



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2021-2022)

Class-XII
Time: 3 Hrs.

Subject - English Core
Maximum Marks: 80

General Instructions:

1. This paper is divided into two parts: 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.

PART - A (40 Marks)

READING

(20 marks)

Q.1. Read the passage given below.

1. If we are to list the modes of entertainment available to us in the 20th century, most of us will say cinema, internet, television, online streaming etc. A very few select souls will remember to name theatre as a mode of entertainment. To think of it, most of the colleges have theatre clubs, but still, the art of theatre is slowly dying. Theatre has existed in India for centuries, in one form or the other.
2. One of the oldest evidence we have of the existence of theatre in Indian is the famous treatise of "Natyashastra" by Bharat Muni. This literary piece can be dated back to the period between 2000 BC and the 4th Century CE. The concept of "Nav Rasa" introduced in "Natyashastra" is taught to artists even today. "Natyashastra" is lauded as being the most complete work related to drama and theatre, as it addresses everything related to it: acting, architecture, costuming, make-up, props among many others. Because of the detailed nature of the treatise, it has been possible to analyse and understand the actual theatre practices that might have existed during that period.
3. Considered to be one of the finest dramatists in the world, Kalidasa is known through his poetry and plays. His three major works are "Malavikagnimitra", "Abhigyanshakuntalam" and "Vikramorvashiyam". Kalidasa's "Abhigyanshakuntalam", a play that tells the story of King Dushyanta and Shakuntala, is regarded as a masterpiece worldwide and is one of the first Sanskrit works to be translated into English.
4. The modern-era theatre arrived in India with the British. A significant difference between the modern era and the other eras of theatre in India is the story and plot base. The ancient and medieval theatre forms had plots that revolved around heroic figures or mythological characters; these plays were a retelling of the existing folklore and mythological stories. "

5. The emergence of modern day Indian theatre is an intersection of the prevalent Indian social theatre with Western theatre formats. The modern era of theatre brought in the philosophy of realism to the existing Indian theatre. Lives of the common man and the hardships they faced became a central point of the plots of many plays that developed during this era. "Nil Darpan" by Girish Chandra Ghosh depicted the tragedy of indigo cultivation in rural Bengal and played a major role in the indigo revolt by the farmers. Rabindranath Tagore was a pioneering modern playwright, whose plays explored the ideas of nationalism, identity, spiritualism and relationships. His famous plays include "Dakghar", "Chitra" and "Raja".
6. Contemporary or post-Independence Indian theatre is the theatre as we see it today. The theatre is used not only as a form of entertainment but also to spread social awareness and critique the government. In 1972, "Sakharam Binder" and "Ghashiram Kotwal", plays written by Vijay Tendulkar, caused sort of a riot in the society. "Sakharam Binder" dealt with the physical and emotional domination men exercise over women, whilst "Ghashiram Kotwal" was a political satire which dealt with political violence. Even the contemporary Indian theatre is undergoing undercurrents of change with the introduction of newer forms like Improvisational or Improv theatre, Mobile theatre and Street theatre. Street theatre, known as street plays or nukkad natak, is immensely popular in contemporary India. These plays play a very vital role in creating social awareness amongst the masses. Street theatre is considered to be the rawest form of acting, because one doesn't have the support of microphones or speakers.
7. Presently, only a few cities in India have commercially viable theatres. Delhi's theatre scene is vibrant. As the city is home to the National School of Drama and many theatre festivals, the theatre circuit in the city is always buzzing. Marathi theatre is thriving in Mumbai and Maharashtra. Mumbai also plays host to plays in languages like English, Gujarati and Hindi. Theatre loyalists in the city swear by the iconic Prithvi Theatre. Other cities like Chennai, Bangalore and Kolkata have their theatre scene buzzing with young talent.
8. Sadly, the theatre has not been able to match the metaphorical rise of cinema in India. Rather, it is always commented that the growth in the popularity of cinema is a major factor behind the withering of theatre in India. Nowadays, there are hardly any actors who solely dedicate themselves to the theatre. One can't blame them either because pursuing a career in theatre solely is not financially viable. Thus, theatre personalities have to keep some kind of ties either with cinema or pursue theatre as a side-profession or hobby. Shabana Azmi, Anupam Kher, Paresh Rawal, Manoj Bajpai, and Naseeruddin Shah are some notable personalities who began their career with theatre and gradually shifted to the cinema. A few of them manage to keep their relationship with the stage and contribute towards the theatre.
9. Theatre culture in India is rich and diverse. It is closely associated with various other art forms of India. It is our responsibility to try and not let this culturally and historically significant art die.

On the basis of your understanding of the above passage, answer ANY TEN questions from the eleven given below. (1x10 = 10)

(i) What did the ancient and medieval theatres revolve around?

- a. Mythological stories
- b. Amar Chitra Katha
- c. Women empowerment
- d. Jatak stories

(ii) What kind of themes were added by the modern theatre to the existing Indian theatre?

- a. Philosophy of realism
- b. Spiritualism
- c. Nationalism
- d. All of the above

(iii) Find out the combinations of plays and their subject which are rightly presented.

- 1. Nil Darpan - Tragedy of Indigo cultivation**
- 2. Ghasiram Kotwal - Identity of Policemen**
- 3. Ghasiram Kotwal - Political violence**
- 4. Sakharam Binder - Domination of men over women**

- a. 1, 2 & 3
- b. 1, 3 & 4
- c. 2, 3 & 4
- d. 1, 2 & 4

(iv) What among the following is not true about street plays?

- a. It is very popular in contemporary India
- b. Plays vital role in creating social awareness
- c. It shows the rawest form of acting
- d. Uses new technology and equipments to perform

(v) Why don't actors keep themselves fully occupied with theatre?

- a. Theatre is not very interesting
- b. It doesn't give financial security
- c. It is largely under political influence
- d. Actors are legally bound not to venture into other streams

(vi) Liberty to criticize the government was taken by artists in

- a. Ancient theatre
- b. Medieval theatre
- c. Pre-Independence theatre
- d. Contemporary theatre

(vii) Trace the chronological evolution of theatre in India through works produced over the years. Pick the correct option.

- a. Natyashastra-> Nil Darpan-> Ghasiram Kotwal-> Abhigyanshakuntalam
- b. Natyashastra-> Nil Darpan-> Abhigyanshakuntalam-> Ghasiram Kotwal
- c. Natyashastra->Abhigyanshakuntalam->Nil Darpan->Ghasiram Kotwal
- d. Ghasiram Kotwal->Nil Darpan->Abhigyanshakuntalam-> Natyashastra

(viii) "Delhi's theatre circuit is vibrant and is always buzzing." Which of the following statements explain/explains this assertion correctly?

Statement 1: A number of theatre festivals keep the theatre scene of the Delhi alive.

Statement 2: Delhi is the capital city of India.

Statement 3: Delhi is home to National school of Drama.

- a. Statement 1
- b. Statements 1 & 2
- c. Statements 2 & 3
- d. Statements 1 & 3

(ix) What are the indicators to show that India had a glorious past of theatre?

- a. "Natyashastra" by Bharat Muni written in Ancient India is a complete work on all aspects of drama.
- b. Kalidasa is considered to be one of the finest dramatists of the world.
- c. Many famous film personalities started their career as theatre artists.
- d. Both (a) and (b)

(x) Which of the following words is the opposite of the word 'withering'?

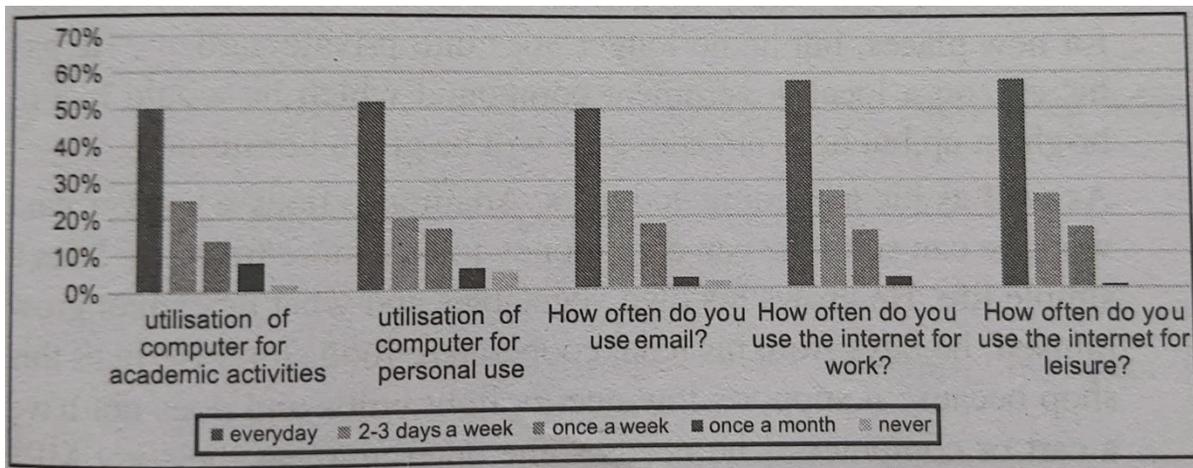
- a. Mortifying
- b. Flourishing
- c. Decaying
- d. Fading

(xi) Identify the word from the passage that means 'Workable' (Para 7).

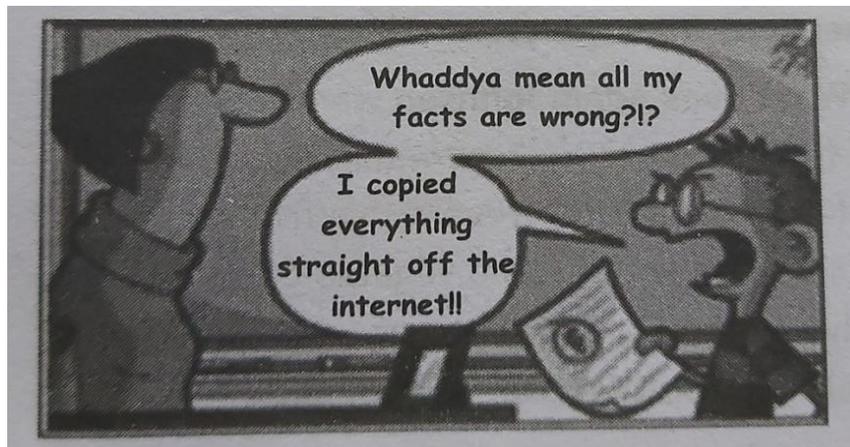
- a. Viable
- b. Vibrant
- c. Circuit
- d. Iconic

Q.2. Read the passage given below.

1. The present generation is well updated in the use of internet and computers. The rapid development in computer technology and increase in accessibility of the internet for academic purposes has changed the face of education for everyone associated with it. Let's look at the data arising out of a recent survey that was done to ascertain the time spent on utilisation of the computer and internet:



2. At present, many schools and universities have been implementing internet-based learning, as it supplements the conventional teaching methods. The internet provides a wide variety of references and information to academics as well as scientific researchers. Students often turn to it to do their academic assignments and projects.
3. However, research on the Net is very different from traditional library research, and the differences can cause problems. The Net is a tremendous resource, but it must be used carefully and critically.



4. According to a 2018 Academic Student e-book Experience Survey, conducted by L J's research department and sponsored by EBSCO, when reading for pleasure, almost 74% of respondents said they preferred print books for leisure whereas, 45% of respondents chose e-books rather than the printed versions, for research or assignments.
5. When asked which e-book features make them a favourite for research, the respondents were clear. Having page numbers to use in citations, topped the list (75%); followed by the ability to resize text to fit a device's screen (67%); the ability to bookmark pages, highlight text, or take notes for later reference (60%); downloading the entire e-book (57%); and allowing content to be transferred between devices (43%) were the varied responses.

On the basis of your understanding of the above passage, answer ANY TEN questions from the eleven given below. (1x10 = 10)

(i) According to the passage, one of the reasons for the recent transformation of education is:

- a. Techno-efficiency of the present generation
- b. Expanse of courses on technology
- c. Simplification of the teaching and learning-method
- d. Easy availability of the internet

(ii) Pick the option that lists statements that are **not true** according to the passage.

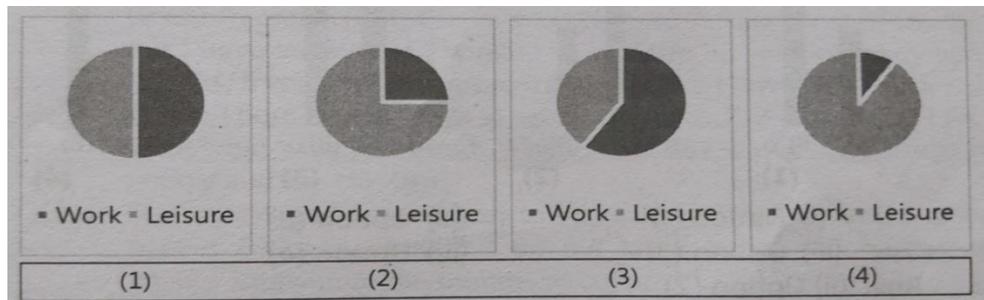
- 1. Internet-based education can only complement familiar methods of education.
- 2. Net-based learning will replace face-to-face education.
- 3. The resources that the net provides are a danger to the education system.
- 4. The current times has seen a rise in the convenience of using the internet for academic purposes.

- a. 1 and 2
- b. 3 and 4
- c. 2and 3
- d. 1 and 4

(iii) The word 'tremendous', as used in paragraph 3, means the same as:

- a. Expensive
- b. Renowned
- c. Innovative
- d. Incredible

(iv) Based on the graphical chart in the passage, choose the option that correctly states the depiction of internet usage for work and for leisure, for once a month.



- a. Option (1)
- b. Option (2)
- c. Option (3)
- d. Option (4)

(v) " ... but it must be used carefully and critically." The idea of being *careful* and *critical* while using the internet is mainly a reference to:

- a. Hardware malfunction
- b. Plagiarism
- c. Troubleshooting
- d. Virus threats

(vi) Based on the given graphical representation of data in the passage, choose the option that lists the statements that are **TRUE** with respect to the usage of email.

1. **The everyday usage of email is more than the everyday usage of computer for personal use.**
2. **About 18% people use email once a week.**
3. **There are a smaller number of email users using it 2-3 times a week than the ones using it once a month.**
4. **Less than 5% of people never use the email.**

- a. 1 and 3
- b. 2 and 4
- c. 1 and 2
- d. 3 and 4

(vii) Based on the given graphical chart, pick the option that lists the area of zero response from respondents.

- a. Never using the internet for work and leisure.
- b. Daily use of the computer for academic activities.
- c. Writing and receiving emails once a week.
- d. Using the internet for personal tasks once a month.

(viii) In the cartoon, the student's reaction reveals that he is

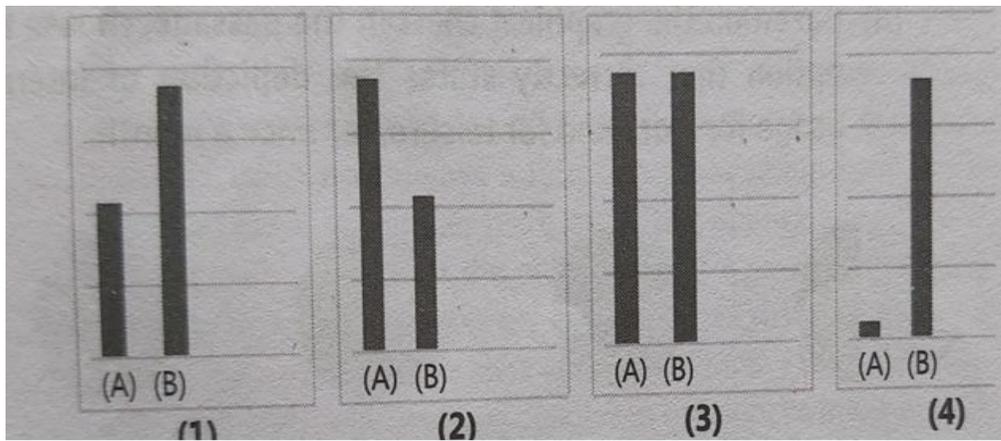
- a. indignant
- b. apologetic
- c. obedient
- d. inquisitive

(ix) Which of the following statements is **NOT** substantiated by information in paragraph 4?

- a. About three-quarters of the respondents preferred print books for recreational reading.
- b. A little less than 50% of the respondents voted for e-books for research or assignments.
- c. More than 50% respondents stated enjoying both versions of books for leisure reading.
- d. The survey was intended for understanding the e-book experience among students.

(x) According to the 2018 survey, pick the option that correctly displays the features of:

- A. Page numbers for use in citation, and
- B. Content transfer between devices respectively.



- a. Option (1)
- b. Option (2)
- c. Option (3)
- d. Option (4)

(xi) Arrange the given e-book features preferred for research from the least favourite to the most favourite, from the following:

1. Downloading the entire e-book.
2. Choosing page numbers in citations.
3. Highlighting text.
4. Resizing text to fit screen.

- a. 1, 3, 4, 2
- b. 3, 2, 1, 4
- c. 2, 4, 3, 1
- d. 4, 1, 2, 3

LITERATURE

(20 marks)

Q.3. Read the extracts given below and attempt ANY TWO of the three given by answering the questions that follow: (1X4 + 1X4 = 8)

A.

“Thirty years later I visited his town and the temple, which was now drowned in an air of desolation. In the backyard, where lived the new priest, there were red and white plastic chairs. A young boy dressed in a grey uniform, wearing socks and shoes, arrived panting and threw his school bag on a folding bed. Looking at the boy, I remembered the prayer another boy had made to the goddess when he had finally got a pair of shoes...”

(i) Which town did the narrator visit?

- a. Seemapuri
- b. Delhi
- c. Udipi
- d. Firozabad

(ii) Name the literary device used in 'drowned in an air of desolation'.

- a. Oxymoron
- b. Paradox
- c. Hyperbole
- d. Simile

(iii) What was the prayer that another boy had made to the goddess?

- a. Let me have more shoes
- b. Let me never lose them
- c. Let me go to the big city
- d. Let me go to a big school

(iv) Name the chapter of the excerpt given and its author.

- a. The Last Lesson and Alphonse Daudet
- b. Lost Spring and Kamala Das
- c. Deep Water and Anees Jung
- d. Lost Spring and Anees Jung

B.

Thus, piece by piece, he built a swimmer. And when he had perfected each piece, he put them together into an integrated whole. In April he said, "Now you can swim. Dive off and swim the length of the pool, crawl stroke."

I did. The instructor was finished.

(i) What does 'piece by piece' mean here?

- a. Combination of techniques
- b. One technique after another
- c. One pool after another
- d. Both a and b

(ii) How much time did it take for Douglas to be able to swim?

- a. About Six months
- b. About a year
- c. One month
- d. Three weeks

(iii) What quality of Douglas is revealed here?

- a. Patience
- b. Fearlessness
- c. Perseverance
- d. Contentment

(iv) What was the purpose of Douglas behind this swimming lesson?

- a. Get rid of fear
- b. To become the best swimmer
- c. Acquire skill and get rid of fear
- d. All of the above

C.

Louisa was pretty worried when I told her all this, and didn't want me to look for the third level any more, and after a while I stopped; I went back to my stamps. But now we're *both* looking, every weekend, because now we have proof that the third level is still there.

(i) What was the cause of Louisa's worry?

