  $\frac{1}{2}$ r  $\times$  r =  $\frac{1}{2}$ r<sup>2</sup>



Area of minor segment APB

$$=rac{\pi r^2 heta}{360^\circ}$$
 – Area of  $\triangle$ AOB

$$=rac{\pi r^2 90^\circ}{360^\circ}-rac{1}{2}r^2$$

$$\Rightarrow$$
 Area of minor segment =  $\left(\frac{\pi r^2}{4} - \frac{r^2}{2}\right)$  ...(i)

Area of major segment AQB = Area of circle – Area of minor segment

$$=\pi r^2 - \left[\frac{\pi r^2}{4} - \frac{r^2}{2}\right]$$

$$\Rightarrow$$
 Area of major segment AQB  $=\left[rac{3}{4}\pi r^2+rac{r^2}{2}
ight]$  ...(ii)

Difference between areas of major and minor segment

$$=\left(rac{3}{4}\pi r^2+rac{r^2}{2}
ight)-\left(rac{\pi r^2}{4}-rac{r^2}{2}
ight)$$

$$=rac{3}{4}\pi r^2+rac{r^2}{2}-rac{\pi r^2}{4}+rac{r^2}{2}$$

$$=rac{3}{4}\pi r^2 + rac{r^2}{2} - rac{\pi r^2}{4} + rac{r^2}{2} \ \Rightarrow ext{Required area} = rac{2}{4}\pi r^2 + r^2 = rac{1}{2}\pi r^2 + r^2$$

In right  $\triangle$ OAB,

$$r^2 + r^2 = AB^2$$

$$\Rightarrow$$
 2r<sup>2</sup> = 5<sup>2</sup>

$$\Rightarrow$$
 r<sup>2</sup> =  $\frac{25}{2}$ 

Therefore, required area 
$$=\left[rac{1}{2}\pi imesrac{25}{2}+rac{25}{2}
ight]=\left[rac{25}{4}\pi+rac{25}{2}
ight]$$
cm $^2$ 

35. Suppose, the present age of father be x years and the present age of son be y years.

According to the question,

Five years hence,

Father's age = (x + 5)years

Using the given information, we have

$$x + 5 = 3(y + 5)$$

$$\Rightarrow x - 3y - 10 = 0$$
 .....(i)

Five years ago,

Father's age = (x-5)years

Son's age =
$$(y-5)years$$

Using the given information, we get

$$(x-5) = 7(y-5)$$

$$\Rightarrow x - 7y + 30 = 0$$
 .....(ii)

Subtracting equation (ii) from equation (i), we get

$$4y - 40 = 0$$

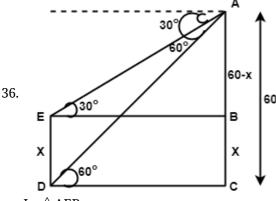
$$\Rightarrow y = 10$$

Putting y = 10 in equation (i), we get

$$x - 30 - 10 = 0$$

$$\Rightarrow x = 40$$

Hence, present age of father is 40 years and present age of son is 10 years.



$$\frac{\text{In }\triangle AEB}{60-x} = t$$

$$\frac{60-x}{BE} = tan30^{\circ}$$

$$\frac{60-x}{BE} = \frac{1}{\sqrt{3}} ... \left( \tan 30^{\circ} = \frac{1}{\sqrt{3}} \right)$$

$$60\sqrt{3} - \sqrt{3}x = BE$$

In 
$$\triangle$$
ADC 
$$\frac{60}{DC} = tan60^{\circ}$$

$$\frac{60}{60\sqrt{3}-\sqrt{3}x} = tan60^{\circ}$$

$$\frac{60}{\sqrt{3}(60-x)} = \sqrt{3} \left(\tan 60^{\circ} = \sqrt{3}\right)$$

$$60 = 3(60 - x)$$

$$20 = 60 - x$$

$$x = 40 \text{ m}$$

Therefore, Height of the other tower is 40 m. and hence the width of the river is  $60\sqrt{3}-\sqrt{3}x=60\sqrt{3}-40\sqrt{3}=20\sqrt{3}$  m

# ATOMIC ENERGY CENTRAL SCHOOL NO.4 RAWATBHATA

#### **CLASS 10 - SCIENCE**

#### Confidence Examination - 1 (2020-21)

Time Allowed: 3 hours Maximum Marks: 80

#### **General Instructions:**

- 1. The question paper comprises four sections A, B, C and D. There are 36 questions in the question paper. All questions are compulsory.
- 2. Section–A question no. 1 to 20 all questions and parts thereof are of one mark each. These questions contain multiple-choice questions (MCQs), very short answer questions and assertion reason type questions. Answers to these should be given in one word or one sentence.
- 3. Section–B question no. 21 to 26 are short answer type questions, carrying 2 marks each. Answers to these questions should in the range of 30 to 50 words.
- 4. Section–C question no. 27 to 33 are short answer type questions, carrying 3 marks each. Answers to these questions should in the range of 50 to 80 words.
- 5. (v) Section–D question no. 34 to 36 are long answer type questions carrying 5 marks each.

  Answers to these questions should be in the range of 80 to 120 words.
- 6. There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
- 7. Wherever necessary, neat and properly labeled diagrams should be drawn.

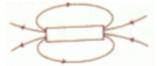
enlarged and on the same side as that of the object.

#### **Section A**

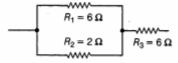
Identify the substance oxidized and reduced in the following reaction. 1. [1] CuO(s) + Zn(s) o ZnO(s) + Cu(s)OR What is the action of sunlight on silver chloride? 2. Write the formula and then balance the following equation. [1] Sodium hydroxide + Sulphuric acid → Sodium sulphate + Water 3. The name of the compound CH<sub>3</sub> - CH<sub>2</sub> - CHO is [1] a) Ethanol b) Propanal c) Ethanal d) Propanone What happens to the other bulbs in a series circuit, if one bulb blows off? 4. [1] 5. An aqueous solution turns red litmus solution blue. Excess addition of which solution would [1] reverse the change? 6. Identify the device used as a spherical mirror or lens in case, when the image formed is [1] virtual and erect in case. Object is placed between the focus and device, image formed is

Define	the	term	refraction	of light.

- 7. The level of energy reaching from one to next higher trophic level decreases'. Suggest a reason [1] for this occurrence.
- 8. Identify the poles of a magnet in the figure. [1]



9. The given figure shows three resistors



Find the combined resistance.

OR

What causes the potential difference between the two terminals of a cell?

10. Write the equation for the reaction of

[1]

- i. Iron with steam
- ii. Calcium with water
- 11. Name the substance which help in emulsification of fats.

[1]

[1]

OR

What are characteristics of respiratory surface?

12. Give an example where sex is determined by environmental factors.

[1]

OR

Name the characters of pea plant used by Mendel for dihybrid cross.

13. What are the methods used by plants to get rid of excretory products?

[1]

14. **Assertion (A):** Pure water is neither acidic nor basic.

[1]

**Reason (R):** The pH of a solution is inversely proportional to the concentration of hydrogen ions in it.

- a) Both A and R are true and R is the correct explanation of the assertion.
- b) Both A and R are true and R is the correct explanation of the assertion A is true but R is false.

c) A is false but R is true.

- d) A is true but R is false.
- 15. **Assertion:** Resistance of 50 W bulb is greater than that of 100 W.

[1]

**Reason:** Resistance of bulb is inversely proportional to rated power.

- a) Both assertion and reason are CORRECT and reason is the CORRECT explanation of the assertion.
- b) Both assertion and reason are CORRECT but, reason is NOT THE CORRECT explanation of the assertion.
- c) Assertion is CORRECT but, reason is INCORRECT.
- d) Assertion is INCORRECT but, reason is CORRECT.

OR

Assertion (A): A compass needle is placed near a current-carrying wire. The deflection of the

compass needle decreases when the compass needle is displaced away from the wire.

