

COMPILED HOLIDAY HOMEWORK CLASS - 12 (2023- 24)

CHEMISTRY :

PREPARATION OF INVESTIGATORY PROJECT AND PRACTICAL FILE

PRACTICALS

(a) **Investigatory project** : Prepare the project based on the topics allotted systematically with observation and result (follow all the instructions as directed)

LIST OF TOPICS FOR CHEMISTRY INVESTIGATORY PROJECT

1. Sterilization of water using bleaching powder
2. Analysis of fertilizer
3. Chemistry in black and white photography
4. Presence of oxalate ions in guava fruit and different stages of ripening
5. Effect of Potassium Bisulphate as a food preservative
6. Quantity of the presence of casein in different samples of milk
7. Extraction of various essential oils present in Ajwain (Carum), Illaichi (Cardamom) and Saunf (Fennel Seeds)
8. Effects of Dye on different types of fabric
9. Comparative study of the rate of fermentation in the following substances- potato juice, wheat flour, carrot juice, gram flour, etc.
10. Common food adulterants in fat, butter, oil, turmeric powder, pepper, chilli powder, sugar, etc.
11. Comparing Lactose Percentage between Whole Milk and Powdered Milk
12. Measure the amount of acetic acid in vinegar
13. Determination of contents in cold drinks
14. Invisible Ink: Modeling A Molecular Switch
15. Red Cabbage pH paper
16. Investigation Of Foaming Capacity Of Different Washing Soap
17. Acid vs. Teeth
18. Analysis Of Honey
19. To Prepare a Smoke Bomb
20. Investigation Of Foaming Capacity Of Different Washing Soap

(b) **Practical file** : Write all the experiment of volumetric analysis and salt analysis .

PHYSICS :

Two separate files are to made in Physics.

1. Experiment file (Thick file)

2. Activity file (Thin file)

🌀 Kindly complete the activity file from the comprehensive lab manual as it is without mentioning the date.

🌀 No Observation table is to be made for the activity.

🌀 On the top of the page in the centre Activity 1, Activity 2, and so on has to be written, no matter whatever is the number mentioned in the lab manual.

***Also one project file has to be made other than experiment and activities are given above.**

LIST OF TOPICS FOR PHYSICS PROJECT

1. Gauss's Theorem
2. Equipotential Surfaces
3. Capacitors
4. Internal resistance
5. Wheatstone Bridge
6. Moving Coil Galvanometer
7. Earth's Magnetism
8. Magnetic properties of materials
9. Electromagnetic Induction
10. A C Generator
11. Transformer
12. Electromagnetic Spectrum
13. Optical Fibres
14. Optical Instruments
15. Huygen's Principle
16. Photoelectric effect
17. Semiconductor diodes

All the children are requested to select the topic of their choice out of the topics given above. Not more than 4 students can choose the same topic. So, after choosing the topic, children are requested to inform me in my personal desk to get the approval. The selection of the topics should be done before 30th April. Once you get the approval, you can select the contents to be written.

Project should be prepared in A4 size ruled sheets. Project should be prepared under the following headings:

- * Cover Page
- * Certificate
- * Acknowledgement
- * Index
- * Introduction to the topic
- * Principle
- * Theory
- * Applications
- * Advantages
- * Disadvantages

- Circuit diagrams/ Pictures related to the relevant topic should be added to the project.
- The whole project work should be compiled within 15 pages.
- Cover Page, Acknowledgement and Certificate should be printed.
- Rest all the pages should be hand written

Cover Page Cover Page should contain the following informations:

- ❖ Name of school
- ❖ Session
- ❖ Monogram of the School
- ❖ Physics Project
- ❖ Topic of the Project
- ❖ Submitted to : Mrs. RENUKA SURESH
- ❖ Submitted by : (Your name)
- ❖ Class and Section
- ❖ Board Roll No (leave it blank). Once you get it , you will enter)

Note : Topic related background can be added on to the cover page in light shade

CERTIFICATE After the contents of the certificate, following informations are necessary in the given format:

External's Signature

Internal's Signature

Principal's Signature

School Seal

Note: All of you need to submit your project on 27th June 2023 in a transparent stripped file. Once it is checked and approved it would be returned back. Then it has to be spiral binded after correcting the given remarks.

BIOLOGY :

- a) **Investigatory project** : Prepare the investigatory project (as per the topic allotted to you). b) Start collecting the matter related to MINI PROJECT ON RTPCR.

PHYSICAL EDUCATION :

Prepare Units

1 Management of sporting Events.

1)Various committees & their responsibilities. Pre,During & post.

2) Fixtures and its procedure.

3) Knockout tournament

5) League or Round Robin tournament.

- 6) Draw the fixture of Knockout tournament. Teams:20,17,15 ,21,25
- 7) Draw the fixture of League tournament. Cyclic method. Teams :7,5,6,8,9
- 8) League tournament Staircase method. Teams : 8,6,5,9,7.

Practical:

- 1)Practice of physical fitness Test.
- 2) skills practice (According to your game)

BUSINESS STUDIES :

(A) The following list of project topics have been given to you by CBSE. You need to select any one topic out of four and finalize.

- (B) Principles of Management (
- C) Business Environment
- (D) Marketing Management
- (E) Stock Exchange

Each student will prepare and submit his/her project and are required to fulfill the following essentials:-

- 1. The project will be of 25 to 30 pages.
- 2. The project should be handwritten.
- 3. The project should be presented in a neat folder.
- 4. T the project report should be developed in the following sequence
 - a. Cover page should include the title of the project student information School and year
 - b. List of contents
 - c. Acknowledgement and preface
 - d. Introduction
 - e. Topic with suitable heading
 - f. Activities done during the project
 - g. Observation and findings of the visit
 - h. Conclusions(summarised suggestions or findings, future scope of study.)
 - i. Photographs
 - j. Bibliography

The authority letter from the school for the topic Principles of Management is to be collected, if you plan for industrial visit as discussed in the class.

(B) Chapter 1 Nature and significance of management has to be studied with all important key points.