- a. Charley did not sleep well
- b. Charley was constantly trying to find the third level
- c. Charley had withdrawn all their savings from the bank
- d. Both (b) and (c)

(ii) Charley went back to his stamps. What among the following is a possible explanation for this?

- a. He had nothing else to do other than stamp collecting
- b. His friends were right when they said his stamp collection was 'a temporary refuge from reality'
- c. He was lagging behind in his collection.
- d. He needed to keep himself occupied so as not to wander for the third level again

(iii) Why does Charley insist on 'both' when he says they are looking for the third level now?

- a. Earlier he had gone alone to the third level
- b. Earlier Louisa didn't believe his story of the third level
- c. Now Louisa also needs an escape in life
- d. All of the above

(iv) What proof do Charley and Louisa have now that the third level really exists?

- a. Sam's letter from Galesburg 1894 where he could reach only through the third level
- b. Newspaper 'The World' being delivered at his doorstep
- c. Grandfather's first -day covers from 1890s
- d. New time table issued by New York Central railroads

Q.4. Read the extracts given below and attempt ANY ONE of the two given by answering the questions that follow. (1 X 4 = 4)

A.

**"Unless, governor, inspector, visitor,
This map becomes their window and these windows
That shut upon their lives like catacombs,
Break O break open till they break the town
And show the children to green fields, and make their world
Run azure on gold sands.."**

(i) "Break O break open...". What should be broken?

- a. Windows of the classroom
- b. The barriers that keep children in miserable surroundings
- c. Catacombs in the town
- d. Maps hanging on the walls

- (ii) What does 'map' stand for?
- World of prosperity
 - World of equality
 - Powerful nations
 - Physical map of the world
- (iii) Showing the children green fields indicates
- Taking them on a tour to beautiful sites
 - Instilling love for nature
 - Providing equal opportunities
 - Teaching them the importance of greenery
- (iv) The lines given above show a shift from
- Pessimism to optimism
 - Misery to hope
 - Darkness to brightness
 - All of the above

OR

B.

**Those who prepare green wars,
wars with gas, wars with fire,
victory with no survivors,
would put on clean clothes
and walk about with their
brothers
in the shade, doing nothing.**

- (i) Which kind of war is not mentioned in the lines given above?
- Chemical warfare
 - War against nature
 - Extra terrestrial invasion
 - Nuclear war
- (ii) What does poet mean by "put on clean clothes"?
- Wearing clean clothes
 - Start cleaning campaign
 - Adopting a humane outlook towards world
 - Both (a) and (c)
- (iii) What is the poetic device used in 'victory with no survivors'?
- Metaphor
 - Pun
 - Personification
 - Hyperbole

(iv) What does the word 'shade' mean here?

- a. Powerless people
- b. Peaceful atmosphere
- c. Protection from war
- d. Place to take rest

Q.5. Attempt EIGHT questions from ten given below:

(1 X 8= 8)

(i) "But Sadao, searching the spot of black in the twilighted sea that night, had his reward." What was Sadao's reward?

- a. Sadao had got a promotion from Governor
- b. His own life was saved
- c. American prisoner had successfully escaped
- d. The servants had returned

(ii) When Douglas was going down in the pool for the third time, a blackness swept over his brain. Why?

- a. He was getting unconscious
- b. He could not see clearly
- c. Yellow water turned black for him
- d. He experienced intense fear

(iii) What impression do we get of people of Galesburg in 1894 through Sam's letter?

- a. They are music lovers
- b. They are friendly
- c. They are hospitable
- d. All of the above

(iv) Why are children compared to rootless weeds?

- a. They are homeless
- b. They are uncared for
- c. They are diseased
- d. They are sturdy like weeds

(v) Why should the bangle makers organize themselves into a cooperative?

- a. To escape the torture by police
- b. To form labour union
- c. To get out of the clutches of middlemen
- d. To show leadership skills

(vi) Why is it important to 'do nothing' while maintaining silence?

- a. To give rest to our bodies
- b. To coordinate mind and body
- c. To clear misunderstandings
- d. To nurture positive thoughts without any distraction

(vii) What according to M Hamel is the reason that Frenchmen of Alsace could neither speak nor write their own language?

- a. People put off learning till next day
- b. They went sliding on the Saar
- c. They were always busy with their fish hooks
- d. Teacher used to go fishing all the time

(viii) What among the following is not true about Sadao's father?

- a. He was ambitious for his son
- b. He was hesitant about Sadao and Hana's marriage
- c. He had dreams for the future of Japan
- d. He was very particular about his traditions

Choose the correct option after reading statements of assertion and reason in Q. No. (ix) & (x)

(ix) Assertion (A): Youthfulness of trees and the merry children are a contrast to poet's aging mother.

Reason (R): Poet Kamala Das tries to cover her pain and fear of separation from her mother behind a smiling face.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is NOT the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

(x) Assertion (A): M Hamel was sitting motionless in his chair gazing at everything in that little school room as if trying to capture their images.

Reason (R): It must be heartbreaking for M Hamel to hear his sister packing their trunks in the room above.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is NOT the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

PART - B (40 marks)

WRITING

(16 marks)

Q.6. Attempt ANY ONE of the following.

(1 X 3=3)

[A] You are Vasu Reddy, Secretary, Alakhnanda Housing Society, Ajmer. Write a notice for its residents requesting them to donate open heartedly in cash or in kind for the relief of flood affected people of Rajasthan. Do not exceed 50 words.

OR

[B] CBSE has introduced Art Integration projects as a compulsory activity in school curriculum. As Shree/ Shruti, Student Representative of Class XII, write a notice instructing Class XII students to form groups and finalize topics for this project. Ask them to provide all details within a specified period. (Word Limit: 50)

Q.7. Attempt ANY ONE of the following.

(1x 3=3)

[A] You are Ratan /Ratna of 314-F, Sai Colony, Chennai. You have completed Master degree in Social Work and have worked with an NGO for a few years. Your family is shifting to Kanpur next month and you are looking for a job in the new city. Draft a suitable classified advertisement in not more than 50 words.

OR

[B] Shakti Handlooms, M.G. Market, Ranchi is offering a grand sale on its old stock of bed covers and curtains. Draft a suitable classified advertisement mentioning quality and price of the items and the dates of sale. Do not exceed 50 words.

Q.8. Attempt ANY ONE of the following.

(1x 5=5)

[A] Rising cases of drug addiction among today's youth is a matter of grave concern. Write a letter to the editor of The Mumbai Times highlighting this issue and suggesting ways to bring the distracted youth out of this problem. You are Radhe/Radha of 12/24, Zero Mile, Thane. (Word Limit: 120-150)

OR

[B] Independence Day and Republic Day have only become a holiday for today's children and youth. Write a letter to the editor of The Times of India in 120-150 words emphasising on the need for children to know the true meaning of freedom and to participate enthusiastically in the celebration of these days. You are Radhe/Radha of 12/24, Zero Mile, Thane.

Q.9. Attempt ANY ONE of the following.

(1x 5=5)

- [A] Tokyo Olympics 2020 provided hope and happiness to millions of Indians like never before. Indians were more glued to their TV screens to cheer for their Olympians despite a cricket test match being played. Write an article in 120-150 words analyzing why this Olympics became an exciting sporting fortnight for Indians. You are Niketan / Nikita.

You can use the following hints:

- Medal on the first day
- Heart winning performances
- Players from all parts of country

OR

- [B] Parliament is a platform for debates and discussions for public welfare. But parliamentary sessions face continuous disruptions and often come to an end without proper proceedings even for a single day. Write an article (without any political bias) on the responsibility of Members of Parliament towards people. You are Niketan / Nikita. (Word Limit: 120-150)

You can use the following hints:

- India, the largest democracy
- Daily cost of running Parliament is in crores
- MPs represent people
- Difference of opinion shouldn't be destructive for people

LITERATURE

(24 marks)

Q.10. Attempt ANY FIVE out of the six questions given below in 30-40 words each. (2x5=10)

- What did M Hamel tell his class about the importance of language to the "enslaved" people?
- How can a huge silence interrupt the sadness within humans?
- Explain: "Few airplanes fly over Firozabad".
- "The instructor was finished. But I was not finished. ...But I was still not satisfied. ... Yet I had residual doubts." Why did Douglas take so long to be satisfied in spite of having learnt how to swim?
- What was the painful realization for Kamala Das?
- Spender's apprehension of endless night for slum children is replaced by his hope of history being created by them in the last stanza. Why?

Q.11. Attempt ANY TWO out of the three questions given below in 30-40 words each. (2x2=4)

- i. How was it that Sadao and Hana met by chance?
- ii. "There's nothing nice about jail, even in 1894." Why does Charley make this statement?
- iii. "This man", he thought, "there is no reason under heaven why he should live." How were Sadao's actions towards the enemy conflicting with his thoughts?

Q.12. Attempt ANY ONE of the following questions in 120-150 words. (1x5=5)

[A] How do the apathy of intellectuals and the greed of people in power contribute to the baggage on the child? Answer with reference to "Lost Spring".

OR

[B] How does Douglas give a vivid description of his fears and emotions faced in his misadventure in YMCA swimming pool? How did this fear become a handicap for him?

Q.13. Attempt ANY ONE of the following questions in 120-150 words. (1x5=5)

[A] "The Third Level" depicts the harsh reality of modern world in which almost every human being wants to escape into the past. How does Jack Finney bring this out?

OR

[B] Sadao's act of saving the American prisoner was an example of his professional ethics. But this would have been unlikely had he not possessed highest of all moral values, humanity. Justify.



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SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2021-2022)

Class:- XII
Time - 3 Hrs.

Subject:- Physics
F.M. :- 70

General Instruction:-

Read the following instructions very carefully and strictly follow them.

1. There are 33 questions in the question paper. All questions are compulsory.
2. This question paper comprises five sections A,B, C, D and E.
3. Section A contains ten very short answer questions and four assertion -reasoning MCQs of 1 mark each.
4. Section B has two case based questions of 4 marks each.
5. Section C contains nine short answer questions of 2 marks each .
6. Section D contains five short answer questions of 3 marks each.
7. Section E contains three long answer questions of 5 marks each.
8. There is no overall choice in the question paper. However internal choice has been provided. You have to attempt only one of the choices in such questions.

SECTION - A

[1x14=14]

1. A capacitor is charged by connecting a battery across its plates and stores energy U . Now the battery is disconnected and another identical uncharged capacitor is connected across the given capacitor. What is the energy stored by both capacitors of the system. [1]
2. A potential difference V is applied to a conductor of length l and diameter D . How are the electric field E , the drift velocity v_d affected when l is doubled? [1]

OR

Mention one advantage of the potentiometer over a voltmeter.

3. A charged particle moving in a uniform magnetic field penetrates a layer of lead and thereby loses one half of its kinetic energy. How does the radius of curvature of its path change ? [1]
4. Two point charges placed at a distance ' r ' in air exert a force F on each other. At what distance will these charges experience the same force F in a medium of dielectric constant k ? [1]
5. What orientation of an electric dipole in a uniform electric field corresponds to its (i) stable and (ii) unstable equilibrium. [1]

OR

Find the electric flux of the electric field $\vec{E} = \hat{i} + \sqrt{2} \hat{j} + \sqrt{3} \hat{k}$ (N/C) through a square surface of side 1000 cm, lying in the XY plane.

6. A plano convex lens has a refracting index 1.6 and radius of curvature 60 cm .
What is the focal length of the lens? [1]

OR

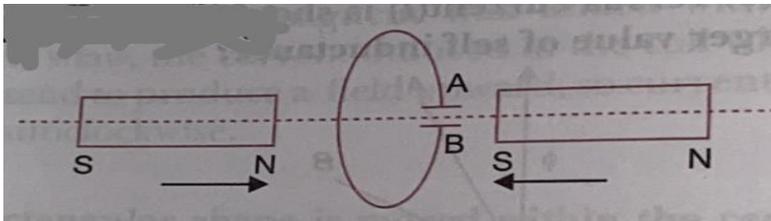
A ray of light passes through an equilateral glass prism such that the angle of incidence is equal to angle of emergence and each of these angles is equal to $\frac{3}{4}$ of angle of prism. What is the value of angle of deviation?

7. Name the electromagnetic waves, which (i) maintain the Earth's warmth and (ii) are used in aircraft navigation. [1]
8. How does the angle of minimum deviation of a glass prism vary if the incident violet light is replaced by red light? [1]
9. In a series LCR circuit, $V_L = V_C \neq V_R$. What is the value of power factor for this circuit? [1]

OR

The power factor of an AC circuit is 0.5 what is the phase difference between voltage and current in this circuit?

10. Predict the polarity of the capacitor C connected to coil, which is situated between two bar magnets moving as shown in figure. [1]



For Q. No. 11, 12, 13 and 14 two statements are given - one labelled Assertion (A) and the other labelled Reason (R) . Select the correct answers to these questions from the codes (a) , (b) (c) and (d) as given below.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A
- (c) A is true but R is false
- (d) Both A and R are false.

11. Assertion (A) : An electron moving along the direction of magnetic field experiences no force.

Reason: (R): The force on electron moving along the direction of magnetic field is

$$F = qvB \sin 0^\circ = 0$$

[1]

12. Assertion (A) : Work done in moving a charge between two points in an electric field is independent of the path followed by the charge between these two points.
Reason : (R) – Electrostatic forces are non-conservative. [1]
13. Assertion (A) : When charged capacitors are connected in parallel, the algebraic sum of charges remains constant but there is a loss of energy.
Reason (R): During sharing of charge , the energy conservation law does not hold. [1]
14. Assertion (A): - Total flux through a closed surface is zero if no charge is enclosed by the surface. [1]
Reason (R) : - Gauss law is true for any closed surface, no matter what its shape or size is.

SECTION - B

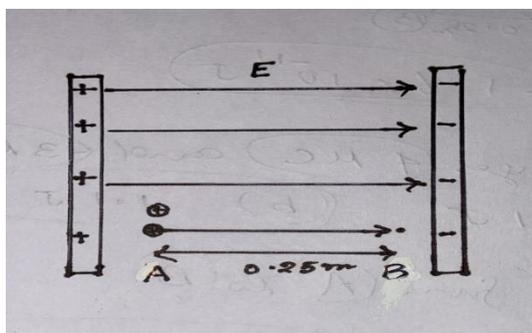
[4x2=8]

Q. No. 15 and Q.16 are case study based questions and are compulsory. Attempt any four sub-parts from each question. Each question carries one mark.

15. Potential Energy of the Proton

Potential difference (Δv) between two points A and B separated by a distance x , in a uniform electric field E is given by $\Delta v = -Ex$, where x is measured parallel to the field lines. If a charge q_0 moves from the A to B, the change in potential energy (Δu) is given as $\Delta u = q_0 \Delta v$. A proton is released from rest in uniform electric field of magnitude $4 \times 10^8 \text{ Vm}^{-1}$ directed along the positive X-axis. The proton undergoes a displacement of 0.25 m in the direction of E.

Mass of a proton = $1.66 \times 10^{-27} \text{ kg}$ and charge of proton = $1.6 \times 10^{-19} \text{ C}$.

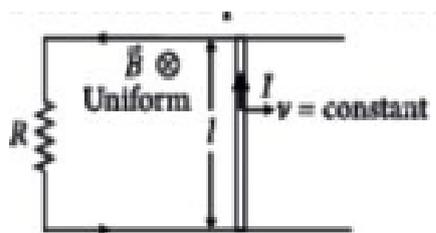


- (i) The change in electric potential of the proton between the points A and B is
a) $-1 \times 10^8 \text{ V}$ b) $1 \times 10^8 \text{ V}$ c) $6.4 \times 10^{-19} \text{ V}$ d) $-6.4 \times 10^{-19} \text{ V}$
- (ii) The change in electric potential energy of the proton for displacement from A to B is
a) $1.6 \times 10^{11} \text{ J}$ b) $0.5 \times 10^{23} \text{ J}$ c) $-1.6 \times 10^{-11} \text{ J}$ d) $3.2 \times 10^{22} \text{ J}$
- (iii) The mutual electrostatic potential energy between two protons which are at a distance of $9 \times 10^{-15} \text{ m}$, in ${}_{92}\text{U}^{235}$ nucleus is
a) $1.56 \times 10^{-14} \text{ J}$ b) $5.5 \times 10^{-14} \text{ J}$ c) $2.56 \times 10^{-14} \text{ J}$ d) $4.56 \times 10^{-14} \text{ J}$

- (iv) If a system consists of two charges $4 \mu\text{C}$ and $-3 \mu\text{C}$ with no external field placed at $(-5\text{cm}, 0, 0)$ and $(5\text{cm}, 0, 0)$ respectively. The amount of work required to separate the two charges infinitely away from each other is
- (a) -1.1J b) 1.1J c) 2.5J d) 3J
- v) As the proton moves from A to B, then
- a) the potential energy of proton decreases
 b) the potential energy of proton increases
 c) the proton loses kinetic energy
 d) total energy of the proton increases

16. Motional EMF from Lorentz Force

The emf induced across the ends of a conductor due to its motion in a magnetic field is called motional emf. It is produced due to the magnetic Lorentz force acting on the free electrons of the conductor. For a circuit shown in figure, if a conductor of length l moves with velocity v in a magnetic field B perpendicular to both its length and the direction of the magnetic field, then all the induced parameters are possible in the circuit.



- (i) Direction of current induced in a wire moving in a magnetic field is found using.
- a) Fleming's left hand rule b) Fleming's right hand rule
 c) Ampere's rule d) Right hand Clasp rule
- (ii) A conducting rod of length l is moving in a transverse magnetic field of strength B with velocity v . The resistance of the rod is R . The current in the rod is
- a) $\frac{Blv}{R}$ b) $\frac{Blv}{2R}$ c) zero d) $\frac{B^2v^2l^2}{R}$
- (iii) A 0.1 m long conductor carrying a current of 50 A is held perpendicular to a magnetic field of 1.25 mT . The mechanical power required to move the conductor with a speed of 1m/s is
- a) 62.5 mW b) 625 mW c) 6.25 mW d) 12.5 mW
- (iv) A bicycle generator creates 1.5 V at 15 km/hr . The EMF generated at 10 km/hr is
- a) 1.5 volts b) 2 volts c) 0.5 volts d) 1 volt

(v) The dimensional formula for emf ϵ will be

- a) $[ML^2T^{-3}A^{-1}]$ b) $[ML^2T^{-1}A]$ c) $[ML^2A]$ d) $[MLT^{-2}A^{-2}]$

SECTION - C

[2x9=18]

All questions are compulsory. In case of internal choices attempt anyone.

17. A metallic spherical shell has an inner radius R_1 and outer radius R_2 . A charge Q is placed at the centre of the spherical cavity. What will be surface charged density on (i) the inner surface and (ii) the outer surface?

OR

Define equipotential surface. Draw equipotential surface for an electric field pointing toward positive z axis with its magnitude increasing at constant rate along negative z axis.

18. Two wires X and Y have the same resistivity but their cross sectional area are in the ratio 2:3 and lengths in the ratio 1:2. They are connected first in (i) series and then (ii) parallel. Find the ratio of the drift speeds of electron in the two wires for the two cases.