**Reason (R):** Strength of a magnetic field decreases as one moves away from a current-carrying conductor.

- a) Both A and R are true and R is correct explanation of the assertion.
- b) Both A and R are true but R is not the correct explanation of of the assertion

c) A is true but R is false.

- d) A is false but R is true.
- 16. **Assertion (A):** Pollen grains from the carpel stick to the stigma of the stamen.

[1]

**Reason (R):** The fertilised egg cells grow inside the ovules and become seeds.

- a) Both A and R are true and R is correct explanation of the assertion.
- b) Both A and R are true but R is not the correct explanation of the assertion.

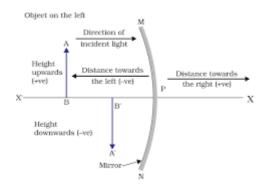
c) A is false but R is true.

d) A is true but R is false.

#### 17. Read the following and answer any four questions:

[4]

While dealing with the reflection of light by spherical mirror set of sign convention is followed. In this convention, the pole (P) of the mirror is taken as the origin. The object is placed to the left of the mirror. All distance measured to the right of the origin is taken positively. Distance to the left is measured negative. All distance parallel to the principle is measured from the pole.



- i. Linear magnification produced by a concave mirror may be
  - a. less than 1 or equal to 1
  - b. more than 1 or equal to 1
  - c. less than 1, more than 1 or equal to 1
  - d. less than 1 or more than 1
- ii. Magnification produced by a plane mirror
  - a. less than one
  - b. greater than one
  - c. zero
  - d. equal to one
- iii. If the magnification of -1 is to be obtained by using a converging mirror, then the object has to be placed
  - a. between pole and focus
  - b. at the centre of curvature
  - c. beyond the centre of curvature

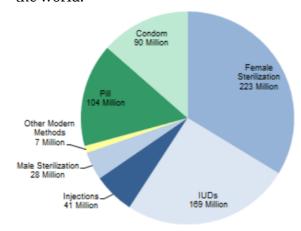
- d. at infinity
- iv. The ratio of the height of an image to the height of an object known as
  - a. magnification
  - b. lateral displacement
  - c. refractive index
  - d. none of the above
- v. If the magnification has a plus sign then the image is \_\_\_\_\_ and \_\_\_\_
  - a. virtual; erect
  - b. real; erect
  - c. virtual; inverted
  - d. real; inverted

#### 18. Read the following and answer any four questions:

[4]

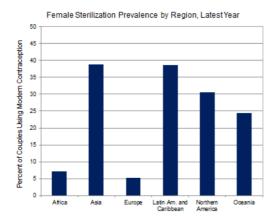
We hear and read about female foeticide, which is really a wrong practice. In some families, be it rural or urban, females are tortured for giving birth to a girl child.

- i. Female foeticide leads to which major problem in the country?
  - a. Female: male sex ratio is increasing
  - b. Female: male sex ratio is decreasing
  - c. Female: male sex ratio is unaffected
  - d. Male: female sex ratio is increasing
- ii. Based on this pie chart, mention the most popular mode of contraception in Females across the world.

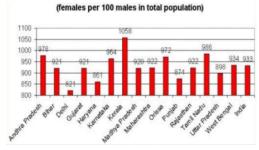


Couples Using Any Modern Method: 661 Million

- a. Female sterilisation (tubectomy)
- b. IUD
- c. Condoms
- d. Oral pills
- iii. Based on this column graph interpret the data-According to the latest survey, which continent is popular in female sterilization techniques?



- a. Asia and Europe
- b. Asia and Latin America and the Caribbean islands
- c. Africa and Europe
- d. Latin America and North America
- iv. Name two sexually transmitted diseases by bacteria.
  - a. AIDS and Syphilis
  - b. AIDS and genital warts
  - c. Gonorrhoea and syphilis
  - d. Gonorrhoea and warts
- v. From the bar graph interpret which state is highest and lowest in female sex ratio?



- a. Andhra Pradesh and Tamilnadu
- b. West Bengal and Uttar Pradesh
- c. Kerela and Delhi
- d. Kerela and Haryana

#### 19. Read the following and answer any four questions:

Nowadays chemical pesticides are excessively used to protect the crops from disease and pests. The chemical is washed down into the soil. From soil, these are absorbed by the plant along with water and minerals and from the water bodies. The human being occupies the top level in any food chain, the maximum chemical gets accumulated in their bodies.

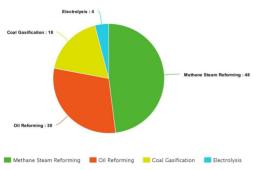
- i. Accumulation of non-biodegradable pesticides in the food chain in an increasing amount at each higher trophic level is known as:
  - a. eutrophication
  - b. pollution
  - c. biomagnification
  - d. accumulation
- ii. The decomposer in an ecosystem:
  - a. convert organic materials to simpler forms

[4]

c. convert inorganic materials into organics compound	
d. do not breakdown organic compounds	
iii. In a food chain consisting of grass, frog, bird and insects, where will the concentration of	
harmful chemicals is maximum:	
a. grass	
b. frog	
c. bird	
d. insects	
iv. Pesticides enter the food chain the level.	
a. consumer	
b. producers	
c. both consumer and producer	
d. none of these	
v. Complete the following grass,, Human	
a. goat	
b. grasshopper	
c. lion	
d. mice	
Read the following and answer any four questions:	[4]
In electrolysis, the electric current is used to carry out decomposition. Hence it is an	
electrolytic decomposition. During the electrolysis of water, the reaction involved is: $2H_2O(1) \longrightarrow 2H_2(g) + O_2(g)$	
i. During electrolysis, the charges carried by anode and cathode are respectively:	
a. each + ve	
b. each - ve	
c. + ve, - ve d ve, + ve	
ii. The gases released respectively at anode and cathode during electrolysis of water is:	
a. H <sub>2</sub> , O <sub>2</sub>	
b. O <sub>2</sub> , H <sub>2</sub>	
c. $O_2$ , no gas at the cathode	
d. H <sub>2</sub> , no gas at the cathode	
iii. The volume of gas collected at the cathode during the electrolysis of water is:	
a. same as the volume of gas collected at the anode	
b. half of the volume of gas collected at the anode	
c. double of the volume of gas collected at the anode	
d. one-fourth of volume of gas collected at the anode	
iv. Which is the most popular method of hydrogen production according to the pie chart given	
below?	

b. convert inorganic materials to inorganic forms

20.



- a. Methane steam reforming
- b. Electrolysis
- c. Oil reforming
- d. Coal gasification
- v. A spoon is to be silver plated. Which one of the following gives suitable materials for the cathode, anode and electrolyte?

	Cathode	Anode	Electrolyte
(a)	Pure silver	Spoon	Aqueous silver nitrate
(b)	Spoon	Pure silver	Aqueous silver nitrate
(c)	Spoon	Pure silver	dil. Sulphuric acid
(d)	Pure silver	Spoon	dil. Sulphuric acid

#### **Section B**

21. What is the structural difference between veins and arteries?

OR

How do the guard cells regulate opening and closing of stomatal pores?

22. Why is DNA copying is essential part of the process of reproduction?

[2]

[2]

23. Write the structural formula and IUPAC name of the follo

[2]

- i. An alkyne with three C-atoms.
- ii. An alcohol having one C-atom.
- 24. A dry pellet of a common base B when kept in open absorbs moisture and turns sticky. The compound is also a by-product of chlor-alkali process.
  - i. Identify B.
  - ii. What type of reaction occurs when B is treated with an acidic oxide.
- 25. The image formed by a concave mirror is observed to be virtual, erect and larger than the object. where should be the position of object ?Justify your answer.
- 26. An electric lamp, whose resistance is  $20 \Omega$ , and a conductor of  $4 \Omega$  resistance are connected to [2] a 6 V battery. Draw the circuit diagram. Calculate (a) the total resistance of the circuit, and (b) the current through the circuit.
- 27. Explain how sex is determined in human beings .Also draw a suitable illustration to support your answer. [3]

OR

Work out the F2 generation ratio for Monohybrid cross in pea plant for the character of height of plant.