COMPUTER SCIENCE :

Solve 5 HOTS questions + 2 programs in your self-study register, from Class XI CS Syllabus, covering the following topics, for 40 days:-

- 1. If-elif-else construct
- 2. While loop
- 3. for item in collection construct

- 4. for in range construct
- 5. lists
- 6. tuples
- 7. dictionary
- 8. strings
- 9. functions
- 10. python user libraries

Total no. of questions expected :- $5+2 = 7$ questions per day $\Rightarrow 7*40 = 280$ question

ACCOUNTANCY:

PREPARATION OF PRACTICAL FILE FOR ACCOUNTANCY PRACTICALS

- a) **Comprehensive project** : Practical question on accounting process
(Need to take 30 transactions assuming a business organization and preparation of journal, ledger, trial balance and financial statements.
- b) **Ratio Analysis** : Analysis of financial statements of any registered company (Students need to collect the annual report of any company for vertical balance sheet and profit and loss A/c and analysis there on)
- c) **Cash flow statement** : Preparation of cash flow statement (Students need to use annual report of the company especially the balance sheet and profit and loss A/c of the company as a reference for making the cash flow statement)

ENGLISH CORE-XII

READING COMPREHENSION

PART A

- I. **Multiple Choice questions based on one unseen case-based factual passage with verbal/visual inputs like statistical data, charts, newspaper report etc. Ten out of eleven questions to be done.**

PASSAGE 1

Read the passage carefully:

1. When plastic waste is burnt, a complex weave of toxic chemicals is released. Breaking down Poly Vinyl Chloride, (PVC) is used for packaging, toys and coating electrical wires. It produces dioxin, an organochlorine which belongs to the family of Persistent Organic Pollutants (POPs). A recent Dioxin Assessment Report brought out by the United States Environment Protection Agency (USEPA) says the risk of getting cancer from dioxin is ten times higher than reported by the agency in 1994.

2. Yet the Delhi government is giving the green signal to a gasification project which will convert garbage into energy without removing plastic waste. Former transport minister Rajendra Gupta, the promoter of this project, says this is not necessary. He claims no air pollution will be caused and that the ash produced can be used as manure. An earlier waste-to-energy project set-up in Timarpur

failed. The new one, built with Australian assistance, will cost 200 crore. It will generate 25 megawatts of power and gobble 1,000 tonnes of garbage every day.

3. "Technologies like gasification are a form of incineration," says Madhumita Dutta, **coordinator with Toxics Link, New Delhi. Incineration merely transfers hazardous waste from a solid form to air, water and ash, she points out.** Toxins produced during incineration include acidic gases, heavy metals as well as dioxins and furans. "The manure will be hazardous problem to dispose," says Dutta.

4. Municipal solid waste contains a mix of plastics. Breaking down this waste emits hydrochloric acid which attacks the respiratory system, skin and eyes, resulting in coughing, vomiting and nausea. Polyethylene generates volatile compounds like formaldehyde and acetaldehyde, both suspected carcinogenic. Breathing styrene from polystyrene can cause leukaemia. Polyurethane is associated with asthma. Dioxin released by PVC is a powerful hormone disrupter and causes birth defects and reproductive problems. There is no threshold dose to prevent it and our bodies have no defence against it.

5. "Even the best run incinerators in the world have to deal with stringent norms apart from contaminated filters and ash, making them hugely expensive to operate," says Dutta. In Germany, air pollution devices accounted for two-thirds the cost of incineration. Despite such efforts, the European Dioxin Inventory noted that the input of dioxin into the atmosphere was the highest from incineration.

6. How has global plastic waste disposal method changed over time? In the chart, we see the share of global plastic waste that is discarded, recycled or incinerated from 1980 through to 2015.

Prior to 1980, recycling and incineration of plastic was negligible; 100 percent was therefore discarded. From 1980 for incineration and 1990 for recycling, rates increased on average by about 0.7 percent per year. In 2015, an estimated 55 percent of global plastic waste was discarded, 25 percent was incinerated and 20 percent recycled.

7. "India does not have the facility to test dioxin, the cost of setting one up is prohibitively expensive," says Dutta. Besides, Indian garbage has a low calorific value of about 800 cal/kg, since it has high moisture and requires additional fuel to burn. Toxics link calculates that the electricity generated from such technology will cost between 5-7 per unit, which is six times higher than conventional energy. India has chosen a dioxin preventive route and burning of chlorinated plastics is prohibited under Municipal Solid Waste and Biomedical Rules. Nearly 80 percent of Indian garbage is recyclable or compostable. Resident associations, the informal sector and the municipal corporation can make Delhi's garbage disappear in a sustainable manner. Instead the government promotes end of pipeline solutions," says Dutta.

On the basis of your understanding of the passage, answer any ten of the following questions by choosing the most appropriate option:

- (a) Dioxine causes.....
(i) cancer
(ii) heart attack
(iii)hypertension
(iv) sickness

(b) Which statements are NOT TRUE according to the passage?

1. India has adopted a preventive measure under which burning of chlorinated plastics is prohibited.
2. USEPA says that the risk of getting cancer from dioxin is hundred times higher than reported by the agency in 1994.
3. Incineration merely transfers hazardous waste from a solid form to air, water and ash.
4. Hydrochloric acid attacks the digestive system, nose and eyes which results in diabetes and nausea.

(i) 2 and 4 (ii) 1 and 3 (iii) 3 and 4 (iv) 1 and 2

(c) Garbage can be converted into energy by

- (i) gasification (ii) gratification (iii) a chemical process (iv) incinators

(d) Based on the graphical chart in the passage, chose the option that correctly states the ratio between discarded waste to recycled global plastic waste in 2015.

(i) option 1 (ii) option 2 (iii) option 3 (iv) option 4

(e) Before 1980, how much global plastic waste was discarded?

(i) 40% (ii) 60% (iii) 80% (iv) 100%

(f) Based on the given graphical representation of data in the passage, choose the option that lists the statements that are TRUE.

1. In the year 2015, the incinerated plastic waste disposal was 80%.
2. In the year 1980, share of discarded plastic waste was 100%.
3. Discarded plastic waste was 60% in the year 2010.
4. Recycled plastic waste in the year 2000 was less than 70%. (i) 1 and 3

(ii) 2 and 3 (

iii) 1 and 4

(iv) 3 and 4

(g) Former transport minister Rajendra Gupta claims that during gasification, ash produced can be used as.....

(i) fuel (ii) manure (iii) pesticide (iv) none of these

(h) Converting waste to energy project will consume how much energy? (

i) 20 megawatts (ii) 200 megawatts

(iii) 250 megawatts (iv) 25 megawatts

(i) By 2015, how much global plastic waste has been incinerated?

(i) 55% (ii) 25% (iii) 20% (iv) 0.7%

Which word in the passage means the same as waste material ? (Para 2)

(i) gasification (ii) garbage (iii) pollution (iv) manure

(k) Arrange the sentences in the order in which they occurred year wise.

1. From 1980, rates increased on average by about 0.7 percent per year for incineration.
2. 20 percent waste was recycled in 2015.
3. Prior to 1980, recycling and incineration of plastic was negligible.
4. In 2015, an estimated 55 percent of global plastic waste was discarded.