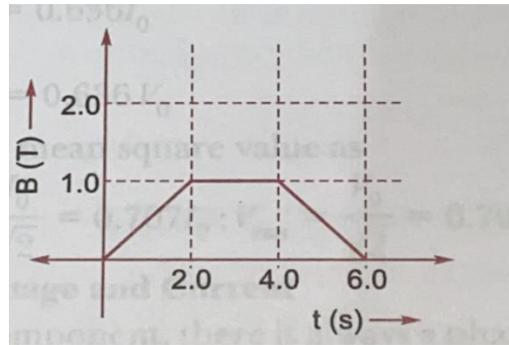
OR

A storage battery of emf 8V internal resistance 0.5Ω is charged in a d.c supply of 120 V using a series resistance of 15.5Ω

- a) Calculate the potential difference across the battery
b) What is the purpose of having series resistor?
19. An optical instrument uses a lens of 100 D for the objective lens and 50 D for the eye piece, when the tube length is kept at 20 cm, the final image is formed at infinity.
a) Identify the optical instrument
b) Calculate magnification provided by the instrument.
20. a) Define mutual Inductance.
b) A pair of adjacent coil has a mutual inductance of 1.5H. If the current in one coil changes from 0 to 20 A in 0.5 s, what is the change of flux linkage with the other coil?

OR

The magnetic field through a circular loop of wire 12 cm in radius and 8.5Ω resistance, changes with time as shown in the figure. The magnetic field is perpendicular to the plane of the loop. Calculate the induced current in the loop and plot it as a function of time.



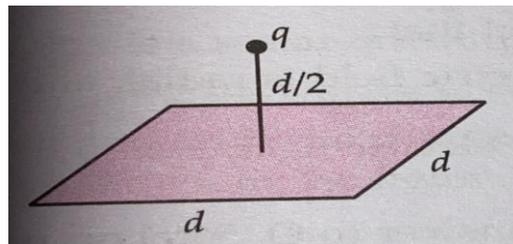
21. Identify the electromagnetic waves whose wavelengths lies in the range

- a) $10^{-11} \text{ m} < \lambda < 10^{-8} \text{ m}$
- b) $10^{-4} \text{ m} < \lambda < 10^{-1} \text{ m}$

Write one use of each

22. Write two properties of a material suitable for making a) a permanent magnet and b) an electro magnet .

23. a) A point charge q is at a distance of $d/2$ directly above the centre of a square of side d , as shown in the figure below. Use Gauss's law to obtain the expression for the electric flux through the square.



b) If the point charge is now moved to a distance ' d ' from the centre of the square and the side of the square is doubled, explain how the electric flux will be affected.

24. Two long and parallel straight wires carrying current of 2A and 5A in the opposite directions are separated by a distance of 1cm. Find the nature and magnitude of the magnetic force between them.

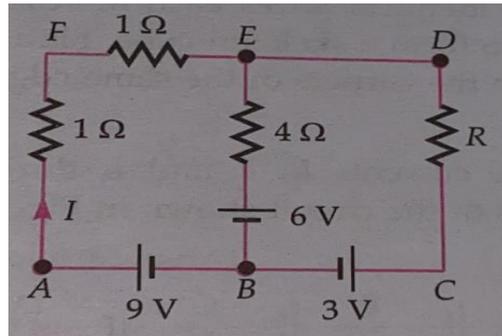
25. Keeping the voltage of the charging source constant, what would be the percentage change in the energy stored in a parallel plate capacitor if the separation between its plates were decreased by 10 %?

SECTION - D

[3x5=15]

All questions are compulsory. In case of internal choices, attempt any one.

26. Using Kirchhoff's rules, determine the value of unknown resistance R in the circuit shown in the figure below, so that no current flows through $4\ \Omega$ resistance. Also find the potential difference between A & D.



27. State the working principle of a potentiometer. Explain with the help of a circuit diagram, how the emfs of two primary cells are compared by using a potentiometer.

OR

- a) Define the term conductivity of a metallic wire. Write its SI unit.
 - b) Using the concept of free electrons in a conductor derive the expression for the conductivity of wire in terms of number density and relaxation time. Hence obtain a relation between current density and applied electric field E .
28. Two identical coils P and Q each of radius R are lying in perpendicular planes such that they have a common centre. Find the magnitude and direction of the magnetic field at the common centre of the two coils, if they are carrying currents equal to I and $\sqrt{3} I$ respectively.

OR

A toroid has a core of inner radius 20cm and outer radius 22 cm around which 4200 turns of a wire are wound. If the current in the wire is 10 A, what is the magnetic field (i) inside the core of toroid (ii) outside the toroid (iii) in the empty space surrounded by the toroid.

29. A biconvex lens of glass of refractive index 1.5 having focal length 20 cm is placed in a medium of refractive index 1.65 . Find its focal length. What should be the value of the refractive index of the medium in which the lens should be placed so that it acts as a plane sheet of glass?
30. How is a galvanometer converted into a voltmeter and an ammeter? Draw the relevant diagrams and find the resistance of the arrangement in each case. Take resistance of galvanometer as G.

SECTION - E

[5x3=15]

All questions are compulsory. In case of internal choices attempt anyone.

31. a) State Gauss's theorem.
- b) Using Gauss's theorem obtain expression for electric field intensity (\vec{E}) due to an infinitely long positively charged straight wire having linear charge density λ .
- c) Draw a graph to show the variation of E with perpendicular distance r from the line of charge.

OR

- a) Obtain the expression for energy stored in a capacitor.
- b) The two plates of a parallel plate capacitor are 4 mm apart. A slab of dielectric constant 3 and thickness 3mm is introduced between the plates with faces parallel to them. The distance between the plates is adjusted so that capacitance of the capacitor becomes $\frac{2}{3}$ times of the original value. What is the new distance between them?
32. State the working of ac generator with the help of a labelled diagram.

The coil of an ac generator having N turns , each of area A, is rotated with constant angular velocity ω . Deduce the expression for the alternating emf generated in the coil. What is the source of energy generation in the device?

OR

- a) Describe briefly, with the help of a labelled diagram , the working of a step up transformer.
- b) Write any two sources of energy loss in a transformer.
- c) A step up transformer converts a low voltage into high voltage. Does it not violate the principles of conservation of energy? Explain.

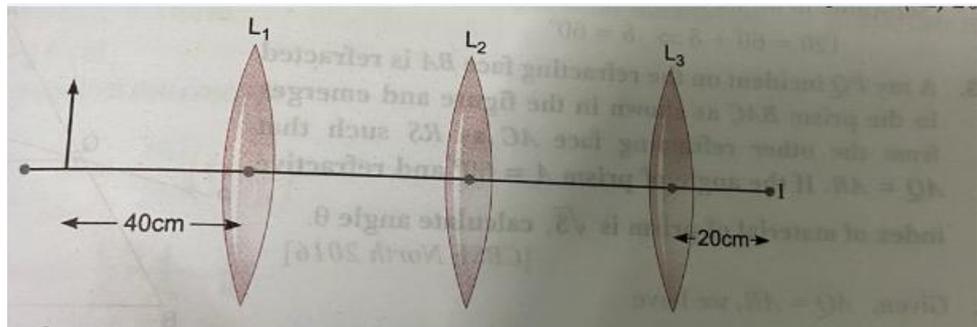
33. a) State Huygens's Principle.

b) Use Huygens's Principle to show how a plane wave front propagates from a denser to rarer medium. Hence verify Snell's law of refraction.

OR

a) Derive the lens formula for a thin lens by using necessary ray diagram.

b) You are given three lenses L_1 , L_2 and L_3 each of focal length 20 cm. An object is kept at 40 cm in front of L_1 as shown. The final image is formed at the focus of L_3 . Find the separation between L_1 , L_2 and L_3 .





DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class:- XII
Time- 3 Hrs.

Subject:- Chemistry
M.M-70

General Instructions:-

Read the following instructions very carefully and strictly follow them:

- (i) Question paper comprises four sections - A, B, C and D.
- (ii) There are 33 questions in the questions paper. All questions are compulsory.
- (iii) Section - A: Q. No. 1 to 16 are very short answer type questions carrying one mark each. Answer these questions are passage based , reason assertion based and MCQ
- (iv) Section - B: Q. No. 17 to 25 are short answer type questions carrying two marks each.
- (v) Section - C: Q. No. 26 to 30 are long answer type-I questions carrying three marks each.
- (vi) Section - D: Q. No. 31 to 33 are long answer type-II questions carrying five marks each.
- (vii) There is NO overall choice in the question paper. However an internal choice has been provided . You have to attempt only one of the choices in such questions.
- (viii) However, separate instructions are given with each section and question, wherever necessary.

SECTION: A

Directions: These questions consist of two statements, each printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses.

- (a) If both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion.
- (b) If both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion.
- (c) If the Assertion is correct but Reason is incorrect.
- (d) If both the Assertion and Reason are incorrect. [1x4=4]

Q.1 I. Assertion: Detergents with low CMC are more economical to use.

Reason: Cleansing action of detergents involves the formation of micelles. These are formed when the concentration of detergents becomes equal to CMC.

II. Assertion : The value of colligative properties are of small order for colloids as compared to true solution.

Reason : Number of particles in colloidal solution is comparatively smaller than true solutions.

III. Assertion: An ordinary filter paper impregnated with collodion solution stops the flow of colloidal particles.

Reason: Pore size of the filter paper becomes more than the size of colloidal particle.

IV. Assertion (A): Coagulation power of Al^{3+} is more than Na^{+}

Reason (R): Greater the Valency of the flocculating ion added, greater is its power to cause precipitation (Hardy-Schulze rule).

Q.2 Read the passage and answer the following questions. [1x4=4]

The adjective, 'crystalline' when applied to solids, implies an ideal crystal in which the structural units, termed as unit cells, are repeated regularly and indefinitely in three dimensions in space. The unit cell, containing at least one molecule has definite orientation and shape defined by the translational vectors, a , b and c . The unit cell therefore has a definite volume, V that contains the atoms and molecules necessary for generating the crystal. The unit cell are described as simple cubic face centred and body centred unit cell. For the stable ionic crystalline structures, there is a definite radius ratio for a cation to fit perfectly in the lattice of anions called radius ratio rule.

The following questions are multiple choice questions. Choose the most appropriate answer:

I. The number of atoms per unit cell in simple cubic (s), body centred (b) and face centred (f) unit cell decreases as

(a) $f > b > s$

(b) $s > b > f$

(c) $b > f > s$

(d) $f > b = s$

II. The lattice site in a pure crystal cannot be occupied by

(a) molecule

(b) ion

(c) electron

(d) atom

III. The edge lengths of the unit cells in terms of the radius of spheres constituting fcc, bcc and simple cubic unit cells are respectively

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

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

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

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

IV. In which pair most efficient packing is present?

(a) hcp and bcc

(b) hcp and ccp

(c) bcc and ccp

(d) bcc and simple cubic cell

Following questions from 3 to 11 are multiple choice questions carrying 1 mark each

Q.3 Hydrocarbons are formed when aldehydes and ketones are reacted with amalgamated zinc and conc. HCl. The reaction is called [1]

(a) Cannizzaro reaction

(b) Clemmensen reduction

(c) Rosenmund reduction

(d) Wolff-Kishner reduction

Q.4 Propanone can be prepared from ethyne by [1]

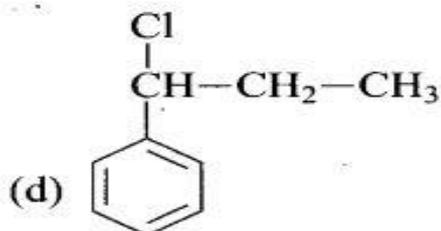
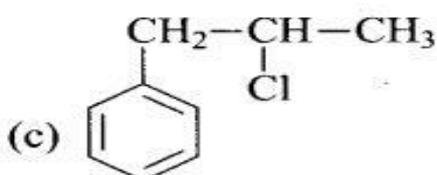
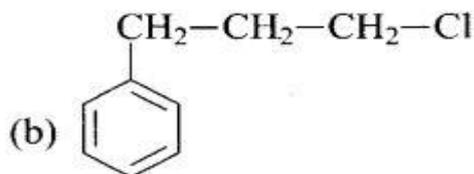
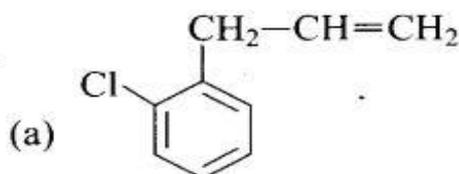
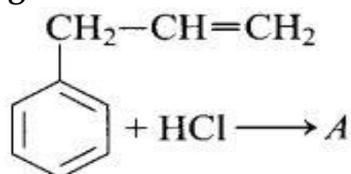
(a) passing a mixture of ethyne and steam over a catalyst, magnesium at 420°C

(b) passing a mixture of ethyne and ethanol over a catalyst zinc chromite

(c) boiling ethyne with water in the presence of HgSO₄ and H₂SO₄

(d) treating ethyne with iodine and NaOH

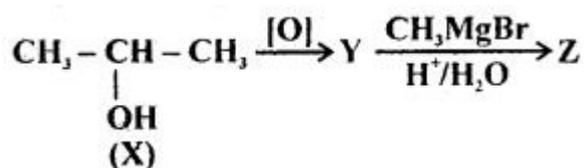
Q.5 What is A in the following reaction? [1]



- Q.6 In SN2 reactions with the sequence of bond breaking and bond formation is as follows [1]
- bond breaking is followed by formation
 - bond formation is followed by breaking
 - bond breaking and formation are simultaneously
 - bond breaking and formation take place randomly

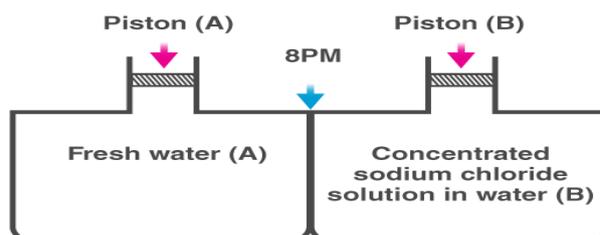
- Q.7 Which of the following molecules has highest dipole moment? [1]
- CH₃Cl
 - CH₂Cl₂
 - CHCl₃
 - CCl₄

- Q.8 In the following reaction sequence Z is [1]



- butan-1-ol
 - butan-2-ol
 - 2-methylpropan-2-ol
 - 1, 1-dimethylethanol
- Q.9 An alcohol X when treated with hot cone. H₂SO₄ gave an alkene Y with formula C₄H₈. This alkene on ozonolysis gives single product with molecular formula C₂H₄O. The alcohol is [1]
- butan-1-ol,
 - butan-2-ol
 - 2-methylpropan-1-ol
 - 2,2-dimethylbutynal
- Q.10 The correct option among the following is [1]
- colloidal particles in lyophobic sols can be precipitated by electrophoresis
 - colloidal medicines are more effective because they have small surface area
 - addition of alum to water makes it unfit for drinking
 - Brownian motion in colloidal solution is faster if the viscosity of the solution is very high.

- Q.11 Lyophilic colloids are stable due to [1]
- charge on the particles.
 - large size of the particles.
 - small size of the particles.
 - layer of dispersion of medium on the particles.
- Q.12 In Freundlich adsorption isotherm $x/m = Kp^{1/n}$, the value of 'n' at low pressure is [1]
- more than one.
 - less than one.
 - equal to one.
 - from zero to one.
- Q.13 Sprinkling of salt helps in clearing the snow covered roads in hills. The phenomenon involved in the process is [1]
- lowering in vapour pressure of snow
 - depression in freezing point of snow
 - melting of ice due to increase in temperature by putting salt
 - increase in freezing point of snow
- Q.14 Which of the following solutions shows positive deviation from Raoult's law? [1]
- Acetone + Aniline
 - Acetone + Ethanol
 - Water + Nitric acid
 - Chloroform + Benzene
- Q.15 Consider figure and mark the correct option. [1]
- water will move from the side (A) to side (B) if a pressure lower than the osmotic pressure is applied on piston (B).
 - water will move from the side (B) to side (A) if a pressure greater than the osmotic pressure is applied on piston (B).
 - water will move from the side (B) to side (A) if a pressure equal to osmotic pressure is applied on piston (B).
 - water will move from the side (A) to side (B) if pressure equal to osmotic pressure is applied on the piston.



Q.16 Alkali halides do not show Frenkel defect because [1]

- (a) cations and anions have almost equal size
- (b) there is a large difference in size of cations and anions
- (c) cations and anions have low coordination number
- (d) anions cannot be accommodated in void

SECTION: B

Q.17 Illustrate the following reactions giving a chemical equation for each :

- (i) Reimer-Tiemann reaction
- (ii) Williamsons synthesis of an ether

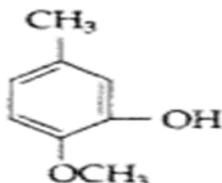
[2]

OR

How are the following conversions carried out?

- (i) Phenol to aspirin.
- (ii) Ethyl magnesium bromide to Propan-1-ol

Q.18 a) Write IUPAC name of the following

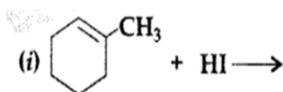


b) Which of the following isomers is more volatile : o-nitrophenol or p-nitrophenol and why? [2]

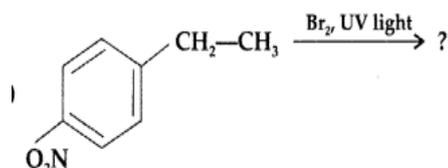
Q.19 (a) . Aryl chlorides and bromides can be easily prepared by electrophilic substitution of arenes with chlorine and bromine respectively in the presence of Lewis acid catalysts. But why does preparation of aryl iodides require presence of an oxidizing agent?

(b) Alkyl halides, though polar, are immiscible with water [2]

Q.20. Complete the following reaction equations : [2]



(ii)



Q.21 A reaction is of second order with respect to its reactant. How will its reaction rate be affected if the concentration of the reactant is (i) doubled (ii) reduced to half? [2]

Q.22 a) Can

$$E_{\text{cell}}^{\circ} \text{ or } \Delta_r G^{\circ}$$

for cell reaction ever be equal to zero?

b) Under what condition is

$$E_{\text{cell}} = 0 \text{ to } \Delta_r G = 0?$$

[2]

Q.23 15.0 g of an unknown molecular material was dissolved in 450 g of water. The resulting solution was found to freeze at -0.34°C . What is the molar mass of this material? (K_f for water = $1.86 \text{ K kg mol}^{-1}$)

[2]

Q.24 State Henry's law. What is the effect of temperature on the solubility of a gas in a liquid?

[2]

Q.25 (i) Why does white ZnO (s) become yellow upon heating?

(ii) Why does table salt, NaCl sometimes appear yellow in colour?

[2]

SECTION -C

Q.26 Explain the following:

(i) Deltas are formed when river and sea water meet.

(ii) What happens when gelatin is mixed with gold sol?

(iii) physisorption and chemisorption behave differently with rise in temperature.

[3]

OR

Explain what is observed when :

(i) A beam of light is passed through a colloidal solution.

(ii) NaCl solution is added to hydrated ferric oxide sol.

(iii) Electric current is passed through a colloidal solution

Q.27 (i) What is the order of the reaction whose rate constant has same units as the rate of reaction?

(ii) For a reaction $\text{A} + \text{H}_2\text{O} \rightarrow \text{B}$;

$$\text{Rate} \propto [\text{A}],$$

What is the order of this reaction? Explain.