28. A heater coil is rated 100 W, 200 V. It is cut into two identical parts. Both parts are connected [3]

	the new combination.	
29.	Draw a diagram of human excretory system. Name and label the following parts:	[3]
	a)part where urine is stored	
	b)part through which urine is released outside the body.	
30.	A student dropped few pieces of marble in dilute hydrochloric acid contained in a test tube.	[3]
	The evolved gas was then passed through lime water. What change would be observed in lime	
	water? Write balanced chemical equation for both the change observed?	
31.	Two elements X and Y have atomic number 12 and 16 respectively. Write the electronic	[3]
	configuration of these elements. State the period of these elements. What type of bond will be	
	formed if these two elements combine together?	
	OR	
	An element X belongs to 3rd period and group 16 of the modern periodic table.	
	i. Determine the number of valence electrons and the valency of X.	
	ii. Molecular formula of the compound when X reacts with hydrogen and write its electron dot structure.	
	iii. Name the element X and state whether it is metallic or non-metallic.	
32.	A non metal A is important constituent of our body and forms two oxides B &C. Oxide B is	[3]
	toxic whereas C causes global warming.	
	(a)Identify A,B & C	
	(b) To which group & period of perodic table does A belong? How many valence electrones	
	present in "A" element	
33.	a) Did Mendeleev have gaps in his periodic table?	[3]
	b) Mention any two limitations of Mendeleev classification.	
	c) What were the two criteria used by Mendeleev in creating his periodic table?	
34.	Explain the three pathways of glucose breakdown in living organisms.	[5]
	Cartilaginous rings in trachea are very important. Why?	
	OR	
	Answer the following questions:	
	i. Chamber where oxygenated blood from lungs is collected.	
	ii. The largest blood vessel in our body.	
	iii. The Muscular wall separating the right and left chambers.	
	iv. The blood vessel that carries blood from the heart to the lungs.	
	v. Define double circulation.	
35.	(a) Define Dispersion of light through prism and show it by ray diagram.	[5]
	(b) Explain : Why sun appears reddish at the time of sunrise and sunset.	
	(c) Why sky appears blue.	
36.	Describe the activity that shows that a current-carrying conductor experiences a force	[5]
	perpendicular to its length and the external magnetic field. How does Fleming's left-hand rule	
	help us to find the direction of the force acting on the current-carrying conductor?	
	OR	
	i Explain the meanings of words "electromagnetic" and "induction" in the term electromagnet	ic

together in parallel to the same source of 200 V. Calculate the energy liberated per second in

induction. List three factors on which the value of induced current produced in a circuit depends.

ii. Name and state the rule used to determine the direction of induced current. State one practical application of this phenomenon in everyday life.

#### Solution

#### Class 10 - Science

#### Confidence Examination - 1 (2020-21)

#### **Section A**

1. Zinc(Zn) is oxidised to form Zinc oxide while Copper oxide (CuO) is reduced to form Cu.

OR

Place a small quantity of silver chloride (AgCl) taken in a watch glass under sunlight for some time. The crystals slowly acquire a grey colour. On analysis, it is found that the sunlight has caused decomposition of silver chloride into silver and chlorine.

$$2AgCl(s) \xrightarrow{Sunlight} 2Ag(s) + Cl_2(g)$$

2. Sulfuric acid is neutralised by sodium hydroxide, to make sodium sulfate and water, according to the following equation:

Sodium hydroxide + Sulphuric acid → Sodium sulphate + Water

$$2NaOH + H_2SO_4 \rightarrow Na_2SO_4 + 2H_2O$$

3. (b) Propanal

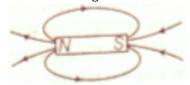
**Explanation:** This compound has -CHO as active radical. It's an aldehyde. Hence, -al suffix is used.

- 4. If one bulb blows off in a series circuit then all other bulbs stop glowing because current stop flowing.
- 5. Changing of red litmus to blue indicates that the solution is basic. So to neutralise the basic solution an acid should be added. To revert the colour change that is to change blue litmus red, excess of acid needs to be added so that the solution becomes acidic.
- 6. The device used as a lens in case, when the image formed is virtual and erect and when an object is placed between the focus and device image formed is enlarged and on the same side as that of the object is a convex lens.

OR

The bending of a ray of light falling obliquely on a surface when it passes from one medium to another is called refraction.

- 7. According to 10% law (given by Lindeman in 1942), only 10% of energy reaches from one trophic level to next as major amount of energy is lost as heat while, some are used in various metabolic processes. Thus, only 10 percent of the consumed food is stored as biomass.
- 8. The poles of a magnet are marked in the figure as we know that out side magnet field lines moves  $N \rightarrow S$  and inside the Magnet field lines moves  $S \rightarrow N$ .



9. Let the three resistors are  $R_{1}$ ,  $R_{2}$  and  $R_{3}$ . Here  $R_{1}$  and  $R_{2}$  are parallel to each other and  $R_{3}$  is in series with them equivalent resistance can be obtained by the given formula:

$$\therefore \quad \frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} = \frac{1}{6} + \frac{1}{2} = \frac{1+3}{6} = \frac{4}{6} = \frac{2}{3}$$

$$\Rightarrow \quad R = \frac{3}{2}\Omega$$

Now, R and R<sub>3</sub> are in series.

... Combind resistance R<sub>4</sub>=R+R<sub>3</sub>

$$=3/2+6=1.5+6=7.5Ohm$$

OR

Excess of electrons at the negative terminal and lack of electrons at the positive terminal (due to chemical reactions) causes potential difference between the two terminals of a cell.

10. i. 
$$3\text{Fe(s)} + 4\text{H}_2\text{O(steam)} \longrightarrow \text{Fe}_3\text{O}_4(\text{s)} + 4\text{H}_2(\text{g)}$$

ii. 
$$Ca(s) + 2H_2O(1) \longrightarrow Ca(OH)_2(s) + H_2(g)$$

iii. 
$$2K(s) + 2H_2O(l) \longrightarrow 2KOH(aq) + H_2$$

OR

#### **Characteristics of respiratory surface:**

- i) It is thin walled and moist.
- ii) It is highly vascular.
- iii) Large surface area for gaseous exchange.
- iv) Direct or indirect contact with source of oxygen.
- 12. In snail, sex is determined by environmental factors (temperature). Which is called TSD temperature dependent sex determination.

OR

Shape and color of seed.

- 13. (i) Plant produces carbon dioxide as wastes during respiration and oxygen as waste during photosynthesis.
  - (ii) Excess of water in plants is removed through transpiration.
  - (iii) Some waste products like gums and resins are stored in older xylem tissue.
- 14. **(b)** Both A and R are true and R is the correct explanation of the assertion A is true but R is false.

**Explanation:** Pure water is neutral in nature because at 25° C, the concentration of hydrogen ion and hydroxide ion remains equal.

15. **(b)** Both assertion and reason are CORRECT but, reason is NOT THE CORRECT explanation of the assertion. **Explanation:** Both assertion and reason are CORRECT but, reason is NOT THE CORRECT explanation of the assertion.

OR

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

**Explanation:** Both A and R are true and R is correct explanation of the assertion.

16. **(d)** A is true but R is false.