(i) 2, 1, 4, 3

(ii) 4, 2, 3, 1

(iii) 1, 3, 4, 2

(iv) 3, 1, 4, 2

PASSAGE 2

Read the following passage

1. No student of a foreign language needs to be told that grammar is complex. By changing word sequences and by adding a range of auxiliary verbs and suffixes, we are able to communicate tiny variations in meaning. We can turn a statement into a question, state whether an action has taken place or is soon to take place, and perform many other word tricks to convey subtle differences in meaning. Nor is this complexity inherent to the English language. All languages, even those of sopronoun syst ter how widespread it is. So, the question which has baffled many linguists is who created grammar? 2. At first, it would appear that this question is impossible to answer. To find out how grammar is created, someone needs to be present at the time of a emergence. Many historical linguists are able to trace modern complex languages back to earlier languages, but in order to answer the question of how complex languages are actually formed, the researcher needs to observe how languages started from scratch. Amazingly, however, this is possible

3. Some of the most recent languages evolved due to the Atlantic slave trade. At that time, slaves from a number of different ethnicities were forced to work together under colo -shift language called a pidgin. Pidgins are strings of words copied from the language of the landowner. They have little in the way of grammar, and in many cases, it is difficult for a listener to deduce when an event happened, and who did what to whom. Speakers need to use circumlocution in order to make their meaning understood. Interestingly, however, all it takes for a pidgin to become a complex language is for a group of children to be exposed to it at the time when they learn their mother tongue. Slave children did not simply copy the strings of words uttered by their elders; they adapted their words to create a new, expressive language. Complex grammar systems which emerge from pidgins are termed creoles and they are invented by children.

4. Further evidence of this can be seen in studying sign languages for the deaf. Sign languages are not simply a series of gestures; they utilise the same grammatical machinery that is found in spoken languages. Moreover, there are many different languages used worldwide. The creation of one such language was documented quite recently in Nicaragua. Previously, all deaf people were isolated from each other, but in 1979 a new government introduced schools for the deaf. Although children were taught speech and lip reading in the classroom, in the playgrounds they began to invent their own sign system, using the gestures that they used at home. It was basically a pidgin. Each child used the signs differently, and there was no consistent grammar. However, children who joined the school later, when this inventive sign system was already around, developed a quite different sign language. Although it was based on the signs of the large range of grammatical devices to clarify meaning. What is more, all the children used the signs in the same way? A new creole was born.

5. Some ling first. The English past tense - read languages were partly created by children. Children appear to have innate grammatical machinery in their brains, which springs to life when they are first trying to make sense of the world around them. Their minds can serve to create logical, complex structures, even when there is no grammar present for them to copy. On the basis of your understanding of the passage, answer any ten of the following questions by choosing the most appropriate option:

(a) Complexity in language is inherent to.....

(i) all the languages (ii) English (iii)tribal languages (iv) primitive languages

(b) The Cherokee pronoun system can distinguish between.....

(i) You and I (ii) Several other people and I (iii)You, another person and I (iv) All of these

(c) Based on your understanding of the passage, choose the option that lists the correct sequence of the sentences associated with the formation/ creation of grammar.

1. In order to answer the question of how complex languages are actually formed, the researcher needs to observe how languages started from scratch.

2. Slaves developed a make-shift language called a pidgin. first.

4. To find out how grammar is created; creation.

(i) 1, 2, 3, 4 (ii) 3, 4, 1, 2 (iii) 4, 1, 2, 3 (iv) 2, 1, 3, 4

(d) All the following sentences about Nicaraguan sign language are true except:

(i) the language has been created since 1979

(ii) the language is based on speech and lip reading (

iii) the language incorporates signs which children used at home

(iv) the language was perfected by younger children

(f) Some of the most recent languages evolved due to the.....

(i) Atlantic slave trade

(ii) complex grammar system

(iii) weak pronunciation

(iv) none of these

(g) What is common to all languages?

(i) basic grammar

(ii) the sign rules

(iii) grammar is common to all languages

(iv) series of gestures

(h) According to the passage what can be attributed as a consequence of the Atlantic slave trade?

(ii) evolution of some of the most recent languages

(iii) many word tricks can be performed to convey subtle differences in meaning

(iv) a statement can be turned into a question

(i) What are creoles?

(i) sign languages of deaf

(ii) complex grammar systems which emerge from pidgins

(iii) strings of words copied from the language of the landowner

(iv) logical grammar invented by children

(j) Which word in the passag

(i) sequences

(ii) variation

(iii) crude (

iv) complex

(k) grammatical knowledge.

1. They create logical structures.

2. They imitate others.

3. They have innate grammatical machinery in their brains.

4. They learn other languages.

- (i) 2 and 3 (ii) 1 and 3 (iii) 2 and 4 (iv) 3 and 4

PASSAGE 3

Read the passage given below:

1. "Who doesn't know how to cook rice? Cooking rice hardly takes time." said my father. So I challenged myself. I switched from news to YouTube and typed, "How to cook rice?" I took one and a half cups of rice. Since I didn't have access to a rice cooker, I put the rice in a big pot. Firstly, the rice has to be washed to get rid of dust and starch. I thought I won't be able to drain the rice and that it will fall out of the pot. I observed the chef as I swirled the rice around and used my dexterous hands to drain it, not once, not twice, but three times. I looked down at the sink and saw less than 50 grains that made their way out of the pot. Suffice to say, I was up to the mark.
2. The video stated that the key to perfect rice is equal amounts of rice and water. I have heard that professionals don't need to measure everything; they just know what the right amount is. But as this was my first time in the kitchen. I decided to experiment by not measuring the water needed for boiling the rice. I wanted the rice to be firm when bitten, just like pasta. I don't enjoy the texture of mushy rice. It has to have that chutzpah; it has to resist my biting power just for a bit before disintegrating.
3. After what seemed like 10 minutes, all the water disappeared. I went in to give it a good stir. To my surprise, some of the rice got stuck to the pot. I tried to scrape it off but to no avail. At the same time, there was a burning smell coming from it. I quickly turned the stove off. "What have you done to the kitchen?" shouted Mother, while coming towards the kitchen. I managed to ward her off.
4. Finally, when the time came to taste my creation, I was surprised! It wasn't bad at all. The rice had the desired consistency. Sure, a little more salt would've been better, but I just added that while eating. The experience was fairly rewarding and memorable. It taught me a new sense of respect for those who cook food on a regular basis at home or engage in gourmet creations professionally.

On the basis of your understanding of the above passage, answer Any Ten questions from the eleven given below:

- (a) Father's question to the narrator, about knowing how to cook rice, was intended to
- (i) criticize the narrator's lack of abilities
 - (ii) make the process sound simple
 - (iii) encourage the narrator to take up cooking
 - (iv) showcase his own expertise in cooking rice
- (b) "I switched from news to YouTube...." Pick the option in which the meaning of 'switch(ed)' is NOT the same as it is in the passage.
- (i) He switched on the radio to listen to the news while having dinner
 - (ii) "Forget these diet supplements and switch to yoga, if you want a true sense of well-being"
 - (iii) Mom switched to reading fiction recently because she was bored with cook-books
 - (iv) The company will switch the trucks to other routes to bring down city pollution
- (c) Based on your understanding of the passage, choose the option that lists the correct sequence of the process.
1. Use water to wash the rice.