(iii) Why is the probability of reaction with molecularity higher than three very rare? [3]

Q.28 a) What is limiting molar conductivity? Why there is steep rise in the molar conductivity of weak electrolyte on dilution?

b) Which out of 0.1M HCl and 0.1M NaCl , do you expect to have higher Λ_m^{∞} and why ? [3]

- Q.29 (i) On mixing liquid X and liquid Y, volume of the resulting solution decreases. What type of deviation from Raoult's law is shown by the resulting solution? What change in temperature would you observe after mixing liquids X and Y?
- (ii) What happens when we place the blood cell in water (hypotonic solution)? Give reason. [3]

- Q.30 Copper crystallises with face centred cubic unit cell. If the radius of copper atom is 127.8 pm, calculate the density of copper metal.
- (Atomic mass of Cu = 63.55 u and Avogadro's number $N_A = 6.02 \times 10^{23} \text{ mol}^{-1}$) [3]

SECTION -D

- Q.31 a) Define conductivity and molar conductivity for the solution of an electrolyte. Discuss their variation with concentration.

(b) A voltaic cell is set up at 25°C with the following half cells :
Al/Al³⁺ (0.001 M) and Ni/Ni²⁺ (0.50 M)

Write an equation for the reaction that occurs when the cell generates an electric current and determine the cell potential.

$E^0_{\text{Ni}^{2+}/\text{Ni}} = -0.25\text{V}$ and $E^0_{\text{Al}^{3+}/\text{Al}} = -1.66\text{V}$ [3+2=5]

OR

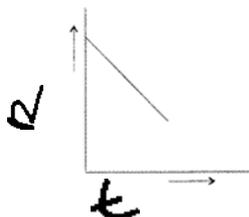
- a) The conductivity of 0.001 molL⁻¹ solution of CH₃COOH is 3.905 × 10⁻⁵ S cm⁻¹. Calculate its molar conductivity and degree of dissociation (α).

Given: $\lambda^0(\text{H}^+) = 349.6 \text{ S cm}^2 \text{ mol}^{-1}$ and $\lambda^0(\text{CH}_3\text{COO}^-) = 40.9 \text{ S cm}^2 \text{ mol}^{-1}$.

- (b) State and explain Kohlrausch law. What happens if external potential applied becomes greater than E^0_{cell} of electrochemical cell?

- Q.32 a) For a chemical reaction $\text{R} \rightarrow \text{P}$, the variation in the concentration (R) vs. time (t) plot is given as

- (i) Predict the order of the reaction.
(ii) What is the slope of the curve?



- b) The following data were obtained during the first order thermal decomposition of SO₂ at a constant volume :



Experiment	Time/s	Total pressure/atm
1	0	0.4
2	100	0.7

Calculate the rate constant.

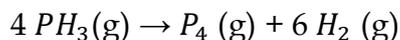
(Given : $\log 4 = 0.6021$, $\log 2 = 0.3010$) [5]

OR

a) Explain the following terms :

(i) Specific Rate Constant

(b) The decomposition of phosphine, PH_3 , proceeds according to the following equation:



It is found that the reaction follows the following rate equation :

$$\text{Rate} = K [PH_3]$$

The half-life of PH_3 is 37.9 s at $120^\circ C$.

(i) How much time is required for 3/4th of PH_3 decompose ?

(ii) What fraction of the original sample of PH_3 remains behind after 1 minute? [5]

Q.33 a) An organic compound 'A' with molecular formula C_8H_8O forms an orange red precipitate with 2,4-DNP reagent and gives yellow precipitate on heating with I_2 and NaOH. It neither reduces Tollen's reagent nor Fehling's reagent nor does it decolourize bromine water or Baeyer's reagent. On drastic oxidation with chromic acid, it gives a carboxylic acid 'B' having molecular formula $C_7H_6O_2$. Identify the compounds 'A' and 'B' and explain the reactions involved. [5]

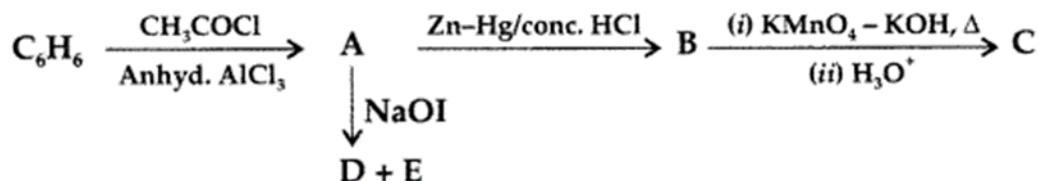
b) Give simple tests to distinguish between the following pairs of compounds :

(i) Pentan-2-one and Pentan-3-one

(ii) Phenol and Benzoic acid

OR

a) Write the structures of A, B, C, D and E in the following reactions:





DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2021-2022)

Class:-XII

Time- 3 Hrs.

Subject:- Mathematics

M.M- 80

General Instructions:-

This question paper contains two parts A and B. Each part is compulsory. Part A carries 24 marks and part B carries 56 marks.

PART - A

- 1 . It consists of two sections I and II
2. Section I comprises of 16 very short answer type questions. Internal choice is provided in 2 questions.
3. Section II contains two case study questions. Each case study comprises of 5 Cased Based Multiple Choice Questions. Examinees have to attempt any 4 out of 5 MCQs.

PART - B

1. It consists of three sections III , IV and V
2. Section III comprises of 10 questions of 2 marks each.
3. Section IV comprises of 7 questions of 3 marks each.
4. Section V comprises of 3 questions of 5 marks each.
5. Internal choice is provided in 3 questions of Section III , 2 questions of section IV and 3 questions of section V. Examinees have to attempt only one of the alternatives in all such questions.

PART - A

SECTION - I

[1x16=16]

All questions are compulsory. In case of internal choices attempt any one

1. Let $A = \{1,2,3\}$. Show that the number of equivalence relations in A containing (1,2) is 2.
2. Let $x,y,z \in [-1,1]$ be such that $\sin^{-1} x + \sin^{-1} y + \sin^{-1} z = \frac{3\pi}{2}$ find the value of $x^2 + y^2 - z^2$.
3. Find the domain of $f(x) = \sin^{-1} x + \sin^{-1} 2x$.
4. Find the number of all possible matrices of order 3×3 with each entry 5 or 7.
5. Find the adjoint of the matrix $A = \begin{bmatrix} -3 & 2 \\ 7 & -5 \end{bmatrix}$
6. Given $\begin{vmatrix} 2x & 5 \\ 8 & x \end{vmatrix} = \begin{vmatrix} 6 & 5 \\ 8 & 3 \end{vmatrix}$ find x if $x < 0$.

7. Using determinants find the equation of the line joining the points (3, 1) and (9, 3).

8. If $\tan^{-1}(x^2 + y^2) = a$ find $\frac{dy}{dx}$, where a is a constant.

9. Find the relationship between a and b so that the function f defined by

$$f(x) = \begin{cases} ax + 1, & \text{if } x \leq 3 \\ bx + 1, & \text{if } x > 3 \end{cases}$$

is continuous at $x = 3$.

10. If $x = a(\theta - \sin\theta)$, $y = a(1 + \cos\theta)$ prove that $\frac{dy}{dx} = -\cot\frac{\theta}{2}$

OR

Differentiate $\tan^{-1}\left(\frac{\sin x}{1 + \cos x}\right)$ w.r.t x.

11. Find the angle between two vectors \vec{a} and \vec{b} with magnitudes $\sqrt{3}$ and 4 respectively such that $\vec{a} \cdot \vec{b} = 2\sqrt{3}$.

12. If $\vec{a} = (\hat{i} + 3\hat{j} - 2\hat{k}) \times (-\hat{i} + 3\hat{k})$ find $|\vec{a}|$

OR

If $|\vec{a}| = 2$, $|\vec{b}| = 3$ and $\vec{a} \cdot \vec{b} = 2$ find $|\vec{a} - \vec{b}|$.

13. Find the distance of the point whose position vector is $2\hat{i} + \hat{j} - \hat{k}$ from the plane $\vec{r} \cdot (\hat{i} - 2\hat{j} + 4\hat{k}) = 9$.

14. Write the direction ratios of the line $\frac{x+2}{2} = \frac{2y-5}{-3}$; $z = 2$.

15. If $P(A) = 0.3$, $P(B) = 0.6$, $P\left(\frac{B}{A}\right) = 0.5$ find $P(A \cup B)$.

16. If a leap year is selected at random find the probability that it will contain 53 Tuesdays?

SECTION - II

[1x16=16]

Both of the following case study questions are compulsory. Attempt any 4 subparts of each question. Each part carries 1 mark.

17. The sum of the surface areas of a rectangular parallelepiped with sides $x, 2x$ and $\frac{x}{3}$ and a sphere of radius y is given to be constant.

On the basis of above information answer the following questions:

(i) Let the constant be S then which of the following is correct

(a) $S = 4x^2 + 6\pi y^2$

(b) $S = 6x^2 + 4\pi y^2$

(c) $S = 2x^2 + 3\pi y^2$

(d) $S = 3x^2 + 2\pi y^2$

(ii) If the combined volume is denoted by V then which of the following

Is correct

(a) $V = \frac{4}{3}\pi y^3 + \frac{2}{3}x^3$

(b) $V = \frac{2}{3}\pi y^3 + \frac{4}{3}x^3$

(c) $V = 4\pi y^3 + 2x^3$

(d) $V = 2\pi y^3 + 4x^3$

(iii) If V is minimum then the relation between x and y is

(a) $x = 2y$

(b) $x = 3y$

(c) $y = 2x$

(d) $y = 3x$

(iv) The value of minimum volume is

(a) $\frac{4}{3}x^3 \left(1 + \frac{2\pi}{27}\right)$

(b) $\frac{2}{3}x^3 \left(1 + \frac{4\pi}{27}\right)$

(c) $\frac{4}{3}x^3 \left(1 + \frac{4\pi}{27}\right)$

(d) $\frac{2}{3}x^3 \left(1 + \frac{2\pi}{27}\right)$

(v) The value of S when V is minimum is

(a) $2x^2 \left(3 + \frac{2\pi}{9}\right)$

(b) $x^2 \left(3 + \frac{2\pi}{9}\right)$

(c) $2x^2 \left(3 + \frac{\pi}{9}\right)$

(d) $3x^2 \left(3 + \frac{2\pi}{9}\right)$

18. A random variable X has the following probability distribution

X	0	1	2	3	4	5	6	7
P(X)	0	k	2k	2k	3k	k^2	$2k^2$	$7k^2 + k$

Based on above information answer the following questions:

(i) The value of k is

(a) $\frac{1}{8}$

(b) $\frac{1}{9}$

(c) $\frac{1}{10}$

(d) $\frac{1}{11}$

(ii) P (X < 6) is equal to

(a) $\frac{71}{100}$

(b) $\frac{81}{100}$

(c) $\frac{91}{100}$

(d) $\frac{1}{11}$

(iii) P (X ≥ 6) is equal to

(a) $\frac{17}{100}$

(b) $\frac{19}{100}$

(c) $\frac{21}{100}$

(d) $\frac{23}{100}$

(iv) P(0 < X < 5) is equal to

(a) $\frac{4}{5}$

(b) $\frac{3}{5}$

(c) $\frac{2}{5}$

(d) $\frac{1}{5}$

(v) $P(X=7)$ is equal to

(a) $\frac{17}{100}$

(b) $\frac{19}{100}$

(c) $\frac{21}{100}$

(d) $\frac{23}{100}$

PART - B

SECTION - III

All questions are compulsory . In case of internal choices attempt any one

19. If $A = \{a,b,c,d,e,f\}$ find the number of all onto functions from A to itself.

20. Find the value of

$$\tan^{-1}\left(-\frac{1}{\sqrt{3}}\right) + \cot^{-1}\left(\frac{1}{\sqrt{3}}\right) + \tan^{-1}\left(\sin\left(-\frac{\pi}{2}\right)\right)$$

21. Find the values of x,y,z if the matrix

$$A = \begin{bmatrix} 0 & 2y & z \\ x & y & -z \\ x & -y & z \end{bmatrix} \text{ satisfies the equation } A^T A = I .$$

Where A^T is transpose of A and I is identity matrix of order 3×3 .

22. If determinant $A = \begin{vmatrix} 1 & \sin\theta & 1 \\ -\sin\theta & 1 & \sin\theta \\ -1 & -\sin\theta & 1 \end{vmatrix}$ prove that $A \leq 4$.

23. Show that the function defined by $g(x) = x - [x]$ is discontinuous at all integral points .

Here $[x]$ denotes the greatest integer less than or equal to x .

24. If $x = a\cos\theta, y = b\sin\theta$ find $\frac{d^2y}{dx^2}$.

25. Find the area of the triangle whose vertices are $A(3,-1,2)$, $B(1,-1,-3)$ and $C(4,-3,1)$.

OR

If \hat{a} and \hat{b} are unit vectors find the angle between \hat{a} and \hat{b} given that

$\sqrt{3}\hat{a} - \hat{b}$ is also a unit vector.

26. Find the coordinates of the point where the line through $(3,-4,-5)$ and $(2,-3,1)$ crosses the plane $2x + y + z = 7$.

27. Find the value of p so that the lines $\frac{1-x}{3} = \frac{7y-14}{2p} = \frac{z-3}{2}$ and

$\frac{7-7x}{3p} = \frac{y-5}{1} = \frac{6-z}{5}$ are at right angles.

28. A coin is biased so that the head is three times as likely to occur as tail . If the coin is tossed thrice find the probability distribution of number of tails.

OR

A die is tossed thrice . Find the probability of getting an odd number at least once.

SECTION - IV

All questions are compulsory. In case of internal choices attempt any one.

29. Let N denote the set of all natural numbers and R be a relation on $N \times N$ defined by (a,b) R (c,d) if and only if $ad(b+c) = bc(a+d)$. Check whether R is an equivalence relation on $N \times N$.

30. Show that the function $f: \mathbf{R} - \left\{\frac{7}{5}\right\} \rightarrow \mathbf{R} - \left\{\frac{3}{5}\right\}$ defined by $f(x) = \frac{3x+4}{5x-7}$ is one - one and onto.

31. Find the matrix A so that

$$A \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix} = \begin{bmatrix} -7 & -8 & -9 \\ 2 & 4 & 6 \end{bmatrix}$$

OR

If $A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & 3 \\ 1 & -1 & 0 \end{bmatrix}$ find a matrix X such that $A^2 - 5A + 4I + X = O$

where I is Identity matrix of order 3×3 and O is zero matrix of order 3×3 .

32. Using the concept of differentiability find whether the following function is differentiable at $x = 1$ and $x = 2$ or not.

$$f(x) = \left\{ \begin{array}{ll} x, & x < 1 \\ 2-x, & 1 \leq x \leq 2 \\ -2+3x-x^2, & x > 2 \end{array} \right\}$$

33. Find $\frac{dy}{dx}$ if $y = (\sin x)^{\cos x} + \sin^{-1} \sqrt{x}$

OR

If $y = (\tan^{-1} x)^2$, show that $(x^2 + 1)^2 y_2 + 2x(x^2 + 1) y_1 = 2$.

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

35. For the curve $y = 4x^3 - 2x^5$, find all the points at which the tangent passes through the origin.

SECTION - V

All questions are compulsory. In case of internal choices attempt any one.

36. Prove that a conical tent of given capacity will require the least amount of canvas when the height of the cone is $\sqrt{2}$ times the radius of its base.

OR

A window in the form of a rectangle is surmounted by a semi circular opening. The total perimeter of the window is 20 m. Find the dimensions of the window to admit maximum light through the whole opening.

37. Solve the following linear programming problem (LPP) graphically

Maximise

$$Z = x + 2y$$

Subject to the constraints

$$x + 2y \geq 100$$

$$2x - y \leq 0$$

$$2x + y \leq 200$$

$$x, y \geq 0$$

OR

Solve the following linear programming problem (LPP) graphically

Minimise

$$Z = 6x + 3y \text{ subject to the constants}$$

$$4x + y \geq 80$$

$$x + 5y \geq 115$$

$$3x + 2y \leq 150$$

$$x, y \geq 0$$

38. Solve the following system of equations by matrix method when

$$x \neq 0, y \neq 0 \text{ and } z \neq 0$$

$$\frac{2}{x} - \frac{3}{y} + \frac{3}{z} = 10$$

$$\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 10$$

$$\frac{3}{x} - \frac{1}{y} + \frac{2}{z} = 13$$

OR

Find the inverse of the following matrix by elementary row transformations.

$$\begin{bmatrix} 2 & -3 & 5 \\ 3 & 2 & -4 \\ 1 & 1 & -2 \end{bmatrix}$$



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class:- XII
Time:- 3 Hrs.

Subject:- Biology
F. M:- 70

General Instructions:-

- (i) All questions are compulsory.
- (ii) The question paper has four sections: Section A, Section B, Section C and Section D.
There are 33 questions in the question paper.
- (iii) Section-A has 14 questions of 1 mark each and 02 case-based questions. Section-B has 9 questions of 2 marks each. Section-C has 5 questions of 3 marks each and Section-D has 3 questions of 5 marks each.
- (iv) 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.
- (v) Wherever necessary, neat and properly labeled diagrams should be drawn.

SECTION - A

1. Name an IUD that you recommend to promote cervix hostility to sperms. (1)
2. How many kinds of phenotypes would you expect in F₂ generation in a monohybrid cross exhibiting codominance? (1)
3. How many meiotic divisions are required to produce 76 seeds in a Guava fruit? (1)
4. Predict the effect if, the codon UAC coding for an amino acid at the 25th position of a polypeptide of 50 amino acids, is mutated to UAG. (1)
5. Mention two applications of DNA polymorphism. (1)
6. Give two situations when MTP is advised. (1)
7. What makes RNA more reactive in comparison to DNA? (1)
8. How many chromosomes do drones of honeybees possess? Name the type of cell division involved in the production of sperms by them. (1)
9. A haemophilic son was born to normal parents. Give the genotypes of the parents. (1)
10. Name the specific components and the linkages between them that form deoxyadenosine. (1)

11. Assertion: The primary transcript in eukaryotes contain both exons and introns.

Reason: The presence of introns in primary transcript is the reminiscent of antiquity. (1)

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Both Assertion and Reason are false.

12. Assertion: Nowadays amniocentesis is banned.

Reason: Amniocentesis gives the information of any abnormality in the foetus and many other complications regarding pregnancy can be detected. (1)

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Both Assertion and Reason are false.

OR

Assertion: Contraceptives are methods to prevent unwanted pregnancies.

Reason: Unwanted pregnancies can only be prevented by using oral contraceptives.

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Both Assertion and Reason are false.

13. Assertion: Pairing and separation of pair of chromosomes results in the segregation of a pair of factors they carried.

Reason: On non-homologous chromosomes, two alleles of a gene pair are located on Similar sites. (1)

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Both Assertion and Reason are false.

14. Assertion: Repetitive sequences make up very large portion of human genome.

Reason: Repetitive sequences do not have direct coding functions in the genome. (1)

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Both Assertion and Reason are false.

15. Read the following and answer **any four** questions from 15 (i) to 15(v) given below: (1X4=4)

Embryo develops at the micropylar end of the embryo sac where the zygote is situated. Most zygotes divide only after certain amount of endosperm is formed. The early stages of embryo development are similar in both monocotyledons and dicotyledons. The zygote gives rise to the proembryo and subsequently to the globular, heart shaped and mature embryo. A typical dicotyledonous embryo consists of an embryonal axis and two cotyledons. Embryo of monocotyledons possess only one cotyledon.