**Explanation:** A is true but R is false.

- 17. i. (c) less than 1, more than 1 or equal to 1
  - ii. (d) equal to one
  - iii. (b) at the centre of curvature
  - iv. (a) magnification
  - v. (a) virtual; erect
- 18. i. (b) Female: male sex ratio is decreasing
  - ii. (a) Female sterilisation (tubectomy)
  - iii. (b) Asia and Latin America and Caribbean islands
  - iv. (c) Gonorrhea and syphilis
  - v. (c) Kerela and Delhi
- 19. i. (c) biomagnification
  - ii. (b) convert organic material to inorganic forms
  - iii. (c) birds
  - iv. (b) producer
  - v. (a) goat
- 20. i. (c) +,
  - ii. (b) O<sub>2</sub>, H<sub>2</sub>
  - iii. (c) double of the volume of gas collected at anode
  - iv. (a) methane steam reforming

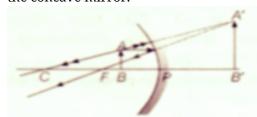
v.		Cathode	Anode	Electrolyte
	(b)	Spoon	Pure silver	Aqueous silver nitrate

#### **Section B**

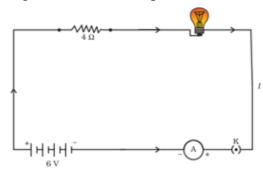
21. Arteries carry blood from the heart to various organs of the body under high pressure so they have thick and elastic walls. Veins collect the blood from different organs and bring it back to the heart. The blood is no longer under great pressure so the walls are thin with valves to ensure that blood flows only in one direction.

The swelling of guard cells due to osmosis of water causes opening of stomatal pores while shrinking of guard cells closes the pores. Opening and closing of stomata occurs due to turgor changes in guard cells. When guard cells are turgid, stomatal pore is open while in flaccid conditions, the stomatal aperture closes.

- 22. 1) DNA copying provides cellular apparatus in the daughter cells.
  - 2) DNA in daughter cells will be able to control the functioning of daughter cells.
  - 3) DNA copies will retain the traits.
- 23. i.  $\text{CH}_3\text{-}CH_2 CH_2\text{-}$  COOH ii.  $H_3C-C \equiv CH$  Propyne
  - iii.  $H_3C-OH$  Methanol
- 24. i. Base B is sodium hydroxide (NaOH).
  - ii. When B is treated with an acidic oxide, then neutralization reaction occurs producing salt and water.
  - iii.  $2NaOH(s) + CO_2(g) \longrightarrow Na_2CO_3(s) + H_2O(l)$  Sodium hydroxide Carbon dioxide (Acidic oxide) Carbon carbonate (Salt) Carbon Carbon dioxide Carbon
- 25. When the image formed is virtual, erect and enlarged then object should be placed between focus and pole of the concave mirror.



26. Figure: An electric lamp connected in series with a resistor of 4  $\Omega$  to a 6 V battery.



a. The resistance of electric lamp, R1 =  $20 \Omega$ ,

The resistance of the conductor connected in series,  $R2 = 4 \Omega$ .

Then the total resistance in the circuit R = R1 + R2 Rs =  $20 \Omega + 4 \Omega = 24 \Omega$ .

The total potential difference across the two terminals of the battery V = 6 V.

- b. Now by Ohm's law, the current through the circuit is given by I = V/Rs = 6 V/24  $\Omega$  = 0.25 A.
- 27

OR

28. Resistance of heater coil,

$$R = \frac{V^{2}}{P}$$

$$= \frac{(200)^{2}}{100}$$

$$= \frac{200 \times 200}{100}$$

$$= 400\Omega$$

As the coil is cut into two identical parts, resistance of each part=  $\frac{400}{2}$  =  $200\Omega$ 

When connected in parallel, the net resistance is given by

$$\frac{1}{R_p} = \frac{1}{200} + \frac{1}{200}$$

$$\Rightarrow \frac{1}{R_p} = \frac{2}{200}$$

$$\therefore R_p$$
 =  $100\Omega$ 

Energy liberated = P imes t

$$= \frac{V^2}{R} \times t = \frac{(200)^2}{100} \times 1$$
  
= 400I

- .: Energy liberated per second in the new combination is 400J
- 29. refer NCERT TEXTBOOK
- 30. When  $CaCO_3$  (marble )reacts with dil. HCl (Hydrochloric acid) then  $CO_2$  gas evolved as shown by chemical reaction

$$CaCO_3(s) + 2HCl(ag) \rightarrow CaCl_2(ag) + H_2O(l) + CO_2(g)$$

When this gas is evolved and is passed through Ca(OH)<sub>2</sub>(lime water)It becomes milky due to the formation of insoluble Calcium carbonate( CaCO<sub>3</sub>)

$$\mathrm{Ca}(\mathrm{OH})_2 + \mathrm{CO}_2(\mathrm{g}) o \mathrm{CaCO}_3(\mathrm{s}) + \mathrm{H}_2\mathrm{O}(\mathrm{l})$$

But milkiness disappears i.e. when  $CO_2$  gas is passed in excess through  $CaCO_3$  (s), soluble calcium bi carbonate is formed

$$\mathrm{CaCO_3(s)} + \mathrm{CO_2(g)} + \mathrm{H_2O(l)} \rightarrow \mathrm{Ca(HCO_3)_2(aq)}$$

31. a. The electronic configuration is as shown below:

	k	L	M	N
X =	2	8	2	
Y =	2	8	6	

- b. Both elements X and Y have three shells, so they belong to the **3rd period** of the periodic table.
- c. Electrovalent or ionic bond, as X is a metal (2 valence electron) and Y is a non-metal(6 valence electron).

OR

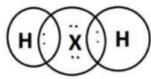
i. The element X belong to 3rd period and group 16 of the modern periodic table. Hence, its atomic number is 16. As 3rd period refers to the 3 number of shells.

Its electronic configuration = 
$$\overset{K}{2}, \overset{L}{8}, \overset{M}{6}$$

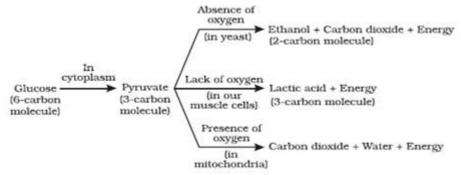
Its valency is 
$$(8 - 6) = 2$$
.

ii. Molecular formula of the compound X with hydrogen is H<sub>2</sub>X.

Its electron dot structure is as follows:



- iii. Name of the element X is sulphur(S) it lies below oxygen in the modern periodic table. It is a non-metal, as it is present at extremely left side of the modern periodic table and has tendency to gain electron thus, have electronegative behaviour.
- 32. -----
- 33. -----
- 34. The breakdown of glucose can be shown by following diagram:



In all organisms, a molecule of glucose (6 carbon molecule) is first converted into 2 molecules of pyruvate (3 carbon molecule) in cytoplasm and is termed GLYCOLYSIS.

Further breakdown of pyruvate can take any of three pathways:

In Yeast: In yeast, breakdown of pyruvate take place in absence of oxygen. Due to this, it is called anaerobic

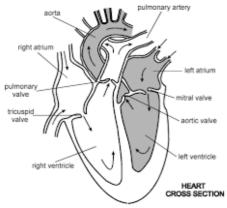
respiration. Pyruvate is broken down into ethanol and carbon dioxide and energy. This process is also named fermentation process.

In muscle cells: During strenuous physical activity, the energy demand from muscle cells suddenly increases. This is compensated by anaerobic respiration in muscle cells. In such a situation, pyruvate is broken down into lactic acid and energy.

In mitochondria: In this case, breakdown of pyruvate takes place in presence of oxygen. Due to this, it is called aerobic respiration. Pyruvate is broken down into carbon dioxide and water and energy. Aerobic respiration occurs in most of the living beings, producing, more ATP as compared to other process of anaerobic respiration.

OR

- i. The oxygenated blood from the lungs comes back to the left atrium through a pair of the pulmonary vein.
- ii. Aorta is the largest blood vessel in our body.
- iii. The right atrium and left atrium separated by the atrial septum. The right and left ventricle separated by the ventricular septum.
- iv. The pulmonary artery is the blood vessel that carries blood from the heart to the lungs The sectional view of the human heart is as follows:



- 35. As per NCERT
- 36. The activity to demonstrate that a current-carrying conductor experiences a force perpendicular to its length and the external magnetic field can be explained as follows:

Activity: To show the effect of magnetic field on a current-carrying conductor

Materials Required: For this, we need to take a small aluminum rod, a horseshoe magnet, battery, plug key, wires, and a stand.