2. Repeat the process three times.

3. Drain the water off.

4. Put rice in a utensil.

5. Swirl the water in and around the rice.

(i) 4, 2, 1, 3, 5 (ii) 1, 3, 2, 5, 4 (iii) 4, 1, 5, 3, 2 (iv) 5, 1, 2, 4, 3

(d) The narrator says that he has dexterous hands. He would have had a problem had it been the opposite.

NOT BEING dexterous means, being

(i) uncomfortable (ii) clumsy (iii) unclear (iv) clueless

(f) How did mother react to the burning smell?

(i) she commented on it

(ii) she brushed it aside

(iii) she enquired about it

(iv) she handled it

(g) According to the passage, the fact that the narrator risked experimentation, on his maiden attempt in the kitchen, shows that he was

(i) conscientious (ii) nervous (iii) presumptuous (iv) courteous

(h) Pick the option showing the CORRECT use of the word 'chutzpah'.

(i) It is the court's duty to dispense chutzpah to everyone irrespective of caste or creed

(ii) The speaker may not have much of a stage presence, but you've got to admit she's got Chutzpah

(iii) I could crack the code easily which proved me to be a chutzpah and I was the only one who could do so.

(iv) After his father's demise, the daughter took over the family's chutzpah to save it from disaster

(i) Pick the option that correctly states what DID NOT happen after the writer checked on the rice.

(i) turning the stove off

(ii) being taken aback at the condition of rice (

iii) forgetting to scrape the stuck rice (

iv) smelling the delicious aroma of cooked rice

(j) The narrator's creation was

(i) almost perfect to taste

(ii) way off from what he wanted

(iii) overly seasoned

(iv) quite distasteful.

(k) Pick the option that correctly lists the final feelings of the writer with reference to the cooking experience.

1. frustrating

2. amusing

3. satisfying

4. disillusioning

5. exacting 6. enlightening

(i) 1 and 4 (ii) 2 and 5 (iii) 3 and 6 (iv) 1 and 3

Read the following passage:

1. The youth is a dynamo, an ocean, an inexhaustible reservoir of energy. But this energy cannot be kept caged in prison. Its basic nature is to flow, to express itself. The youth energy on the basis of the nature of its expression can be divided into four categories.
2. The vast majority of the youth today is with the establishment, whose formula of life is learn, earn, burn and enjoy. It means learn to operate the modern devices and employ them to earn the maximum amount of wealth to the point of burning the natural resources of the earth, as well as yourself out, and then enjoy your own funeral. This category of youth is intelligent, skilful and hardworking but it lacks insight and foresight. They are self-indulgent and any sense of moral code of conduct is alien to their nature. Neither are they able to see in depth, to find out whether there is a deeper meaning and purpose to their human life, nor have they the capacity to look beyond the tips of their nose to find out the consequences of their way and approach, where it is leading them to. They are the ends into themselves and enjoyment is the motto of their life.
3. The second category of youth in nature and approach is the same but as it is less privileged and less qualified and skilled; it has lesser opportunities for earning and enjoying. Such youth 20 | P a g e may be incited to be against the establishment. This opposition takes various forms. When it is well-organised and systemic it may take the form of political opposition and even go to the extent of expressing itself in unjust ways. When the opposition is not so intense and organised, it remains contented with giving verbal expression to its resentment periodically. The youth of the above two categories need to be shown the right path to positively channelise their energy.
4. The third section of youth is a sober and thoughtful class of people, which objectively observes and studies the phenomenon of development of the world. These youths find that man in his insatiable thirst for consumption has become blind and lost the sense of distinction between milk and blood. Today man in his mad rush for exploitation is sucking the blood of Mother Earth; leading to their destruction and is thereby digging his own grave. This responsible category of young people is looking for an alternative mode of development based on cooperation between man and man. This development based on mutual love, friendship and harmony is not only sustainable but leading to endless prosperity mutually. To bring about his natural revolution from death-movement to life-movement is the aim of this group.
5. The fourth and most vital group of youth which is going to steer humanity into the third millennium and act as the pioneer for the future development of planetary life is engaged in evolving a new way of life and releasing a new principle of global consciousness through a fundamental research in the science of life. The science of life is a new branch of knowledge which takes the whole man into account without dividing him into subjective and objective halves of spirituality and physicality and does not treat him either as a refined (thinking) animal or an ethereal entity, having its base in some other non-physical world. It rather, recognises man as a basic unit of conscious life which has got immense, practically inexhaustible, possibilities and potentialities for evolution, development and growth. As per the Vedic formula, man is the micro-cosmos and his fullest flowering and enfoldment lies in his identification with the cosmos. On the basis of your understanding of the passage, answer any ten of the following questions by choosing the most appropriate option:
 - (a) Which trait is lacking in the youth that is dexterous with the modern devices?
 - (i) intelligence
 - (ii) perseverance
 - (iii) foresight
 - (iv) skilfulness
 - (b) cosmos?

- (i) the youth that will take us to the third millennium (
- ii) that which supports sustainable development
- (iii) youth that opposes the establishment
- (iv) youth that is self-indulgent and unscrupulous

(c) Which of the following options accurately describes the third category of youth?

- 1. Intelligent and skilful
 - 2. Thoughtful and observant
 - 3. Less intelligent and skilful
 - 4. Problem solver and caring
- (i) 1 and 3 (ii) 2 and 4 (iii) 3 and 4 (iv) 1 and 4

(d) The thoughtful class of people wants cooperation between

- (i) man and man
- (ii) man and nature
- (iii) man and animals
- (iv) man and environment

(e) Which two categories of youth need to be shown the right path to help them channelise their energy?

- (i) first and third
- (ii) second and fourth
- (iii) first and second
- (iv) third and fourth

(f) ppp

- (i) opposition of the cosmos
- (ii) cosmos
- (iii) identification of the cosmos
- (iv) none of these

(g) Which option represents the CORRECT traits of fourth group of youth?

- (i) Intelligent Hardworking Haughty
- (ii) Privileged Qualified Vile
- (iii) Pioneer Futurist Refined
- (iv) Skilled Ethereal Lethargic

(h) How does the dissatisfied youth express itself?

- (i) engage in political opposition
- (ii) engage in theft
- (iii) engage in wrong doings
- (iv) engage in immoral acts

(i) In how many categories can youth energy be divided?

- (i) three (ii) four (iii) two (iv) one

(k) Which of the following options accurately describes the second category of youth?

- 1. less privileged and less skilful

2. intelligent and skilful
 3. thoughtful and observant
 4. may resort to unjust ways and can be incited against the establishment
- (i) 1 and 3 (ii) 2 and 4 (iii) 3 and 4 (iv) 1 and 4

PART B

II. Multiple Choice questions based on one unseen passage to assess comprehension, interpretation and inference. Vocabulary and inference of meaning will also be assessed. The passage may be factual, descriptive or literary. Ten out of eleven questions to be done.