(i) True embryo develops as a result of fusion of

- (a) two polar nuclei of embryo sac
- (b) an egg cell and a male gamete
- (c) synergid and male gamete
- (d) a male gamete and antipodals

(ii) Which of the given statements are true?

- (I) During the development of a dicot embryo, heart shaped embryo is followed by globular embryo.
- (II) The part of embryonal axis above the level of cotyledons is epicotyl, while the part below the level of cotyledons is hypocotyl.
- (III) Monocot seeds possess a single cotyledon represented by scutellum.

- (a) I and II
- (b) II and III
- (c) I and III
- (d) I, II and III

(iii) In grass family, the cotyledon is called

- (a) epiblast
- (b) plumule
- (c) scutellum
- (d) perisperm

(iv) Consider the following parts of an embryonal axis of dicot seed.

- (I) Hypocotyl (II) Epicotyl (III) Radicle (IV) Plumule

In which of the following the above parts are correctly arranged from top to base?

- (a) III → I → II → IV
- (b) II → I → III → IV
- (c) IV → II → I → III
- (b) III → IV → II → I

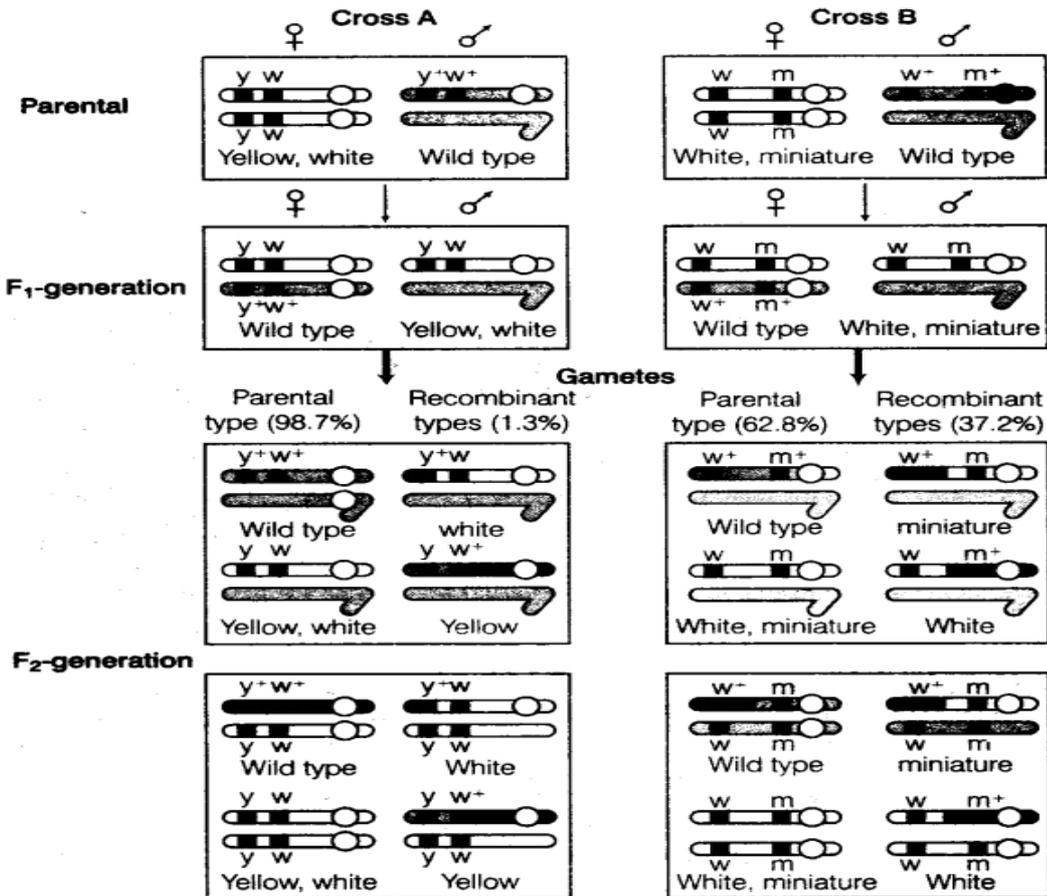
(v) Assertion: Endosperm development proceeds embryo development.

Reason: It assures nutrition to developing embryo.

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Both Assertion and Reason are false.

16. Read the following and answer **any four** questions from 16(i) to 16(v) given below: (1X4=4)

During a study of inheritance of two genes, an experiment was performed. In this experiment white eyed, yellow bodied female *Drosophila* was crossed with a red eyed, brown bodied male *Drosophila*. It was observed that progenies in F₂ generation had 1.3 percent recombinants and 98.7 percent parental type combinations. The experimental cross is shown in the given figure.



(i) By conducting the given experiment, we can conclude that

- I. Genes for eye colour and body colour are linked.
- II. Genes for eye colour and body colour show complete linkage.
- III. Linked gene remain together and are inherited.

- (a) I and II only
- (b) II only
- (c) I and III only
- (d) I, II and III

- (ii) *Drosophila* was used to conduct the experiment because
- (a) the male and female flies are easily distinguishable
 - (b) it completes its life cycle in about two weeks
 - (c) a single mating could produce a large number of progeny flies
 - (d) all of these.
- (iii) Genes for white eyed and yellow bodied located very close to one another on the same chromosome tend to be transmitted together are called

- (a) allelomorphs
- (b) linked genes
- (c) non-linked genes
- (d) recessive genes

(iv) Select the correct statement regarding the given experiment.

- (a) The physical distance between two genes determines the strength of linkage.
- (b) The two linked genes always segregate independently of each other.
- (c) The physical distance between two genes determines frequency of crossing over.
- (d) Both (a) and (c)

(v) Assertion: When yellow bodied, White eyed *Drosophila* females were crossed with brown bodied, red eyed males and F1 progeny was inter crossed, F2 ratio deviated from 9:3:3:1.

Reason: When two genes in a dihybrid are on the same chromosome, the proportion of parental gene combinations are much higher than the non-parental type.

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Both Assertion and Reason are false.

SECTION-B

17. Protein synthesis machinery revolves around RNA but in the course of evolution it was replaced by DNA. Justify. (2)
18. How do genes and chromosomes share similarity from the point of view of genetical studies? (2)
19. Mention the fate of corpus luteum and its effect on the uterus in the absence of fertilisation of the ovum in human female. (2)

OR

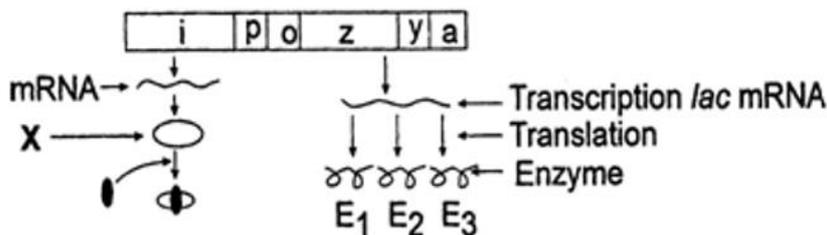
'Parturition is induced by a complex Neuro endocrine mechanism'. Justify

20. Comment on the essential features required for an ideal contraceptive. (2)
21. If a father and son are both defective in red-green colour vision, is it likely that the son inherited the trait from his father? Comment. (2)
22. Why it is that transcription & translation could be coupled in prokaryotic cell but not in eukaryotic cell? (2)
23. Suggest two advantages to a farmer for using apomictic seeds of hybrid varieties. (2)

OR

The flower of brinjal is referred to as chasmogamous, while that of beans is cleistogamous. How are they different from each other?

24. (2)



- (a) Name the molecule 'X'. How does this molecule get inactivated?
 (b) Which one of the structural genes code for beta-galactosidase?
 (c) When will the transcription of this gene stop?

25. State any two precautions one has to take in order to protect himself/herself form STDs. (2)

SECTION - C

26. Draw a diagram of a mature human sperm. Label any three parts and write their functions. (3)

- 27.(a) (3)

FILL IN THE BLANKS PROVIDED		
Amino acid	Phe	Val
DNA Code in Gene	AAA	CAC
Codon in mRNA	(i)	(ii)
Anticodon in tRNA	(iii)	(iv)

(b) A polypeptide consists of 14 different amino acids.

- i) How many base pairs must be there in the processed mRNA that codes for this polypeptide?
 ii) How many different types of tRNA are needed for the synthesis of this polypeptide?

28. Trace the development of megasporocyte into mature ovule. (3)

OR

Describe the structure of a mature microsporangium of an angiosperm.

29. Suggest and explain the assisted reproductive techniques which will help a couple to have children, where the female had a blockage in the fallopian tube and the male partner had a low sperm count. (3)

30. (a) Sickle cell anaemia in humans is a result of point mutation. Justify.

(b) Write the genotypes of both the parents who have produced a sickle celled anaemic offspring. (3)

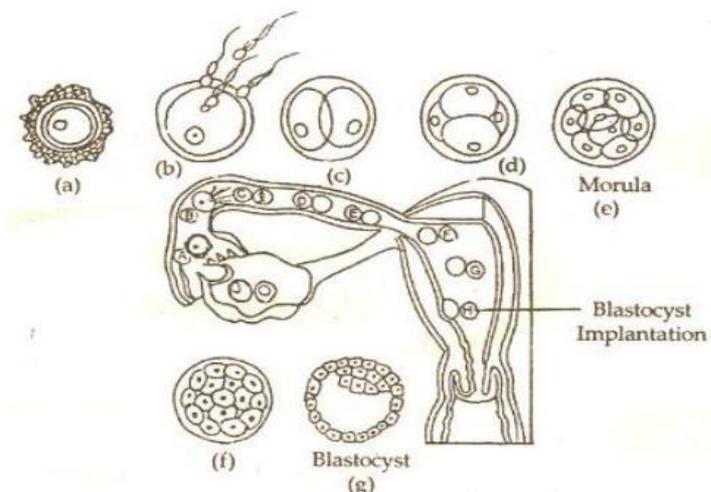
SECTION - D

31. (a) Describe the events of spermatogenesis with the help of a schematic representation.

(b) At what stage of life does gametogenesis begin in human male and female respectively?

(c) Name the organs where gametogenesis gets completed in human male and female respectively. (5)

OR



- i) Identify the stage represented by 'b' and explain the process.
- ii) Name the cells of 'c' and write its ploidy.
- iii) Explain the fate of 'a' if the process in the stage 'b' does not occur?
- iv) How are cells in 'g' arranged and mention their role.

32. (a) Describe the various steps of Griffith's experiments that led to the conclusion of the transforming principle.

(b) How did the chemical nature of the transforming principle get established? (5)

OR

(a) Draw the structure of a replicating fork and label the parts.

(b) Write the source of energy for this replication and list the enzymes involved in the process.

(c) Mention the difference in the synthesis based on the polarity of the two template strands.

33. How does gain or loss of chromosome(s) takes place in humans? Describe one example each of chromosomal disorder along with the symptoms involving an autosome and a sex chromosome. (5)

OR

(a) Explain the law of dominance using a monohybrid cross.

(b) State any two reasons why Mendel's work remained unrecognised till 1900.



Delhi Public School, Ranchi

Half-Yearly, ON Line Examination

(14/09/2021) Class- XII

Subject- Computer Science (083).

Time Allowed: 03Hours.

Maximum Marks:70

General Instructions:

1. This question paper contains FIVE parts : A, B, C, D and E. Each part is compulsory, though on each Part, Alternative choices have been provided. There are, all in total 30 Questions.
 2. Question (1), consists of 20 sub questions of MCQ or Very Short Answer Type questions, of ONE Mark each, based on Python fundamentals. Attempt any 16 questions only.
 3. Part-B, consists of 20 questions (from Question Numbers: 02 to 21), based on Python's Theory & Applications. Each question is of 02 Marks. Attempt any 15 questions only.
 4. Part-C, consists of 03 Questions of 03 marks each, based on Function Concepts of Programming. Attempt any TWO questions, from Part - 'C' .
 5. Part-D, consists of 03 Questions of 04 marks each, based on File handling Concepts. Attempt any TWO questions, from Part - 'D' .
 6. Part-E, consists of 03 Case Study Based Questions of 05 marks each, based on comprehensive And Innovative Concepts. Attempt any TWO questions, from Part - 'E' .
 7. All programming questions are to be answered using Python Language only.
-

PART -A [01*16 =16 Marks]

[Select the most appropriate option /answer, out of the options (wherever given) for each question. Attempt any 16sub-questions from the given20 .]

Q(1)

(I) Given the lists $L=[1,3,6,82,5,7,11,92]$, What will be the output of `print(L[2:5])` ?

(II) Suppose a tuple Tup is declared as `Tup = (12, 15, 63, 80)`, which of the following is incorrect?

- a) `print(Tup[1])`
- b) `Tup[2] = 90`
- c) `print(min(Tup))`
- d) `print(len(Tup))`

(III) Identify the valid declaration of P:

`P= ['Jan', 31, 'Feb', 28]`

- a. dictionary b. string c.tuple d. list

(IV) If the following code is executed, what will be the output of the following code?

```
str="Delhi Public School "  
print(str[5:13])
```

(V) Write a statement in Python to declare a dictionary whose keys are 1,2,3 and values are Apple, Mango and Banana respectively.

(VI) Which value type does input() return?

(a) boolean (b) string (c) int (d) float

(VII) What will be the value of the expression?

$(12 + 10 + 30) \% 10$

(a) 4 (b) 1 (c) 2 (d) 3

(VIII) What will be the value of the expression?

$(12 \% 10 \% 3) ** 3$

(a) 4 (b) 2 (c) 8 (d) 12

(IX) Following set of commands is executed in shell, what will be the output?

```
print("corona virus" [4 : 8]) :
```

(a) ona (b) na v (c) coro (d) ona v

(X) What is the use of read () and readline () functions ? Explain with suitable example?

(XI) Evaluate the following expressions:

a) $2 * 45 // 5 + 10 ** 2 - 25 + 12 \% 5 * 3$

b) $15 > 9 > 34 > 56$ or $90 > 60$ and not $21 > 10$ and $-8 > -10$

(XII) Name the Python Library modules which need to be imported to invoke the following functions : sin () and randint ().

(XIII) Identify the valid declaration of L :

```
L = ['Mon', '23', 'hello', '60.5']
```

(a) Dictionary (b) string (c) tuple (d) list

(XIV) What does ceil (), a mathematical function, return in Python ?

(XV) What is the default return value for a function that does not return any value explicitly ?

(a) Null (b) double (c) int (d) None

(XVI) Differentiate between a Formal parameter(s) and Actual parameter(s), with example.

(XVII) What will be the output of the following Program segment ?

```
i = 5
```

```
while True :
```

```
    if i % 009 == 0 :
```

```
        break
```

```
        print (i)
```

```
        i += 1
```

(a) 1 2 3 4 5 6 (b) 5 6 7 8 9 (c) 5678 910 (d) Error

(XVIII) Evaluate this Expression :

$(4 * 5 + 7 * 2 - 8 \% 3 + 4 \text{ or } 5.7 // 2 - 1 + 4 \text{ and not } 2 == 4 \text{ or not } 2 ** 4 - 6 * 2)$

(XIX) List any TWO data conversion functions in Python.

(XX) What will be the Value of : `print (len(T*3))` ?

(a) 2 (b) 6 (c) 3 (d) Error

PART- B [02*15 = 30 Marks]

Q(2) Differentiate between call by value and call by reference with a suitable example for each.

Q(3) Explain the use of return key word used in a function with the help of a suitable example.

Q(4) Differentiate between Keywords and Identifiers / Variables? Provide Examples.

Q(5) (i) Declare a dictionary in Python to print your Qualifying Examination Date-sheet. Use subjects as a key and dates as values.

(ii) In Python, which value will be returned by floor (num) function?

- (a) smallest integer not less than num.
- (b) largest integer not greater than num.
- (c) absolute value of num.
- (d) square root of num.

Q(6) What will be the following command display ?

```
print (" fractional string to int : ", int ("3.4"))
```

State the reason for getting the output & what is required to be done ?

Q(7)

(i) Select the correct sequence after 3rd pass of Bubble sort :

L = [15,6,28,45,31,-1,5,1]

- (a) [6, 15, -1, 5, 1, 28, 31, 45] (b) [6, -1, 5, 1, 15, 28, 31, 45]
- (c) [-1, 5, 1, 6, 15, 28, 21, 45] (d) [-1, 1, 5, 6, 15, 28, 31, 45]

(ii) Predict the output of this code snippet :

```
A = [1, 2, 3, 4, 5 ]
```

```
print (A[3:0:-1])
```

Q(8) Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

```
p=30
for c in range(0,p)
If c%4==0:
    print (c*4)
Elseif c%5==0:
```

```
print (c+3)
else
    print(c+10)
```

Q(9) Evaluate the following expressions:

- a) $8 * 3 + 2 ** 3 // 9 - 4$
b) $12 > 15$ and $8 > 12$ or not $19 > 4$

Q(10) What will be the output of the following :

- (a) `print (-10//3)` (b) `print (-3 % -10)`
(c) `range (10, 1, -2)` (d) `7 % 7 + 7 // 7 - 7 * 7`

Q(11) What will be the output of the following ?

(a) for a in range (2) :
 for b in range (2) :
 print (a, b, a + b)

(b) for P in range (-100, 100, 100) :
 print (P, end=' ')

Q(12) What possible outputs(s) are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the maximum values that can be assigned to each of the variables Lower and Upper.

```
import random
AR=[20,30,40,50,60,70];
Lower =random.randint(1,4)
Upper =random.randint(2,5)
for K in range(Lower, Upper +1):
    print (AR[K],end="#"")
```

- (i) 40# (ii) 40#50#60# (iii) 50# (iv) All

Q(13) Find and write the output of the following Python code:

```
def Show(str):
    m=""
    for i in range(0,len(str)):
        if(str[i].isupper()):
            m=m+str[i].lower()
        elifstr[i].islower():
            m=m+str[i].upper()
        else:
            if i%2==0:
                m=m+str[i-1]
            else:
                m=m+"#"
    print(m)
Show('HappyBirthday')
```

Q(14) What will be the Output of the following Expressions:

- (a) $2 + 9 * ((13 * 12 - 8) / 12 ** 2) ?$
- (b) $137 \% 4 ** 3 * 5 / 3 - 5 + (-4) / 2 ?$
- (c) $(2 * 45 // 5 + 10 ** 2 - 25 + 12 \% 5 * 3) ?$
- (d) $3 + \text{float}(5) / 8 ?$

Q(15) You can add (as many as you wish) pair of parentheses to each expressions, so that, it results to True (1) : [Any TWO]

- (a) $0 == 1 == 2$ (b) $2 + 3 == 4 + 5 == 7$ (c) $1 < -1 == 3 > 4$

Q(16) (i) A tuple is declared as T1 = (5,15,20,35) What will be the output of print(sum(T1)+min(T1)) ?

(ii) A tuple is declared as T1 = (5,15,20,35) What will be the output of print(max(T1)+min(T1)) ?

Q(17)

(i) Identify the valid declaration of test: test=['Python',10,'Good',25.45] :

- (a) Tuple (b) Dictionary (c) List (d) String

(ii) Identify the valid declaration of test: test=['Python',10,'Good',25.45,[12,22,43]]:

- (a) nested Tuple (b) nested Dictionary (c) nested List (d) nested String

Q(18)

(i) Provide Result of the expression : $2 + 9 * ((3 * 12) - 8) / 10$
(a) 25.4 (b) 27.2 (c) 72.0 (d) 7.40

(ii) What will be the value of the expression? $37 \% 5 ** 2$
(a) 4 (b) 14 (c) 2 (d) 10

Q(19) What do you understand by LEGB rule in Python functions ?