- i. Suspend an aluminum rod horizontally from the stand and two wires at the ends of it are tied. The wires are connected to a Rheostat, battery and a key so that a circuit is completed,
- ii. Place a horseshoe magnet in such a manner that the aluminum rod is between the poles of a magnet.

Assume that the above the aluminum rod is South pole of the magnet and below, the north pole of the magnet. Insert the plug key and current is supplied to the rod.

Observation: the aluminum rod is deflected towards the left direction

On changing the direction of the current, the rod is deflection in the right direction.

Hence, it demonstrates that a current-carrying conductor experiences a force perpendicular to its length and the external magnetic field

The direction of the magnetic field can find out with the help of Fleming's left-hand rule. Let current is moving in an anticlockwise direction, then the direction of the magnetic field will be in clockwise direction i.e. at the top of the loop whereas vice-versa in case of the clockwise direction of the current.

OF

The word "electromagnetic" is related to the interrelation between electric current I and magnetic field B. While "Induction" is the process of giving rise to something. So the process of generation of an electric current I from magnetic effects B is called electro-magnetic induction.

Three factors which affects the electro-magnetic induction are:

- i. The number of turns in a coil
- ii. The strength of magnet used and
- iii. The speed by which magnet is pushed into the coil.

Fleming's right-hand rule used to determine the direction of induced current. Electric generator is based on the principle of electromagnetic induction.

# ATOMIC ENERGY CENTRAL SCHOOL NO.4 RAWATBHATA

### **CLASS 10 - SOCIAL SCIENCE**

### **Confidence Test 1 (Part A)**

Time Allowed: 31 minutes

1.	Why was the Treaty of Vienna drawn up in 1	815?	[1]
	a) To divide the German Confederation of 39 states	b) To restore the monarchies	
	c) To abolish tariff barriers	d) None of these	
2.	In which treaty Greece was recognised as an	independent nation?	[1]
	a) Treaty of Geneva	b) Treaty of Vienna	
	c) Versailles treaty	d) Treaty of Constantinople	
3.	The leader of the peasants in the Gudem Hill	s of Andhra was:	[1]
	a) Alluri Sitaram Raju	b) Venkata Raju	
	c) Jawahar Lal Nehru	d) Baba Ramchandra	
4.	Which one of the following is not true regard	ding the Gandhi-Irwin Pact of 1931?	[1]
	a) The British government agreed to grant independence	b) The British government agreed to release the political prisoners	
	c) Gandhiji consented to participate in a Round Table Conference	d) Mahatma Gandhiji decided to call off the Civil Disobedience Movement	
5.	Which one of the following method is used to	o break up the force of the wind?	[1]
	a) Multiple cropping	b) Strip cropping	
	c) Contour ploughing	d) Terrace farming	
6.	watching her family members clearing, slash She often helps them in irrigating the fields the nearby spring. She loves the surrounding this little girl has no idea about the declining	e on the outskirts of Diphu in Assam. She enjoys ning and burning a patch of land for cultivation. with water running through a bamboo canal from gs and wants to stay here as long as she can, but g fertility of the soil and her family's search for the type of farming Rinjha's family is engaged	[1]
	a) Commercial Farming	b) Plantation Farming	
	c) Intensive Subsistence Farming	d) Jhumming Farming	
7.	What is the correct meaning of agglomeration		[1]
	<ul> <li>a) Many industries tend to come together to make use of the</li> </ul>	b) Many industries set up in rural Centers	

**Maximum Marks: 16** 

	c) Industries are basically agro-based	d) Industries set up produce raw material for the secondary sector	
8.	The Indian network is the largest in	the world.	[1]
	a) roadways	b) railway	
	c) postal	d) waterways	
9.	Name the headquarters of the European Uni	on.	[1]
	a) Brussels	b) Amsterdam	
	c) London	d) Germany	
10.	is the political head of the municipal	lity.	[1]
	a) District Collector	b) Panch	
	c) Municipal chairperson	d) Sarpanch	
11.	Which party accepts parliamentary democraworking class, farmers, and the poor?	acy as a means of promoting the interests of the	[1]
	a) Communist Party of India	b) Indian National Congress	
	c) Communist Party of India - Marxist	d) Bhartiya Janta Party	
12.	On which counts the record of democracion	es is not impressive?	[1]
	I. It is attentive to the needs and demands o	f the people.	
	II. It is largely free of corruption.		
	III. It improves the quality of decision making	g.	
	IV. It is accountable and responsive.		
	Choose the correct one from the given.		
	a) Only III	b) III and IV	
	c) I and II	d) I, II and III	
13.	Limitation of per capita income criteria migl	nt be due to:	[1]
	<ul><li>a) Increase in the number of poor population</li></ul>	b) Increase in income of rich	
	c) Increase in income of the poor	d) Increase in the number of rich people	
14.	How can we generate employment in urban	areas?	[1]
	a) Setting up a flour mill	b) Opening a cold storage	
	c) Setting up an agricultural bank	d) Promoting tourism	
15.	Identify the incorrect option from the given	statement:	[1]
	<ul><li>a) Collateral is an asset that the lender owns and uses this as a guarantee to a lender until the loan is repaid.</li></ul>	<ul> <li>b) Property such as land titles, deposits with banks, livestock are collateral used for borrowing.</li> </ul>	

advantages offered by urban centers

- c) Interest rate, collateral and documentation requirement, and the mode of repayment together comprise what is called the terms of credit.
- d) If the borrower fails to repay the loan, the lender has the right to sell the asset or collateral to obtain payment.
- 16. To achieve the objective of globalisation, the Government of India during the 1990s allows which of the following?
  - a) Convertibility of Indian currency into dollar only
  - c) Partial Convertibility of Indian currency
- b) Convertibility of Indian currency into pound sterling only
- d) Full Convertibility of Indian currency

[1]

# ATOMIC ENERGY CENTRAL SCHOOL NO.4 RAWATBHATA

#### **CLASS 10 - SOCIAL SCIENCE**

#### **Confidence Test 1 (Part B)**

#### Time Allowed: 2 hours and 30 minutes

**Maximum Marks: 64** 

1. Outline the features of Vienna Treaty.

[3]

OR

Explain the three features of the class of landed aristocracy of Europe.

2. How did nationalism and the idea of nation-state emerge? Describe.

[5]

OR

Describe any five measures introduced by the French Revolutionaries to create a sense of collective identity amongst the French people.

#### 3. Read the source given below and answer the questions that follow:

[4]

The first clear expression of nationalism came with the French Revolution in 1789. France was a full-fledged territorial state in 1789 under the rule of an absolute monarch. The political and constitutional changes that came in the wake of the French Revolution led to the transfer of sovereignty from the monarchy to a body of French citizens. The revolution proclaimed that it was the people who would henceforth constitute the nation and shape its destiny. From the very beginning, the French revolutionaries introduced various measures and practices that could create a sense of collective identity amongst the French people. The ideas of La Patrie and Le Citoyen emphasised the notion of a united community enjoying equal rights under a constitution. A new French flag, the tricolour, was chosen to replace the former royal standard. The Estates-General was elected by the body of active citizens and renamed the National Assembly. New hymns were composed, oaths taken and martyrs commemorated, all in the name of the nation. A centralized administrative system was put in place and it formulated uniform laws for all citizens within its territory. Internal customs duties and dues were abolished and a uniform system of weights and measures was adopted. Regional dialects were discouraged and French became the common language of the nation.