PASSAGE – 1

Read the passage given below:

1. The impact of technical advancement in armaments on man, needs to be analyzed with a rational mind, and heart free from prejudices of any kind towards modernisation. The most noticeable impact of this development certainly has been the loss of immunity from violence for successive generations ever since the invention of gunpowder.
2. In modern times, the presence of technically advanced arms, not only at the fronts but also among the civilian population, has vastly undermined the value of human life, and endangered the very entity of those virtues of self-restraint and discretion, on which a peaceful and amiable society rests. However, an unbiased view of the present scenario, would refrain one from attributing the rising trends of violence to the availability of technically superior weapons, for one must not overlook the fact that Necessity is the mother of invention.
3. Every stage in the development of armaments has been marked by its distinct impact on society. When man fought with stones and his bare hands, the society was not yet compact. The discovery of metal and the use of spears, knives and arrows indicate the stage of the formation of small kingdoms. Fire continued to be an effective weapon of destruction.
4. When man introduced the cavalry into the army and improved the strategies of making war, some small kingdoms gave away to form empires, but with no revolutionary advances in armaments forthcoming, the political structure of society remained more or less stagnant for the many coming centuries.
5. The next significant development was the use of gunpowder, which could be used to perform acts which were then thought to be impossible. Gunpowder was used to form the ammunition of several guns and canons. This sudden advance in weaponry not only facilitated the control of a large mass of people by relatively few armed men that helping to form strong empires, but the availability of the new technology to a select few nations enabled the formation of colonies in continents which did not have access to the modernized technologies of warfare.
6. Modern technological advances in armaments aided the formation of nation states in Europe. The extensive use of the fire-power lent a lethal edge to the naval power which proved to be the greatest asset to any nation in the 19th century. Small United Nations States of Europe with strong navies, modern arms and disciplined men gained control of lands in foreign continents far greater in areas than the parent countries.

On the basis of your understanding of the above passage, answer ANY TEN questions from the eleven given below.

- i. Necessity is the mother of invention. This statement implies –
 - a. where there is mother there is invention

- b. when necessity arises invention is done
- c. most of the invention are preplanned
- d. nothing happens without creating congenial environment

ii. The invention of modern weapons have resulted into

- a. loss of immunity from war in the society
- b. successive wars for the last two centuries.
- c. arms race among the nations
- d. loss of life and property every now and then

iii. Small kingdoms turned into big empires, after

- a. the invention of cavalry and canons and its introduction into the army
- b. the introduction of nuclear arms into the army
- c. the end of the use of knives, arrows and swords
- d. the end of the 19th century

iv. The style of the passage is

- a. informative
- b. analytical
- c. retrospective
- d. provocative

v. The value of human life has been undermined by

- a. the virtues of self-restraint and discretion
- b. peaceful and amiable society
- c. advancement in armaments
- d. civilian population

vi. The greatest asset to any nation in 19th century was

- a. Muscle power
- b. Wind power
- c. Solar power
- d. Fire power

vii. Which of the following statements is not true

- a. early man fought with stone
- b. weaponry advancement does not have direct impact on society.
- c. fire was used as an effective weapon of destruction.
- d. discovery of metal helped in forming small kingdoms.

viii. Few nations could form colonies in continents due to

- a. Less modern technology of warfare
- b. Significant use of gun powder
- c. Meekness of large mass of people
- d. None of the above

ix. Which of the following does not mean "Cavalry" as used in (para 4)

- a. Squadron

- b. Battalion
- c. Troop
- d. Civilian

x. Which word given below means the same as "Facilitate" (para 5)

- a. Make possible
- b. Make impossible
- c. Slow down
- d. Demote

PASSAGE – 2

Read the passage given below:

1. The therapeutic value and healing powers of plants were demonstrated to me when I was a boy of about ten. I had developed an acute persistent abdominal pain that did not respond readily to hospital medications. My mother had taken me to occasions where different drugs were tried on me. In total desperation, she took me to Egya Mensa, a well-known herbalist in my hometown in the Western province of Ghana. He had earned the reputation of offering excellent help when they were confronted with difficult cases where western medicine had failed to affect a cure.
2. After a brief interview, he left us waiting in his consulting room while he went out to the field. He returned with several leaves and the bark of a tree and one of his attendants immediately prepared a decoction. I was given a glass of this preparation, it tasted extremely bitter, but within an hour or so. I began to feel relieved. The rest of the decoction was put in two large bottles so that I could take doses periodically. Within about three days, the frequent abdominal pains stopped and I recall gaining a good appetite. I have appreciated the healing powers of medicinal plants ever since.
3. My experience may sound unusual to those who come from urban areas of the developed world, but for those in the less affluent nations, such experiences are a common occurrence. In fact, demographic studies by various national governments and inter-governmental organisations such as the World Health Organisation (WHO) indicate that for 75 to 90 per cent of the rural population of the world, the herbalist is the only person who handles their medical problems.
4. Over the years, I have come to distinguish between three types of medicinal practitioners. The first is the herbalist who generally enjoys the prestige and reputation of being the real traditional medical professional. The second group represents divine healers. They are fetish priests whose practice depends upon their purported supernatural powers of diagnosis. Thirdly, the witch doctor, the practitioner who is credited with the ability to intercept the evil deeds of a witch.
5. These practitioners have done well by relying almost exclusively on herbs for actual treatment piritual leaders and psychologists
6. From the drug-stores in New Delhi, I picked up some well-packaged bark and roots of Rauwolfia Serpentina, a plant that was very well-known in ancient Asiatic medicine. The storekeeper said that it cures hypertension. This plant has the power to lower the blood pressure and pulse. It is used to calm down mad people because alkaloids in the plant have a specific influence on the mind.

On the basis of your understanding of the above passage, answer ANY TEN questions from the eleven given below:

Who was Eya Mensa?

- a. doctor
- b. herbalist
- c. chemist
- d. yoga guru

iii. Which parts of the plant Rauwolfia Serpentina are used to cure hypertension?

- a. stem and roots
- b. leaves and flowers
- c. bark and roots
- d. flowers and roots

iv. Who cures the evil deeds of a witch?