Q(20) Differentiate between mutable and immutable data types with suitable example.

Q(21) Evaluate the following expressions:

- a) $47 // 5 + 10 ** 2 - 25 + 12$
- b) $34 > 56$ or $90 > 60$ and not $21 > 10$

PART- C [Any TWO]
[03*02 =06 Marks]

Q(22) Write a function Shift(List), which accepts a list of marks by which all elements of the list are shifted to the left and the first element will shift to the end of the list.

Sample Input Data of the List :

List = [23, 34, 41, 11, 24, 36, 31, 29]

Output List = [34, 41, 11, 24, 36, 31, 29, 23]

Q(23) Write a function Insert (List, Loc, NewNo), which inserts a new number to a specified location. Function should accept a list of numbers, location and number to be inserted in a list. For Example :

Given List = [34, 41, 11, 24, 36, 31, 29]

Location = 3

New Number = 50

Output List = [34, 41, 50, 11, 24, 36, 31, 29]

Q(24) Write a function LMove(Lst,n) in Python, which accepts a list Lst of numbers and n is a numeric value by which all elements of the list are shifted to left.

Sample Input Data of the list

Lst= [10,20,30,40,12,11], n=2

Output Lst = [30,40,12,11,10,20]

PART- D [Any TWO]
[04*02 =08 Marks]

Q(25)

(i) Differentiate between a Binary file & a Text file?

(ii) Write a program to count the number of lines in a text file "data.txt" which is starting with an alphabet 'S'.

Q(26)

(i) What is difference between readline() and readlines() function ?

(ii) Write a program, records character from the keyboard one by one. All lower case characters get stored inside the file LOWER, all upper case characters get stored inside the UPPER & all other characters get stored inside file OTHERS.

Q(27)

(i) How is file open() function different from close() function ?

(ii) Write a function word4() in Python that displays 4 letter words present in a text file 'myfile.txt'.

If the 'myfile.txt' contents are as: " We are here to learn python. Python has so many features which make it more comfortable interface ".

Output:

Here, many, make, more

PART- E [Any TWO]
[05*02 =10 Marks]

Case Study Based Questions :

Q(28)

(i) DPS Ranchi, Kid's wing, where cute kids also bloom with Enchanting Flowers. It is a play-way Junior Wing of our School, that focuses on 'Play and Learn' strategy that helps toddlers understand concepts, in a

fun way. Being a senior programmer, you have taken responsibility to develop a program using user-defined functions to help children, differentiate between uppercase and lowercase letters/ English alphabets in a given sentence. Make sure that, you perform a careful analysis of the type of alphabets and sentences that can be included as per age and curriculum.

Write a Python program that accepts a string and calculates the number of uppercase and lowercase letters.

ii) Differentiate between a Local Variable & Global Variable. Provide relevant Python code to illustrate both.

Q(29) Assume " RANCHI Tent House " manufactures tents as per user's requirements. The shape of the tent is cylindrical surmounted by a Conical top. The company performs the following tasks : (a) Accept user requirements for the tent, such as : height, Radius and Slant height of the conical part. (b) Computer the area of the Canvas used. (c) Calculate the cost of canvas used for making the tent. (d) Compute the net amount payable by the customer that is inclusive of 18 % tax.

The company has developed a computerized solution for a quick and accurate calculation of the payable amount. Write a program, as an intelligent student of Python, to calculate the cost of the tent.

Q(30) Now a days, one term is PERCENTILE. Define this term, based on an example : If SARA's score is in the 90th percentile, that implies, she scored better than 90 % of the students, who appeared the test.

Now, concentrate on your Assignment :Allthe branches of DPS Ranchi, conducted an aptitude test for all the students in the age group of 14 to 16. There were a total of 'n' number of students. The marks of n students are stored in a list.

Being a Coder, WAP, using a user-defined function that accepts & computes a list of marks as an argument & calculates the class 'X th' percentile (where x is any number between 0 and 100).

You are required to perform the below mentioned steps, to be able compute the Class 'X th' percentile. You may follow these steps to calculate the Xth percentile :

- (i) Order all the values in the data set from smallest to largest using Bubble Sort.
- (ii) Calculate index by multiplying x percent by the total number of values, n. Example : to find 90th percentile for 120 students : $0.90 * 120 = 108$.
- (iii) Ensure that the index is a whole number by using `math.round()`.
- (iv) Exhibit the value at the index obtained in step #3.

The corresponding value in the list is the class : "X th" percentile.

@@ All the best @@



DELHI PUBLIC SCHOOL

SAIL Township, Ranchi

HALF YEARLY EXAMINATION 2021

Class: XII

Subject: Informatics Practices

Max Marks: 70

Time: 3 Hrs.

General Instructions:

- ✓ This question paper contains two parts, A and B. Each part is compulsory.
- ✓ Both Part A and Part B have choices. (While choosing the option, write the **Correct Answer** with opt No.)
- ✓ **Part A** has two sections:
 - **Section-I** is short answer questions, to be answered in one word or one line or choosing option.
 - **Section-II** has two case study questions. Each case study has 5 case-based sub-parts.
- ✓ **Part B** is Descriptive Paper, has three sections:
 - **Section-I** is short answer questions of 2 marks each.
 - **Section-II** is long answer questions of 3 marks each.
 - **Section-III** is very long answer questions of 5 marks each.

PART-A : Section-I

[Attempt all 21 Questions]

1. Find the output of following program. (1)

```
import numpy as np
arr = np.array([[1, 2, 3, 4, 5], [6, 7, 8, 9, 10]])
print(arr[0 : 2 , 2])
```

- (i) [2 7]
- (ii) [3 8]
- (iii) [4 9]
- (iv) [5 10]

2. Fill in the blanks: (1)

The command used to give title to x-axis as "No. of Students" in the graph is _____

- (i) plt.xlabel.name("No. of Students ")
- (ii) plt.xlabel("No. of Students ")
- (iii) plt.xaxis("No. of Students ")
- (iv) plt.plot(No. of Students, x=True)

3. Which of the following is not a string function? (1)

- (i) Left()
- (ii) Instr()
- (iii) Mid()
- (iv) Truncate()

4. The result of an arithmetic operation in Series could be _____ (1)

- (i) Error
- (ii) Wrong Output
- (iii) NaN
- (iv) NULL

5. In the following Series S1, the command to print the Boolean values for >50 is _____ (1)

SR1

2 50
4 30
6 70
8 60

- (i) print(SR1.where(SR1>50))
- (ii) print(SR1>50)
- (iii) print(S1>50)
- (iv) print(S1.(S1>50))

6. Write the command to print the product of the given the following Series SR1 and SR2: (1)

SR1	SR2
A 50	A 30
B 30	B 20
C 70	C 60
D 60	D 40

- (i) print(SR2.multiplication(SR1))
- (ii) print(product(SR2,SR1))
- (iii) print(SR2 mult SR1)
- (iv) print(SR2.multiply(SR1))

7. Pandas rename() function can be used to change the name of the existing: (1)

- (i) Index
- (ii) Column
- (iii) Index & Column
- (iv) None

8. Find the output of the following code: (1)

```
x = ["apple", "banana", "cherry"]  
print(x)  
x[1] = "kiwi"  
print(x)
```

- (i) ['apple', 'banana', 'cherry']
['apple', 'kiwi', 'cherry']
- (ii) ['apple', 'banana', 'cherry']
['kiwi', 'banana', 'cherry']
- (iii) ['apple', 'kiwi', 'cherry']
['apple', 'banana', 'cherry']
- (iv) ['kiwi', 'banana', 'cherry']
['apple', 'banana', 'cherry']

9. The sum() function in MySql is an example of _____. (1)

- (i) Math function
- (ii) Text function
- (iii) Date Function
- (iv) Aggregate Function

10. Write the output of the following SQL command. (1)

```
SELECT SUBSTR("IndoAryan", 5,5);
```

- (i) ryn
- (ii) Aryan
- (iii) oArya
- (iv) None

11. 'Series has values in 2d form and DataFrame has values in nd form' – is this statement True or False? (1)

12. _____ is not a valid function of Pyplot.. (1)

- (i) plot()
- (ii) grid()
- (iii) print()
- (iv) xlabel()

13. Write the output of the following code: (1)

```
import pandas as pd
l1=pd.DataFrame([[1,2],[3,4]], columns=['a', 'b'])
l2=pd.DataFrame([[5,6],[7,8]], columns=['a', 'b'])
df=l1.append(l2)
print(df)
```

(i)	(ii)	(iii)	(iv)
0 1	a b	a b	0 1
a 1 2	0 1 2	0 1 2	a 1 2
b 3 4	1 3 4	0 5 6	a 3 4
a 5 6	0 5 6	1 3 4	b 5 6
b 7 8	1 7 8	1 7 8	b 7 8

14. Instr() function of MySQL is an example of: (1)

- (i) Math Function
- (ii) Text Function
- (iii) Date Function
- (iv) Multiline function

15. The intellectual property right gives the right to: (1)

- (i) Protect your laptop that you purchased
- (ii) Protect your property that you made
- (iii) Protect your book authored by you
- (iv) Protect your video album that you have bought

16. Which SQL command can be used to makes changes in the rows of a table? (1)

- (i) Alter
- (ii) Update
- (iii) Replace
- (iv) Modify

17. With SQL, how do you select all records from a table named "students" where the value of the column "FirstName" ends with an "a"?: (1)

- (i) SELECT * FROM students WHERE FirstName= 'a';
- (ii) SELECT * FROM students WHERE FirstName like 'a%';
- (iii) SELECT * FROM students WHERE FirstName like '%a';
- (iv) SELECT * FROM students WHERE FirstName like '%a%';

18. The result of an arithmetic operation in DataFrame of different index will be _____ (1)
- (i) Error
 - (ii) Wrong Output
 - (iii) NaN
 - (iv) NULL

19. Write the output of the following code: (1)

```
import pandas as pd
a=pd.Series([78,45,89,98])
b=pd.Series([67,87,90])
std={"SST":a , "SKT":b}
df=pd.DataFrame(std)
print(df)
```

(i)	SST	SKT	(ii)	SST	SKT	(iii)	SST	SKT	(iv)	SST	SKT
0	78	67.0	0	78	67.0	0	78	67.0	0	78	67.0
1	45	87.0	1	45	87.0	1	45	87.0	1	45	87.0
2	89	90.0	2	89	90.0	2	89	90.0	2	89	90.0
3	98	NaN	3	98					3	NaN	NaN

20. Pandas drop() function can be used to delete : (1)
- (i) Row
 - (ii) Column
 - (iii) Row & Column
 - (iv) None

21. Output of the following code: (1)

```
import pandas as pd
data = { 'Name': ['Jai', 'Prince', 'Gaurav', 'Anuj'],
'Age': [27, 24, 22, 32],
'Address': ['Delhi', 'Kanpur', 'Allahabad', 'Kannauj'],
'Qualification': ['Msc', 'MA', 'MCA', 'Phd'] }
df = pd.DataFrame(data)
x=df[df.columns[1 : 4]]
print(x)
```

(i)	Name	Age	Address	(ii)	Age	Address	Qualification
0	Jai	27	Delhi	0	27	Delhi	Msc
1	Prince	24	Kanpur	1	24	Kanpur	MA
2	Gaurav	22	Allahabad	2	22	Allahabad	MCA
3	Anuj	32	Kannauj	3	32	Kannauj	Phd
(iii)	Name	Age	Address	Qualification	(iv)	None	
0	Jai	27	Delhi	Msc			
1	Prince	24	Kanpur	MA			
2	Gaurav	22	Allahabad	MCA			
3	Anuj	32	Kannauj	Phd			

Part-A: Section-II

22. Consider the following DataFrame std and answer any questions from (i) – (v)

	IP	CHE	PHY
azad	39	30	40
baishnav	23	35	25
kiran	34	24	27
varsha	28	38	28

(i) Which among the following option will add a new column total with sum of marks: (1)

- (a) `std[Total]=IP+CHE+PHY`
- (b) `std[Total]=sum(IP,CHE,PHY)`
- (c) `std[Total]=std[IP]+std[CHE]+std[PHY]`
- (d) `std[Total]=std[IP+CHE+PHY]`

(ii) Gokul needs to print IP marks of all candidates. Help him to identify the correct set of statement/s from the given options: (1)

- (i) `print(std.iloc[: , 0 : 1])`
- (ii) `print(std.iloc['azad' : , 'IP'])`
- (iii) `print(std.loc[: , 0 : 1])`
- (iv) `print(std.loc['azad' : , 'IP'])`

(iii) Which of the following statement/s will delete last row? (1)

- a) `del std['varsha']`
- b) `std.pop('varsha')`
- c) `std.drop('varsha', inplace=True)`
- d) `pop std['varsha']`

Choose the correct option:

- (i) both (a) and (c)
- (ii) only (c)
- (iii) (a), (b) and (c)
- (iv) Only (a)

(iv) Which of the following command will display the number of dimensions in the DataFrame? (1)

- (i) `print(std.shape)`
- (ii) `print(std.ndim)`
- (iii) `print(std.size)`
- (iv) `print(std.dimensions)`

(v) Select correct output of the given statement `print(std.iloc[2:3])` (1)

- (i) None
- (ii)

```
kiran 34 24 27
Varsha 28 38 28
```
- (iii)

```
kiran 34 24 27
```
- (iv)

```
baishnav 23 35 25
kiran 34 24 27
```

23. Consider the table EMP given below:

CUST_ID	CUST_NAME	GENDER	ACC_TYPE	EMI
C01	ARUN	M	CURRENT	9500
C02	LATHA	F	SAVINGS	1000
C03	CHOWHAN	F	SAVINGS	4980
C04	KISHORE	M	SAVINGS	12300
C05	KANCHAN	F	CURRENT	5500

(i) State the command that will give the output as : (1)

```
CUST_NAME
ARUN
KANCHAN
```

- (a) Select CUST_NAME From Emp Where ACC_TYPE="CURRENT";
- (b) Select * from emp Where ACC_TYPE="CURRENT";
- (c) Select CUST_NAME From Emp Where EMI>9000;
- (d) Select CUST_NAME From Emp Where CUST_ID IN("C01", "C05");

Choose the correct option:

- (i) Both (a) and (b).
- (ii) Both (a) and (d).
- (iii) Any of the options (a), (c) and (d)
- (iv) Only (b)

(ii) What will be the output of the following command? (1)

Select Name from EMP where CUST_Name like ' _A%';

- (i) CUST_ID CUST_NAME GENDER ACC_TYPE EMI
C02 LATHA F CURRENT 1000

- (ii) CUST_NAME
CHOWHAN
KANCHAN

(iii) CUST_NAME

KANCHAN
LATHA

- (iv) CUST_ID CUST_NAME GENDER ACC_TYPE EMI
C05 KANCHAN F CURRENT 5500
C03 CHOWHAN F SAVINGS 4980

(iii) Rajeev has given the following command to obtain the average EMI amount from each type of account: (1)

Select avg(emi) from emp group by emi;

But he is not getting the desired result. Help him by writing the correct command.

- (i) Select Avg(acc_type,emi) From Emp Where Group By Dept;
- (ii) Select Avg(emi) from Emp Group By acc_type From Emp;
- (iii) Select acc_type, Avg(emi) From Emp Group By acc_type;
- (iv) Select Mean(emi) From Emp Group By dept;

- (iv) State the command to display the highest emi of female customers in each account type (1)
- a) Select acc_type, MAX(emi) From Emp Order By Gender;
 - b) Select MAX(emi) From Student Group By Dept Having Gender= "f";
 - c) Select acc_type, MAX(emi) From Emp Where Gender= "f" Group By acc_type;
 - d) Select MAX(emi), gender From Emp Group By acc_type='current' or acc_type='savings' ;

Choose the correct option:

- (i) Both (b) and (c)
- (ii) Both (b) and (d)
- (iii) Both (a) and (c)
- (iv) Only (c)

- (v) Help Suraj to write the command to display the smallest emi of savings accounts? (1)

- (i) select MIN(emi) from Emp;
- (ii) select MIN(emi) from Emp where acc_type='savings';
- (iii) select MIN(emi) from Savings;
- (iv) select MINIMUM(emi) from Emp Having savings as acc_type;

PART-B: Section-I

24. Vinit writes the following commands with respect to a table student with the fields Name, Class, DOB & Marks 2

Command1: **Select Sum(Marks) from student;**

Gives Output as: 300

Command2: **Select Avg(Marks) from student;**

Gives Output as: 50

- (i) What will be the cardinality of the table if there is no NULL value for marks?
- (ii) Write the command to find out the no. of rows in this table.

25. Mr. Anderson is a software developer who spends most of the time with computers. Give him two advises to avoid health issues due to spending excess screen time. 2

OR

Ms. Sneha has many electronic gadgets which are not usable due to outdated hardware. Help her to find any two best ways to dispose the used electronic gadgets.

26. Write the output of the following SQL commands: 2

- (i) Select Mod(9,5);
- (ii) Select Truncate(67543.9876,3);
- (iii) Select Pow(2,2);
- (iv) Select Round(191.234,2);

27. Consider a DataFrame object, DF 2

- (i) Give Boolean indexing to DF
- (ii) Write the command to print values with index TRUE.

28. Consider a given Series, SR: 2

Index	
a	50
b	40
c	55
d	45

Write a program in Python Pandas to update the indexes to E, F, G, H and then delete the first element.

29. Write the output of the following code: 2

```
import pandas as pd
cars = { 'Company': 'Honda', 'Tata', 'Ford', 'Maruti',
        'Price': [22000,25000,27000,35000],
        'Year': [2015,2013,2018,2018]
        }
df = pd.DataFrame(cars, columns= ['Company', 'Price','Year'])
sd=df.sort_values(by=['Year'], ascending=True)
print (sd)
```

30. Ms. Jennie has copied her friend's work and submitted it to a competition as her own work. What do we call this type of activity? How such kind of activities can be avoided? 2

31. Consider the following DataFrame, stud 2

Id	Name	Class	Section	Rank
S11	Arunima	11	A	1
S13	Rahul	12	A	2
S34	Baadsha	11	B	1
S56	Sanjay	12	B	2

Write commands to:

- (i) Add a new row with values S57, Neha, 12, B, 2
- (ii) Remove Rank Column

32. Differentiate between WHERE and HAVING clauses with examples. 2

OR

What is the difference between Single Row and Aggregate functions in SQL

33. Write the outputs of following SQL commands: 2

- (i) Select UPPER(MID("IndoAryan Existentialism", 5,5));
- (ii) Select TRIM(Right(Year(CurDate()),2));

PART-B: Section-II

34. What is cybercrime? Explain any two types of cybercrime, with example. 3

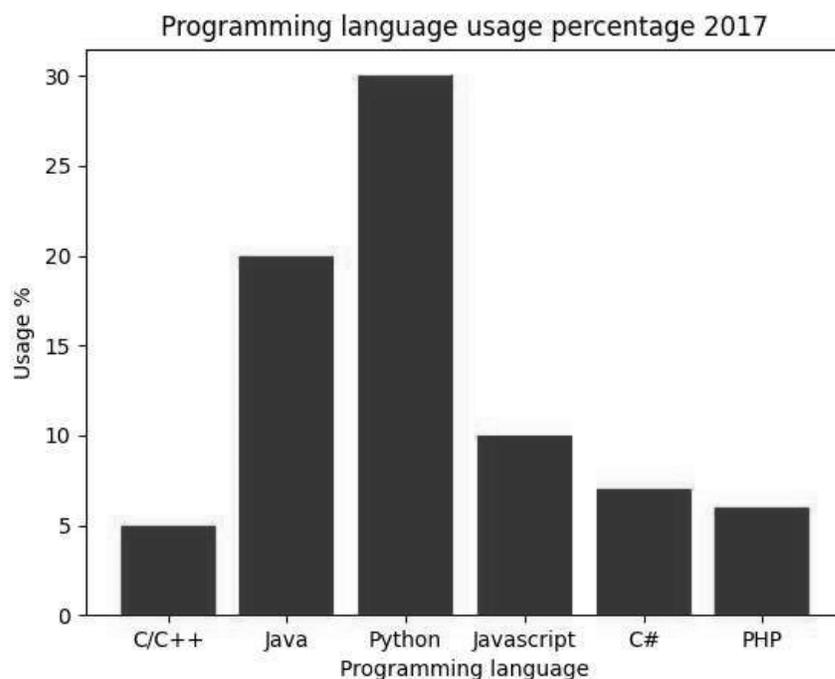
OR

What do you understand by Netiquette? Explain any two do's and don'ts.