#### Answer the following MCQs by choosing the most appropriate option:

- i. What was the major change that occurred in the political and constitutional scenario due to the French Revolution in Europe?
  - a. Transfer of sovereignty from a body of French citizens to the monarchy
  - b. Establishment of the Congress of Vienna
  - c. Establishment of Custom Union
  - d. Transfer of sovereignty from the monarchy to a body of French citizens
- ii. Mention the proclamation of the French Revolution.
  - a. The French people would constitute the nation and shape its destiny
  - b. The monarchy would constitute the nation and shape its destiny
  - c. The absolutist would constitute the nation and shape its destiny

- d. The Napolean would constitute the nation and shape its destiny
- iii. Which of the following is incorrect with respect to "measures and practices which created a sense of collective identity"?
  - a. The Estates-General was elected by the body of active citizens
  - b. New hymns were composed and oaths were taken
  - c. Regional dialects were discouraged
  - d. A new royal standard flag was chosen to replace the tricolor French flag
- iv. Which one of the following types of government was functioning in France before the revolution of 1789?
  - a. Dictatorship
  - b. Military
  - c. Body of French Citizen
  - d. Monarchy
- 4. Mention three main proposals with reference to the Non-Cooperation Movement, as suggested [3] by Mahatma Gandhi?
- 5. Critically examine the reasons of conflict between the Congress and the Muslim League. Why did the Muslim League fail to respond to the call of United Struggle during the Civil Disobedience Movement?
- 6. Study the picture and answer the question that follows:



Indian workers in South Africa march through Volksrust on 6th November 1913. Who was leading them?

Read the extract given below and answer the questions that follow:

a) Mahatma Gandhi

8.

b) Subhash Chandra Bose

c) Pt. Jawaharla Nehru

- d) Lala Lajpat Rai
- 7. How can the land be saved from degradation?

[3] [4]

[2]

**Tea:** Tea cultivation is an example of plantation agriculture. It is also an important beverage crop introduced in India initiative by the British. Today, most of the tea plantations are owned by Indians. The tea plant grows well in tropical and sub-tropical climates endowed with deep and fertile well-drained soil, rich in humus and organic matter. Tea bushes require a warm and moist frost-free climate all through the year. Frequent showers evenly distributed over the year ensure continuous growth of tender leaves. Tea is a labor-intensive industry. It requires abundant, cheap and skilled labour. Tea is processed within the tea garden to restore its freshness. Major tea-producing states are Assam, hills of Darjeeling and Jalpaiguri districts,

West Bengal, Tamil Nadu and Kerala. Apart from these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura are also tea-producing states in the country. In 2016 India was the second-largest producer of tea after China.

**Coffee:** Indian coffee is known in the world for its good quality. The Arabica variety initially brought from Yemen is produced in the country. This variety is in great demand all over the world. Initially, its cultivation was introduced on the Baba Budan Hills and even today its cultivation is confined to the Nilgiri in Karnataka, Kerala and Tamil Nadu.

#### Answer the following MCQs by choosing the most appropriate option:

- i. What is common between Tea and Coffee?
  - a. They are beverages
  - b. They are plantation crop
  - c. They grow in the hilly region
  - d. All of these
- ii. Which of the following conditions can spoil tea crops?
  - a. Frequent rains widespread throughout the year
  - b. Clayey soil which has a high water-holding capacity
  - c. Deep fertile well-drained soil
  - d. Warm, moist and frost-free climate
- iii. India competes with \_\_\_\_\_ for its \_\_\_\_\_ of tea.
  - a. China, consumption
  - b. Yemen, production
  - c. China, production
  - d. Yemen, consumption
- iv. Taking a hint from the given picture identify what are these women engaged in?



- a. Sowing the tea and coffee seeds
- b. Plucking coffee beans
- c. Pruning tea bushes
- d. Plucking tea leaves
- 9. Find out places linked by the National Highways 2 and 3.

[3] [5]

10. 'Railways are the principal mode of transportation in India'. Explain.

OR

Describe the physical and economic factors that influenced the distribution pattern of the Indian Railways network.

11. Read the extract given below and answer the questions that follow:

[4]

Two different sets of reasons can be given in favour of power-sharing. Firstly, power-sharing

is good because it helps to reduce the possibility of conflict between social groups. Since social conflict often leads to violence and political instability, power-sharing is a good way to ensure the stability of political order. Imposing the will of the majority community over others may look like an attractive option in the short run, but in the long run, it undermines the unity of the nation. The tyranny of the majority is not just oppressive for the minority; it often brings ruin to the majority as well. There is a second, deeper reason why power sharing is good for democracies. Power-sharing is the very spirit of democracy. A democratic rule involves sharing power with those affected by its exercise, and who have to live with its effects. People have a right to be consulted on how they are to be governed. A legitimate government is one where citizens, through participation, acquire a stake in the system. The first set of reasons is Prudential and the second is moral. While prudential reasons stress that power-sharing will bring out better outcomes, the former emphasises the very act of powersharing as valuable.

#### Answer the following MCQs by choosing the most appropriate option:

- i. Which reasons help in avoiding conflict in society and preventing majority tyranny?
  - a. Prudential reasons
  - b. Moral reasons
  - c. Financial reasons
  - d. Political reasons
- ii. \_\_\_\_\_ stress that power-sharing will bring out better outcomes, whereas \_\_\_\_\_ emphasise the very act of power-sharing as valuable.
  - a. Moral reasons, Prudential reasons
  - b. Prudential reasons, Moral reasons
  - c. Political reasons, Financial reasons
  - d. Prudential reasons, Political reasons
- iii. Complete the given table by choosing a suitable option

Prudential Reasons	Moral Reasons
1. It is based on a careful calculation of gains and losses	1. It is purely based on moral considerations.
2. Example: Reservation of constituencies for women in India.	2. Example: (?)

- a. Decentralisation of powers
- b. Reservation of constituencies for minorities in India
- c. Both a and b
- d. None of these
- iv. Which of the following title best describes the given extract?
  - a. Forms of power-sharing
  - b. Outcomes and Lessons of power-sharing
  - c. Power-sharing is desirable
  - d. None of these
- 12. "Local government's have made a significant impact on Indian democracy. At the same time

there are many difficulties". Explain.

13. Explain merits and demerits of multi-party system.

OR

How has the third tier of the government of our country been made more effective and powerful by the constitutional amendment of 1990?

- 14. Explain the ways in which democracy can be redefined to make democracy more effective.
- 15. Read the extract given below and answer the questions that follow:

Organised sector covers those enterprises or places of work where the terms of employment are regular and therefore, people have assured work. They are registered by the government and have to follow its rules and regulations which are given in various laws such as the Factories Act, Minimum Wages Act, Payment of Gratuity Act, Shops and Establishments Act, etc. It is called organised because it has some formal processes and procedures. Some of these people may not be employed by anyone but may work on their own but they too have to register themselves with the government and follow the rules and regulations. Workers in the organised sector enjoy the security of employment. They are expected to work only a fixed number of hours. If they work more, they have to be paid overtime by the employer. They also get several other benefits from employers. They get paid leave, payment during holidays, provident fund, gratuity, etc. They are supposed to get medical benefits and, under the laws, the factory manager has to ensure facilities like drinking water and a safe working environment. When they retire, these workers get pensions as well. In contrast, the unorganised sector is characterised by small and scattered units which are largely outside the control of the government. There are rules and regulations but these are not followed. Jobs here are low-paid and often not regular. There is no provision for overtime, paid leave, holidays, leave due to sickness, etc. Employment is not secure. People can be asked to leave without any reason. When there is less work, such as during some seasons, some people may be asked to leave. A lot also depends on the whims of the employer. This sector includes a large number of people who are employed on their own doing small jobs such as selling on the

#### Answer the following MCQs by choosing the most appropriate option:

i. Look at the following examples. Which of these are unorganised sector activities?

street or doing repair work. Similarly, farmers work on their own and hire labourers as and

- A. A teacher taking classes in a school
- B. A headload worker carrying a bag of cement on his back in a market
- C. A farmer irrigating her field
- D. A doctor in a hospital treating a patient
- E. A daily wage labourer working under a contractor

#### **Options:**

when they require.