- a. doctor
- b. herbalist
- c. c. priest
- d. witch doctor

v. The storekeeper (in paragraph 6) felt herbal medicine was better as most drugs were:

- a. traditional in nature
- b. synthetic and expensive
- c. difficult to procure
- d. dangerous

vi. The author was suffering from

- a. Headache
- b. Stomach ache
- c. Muscle ache
- d. Abdominal pain

vii. WHO demographic studies display that

- a. Herbalist treats majority of the rural population
- b. Urban population does not use herbalist
- c. Herbalist has no impact on population
- d. Herbalist has lot of impact on population

viii. Rauwolfia Serpentina is useful in curing

- a. Headache
- b. Muscle pain
- c. Hypertension
- d. Fever

ix. A word in "Pd continuous" is

- a. Persistent
- b. Occasional

- c. Intermittent
- d. None of the above

x. A word from the passage meaning 'well off' is - (Para 3)

- a. affluent
- b. poor
- c. impoverished
- d. all of the above

xi. The word acute means :

- a. slight
- b. great
- c. severe in effect
- d. sorrow

Subject- Mathematics
Attempt any 20 questions :

Find dy/dx

1 . $y = x^{\log x} + (\log x)^x$

2 . If $y = A e^{mx} + B e^{nx}$, show that $\frac{d^2 y}{dx^2} - (m + n) \frac{dy}{dx} + mny = 0$

3 . If $y = 3 \cos(\log x) + 4 \sin(\log x)$, show that $x^2 \frac{d^2 y}{dx^2} + x \frac{dy}{dx} + y = 0$

4 . If $(\cos x)^y = (\sin y)^x$, find dy/dx

5 . If $x\sqrt{1-y^2} + y\sqrt{1-x^2} = a$, then prove that $\frac{dy}{dx} = -\sqrt{\frac{1-y^2}{1-x^2}}$

6 . Differentiate : $\sqrt{\tan \sqrt{x}}$ w.r.t.x .

7 . If $y = (\log x)^{\cos x} + \frac{x^2 + 1}{x^2 - 1}$, find dy/dx

8 . If $x = a(\theta - \sin \theta)$, $y = a(1 + \cos \theta)$, find $\frac{d^2 y}{dx^2}$

9 . If $y = \tan^{-1} \sqrt{\frac{1 - \cos x}{1 + \cos x}}$, find $\frac{dy}{dx}$

10. If $y = \sin^{-1} \left(\frac{1 - x^2}{1 + x^2} \right)$, find $\frac{dy}{dx}$

11. If $y = \tan^{-1}\left(\frac{1 + \sin x}{\cos x}\right)$

12. If $y = \tan^{-1}\left(\frac{\cos x}{1 + \sin x}\right)$, find $\frac{dy}{dx}$

13. If $x = a(\cos \theta + \theta \sin \theta)$, $y = a(\sin \theta - \theta \cos \theta)$ find dy/dx

14. If $e^x(x + 1) = 1$, show that $\frac{d^2y}{dx^2} = \left(\frac{dy}{dx}\right)^2$

15. Verify Rolle's theorem for the function $f(x) = x^2 + 2x - 8$, $x \in [-4, 2]$

16. If $x\sqrt{1+y} + y\sqrt{1+x} = 0$, prove that $\frac{dy}{dx} = -\frac{1}{(1+x)^2}$

17. Find the value of K so that the function is continuous at $x = 5$,

$$f(x) = \begin{cases} kx+1 & \text{if } x \leq 5 \\ 3x-5 & \text{if } x > 5 \end{cases}$$

18. Find the value of a and b if the function $f(x) = \begin{cases} 3ax+b & \text{if } x > 1 \\ 11 & \text{if } x = 1 \\ 5ax-2b & \text{if } x < 1 \end{cases}$ is continuous

at $x=1$

20. For what value of λ is the function defined by $f(x) = \begin{cases} \lambda(x^2 - 2x) & \text{if } x \leq 3 \\ 4x+1 & \text{if } x > 3 \end{cases}$

continuous at $x=3$.

21. Find the value of a and b such that the function is continuous

$$f(x) = \begin{cases} 5 & \text{if } x \leq 2 \\ ax+b & \text{if } 2 < x < 10 \\ 21 & \text{if } x \geq 10 \end{cases}$$

22. Find all the points of discontinuity of f defined by $f(x) = |x| - |x + 1|$.

23. Find the value of K for a continuous function, $f(x) = \begin{cases} \frac{k \cos x}{\pi - 2x} & \text{if } x \neq \frac{\pi}{2} \\ 3 & \text{if } x = \frac{\pi}{2} \end{cases}$ at x

$=\pi/2$

MATRICES AND DETERMINANTS

24. If $A = \begin{bmatrix} 2 & -3 & 5 \\ 3 & 2 & -4 \\ 1 & 1 & -2 \end{bmatrix}$, find A^{-1}

25. If $\begin{bmatrix} x+3y & y \\ 7-x & 4 \end{bmatrix} = \begin{bmatrix} 4 & -1 \\ 0 & 4 \end{bmatrix}$, find the value of x and y .

26. Using properties of determinant show that

$$\begin{vmatrix} x+y+2z & x & y \\ z & y+z+2x & y \\ z & x & z+x+2y \end{vmatrix} = 2(x+y+z)^3$$

27. Using matrices, solve the system of equations, $2x+8y+5z=5$, $x+y+z=-2$, $x+2y-z=2$.

28. If $A = \begin{bmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 0 & 3 \end{bmatrix}$, prove that $A^3 - 6A^2 + 7A + 2I = 0$.

29. Show that $\begin{vmatrix} -a^2 & ab & ac \\ ba & -b^2 & bc \\ ca & cb & -c^2 \end{vmatrix} = 4a^2b^2c^2$

30. Using matrix method find inverse of a matrices,

(1) $\begin{bmatrix} 2 & -3 \\ -1 & 2 \end{bmatrix}$ (2) $\begin{bmatrix} 0 & 1 & 2 \\ 1 & 2 & 3 \\ 3 & 1 & 1 \end{bmatrix}$

31. If $A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix}$, Prove that $A^n = \begin{bmatrix} 3^{n-1} & 3^{n-1} & 3^{n-1} \\ 3^{n-1} & 3^{n-1} & 3^{n-1} \\ 3^{n-1} & 3^{n-1} & 3^{n-1} \end{bmatrix}$

32. Find dy/dx : $y = \cos^{-1}\left(\frac{1-x^2}{1+x^2}\right)$

Last date of submission 20th June 2023 .

Do it on the A-4 size ruled sheet

Attach one cover page showing Name, class ,subject and Title as assignment.

APPLIED MATHEMATICS

Very Short Answer Type Questions:

1) If a matrix A is both symmetric and skew symmetric, then A is a:

- a) Diagonal Matrix
- b) Square Matrix
- c) Null Matrix
- d) None

2) Choose the correct option:

- a) Every unit matrix is a scalar matrix.
- b) Every scalar matrix is a unit matrix.
- c) Every Diagonal matrix is a unit matrix.
- d) A square matrix in which all elements are 1 is a unit matrix.