35. Write output for the given python code: 3

```
import pandas as pd
L1=[10,20,30,40,50]
S1=pd.Series([10,20,30,40,50])
S2=pd.Series(25, index=[0,1,2,3,4])
S3=S1*S2
print("L1*2=> \n", L1*2)
print("S1*2=> \n", S1*2)
print("S1*S2=> \n", S3)
```

36. (i) Consider the following graph. Write the code to plot it (assume data from the graph, height of the bars). 3



OR

(ii) Write a code to plot the line graph to show Runs of two teams India and England per over for 50 overs, as given below:

Overs:	10	20	30	40	50
India's score:	70	165	220	260	315
England's score:	66	162	225	262	310

Note: In the graph you have to show: Title, Labels of both axis, xticks & yticks

PART-B: Section-III

38. Write a program in Python Pandas to create the following DataFrame Employee

5

	E_No	Name	Desg.	Salary
1	21	Arun Kumar Sinha	Tester	28000
2	22	Annu Srivastava	Developer	35000
3	23	Benit Mishra	Designer	32000
4	34	Vincent Gomas	Administrator	25000
5	35	Cilona David	Administrator	25000

Perform the following operations on the DataFrame:

- Remove details of persons with employee number 34 and 35.
- Store the DataFrame into **abc.csv** file.
- Add a new column 'Location' with values: Ranchi, Patna, Pune, Delhi, Arga.
- Display Records of 2nd, 3rd, 4th rows of Name & Desg. Columns.
- Assign new indexes as: 'A', 'B', 'C', 'D', 'E'

39. Write the output for SQL queries (i) to (v) based on the following tables:

5

Table: Employee				
EmpId	Name	Salary	Gender	DOB
101	Reema Sharm	60000.67	F	1978-10-16
102	Vijay Singh	75000.45	M	1981-02-01
103	Seema Prakash	45000.34	F	1994-06-14
104	Faizul Rahman	61000.76	M	1990-11-12

- Select SUBSTR(Name,1,4) From Employee Where Gender='M';
- Select CONCAT(UCASE(Name, ','), Gender) From Employee;
- Select MONTHNAME(DOB) From Employee;
- Select INSTR(Name, 'Si') From Employee Where EmpId=102;
- Select ROUND(Salary) From Employee;

###

NOTE: Please send your PDF answer-script to : srikumar.mukherjee@dpsranchi.com

Format of the pdf file is: [Class-Sec]<dot>[Roll No]<dot>[Full Name]

Example: XII-A.25.Srinivas Mishra



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2021-2022)

Class:- XII
Time - 3 Hrs.

Subject:- Accountancy
F.M. :- 80

General Instruction:

1. There are 32 questions in Question paper and all are compulsory.
2. Question no.1 to 20 are very short answer type questions carrying 1 mark each. Answer should be brief and to the point and the answer of each part should be written at one place. There is no overall choice , however an internal choice has been provided in 2 question of 8 marks (Question 31 and 32.)

1. If there is a Match Fund then match expenses and incomes are transferred to
 - a. Income and Expenditure Account
 - b. Assets side of Balance Sheet
 - c. Liabilities side of Balance Sheet
 - d. Both Income and Expenditure Account and to Balance Sheet [1 marks]
2. A and B are partners sharing profits in the ratio of 1:2. C was manager, who received the salary of R.s 10000 p.m in addition to commission of 10% on net profit after charging such commission total remuneration to C amounted to R.s 180000. Profit for the year after charging salary and commission was
 - a. R.s 720000
 - b. R.s 600000
 - c. R.s 780000
 - d. R.s 660000 [1 marks]
3. X, Y and Z are partners sharing profits and losses in the ratio of 6:4:1. X has guaranteed Z for his minimum profit of Rs. 15000 firm's profit was Rs. 99000. In the firm profit X's share will be
 - a. Rs. 30000
 - b. Rs. 15000
 - c. Rs. 48000
 - d. Rs. 45000 [1 marks]
4. Capital employed Rs. 800000, Normal rate of return 15%, Profit for the year Rs. 1200000. The value of goodwill of the firm as per capitalisation.
 - a. Rs 8200000
 - b. Rs. 1200000
 - c. Rs. 4200000
 - d. Rs. 7200000 [1 marks]

5. A and B share profits and losses in the ratio of 3:2 with effect from 01.04.2021. They agreed to share profits equally sacrificing ratio and gaining ratio will be
- Sacrifice by A $\frac{1}{10}$, Sacrifice by B $\frac{1}{10}$
 - Gain by A $\frac{1}{10}$, Gain by B $\frac{1}{10}$
 - Sacrifice by A $\frac{1}{10}$, Gain by B $\frac{1}{10}$
 - Gain by A $\frac{1}{10}$, Sacrifice by B $\frac{1}{10}$
- [1 marks]
6. Sacrificing Ratio :
- New Ratio - Old Ratio
 - Old Ratio - New Ratio
 - Old Ratio - Gaining Ratio
 - Gaining Ratio - Old Ratio
- [1 marks]
7. Sacrificing ratio is used to distribute___ in case of admission of a partner
- Reserves
 - Goodwill
 - Revaluation Profit
 - Balance in Profit & Loss Account
- [1 marks]
8. A, B, C and D are partners. A and B share $\frac{2}{3}$ rd of profits equally and C and D share remaining profits in the ratio of 3:2. Find the profit sharing ratio of A, B, C & D.
- 5 : 5 : 3 : 2
 - 7 : 7 : 6 : 4
 - 2.5 : 2.5 : 8 : 6
 - 3 : 9 : 8 : 3
- [1 marks]
9. A, B and C sharing profits in the ratio of 4:3:2. A retires B and C decided to share profits in the future in the ratio of 5:3. Gaining ratio will be
- 11:21
 - 21:11
 - 11:13
 - 13:11
- [1 marks]
10. A, B and C have been sharing profits in the ratio of 4:2:1. C retires A and B take C's share equally. New profit sharing ratio will be
- 5:2
 - 5:3
 - 9:5
 - 4:2
- [1 marks]

11. On the death of a partner the amount due to him will be credited to
- All Partner's Capital Accounts
 - His Executor's Account
 - Remaining Partner's Capital Account
 - Government's Revenue Account
- [1 marks]
12. Profit and Loss Suspense Account is closed by transferring its balance to Account
- Profit and Loss Account
 - Profit and Loss Appropriation Account
 - Remaining Partner's Capital Account
 - None of these
- [1 marks]
13. Which of the following statement does not relate to Reserve Capital
- It is a part of uncalled capital of a company
 - It can not be used during the lifetime of a company
 - It can be used for writing off Capital losses
 - It is a part of Subscribed Capital
- [1 marks]
14. X Ltd forfeited 160 shares of Rs. 10 each on which the holder had paid only application money of Rs. 2 per share. Out of these 40 shares were reissued as fully paid for Rs. 9 per share. The gain on reissue is
- Rs. 320
 - Rs. 160
 - Rs. 40
 - None of these
- [1 marks]
15. If a shareholder does not pay his dues on allotment, for the amount due, there will be a
- Credit balance in the Share Allotment A/c
 - Debit balance in the Share Forfeiture A/c
 - Credit balance in Share Forfeiture A/c
 - Debit balance in Share allotment A/c
- [1 marks]
16. A Ltd issued 10000 Equity shares of Rs. 100 each at a premium of Rs. 20%. Mr. X who has been allotted 2000 shares did not pay first and final call of Rs. 5 per share. On forfeiture of Mr. X's shares amount debited to Security Premium Reserve Account will be
- Rs. 5000
 - Rs. 10000
 - Rs. 15000
 - Nil
- [1 marks]

17. A Ltd forfeited 2000 shares of Rs. 10 each, issued at par, for non payment of allotment money of Rs. 4 per share. The called up value per share was Rs. 9. On forfeiture the amount debited to Share Capital Account will be

- a. Rs. 10000
- b. Rs. 8000
- c. Rs. 18000
- d. Rs. 2000

[1 marks]

18. B Ltd forfeited 70000 Equity shares of Rs. 10 each, for non payment of final call of Rs. 1 per share, half of the forfeited shares were reissued at Rs. 20 per share. On reissue of forfeited shares the amount transferred to Capital Reserve will be

- a. Rs. 70000
- b. Rs. 140000
- c. Rs. 42000
- d. Rs. 315000

[1 marks]

19. AB Ltd forfeited 7000 Equity shares of Rs. 100 each issued at a premium of 10% for non payment of first and final call Rs. 40 per share. The maximum amount of discount at which these shares can be reissued will be

- a. Rs. 280000
- b. Rs. 420000
- c. Rs. 490000
- d. Rs. 350000

[1 marks]

20. If discount on reissue of shares is less than the amount forfeited the surplus is transferred to

- a. Capital Reserve
- b. General Reserve
- c. Securities Premium Reserve
- d. Statement of Profit and Loss

[1 mark]

21. On 01.04.2021 an existing firm had assets of Rs. 75000 including cash of Rs. 5000. The Partner's Capital Account showed a balance of Rs. 60000 and reserves constitute the rest. If normal rate of return is 10% and the goodwill of the firm is valued at Rs. 24000 at four year's purchase of super profits. Find average profits of the firm. [3 marks]

22. Present the following items in the Balance Sheet of a club as at 31.03.2021

Capital Fund (01.04.2020)	1080000
Building Fund (01.04.2020)	480000
Donation for Building received	600000
10% Building Fund Investment (01.04.2020)	480000
Interest received on Building Fund Investments	48000

Expenditure on construction of building Rs. 360000. The construction were is in progress and has not yet been completed

OR

Write three distinction between Receipts and Payments Account and Income and Expenditure Account? [3 marks]

23. P, Q and R are partners in a firm sharing profits and losses in the ratio of 2:1:2.

Their

fixed capitals were Rs. 300000, Rs. 100000 and Rs. 200000 respectively. Interest on capital for the year ended 31.03.2021 was credited to them @ 9% p.a instead of 12% p.a. Pass necessary adjustment entry. [4 marks]

24. A and B started business on 01.04.2020 with capitals of Rs. 200000 and

Rs. 150000 respectively. The partnership deed provided :-

- Interest on capital @ 10% p.a
- A to get a salary of Rs. 2000 p.a and B Rs. 3000 p.m
- Profits are to be shared in the ratio of 3:2. The profit for the year ended 31.03.2021 before making above appropriation were Rs. 216000. Interest on Drawings amounted to Rs. 2200 for A and Rs. 2500 for B. Prepare Profit and Loss Appropriation Account. [4 marks]

25. X and Y are partners in a firm sharing profits in the ratio of 3:2. Their Balance

Sheet as at 31.03.2021 as follows :

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
X's Capital	54000	Cash	18000
Y's Capital	36000	Plant	36000
Creditors	36000	Building	72000
	126000		126000

The goodwill of the firm has been valued at Rs. 36000 and the building at Rs. 90000 on 31.04.2021. The partners decide to share profits equally with effect from 01.04.2013. You are required to record the necessary journal entries to be made in the books of firm on account of change in profit sharing ratio without affecting the existing figure of building. [4 marks]

26. Pass the necessary journal entries for the following transactions on the dissolution of the firm of R and S after the various assets (other than cash) and outside liabilities have been transferred to Revaluation Account
- Stock Rs. 60000 was taken over by R for Rs. 50000
 - S agreed to pay his wife's loan Rs. 70000
 - Creditors of Rs. 20000 paid Rs. 17000 in full settlement
 - Loss on dissolution was divided between R and S equally (Rs. 9000) [4 marks]
27. Raju Ltd forfeited 400 shares of Rs. 25 each (Rs. 20 called up) held by Asha, for non payment of allotment money of Rs. 10 per share including Rs. 5 per share premium and the first call of Rs. 6 per share out of these 300 shares were reissued to X as Rs. 20 called up for Rs. 16 per share. Give journal entries for forfeiture and reissue of shares in the books of Raju Ltd. [4 marks]
28. From the following Receipts and Payments Account of Sonic Club and given additional information, Prepare Income and Expenditure Account for the year ended 31.03.2021

Receipts	Amount (Rs.)	Payments	Amount (Rs.)
To Balance b/d	190000	By Salaries	330000
To Subscription	660000	By sports Materials	400000
To Interest on Investment @ 8% p.a for full year	40000	By Balance c/d	160000
	890000		890000

Additional information :-

- The club had received Rs. 20000 for subscription in 2019-20 for 2020-21
- Salaries had been paid only for 11 months
- Stock of sports materials on 31.03.2020 was Rs. 300000 and on 31.03.2021 Rs.650000.

Also prepare Balance Sheet as at 31.03.2021. [6 marks]

29. Ram, Mohan and Sohan were partners sharing profits and losses in the ratio of 5:3:2. On 31.03.2021 their Balance Sheet was :-

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Ram's Capital	150000	Lease Hold	125000
Mohan's Capital	125000	Patents	30000
Sohan's Capital	75000	Machinery	150000
Creditors	155000	Stock	190000
Workmen Compensation Reserve	30000	Cash at Bank	40000
	535000		535000

Sohan retired on 01.04.2021. it was agreed that:

- a) Goodwill of the firm be valued at Rs. 175000
 b) Machinery be valued at Rs. 140000, Patents at Rs. 40000, Leasehold at Rs.150000 on this date.

Prepare Revaluation Account and Sohan's Capital Account [6 marks]

30. Following is the Balance Sheet of X and Y who share profits and Losses in the ratio of 4:1, as at 31.03.2021

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Sundry Creditors	8000	Bank	20000
Bank Overdraft	6000	Debtors	17000
X's Brothers loan	8000	-- Provisions	<u>2000</u>
Y's Loan	3000	Stock	15000
Investment Fluctuation Fund	5000	Investments	25000
X's Capital	50000	Buildings	25000
Y's Capital	40000	Goodwill	10000
		Profit and Loss Account	10000
	120000		120000

The firm was dissolved on the above date and following arrangement were decided upon

- X agreed to pay off his brother's loan
- Debtors of Rs. 5000 proved bad
- Other assets realised - Investments 20% less and goodwill at 60%
- One of the creditors for Rs. 5000 was paid only Rs. 3000
- Building were auctioned for Rs. 30000 and auctioneer's commission amounted to Rs. 1000
- Y took over part of stock at Rs. 4000 (being 20% less than book value) Balance stock realised 50%
- Revaluation expenses amounted to Rs. 2000

Prepare Revaluation Account [6 marks]

31. AB Ltd invited applications for 100000 Equity shares of Rs. 10 each, payable as Rs. 3 in application. Rs. 2 on allotment the balance on first and final call application were received for 300000 shares and the shares were allotted on a prorata basis. The excess application money received was to be adjusted against allotment only M a shareholder who had applied for 3000 shares failed to pay the call money and his shares were forfeited and reissued at Rs. 8 per share as fully paid up. Pass necessary journal entries.

OR

Z Ltd invited applications for issuing 40000 Equity shares of Rs. 10 each at a premium of Rs.2 per share. The amount was payable as follows:

On Application Rs. 6 including premium and balance on allotment applications for 50000 shares were received. Prorata allotment was made to all applicants. Excess money received on applications was adjusted towards sums due

on allotment. A shareholder to whom 8000 shares were allotted failed to pay the allotment money and his shares were forfeited. Later on the forfeited shares were reissued for Rs.700000 as fully paid up.

Pass Journal entries in the books of Z Ltd.

[8 Marks]

32. Given below is the Balance Sheet of Krishna and Suresh who are partners in a firm sharing profits in the ratio of 3:2

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Creditors	15000	Plant and Machinery	30000
Reserves	5000	Patents	8000
Krishna Capital	30000	Stock	16000
Suresh Capital	20000	Debtors	15000
		Cash	1000
	70000		70000

On the above date Mohan is admitted as a partner for 1/5th share on the following terms:-

- He is to contribute Rs. 14000 as his share of capital which includes his share of premium for goodwill
- Goodwill is valued at two years purchase the average profits of the last four years which were Rs. 10000, Rs. 9000, Rs. 8000 and Rs. 13000 respectively.
- Plant to be written down to Rs. 25000 and patents written up by Rs. 8000. Prepare Revaluation Account, Partner's Capital Account and Balance Sheet.

OR

X and Y were partners in a firm sharing profits in the ratio of 3:2. On 31.03.2021 their Balance Sheet was as follows:

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Sundry Creditors	70000	Land and Building	100000
Outstanding Expenses	10000	Machinery	80000
X Capital	180000	Stock	100000
Y Capital	70000	Debtors	40000
		Cash	10000
	330000		330000

On the above date Z was admitted as a new partner in the firm for $1/4^{\text{th}}$ share in the profits in the following terms:

- i. Z was to bring Rs. 120000 for his capital and Rs. 25000 for his share as premium for goodwill but he actually contribute only Rs. 20000 towards his share of goodwill.
- ii. Machinery was to be depreciated by 10% and Land & Building was to be appreciated by Rs. 30000.
- iii. Stock was overvalued by Rs. 20000.
- iv. A provision of 5% was to be created for doubtful debts.
- v. Salary Outstanding was Rs. 3000. There was a claim against the firm for damages amounting to Rs. 2000. The claim has now been accepted, Prepare Revaluation Account, Partner's Capital Account and Balance Sheet of the New Firm. [8 marks]



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class: XII
Time: 3 Hours

Subject: Economics
M. Marks: 80

General instructions:

- i) All questions in both sections are compulsory.
- ii) Question no. 1-10 and 18-27 are very short questions carrying 1 marks each.
- iii) Question no. 11-12 and 28-29 are short-answer questions carrying 3 marks each. Answer to them should normally not exceed 60 words each.
- iv) Question no. 13-15 and 30-32 are also short-answer questions carrying 4 marks each. Answer to them should normally not exceed 70 words each.
- v) Question no. 16-17 and 33-34 are long-answer questions carrying 6 marks each. Answer to them should normally not exceed 100 words each.
- vi) Answer should be brief and to the point and the above word limits should be adhered to as far as possible.