- a. B, D, E
- b. A, B, E
- c. B, C, E
- d. A, B, C
- ii. The employers in the \_\_\_\_\_ sector refuse to follow laws that protect the labour.

[3]

[3]

[4]

- a. unorganised
- b. organised
- c. secondary
- d. tertiary
- iii. Which of the following option best describes the extract?
  - a. Classification of employment
  - b. Classification of unemployment
  - c. Classification of activities in the economy
  - d. Both b and c
- iv. Kamla is a worker working in the organised sector. Which of the following is applicable for Kamla?
  - a. She gets a regular salary at the end of the month
  - b. She got an appointment letter stating the terms and conditions of work when she joins work
  - c. She gets a medical allowance
  - d. all of these
- 16. Why do you think that the formal sources of credit provide loans at reasonable interest rates? [5] OR

Which government body supervises the functioning of formal sources of loans in India? Explain its functioning.

17. How do logos and certification on cover help the consumers to buy standardized products? [3]

#### **Solution**

#### Class 10 - Social Science

#### **Confidence Test 1 (Part A)**

1. **(b)** To restore the monarchies

**Explanation:** Treaty of Vienna of 1815 with the object of undoing most of the changes that had come about in Europe during the Napoleonic wars. (i.e. to restore the monarchies)

2. **(d)** Treaty of Constantinople

**Explanation:** Under the Treaty of Constantinople Greece was identified as an independent nation. This Treaty of Constantinople was a part of the conference of Constantinople of 1832 The two parties involved in this Treaty Britain Russia and France were on one side and on another side was Ottoman Empire.

3. (a) Alluri Sitaram Raju

**Explanation:** In the Gudem Hills of Andhra Pradesh, the colonial government had closed large forest areas, preventing people from entering the forests to graze their cattle, or to collect fuelwood and fruits. This enraged the hill people. Not only were their livelihoods affected but they felt that their traditional rights were being denied. When the government began forcing them to contribute begar for road building, the hill people revolted. Alluri Sitaram Raju came to lead them.

4. (a) The British government agreed to grant independence

**Explanation:** As per Gandhi-Irwin Pact, Gandhiji consented to participate in a Round Table Conference in London and the government agreed to release the political prisoners. In December 1931, Gandhiji went to London for the conference, but the negotiations broke down and he returned disappointed.

5. **(b)** Strip cropping

**Explanation:** Strips of grass are left to grow between the crops. This breaks up the force of the wind. This method is known as strip cropping. It is also used when a slope is too steep or when there is no alternative method of preventing soil erosion. The most common crop choices for strip cropping are closely sown crops such as hay, wheat, or other forages which are alternated with strips of row crops, such as corn, soybeans, cotton, or sugar beets.

6. **(d)** Jhumming Farming

**Explanation:** 'Slash and Burn' is also called as Jhumming agriculture. A patch of land is cleared by slashing the vegetation and then the slashed plants are burnt. The ash; thus obtained is mixed with the soil and crops are grown.

This type of farming produces just enough crops to sustain the family. After a couple of seasons, the patch is left fallow and a new patch of land is prepared for farming. This allows the earlier patch of land to replenish its fertility through the natural process.

- 7. **(a)** Many industries tend to come together to make use of the advantages offered by urban centers **Explanation:** Many industries tend to come together to make use of the advantages offered by the urban centres known as agglomeration economies. Agglomeration economies are the benefits that come when firms and people locate near one another together in cities and industrial clusters. Gradually, a large industrial agglomeration takes place.
- 8. **(c)** postal

**Explanation:** The Indian postal network is the largest in the world. It handles parcels as well as personal written communications.

9. (a) Brussels

**Explanation:** When many countries of Europe came together to form the European Union, Brussels was chosen as its headquarters.

10. (c) Municipal chairperson

**Explanation:** A Municipal Chairperson is the political head of the municipality. He inspects all the records of the municipality and directs the secretary to submit all the records necessary for the inspection by the government.

11. (a) Communist Party of India

**Explanation:** Formed in 1925, the Communist Party of India accepts parliamentary democracy as a means of promoting the interests of the working class, farmers, and the poor.

12. **(c)** I and II

**Explanation:** In substantive terms, it may be reasonable to expect from democracy a government that is attentive to the needs and demands of the people and is largely free of corruption.

13. **(b)** Increase in income of rich

**Explanation:** Per capita income is an average income and this average may not represent the standard of living of the people if the increased national income goes to the few rich instead of giving to the many poor. If income goes to a few rich people this will create more inequality in the country and per capita income will not represent the true standard of living of the people.

14. **(d)** Promoting tourism

**Explanation:** The contribution of tourism to total employment of the Country during 2009-10, 2010-11, and 2011-12 was 10.17%, 10.78%, and 11.49%, respectively. This contribution is increasing day by day and if tourism will be promoted a number of jobs will be provided in the urban areas.

15. **(a)** Collateral is an asset that the lender owns and uses this as a guarantee to a lender until the loan is repaid.

**Explanation:** Collateral is an asset that the borrower owns and uses this as a guarantee to a lender until the loan is repaid

16. **(c)** Partial Convertibility of Indian currency

**Explanation:** Indian government allowed partial convertibility of rupee. Partial convertibility means to buy or sell foreign currency like the dollar or pound sterling, for foreign transactions at a price determined by the market. It is called partial convertibility because it does not cover capital transactions.

#### **Solution**

#### Class 10 - Social Science

#### **Confidence Test 1 (Part B)**

1. The treaty of Vienna was drawn up in 1815 at Vienna, Austria. For this treaty the representatives of European Powers-Russia, Britain, Prussia and Austria who had collectively defeated Napoleon, met at Vienna. The meeting was hosted by the Austrian Chancellor Duke Metternich. The objective of Vienna Congress was undoing most of the changes that had come about in the Europe during the Napoleonic War.

OR

During the mid-eighteenth century, a landed aristocracy was dominant class in Europe both politically and socially.

- i. The members of this landed aristocracy were united by a common way of life that cut across regional division.
- ii. They owned huge properties both in rural and urban areas.
- iii. Their families were tied together by matrimonial relations and they wielded much power in their respective countries.
- 2. i. Nationalism and the idea of the nation-state emerged within the culturally and regionally diverse groups of Europe.
  - ii. Socially and politically, a landed aristocracy was the dominant class on the continent. The members of this class were united by a common way of life that cut across the regional division. They spoke French for the purpose of diplomacy and in high society.
  - iii. Due to industrialisation and transformation of society, there emerged a middle-class consisting of businessmen, working professionals, industrialists, labourers and working-class people.
  - iv. Industrialisation began in England in the second half of the 18<sup>th</sup> century but in France and German states, it occurred only during 19<sup>th</sup> century. In its wake, new social groups came into being.
  - v. Out of these, the educated middle-class people thought of uniting the culturally compatible sections of people in Europe by abolishing the privileges enjoyed by the aristocracy.
  - vi. It was among the educated liberal middle class that ideas of national unity and abolition of aristocratic privileges gained popularity.
  - vii. Nations began to be perceived as having a definite territory, anthem, and flag, together with a Parliament which was elected by property-owning men of the middle class.
- viii. This led to nationalism and emergence of the idea of the nation-state.

OR

Measures introduced by the French Revolutionaries to create a sense of collective identity:

- i. The first clear expression of nationalism came with the French Revolution of 1789.
- ii. The ideas of la Patrie (the fatherland) and le Citoyen (the citizen) emphasized.
- iii. The notion of a united community enjoying equal rights under a constitution.
- iv. A new French flag, the tricolor, was chosen to replace the former royal standard.
- v. The Estate General was elected by the body of active citizens and renamed the National Assembly.
- vi. New hymns were composed, oaths taken and martyrs commemorated, all in the name of nation.
- vii. A centralised administrative system was put in place and it formulated uniform laws for all citizens within its territory. Internal customs duties and dues were abolished and a uniform system of weights and measures was adopted
- 3. i. (d) Transfer of sovereignty from the monarchy to a body of French citizens
  - ii. (a) The french people would constitute the nation and shape its destiny
  - iii. (d) A new royal standard flag was chosen to replace the tricolor French flag
  - iv. (d) Monarchy
- 4. Gandhiji proposed that the movement should unfold in stages.