3) If A' and B' are the transpose matrices of the square matrices A and B respectively, then $(AB)'$ =

- a) $A'B'$
- b) AB'
- c) BA'
- d) $B'A'$

4) If $M = \begin{bmatrix} 1 & 2 & 2 & 3 \end{bmatrix}$ and $M^2 - \lambda M - I = 0$ then $\lambda =$

- a) 4
- b) -3
- c) 2
- d) 8

5) Matrix multiplication is:

- a) Commutative
- b) Associative
- c) Both
- d) None

- 6) If A is a matrix of order 3×4 and B is a matrix of order 4×3 then order of matrix AB is _____.
- 7) The order of product matrix $\begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 4 \end{bmatrix} \begin{bmatrix} 2 & 3 & 4 \end{bmatrix}$ is _____
- 8) Relation between cofactors and minor is $C_{ij} =$ _____
- 9) If $\begin{vmatrix} 3 & x & x & 1 \\ 3 & 2 & 4 & 1 \end{vmatrix} = \begin{vmatrix} 3 & 2 & 4 & 1 \end{vmatrix}$ then value of x is _____
- 10) If A is symmetric matrix the A^3 is a _____ matrix.
- 11) If $[2x \ 4] [x \ -8] = 0$, then find the positive value of x.
- 12) The elements a_{ij} of a 3×3 matrix are given by $a_{ij} = 12 |-3i + j|$. Write the value of element a_{32} .
- 13) For what value of x, is the matrix $A = \begin{bmatrix} 0 & 1 & -2 & -1 & 0 & 3 & x & -3 & 0 \end{bmatrix}$ a skew symmetric matrix?
- 14) If $\begin{bmatrix} xy & 4z & 6x & y \\ 8 & w & 0 & 6 \end{bmatrix}$ write the value of $x + y + z$.
- 15) Find the cofactor of the element of second row and third column in the determinant $\begin{vmatrix} 2 & -3 & 5 & 6 & 0 \\ 4 & 1 & 5 & -7 & \end{vmatrix}$
- 16) If Matrix $A = \begin{bmatrix} 1 & -1 & -1 & 1 \end{bmatrix}$ and $A^2 = KA$. Find the value of K.
- 17) If $A = \begin{bmatrix} 2 & 0 & 1 & 2 & 1 & 3 & 1 & -1 & 0 \end{bmatrix}$ then find the value of $A^2 - 5A + 4I$.
- 18) If $A = \begin{bmatrix} 1 & -4 & 3 \end{bmatrix}$ $B = \begin{bmatrix} -1 & 2 & 1 \end{bmatrix}$, then verify that $(AB)' = B'A'$
- 19) Find the inverse of matrix $A = \begin{bmatrix} 2 & 5 & 1 & 3 \end{bmatrix}$
- 20) Find the inverse of matrix $A = \begin{bmatrix} 6 & 5 & 5 & 4 \end{bmatrix}$
- 21) Express the matrix $A = \begin{bmatrix} 2 & 4 & -6 & 7 & 3 & 5 & 1 & -2 & 4 \end{bmatrix}$ as the sum of symmetric and skew symmetric matrix.
- 22) If $A = \begin{bmatrix} 1 & 2 & 2 & 2 & 1 & -2 & a & 2 & b \end{bmatrix}$ is a matrix satisfying $AA^T = 9I_3$ then the values of a and b.
- 23) Solve for x: $\begin{bmatrix} 2x & 3 \\ 1 & 2 & -3 & 0 \end{bmatrix} \begin{bmatrix} x & 8 \end{bmatrix} = 0$
- 24) Find the value of x: $\begin{vmatrix} x & + & 1 & x & - & 1 & x & - & 3 & x & + & 2 \end{vmatrix} = \begin{vmatrix} 4 & - & 1 & 1 & 3 \end{vmatrix}$
- 25) For what value of x, $A = \begin{bmatrix} 2(x+1) & 2x & x & x & - & 2 \end{bmatrix}$ is a singular matrix?

Long Answer Type Questions-1:

- 26) Prove that $\begin{vmatrix} a & a & 2 & bc & b & b & 2 & ca & c & c & 2 & ab \end{vmatrix} = (a-b)(b-c)(c-a)(ab+bc+ca)$
- 27) Prove that $\begin{vmatrix} b & + & c & a & a & b & c & + & a & b & c & c & a & + & b \end{vmatrix} = 4abc$
- 28) Prove that $\begin{vmatrix} a & b & c & a & - & b & b & - & c & c & - & a & b & + & c & c & + & a & a & + & b \end{vmatrix} = a^3 + b^3 + c^3 - 3abc$
- 29) Prove that $2 \begin{vmatrix} 1 & 1 & + & p & 1 & + & p & + & q & 2 & 3 & + & 2p & 1 & + & 3p & + & 2q & 3 & 6 & + & 3p & 1 & + & 6p & + & 3q \end{vmatrix} = 1$
- 30) Prove that $\begin{vmatrix} a & 2 & + & 1 & ab & ac & ab & b & 2 & + & 1 & bc & ca & cb & c & 2 & + & 1 \end{vmatrix} = 1 + a^2 + b^2 + c^2$
- 31) Prove that $\begin{vmatrix} 3x & -x & + & y & -x & + & z & x & - & y & 3y & z & - & y & x & - & z & y & - & z & 3z \end{vmatrix} = 3(x+y+z)(xy+yz+zx)$
- 32) Prove that $\begin{vmatrix} \alpha & \beta & \gamma & \alpha & 2 & \beta & 2 & \gamma & 2 & \beta & + & \gamma & \gamma & + & \alpha & \alpha & + & \beta \end{vmatrix} = (\alpha - \beta)(\beta - \gamma)(\gamma - \alpha)(\alpha + \beta + \gamma)$

- 33) Prove that $|x + y \ x \ x \ 5x + 4y \ 4x \ 2x \ 10x + 8y \ 8x \ 3x| = x^3$
- 34) Using Property solve: $|x + a \ x \ x \ x \ x + a \ x \ x \ x \ x + a| = 0$
- 35) Prove that: $|-a \ 2 \ ab \ ac \ ba - b \ 2 \ bc \ ca \ cb - c \ 2| = 4a \ 2b \ 2c \ 2$
- 36) Solve $|a + x \ a - x \ a - x \ a - x \ a + x \ a - x \ a - x \ a - x \ a + x| = 0$
- 37) Prove that: $|x \ y \ z \ x^2 \ y^2 \ z^2 \ x^3 \ y^3 \ z^3| = xyz(x - y)(y - z)(z - x)$
- 38) If $x \neq y \neq z$ and $|x \ x^2 \ 1 + x^3 \ y \ y^2 \ 1 + y^3 \ z \ z^2 \ 1 + z^3| = 0$ then prove that $xyz = -1$
- 39) Prove that: $|1 \ a \ a^2 - bc \ 1 \ b \ b^2 - ca \ 1 \ c \ c^2 - ab| = 0$
- 40) Prove that: $|a^2 + 2a \ 2a + 1 \ 1 \ 2a + 1 \ a + 2 \ 1 \ 3 \ 3 \ 1| = (a - 1)^3$