#### Gandhiji suggested three main proposals as follows:

- i. Movement unfolds in many stages. Surrender of titles that the government awarded.
- ii. A boycott of civil services, army, police, courts by lawyers and legislative councils, schools by teachers and students and foreign goods.

- iii. In case the government used repression, a full civil disobedience campaign would be launched.
- 5. The important differences between the Congress and the Muslim League were over the question of representation of Muslims in the future assemblies that were to be elected. Suspicion and distrust between the two communities was also a major reason.
  - i. Muslim leaders were concerned about the minority status of Muslims in India. Negotiations over the question of representation continued but all hopes of resolving the issue at the All Party Conference disappeared when Mr. R. Jayakar of Hindu Mahasabha strongly opposed efforts at compromise. So when Civil Disobedience began, there was an atmosphere of distrust and suspicion among the communities and the Muslim response was lukewarm.
  - ii. The Congress had become visibly associated with the Hindu nationalist groups like the Hindu Mahasabha. Alienated from Congress, large sections of the Muslims failed to respond to the call of a united struggle.
  - iii. The Muslims feared that the culture and identity of the minorities would be submerged under the domination of a Hindu majority.
  - iv. The relations between Hindus and Muslims worsened as each community began organising religious processions.
  - v. In 1927 the Congress and Muslim League tried to negotiate a compromise, but some important differences remained unsolved.
- 6. (a) Mahatma Gandhi

**Explanation:** Mahatma Gandhi was leading the workers from Newcastle to Transvaal. When the marchers were stopped and Gandhiji arrested, thousands of more workers joined the satyagraha against racist laws that denied rights to non-whites.

- 7. i. After deforestation, afforestation can be done.
  - ii. Proper management of grazing can be done.
  - iii. Shelter belts can be planted to save the land from degradation.
  - iv. Stabilisation of sand dunes by growing thorny bushes are some of the methods to check land degradation.
  - v. Proper discharge and disposal of industrial effluents and wastes after treatment can reduce land and water degradation in industrial and suburban areas.
- 8. i. (d) All of these
  - ii. (b) Clayey soil which has a high water-holding capacity
  - iii. (c) China, production
  - iv. (d) Plucking tea leaves
- 9. **National Highway 2:** runs from Delhi to Kolkata via. Faridab -Mathura -Agra Kanpur Allahabad Mughalsarai Mohania Sasaram Aurangabad Barhi Dhanbad Asansol Durgapur .

**National Highway 3:** runs from Agra to Mumbai via. Dholpur - Gwalior - Shivpuri - Indore - Mhow - Dhule - Nasik - Bhiwandi - Thane.

- 10. Railways are the principal mode of transportation for freight and passengers in India. There are various reasons behind it.
  - i. At first place, Railways also make it possible to conduct multifarious activities like business, sightseeing, and pilgrimage along with transportation of goods over longer distances.
  - ii. Apart from an important means of transport the Indian Railway has been great integrating force for more than 150 years.
  - iii. Railways in India bind the economic life of the country as well as accelerate the development of the industry and agriculture.
  - iv. The Indian Railways have a network of 7,031 stations spread over a route length of 63,221 km. with a fleet of 7817 locomotives, 5321 passenger services vehicles, 4904 other coach vehicles and 228,170 wagons as on 31 March 2004.

OR

### The distribution pattern of the Railway network in the country has been largely influenced by the physiographic, economic factors:

i. The northern plains with their vast level land, high population density and rich agricultural resources provided the most favourable condition for their growth. However, a large number of rivers requiring construction of bridges across their wide beds posed some obstacles.

- ii. In the hilly terrains of the peninsular region, railway tracts were laid through low hills, gaps or tunnels. The Himalayan mountainous regions too were unfavourable for the construction of railway lines due to high relief, sparse population and lack of economic opportunities.
- iii. Likewise, it was difficult to lay railway lines on the sandy plain of western Rajasthan, swamps of Gujarat, forested tracks of Madhya Pradesh, Chhattisgarh, Orissa, and Jharkhand.
- iv. The peninsular plateau region is also rich in mineral resources. As a result, railway tracks are spread over this region.
- v. The industrial region of the country is directly linked with the railways as well.
- 11. i. (a) Prudential reasons
  - ii. (b) Prudential reasons, Moral reasons
  - iii. (a) Decentralisation of powers
  - iv. (c) Power-sharing is desirable

#### 12. Impact of local self government on Indian democracy:

- i. Constitutional status for local government has helped to deepen democracy.
- ii. It has increased women's representation and voice in our democracy.
- iii. Local government goes right upto the district level

#### **Difficulties:**

- i. Gram sabhas are not held regularly.
- ii. Most state governments have not transferred significant powers to local government.
- iii. State governments do not provide adequate resources.
- iv. Elections to these local bodies are not held regularly.

We are still a long way in realising the ideal of self government.

#### 13. **Merits:**

- i. Multi-party system allows a variety of opinions and interests to enjoy political representation.
- ii. In this system people get a chance to make a smart and responsible choice between several candidates.

#### **Demerits:**

- i. This system often becomes very messy.
- ii. This multi-party system may sometimes lead to political instability.

OR

- i. The basic idea behind decentralisation is that there are a large number of problems and issues which are best settled at the local level.
- ii. People have better knowledge of the problems in their own localities.
- iii. Regular elections are held for the local government bodies at the level of village, block, district, towns and cities.
- iv. Seats are reserved for Scheduled Castes, Scheduled Tribes and other backward classes to ensure their participation. One-third of the seats are reserved for women.
- v. These local bodies generate their own revenue. Besides, the state governments are required to share some powers and revenues with local government bodies.
- 14. Democracy can be redefined to make it more effective, by the following ways:
  - a. In democracy, the views of minorities should be respected and their needs and demands should not be overlooked by the majority.
  - b. In a democracy, there should not be any discrimination based on caste, religion and gender.
  - c. In a democracy, people should have enough freedom and opportunity to enjoy their socio-economic rights. People's right should be given full respect. People should enjoy extensive rights from right to vote to participate in general elections.
- 15. i. (c) B, C, E
  - ii. (a) unorganised
  - iii. (c) Classification of activities in the economy
  - iv. (d) all of these
- 16. i. Formal sources of credit work according to the norms of Reserve Banks of India.
  - ii. The RBI monitors that the banks provide loans not just to the profit-making businessmen and traders, but also to small cultivators, small scale industries, to small borrowers etc.

- iii. Rates of interest are fixed by RBI according to the instructions given by central government. Who works to facilitate to poor farmers and small businessman.
- iv. The formal sources to provide loan at low interest rate because people can increase their income and help them in the overall development of the country.
- v. Low interest rate helps the poor people to increase their economic condition.

OR

The Reserve Bank of India supervises the functioning of formal sources of credit in India. It is the central bank of India.

Reserve Bank of India supervises the functioning of banks in the following ways:

- The RBI monitors that the banks actually maintain a minimum cash balance out of the deposits they receive. Banks in India these days, hold about 15 percent of their deposits as cash.
- Similarly, the Reserve Bank of India ensures that the banks give loans not just to profit-making businesses and traders but also to small cultivators, small scale industries, small borrowers etc.
- Periodically, banks have to submit information to the Reserve Bank of India on how much they are lending, to whom, at what interest rate etc.
- 17. The logos and certification on cover help consumers get assured of the quality while purchasing the goods and services because these are issued by the government organizations. The organizations that monitor and issue these certificates allow producers to use their logos provided if they follow certain quality standards. For some products that affect health and safety of consumers or of products of mass consumption like LPG cylinders, food colours and additives, cement packaged drinking water, it is mandatory on the part of the producers to get goods certified by government organizations