Long Answer Type Questions-2

- 41) Find the inverse of $A = [1 \ 3 \ -2 \ -3 \ 0 \ -1 \ 2 \ 1 \ 0]$
- 42) Find the inverse of $A = [3 \ 0 \ -1 \ 2 \ 3 \ 0 \ 0 \ 4 \ 1]$
- 43) Solve by matrix method $2x + 8y + 5z = 5, x + y + z = -2, x + 2y - z = 2$.
- 44) Solve by matrix method: $2x + 3y + 10z = 4, 2x - 6y + 5z = 1, 6x + 9y - 20z = 2$
- 45) If $A = [1 \ -1 \ 0 \ 2 \ 3 \ 4 \ 0 \ 1 \ 2]$ and $B = [2 \ 2 \ -4 \ -4 \ 2 \ -4 \ 2 \ -1 \ 5]$ then find AB. Use this solve the system of equation $x - y = 3, 2x + 3y + 4z = 17, y + 2z = 7$.
- 46) If $A = [1 \ -2 \ 0 \ 2 \ 1 \ 3 \ 0 \ -2 \ 1]$ and $B = [7 \ 2 \ -6 \ -2 \ 1 \ -3 \ -4 \ 2 \ 5]$ then find AB. Use this solve the system of equation $x - 2y = 10, 2x + y + 3z = 8, -2y + z = 7$.
- 47) If $A = [1 \ -1 \ 2 \ 0 \ 2 \ -3 \ 3 \ -2 \ 4]$ and $B = [-2 \ 0 \ 1 \ 9 \ 2 \ -3 \ 6 \ 1 \ -2]$ then find AB. Use this solve the system of equation $x - y + 2z = 1, 2y - 3z = 1$ and $3x - 2y + 4z = 2$.
- 48) If $A = [2 \ 3 \ 1 \ -4]$, $B = [1 \ -2 \ -1 \ 3]$ verify that $(AB)^{-1} = B^{-1}A^{-1}$
- 49) Two schools P and Q want to award their selected students on the values of discipline, politeness and punctuality. The School P wants to award Rs. x each, Rs. y each and Rs. z each for three respective values to 3, 2 and 1 students respectively with a total award money of Rs 1000. School Q wants to spend Rs. 1500 to award its 4, 1 and 3 students on the respectively values (by giving the same award money to the three values as before). If the total amount of award for one prize on each value is Rs. 600 using matrices find the award money for each value.
- 50) A total amount of Rs 7000 is deposited in three different saving bank accounts with annual interest rate of 5%, 8% and 8.12% respectively. The total annual interest from there three accounts is Rs 550 equal amounts have been deposited in the 5% and 8% saving accounts. Find the amount deposited in each of the three accounts with the help of matrices?

ग्रीष्मकालीन अवकाश हेतु गृहकार्य कक्षा - बारहवीं

विषय - हिन्दी केन्द्रिक (302)

प्रश्न-1 'भक्तिन' पाठ के आधार पर भक्तिन के चरित्र की विशेषताएँ लिखिए।

प्रश्न-2 'भक्तिन का जीवन सदैव दुखों से भरा रहा।' स्पष्ट कीजिये।

प्रश्न-3 लछमिन को शहर क्यों जाना पड़ा?

प्रश्न-4 भक्तिन अनेक अवगुणों के होते हुए भी महादेवी वर्मा के लिए अनमोल क्यों थी?

प्रश्न-5 'जो हुआ होगा' की दो अर्थ छवियाँ लिखिए।

प्रश्न-6 'सिल्वर वैडिंग' कहानी के पात्र किशनदा के उन जीवन मूल्यों का उल्लेख कीजिये जो यशोधर बाबू के सोच में आजीवन बने रहे।

प्रश्न-7 'सिल्वर वैडिंग' कहानी की मूल संवेदना क्या है? स्पष्ट कीजिये।

प्रश्न-8 'जूझ' कहानी के शीर्षक की सार्थकता पर टिप्पणी कीजिये।

प्रश्न-9 पढ़ाई के बारे में लेखक आनंद यादव का क्या विचार था?

प्रश्न-10 सौंदलगेकर कौन थे? उनकी क्या विशेषताएँ थीं?

प्रश्न-11 मध्य प्रदेश और बिहार की संस्कृति (वेश-भूषा, खान-पान, नृत्य) की तुलना करते हुए A4 आकार के सादे कागज़ पर कोलाज बनाइये।

विशेष:-

1. उपर्युक्त प्रश्न क्रमांक 1 से 10 तक प्रश्न हिन्दी की फेयर कॉपी में सुन्दर और सुव्यवस्थित ढंग से लिखकर दिनांक 14-जून-2023 से 16-जून-2023 के बीच अनिवार्य रूप से जमा करायें।

2. प्रश्न-11 को A4 आकार के सादे कागज़ पर दो या तीन पृष्ठों में कोलाज के रूप में ही बनाएँगे।

ECONOMICS (Code No. 030)

Expected Checklist:

- Introduction of topic/title.
- Identifying the causes, consequences and/or remedies
- Various stakeholders and effect on each of them
- Advantages and disadvantages of situations or issues identified
- Short-term and long-term implications of economic strategies suggested in the course of research.
- Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file.

- Presentation and writing that is succinct and coherent in project file
- Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc

Marking Scheme:

Marks are suggested to be given as –

S. No.	Heading	Marks Allotted
1.	Relevance of the topic	3
2.	Knowledge Content/Research Work	6
3.	Presentation Technique	3
4.	Viva-voce	8
	Total	20 Marks

Suggestive List of Projects:

Class XII	
• Micro and Small Scale Industries	• Food Supply Channel in India
• Contemporary Employment situation in India	• Disinvestment policy of the government
• Goods and Services Tax Act and its Impact on GDP	• Health Expenditure (of any state)
• Human Development Index	• Inclusive Growth Strategy
• Self-help group	• Trends in Credit availability in India
• Monetary Policy Committee and its functions	• Role of RBI in Control of Credit
• Government Budget & its Components	• Trends in budgetary condition of India
• Exchange Rate determination – Methods and Techniques	• Currency War – reasons and repercussions
• Livestock – Backbone of Rural India	• Alternate fuel – types and importance
• Sarva Shiksha Abhiyan – Cost Ratio Benefits	• Golden Quadrilateral- Cost ratio benefit
• Minimum Support Prices	• Relation between Stock Price Index and Economic Health of a Nation
• Waste Management in India – Need of the hour	• Minimum Wage Rate – Approach and Application
• Digital India- Step towards the future	• Rain Water Harvesting – A solution to water crisis
• Vertical Farming – An alternate way	• Silk Route- Revival of the past
• Make in India – The way ahead	• Bumper Production- Boon or Bane for the farmer
• Rise of Concrete Jungle- Trend Analysis	• Organic Farming – Back to the Nature
• Aatmanirbhar Bharat	• e-Rupee (e- ₹)
• Sri Lanka's Economic Crisis	• Sustainable Development Goals (SDG's)
• Environmental Crisis	• Comparative Study of Economies (Maximum three economies)
• New Education Policy (NEP) 2020: A Promise for a New Education System	• G-20: Inclusive and Action Oriented
• Amrit Kaal: Empowered and Inclusive Economy	• Cashless Economy
• Any other newspaper article and its evaluation on basis of economic principles	• Any other topic