Section- A

1. What is GDP deflator? [1]
2. Define externalities. Give an example of negative externality. [1]
3. When will domestic factor income be greater than national income? [1]

OR

Expenditure on the purchase of second hand plant and machinery from rest of the world is a part of domestic capital formation. Is it true or false? Give reason.

4. Give the meaning of aggregate supply. [1]
5. Can MPC and MPS be negative? Give reasons. [1]
6. Identify the correct sequence of alternatives given in Column II by matching them with respective terms in Column I. [1]

	Column I		Column II
A.	When $AD > AS$	i	$C + S$
B.	When $AD < AS$	ii	$S = I$
C.	When $AD = AS$,	iii	unplanned increase in inventories
D.	AS	iv	unplanned reduction in inventories

Choose the correct alternative

- | | |
|--------------------|--------------------|
| (a) iv, iii, ii, i | (b) iii, iv, ii, i |
| (c) iii, i, iv, ii | (d) i, ii, iii, iv |

7. Vivan has 2 liters of milk and he wants rice against it, then how much rice he should get?
Which drawback of barter system is highlighted? [1]
- (a) Double coincidence of wants
(b) Lack of common measure of value
(c) Lack of store of value
(d) Lack of standard of deferred payments

8. From the following statements given in Column I and Column II, choose the correct pair of statements: [1]

Column I	Column II
A. Stock variable	1. Legal tender money
B. Fiat money	2. C+ DD+ other deposits
C. Fiduciary money	3. Money supply
D. M_1	4. Cheque

	A	B	C	D
a.	3	4	2	1
b.	3	1	4	2
c.	4	2	3	1
d.	2	1	3	4

9. The government budget has a revenue deficit. This gets financed by: [1]
- (i) Borrowings (ii) Disinvestment
(iii) Tax revenue (iv) Indirect taxes
- (a) (i) and (iv) (b) (iii) and (iv)
(c) (i) and (ii) (d) (iii) and (ii)
10. 'Policies of surplus budget during inflation' is a part of which objective of government budget? [1]
- (a) Economic growth (b) Economic stability
(c) Reducing regional disparities (d) Reallocation of resources
11. How will you treat the following while estimating domestic product of a country? Give reasons for your answer: [3]
- (i) Profits earned by branches of country's bank in other countries.
(ii) Gifts given by an employer to his employees on Independence Day.
(iii) Purchase of good by foreign tourists.

OR

Distinguish between intermediate goods and final goods.

12. Calculate gross value added at factor cost:	[3]
(i) Units of output sold (Units)	1000
(ii) Price per unit of output (Rs.)	30
(iii) Depreciation (Rs.)	1000
(iv) Intermediate cost (Rs.)	12000
(v) Closing stock (Rs.)	3000
(vi) Opening stock (Rs.)	2000
(vii) Excise (Rs.)	2500
(viii) Sales tax (Rs.)	3500

13. Assuming that increase in investment is Rs. 1,000 crore and marginal propensity to consume is 0.9, explain the working of multiplier. [4]

OR

Explain consumption function with the help of a schedule and diagram.

14. Given the following data, find the value of “Gross Domestic Capital Formation” and “Operating Surplus”. [4]

Particular	(Rs. crore)
(i) National Income	22100
(ii) Wages and Salaries	12000
(iii) Private Final Consumption Expenditure	7200
(iv) Net Indirect Taxes	700
(v) Gross Domestic Capital Formation	?
(vi) Depreciation	500
(vii) Government Final Consumption Expenditure	6100
(viii) Mixed Income of Self Employed	4800
(ix) Operating Surplus	?
(x) Net Exports	3400
(xi) Rent	1200
(xii) Net Factor Income From Abroad	(-) 150

15. India has scaled back expenditure, including on productive assets that aid economic growth, as the government is confronted with the risk of its budget deficit blowing out. Capital expenditure—the money spent on creating, maintaining or improving fixed assets like roads and factories – stood at 40% of the budgeted amount in the six months to September, down from 55.5% in the year-ago period, data from the government’s Controller General of Accounts show. The overall spending during the period was 49% of the budget aim compared to 53% last year. That’s despite Prime Minister Narendra Modi’s Government outlining measures worth more than 21 trillion rupees (\$281 billion) to counter the economic and social fallout of the Covid-19 outbreak. A closer look at the number shows the bulk of the spending was directed towards the poor and the farmers, with crucial sectors such as coal, power, shipping and steel receiving less than a third of their annual budget allocation. Spending on capital assets has so far trailed the so-called revenue expenditure that includes interest payments and overheads such as salaries, the data released last week showed. Modi’s Government placed spending curbs on some ministries from April to December to manage its cash flow.

- (i). Capital expenditure of the government the assets of the government.
 - a. increases
 - b. decreases
 - c. Both a and b
 - d. None of these
- (ii). Expenditure on health due to Covid-19 is expenditure of the government.
 - a. direct
 - b. revenue
 - c. Both a and b
 - d. None of these
- (iii). The overall spending has as compared to last year.
 - a. increased
 - b. decreased
 - c. Both a and b
 - d. None of these
- (iv). A closer look at the numbers shows the bulk of spending was directed towards the poor and the
 - a. farmers
 - b. labour
 - c. manager
 - d. None of these

[4]

16. Explain the concept of deflationary gap, use diagram. Explain any two monetary measures to correct it. [6]

OR

Derive saving and investment approach from aggregate demand and aggregate supply approach for determination of equilibrium level of income. Explain what happens, if planned saving is greater than planned investment.

17. Explain the process of Credit creation by the Commercial banks with the help of a Hypothetical Schedule. [6]

Section- B

18. Name the economist whose estimates on GDP and per capita income during the British rule were considered very significant: [1]

- (a) William Digby
- (b) Dr. V.K.R.V. Rao
- (c) Dadabhai Naoroji
- (d) Findlay Shirras

19. The twelfth Five Year Plan covered the period: [1]

- (a) 1997-02
- (b) 2002-07
- (c) 2007-12
- (d) 2012-17

20. From the following statements given in Column I and Column II, choose the correct pair of statements: [1]

Column I	Column II
A. 1950	1. National Development Council
B. 1951	2. NITI Aayog
C. 1952	3. First five year plan
D. 2015	4. Planning Commission

- | | | | | | | | | | |
|----|---|---|---|---|--|---|---|---|---|
| | A | B | C | D | | A | B | C | D |
| a. | 4 | 3 | 1 | 2 | | 3 | 4 | 2 | 1 |
| c. | 1 | 3 | 4 | 2 | | 2 | 1 | 3 | 4 |

21. When was MUDRA bank set-up? [1]
(a) 1991 (b) 1994
(c) 2000 (d) 2015
22. Which of the following statements is false? [1]
(a) Deregulation of the industries is not good for the economy
(b) Structural reforms are long-term measures
(c) Globalisation is achieved by increasing tourism
(d) Liberalisation is an economic reform
23. Read the following statements: Assertion (A) and Reason (R). Choose one of the correct alternatives. [1]
(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).
(b) Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct explanation of Assertion (A).
(c) Assertion (A) is true but Reason (R) is false.
(d) Assertion (A) is false but Reason (R) is true.
- Assertion (A): Globalisation is an outcome of the set of various policies that are aimed at transforming the world towards greater interdependence and integration. It involves creation of networks and activities transcending economic, social and geographical boundaries.**
- Reason (R): Globalisation is a strategy of the developed countries to expand their markets in other countries.**
24. Pradhan Mantari Bharat Jodo Pariyojna is related to [1]
(a) Communication
(b) Social irrigation
(c) Linking of rivers
(d) Development of highways
25. Transient poor includes: [1]
(a) Occasionally Poor (b) Churning Poor
(c) Both (a) and (b) (d) Usually Poor
26. five year plan recognised the importance of human capital. [1]
(a) Seventh (b) Third (c) Eight (d) Sixth
27. In the year Indian Government made free and compulsory education for age group of 6-14 years. [1]
(a) 2001 (b) 2009 (c) 2003 (d) 2007
- OR**
- education cess has been imposed by the government on all union taxes.
(a) 3% (b) 4% (c) 10% (d) 2%

28. India has seen long and rich history of handicrafts. Years and years of evolution and refinement have made it possible for India to retain a coveted spot in the handicrafts landscape of the world. Where the ancients were exemplary in their craft, the contemporary craftsmen are adept in using the knowledge of the ancients by adding modern craft techniques to them. They have carefully preserved this age – old art that represents dignity, style and beauty of the Indian culture.

Voyaging through the lanes of Indian handicrafts is a tempestuous affair. There are seen striking ups and downs throughout the late 2000s, had a grave impact on handicrafts industry.

Despite the growth of handicraft industry in India and the measures taken by the government to promote handicrafts, the average earning of a craftsman when compared to that of other fields is very low. Hence, the younger generation is moving to other fields with only the elder craftsmen being left behind. The country needs younger generation of craftsmen to carry on the tradition of handicrafts, and this is only possible by ensuring the assistance of craftsmen to improve their techniques, availability of quality raw materials, direct marketing channels, credit and better wages and providing them with socio-economic benefits. [3]

Q1. India had a worldwide reputation of

- (a) handicrafts
- (b) landscape
- (c) labour
- (d) none of these

Q2. To preserve handicrafts industry and to promote it, the country should encourage younger generation of craftsmen helping them with:

- (a) availability of quality raw materials
- (b) better wages
- (c) direct marketing channels
- (d) All of the above

Q3. During British rule, Indian handicrafts were discouraged by on their exports.

- (a) Removal Rajas
- (b) Nawabs
- (c) Giving subsidies
- (d) None of these

29. What do you mean by rural development? Briefly explain the key issues in rural development. [3]

OR

Briefly explain the advantages of agricultural diversification.

30. Why has the industrial sector performed poorly in the reform period? Discuss [4]

OR

Briefly explain tax reforms of 1991.

31. Distinguish between absolute poverty and relative poverty. How can income earning assets address the problem of poverty? [4]

32. Titled “Nine Months of COVID-19: The Impact on South Asia”, the report released by the Hudson Institute think-tank on Friday, is so-authored by Husain Haqqani , former Pakistan ambassador to the US, and Aparna Pande and is an update to their 30-pages report “Crisis from Kolkata to Kabul: COVID-19’s Impact on South Asia” Published in May 2020.

“The economic consequences of COVID-19 on South Asia are proving to be even greater than the healthcare challenges in the region. Different South Asian countries have dealt with the pandemic in various ways, but the economic costs overall seem to be higher than the healthcare consequences”, said Haqqani.

All these countries have poor healthcare infrastructure and are home to large number of people living below the poverty line, setting the foundation for uphill battles when tackling health crises, he said.

“In order to ensure a safe return to normal life and a resumption of economic activity, South Asian governments would benefit from focusing more on the development of human capital, Haqqani said.” [4]

Q1. South Asian governments would benefits from focusing more on the development of..... capital.

- (a) human
- (b) fixed
- (c) physical
- (d) None of these

Q2. The economic consequences of Covid-19 on South Asia are providing to be even than health care

- (a) smaller
- (b) equal
- (c) greater
- (d) None of these

Q3. Which is more important?

- (a) Physical capital
- (b) Human capital
- (c) Fixed capital
- (d) None of these

Q4. Different South Asian countries have dealt with the pandemic in various ways, but the economic costs overall seem to be than the healthcare consequences.

- (a) higher
- (b) smaller
- (c) equal
- (d) None of these

33. What is Green Revolution? Why was it implemented and what were the benefits? Explain in brief. [6]

OR

“Although subsidies put a huge burden on the government finances, yet are necessary for poor farmers”. Comment.

34. What steps have been undertaken by the government over the years to improve agricultural marketing system? Explain. [6]



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

HALF YEARLY EXAMINATION (2021-2022)

Class:- XII
Time - 3 Hrs.

Subject:- Business Studies
F.M. :- 80

General Instructions:

1. This question paper contains 34 questions
2. Marks are indicated against each question.
3. Answer should be brief and to the point.
4. Answers to the questions carrying 3 marks may be from 50 to 75 words.
5. Answers to the questions carrying 4 marks may be about 150 words
6. Answers to the questions carrying 6 marks may be about 200 words.
7. Attempt all parts of the question together.

1. To motivate the workers 'Differential piece wage rate system' should be implemented.
Say True/ False. [1]
2. Which of the following is an example of Social Environment?
a. Money supply in the economy
b. Consumer Protection Act
c. The Constitution of the country
d. Composition of family [1]
3. The purchase, production and sales managers at Sharda Ltd., a firm manufacturing Ready-made garments are generally at a conflict, as they have their own objectives. Usually, each think that only they are qualified to evaluate, judge, and decide on any matter, according to their professional criteria.
Name the concept which will be required by the CEO Mr. Raman, to reconcile the differences in approach, interest or opinion in the organisation. [1]
4. Which of the following is not a component of Staffing?
a. Recruitment
b. Advertising
c. Selection
d. Training [1]
5. _____ identifies critical problems which need timely action of management to keep the Organisation in right track.(Fill up the blank with the correct answer) [1]

6. _____ gives shape to the organisation structure.
- Extent of delegation
 - Span of Management
 - No of employees
 - Planning
- [1]
7. Name the term used to describe the combination of variables chosen by a firm to prepare its market offering. [1]
8. The manager of Beta Ltd. is very efficient and effective and makes sure that all the employees and workers in his team perform the task on time with minimum cost. His main focus is on cost reduction. So, he never listens to the demand of the workers for promotion. As a result, workers started becoming frustrated and disheartened all the time. Which objective of management could not be achieved by the manager? [1]
9. Fast Cool Industries asked its employees to work overtime in order to meet growing demand of AC in the summer season. However, the employees were not paid overtime wages for extra time worked by them. As a result, the employees always felt dissatisfied and it led to unhealthy relationships between the employees and management. Identify the principle of management not observed by Fast Cool Industries. [1]
10. Tomato Ltd. a food delivery service app has recently faced criticism for the tampering of their product, by their delivery boys. Tomato Ltd decided to put a hologram seal on the food packets in order to protect the contents from spoilage, leakage, pilferage, damage, along with a tag with a safety warning for the consumers to check the seal. Which concept of marketing discussed above is performing the important function of communicating with the potential buyer and promoting the sale.
- Branding
 - Product designing and development
 - labelling
 - packaging
- [1]
11. In order to solve economic problems of our country, the government took several steps including control by the state of certain industries, central planning and reduced importance of the private sector. Which dimension of the environment is discussed above?
- Economic Environment
 - Political Environment
 - both (a) & (b)
 - Legal environment
- [1]
12. Which one of the following statements best describes 'Mental Revolution'?
- It implies change of attitude
 - The management and the workers should not play the game of one upmanship.
 - Both management and workers require each other.
 - Workers should be paid more wages.
- [1]

13. Super Fine Rice Ltd. has the largest share of 55% in the market. The company's policy is to sell only for cash. In 2020, for the first-time company's number one position in the industry has been threatened because other companies started selling rice on credit also. But the managers of Super Fine Rice Ltd., continued to rely on its previously tried and tested successful plans which didn't work because the environment is not static. This led to decline in sales of Super fine Rice Ltd. The above situation is indicating two limitations of planning which led to decline in its sales. Identify the limitations. [1]
14. Most marketing Organisations spend substantial amount of money to communicate availability, features, merits etc. Of the products to the target customers and persuade them to buy it, through using number of toolsets such as advertising, personal selling and sales promotion techniques like price discounts, free samples etc. Which of the following element of marketing mix has been described above?
a. Product
b. Price
c. Promotion
d. All of these [1]
15. Which of the following is an example of qualitative standards?
a. Time taken by a customer to wait for a table in a fast-food chain having self-service.
b. Time to be spent in performing a task
c. Cost to be incurred
d. Product units to be produced and sold. [1]
16. The marketing manager of a firm has to take decisions in the areas that related to managing inventory, storage and warehousing and transporting of goods from the place it is produced to the place it is required by the buyers.
Which of the following element of marketing mix has been described above?
a. Product
b. Price
c. Physical distribution
d. Promotion [1]
17. How are principles of management formed?
a. In a laboratory
b. By experiences of managers
c. By experiences of customer
d. By propagation of social sciences [1]
18. _____ is a process of decision-making
a. Planning
b. Organising
c. Directing
d. Controlling [1]

19. The 'One best way' to perform a task should be identified and implemented. Identify the technique of scientific management is defined in this sentence.
- Method Study
 - Time Study
 - Fatigue study
 - Standardisation and simplification of work
- [1]
20. Principles of Management are NOT:
- Applicable only in large firms
 - Formed by practice and experience of managers
 - Flexible
 - Contingent
- [1]
21. Why is management considered to be a multi-dimensional concept? Explain [3]
22. The directors of Shiv electronics, an organisation manufacturing TV component, have asked Shakti, their Marketing Manager to achieve a target sale of Rs. 5,00,000 per day. Shakti has delegated the task to Manav, his Deputy Sales Manager working under him. Manav could not achieve the targets. Is Shakti responsible for the failure of Manav? State the relevant principle in support of your answer. [3]
23. Akanksha, Nikita and Parishma are the owners of a handicraft unit in the urban area of Dibrugarh in Assam, which is involved in the manufacturing and marketing of Sital Pati, traditional mats and Jappi (The traditional head gear). They decided to shift this manufacturing unit to a rural area with an objective of reducing the cost and providing job opportunities to the locals.
- They followed the functional structure in this organisation with a view to increasing managerial and operational efficiency.
- They assessed and analysed the type and number of employees required, keeping in mind that they had to encourage the women, and the people with special needs belonging to the rural area.
- State the next three steps that they will have to undertake, for obtaining a satisfied workforce for their handicraft unit. [3]

OR

Sahil, the director of garments company, is planning to manufacture bags for the utilisation of waste material of one of his garment's units. He decided that his manufacturing unit will be set up in a rural area of Orissa where people have very less job opportunities and labour is available at a very low rate. He also thought of giving equal opportunities to men and women. For this he selected S Chatterjee, Indrajeet Kaur, Aslam and Sarabjeet as heads of Sales, Accounts, Purchase and Production department.

Identify and state the next two steps that Sahil has to follow in the staffing process after selecting the above heads.

24. State and explain any three importance of Business Environment. [3]
25. What are the factors affecting determination of the price of a product or service? Explain any four. [4]

OR

JTM Ltd launched "Buddyline", an exercise book and comprehensive stationery brand name comprising of ball pens, gel pens and geometry boxes after identifying the target market and understanding the needs and wants of the consumers of that market. All their products were of good quality and eco-friendly but expensive. They wanted to distinguish their product from that of their competitors. They spent a lot of effort, time, and money in creating the brand name, as they knew that without a brand name, they can only create awareness for the generic product and can never be sure of the sale of their products. The effort paid off and the demand for the products start growing. The customers liked the brand and became habitual to it. They did not mind paying a higher price. Over a period of time, it became a status symbol to buy 'Buddyline' brand because of its quality. The consumers felt pride in using them.

- (i) Identify the marketing management philosophy followed by JTM Ltd.
- (ii) What do you mean by branding?
- (iii) Why do you think it is required?

26. Vinber Ltd. set up a manufacturing unit at Bhiwandi at Himachal Pradesh to manufacture electric geysers and supply them to dealers all over the country. Their production target was 500 geysers per week. It was decided by the management that variation in production upto 10 units would be acceptable. At the end of the first week, the production was 450 geysers. The next week, production increased to 470 geysers. A week later, production was 460 geysers. On investigation, it was found out that fluctuation in production was due to irregular supply of electricity.

(a) The above para discusses some of the steps of one of the functions of management. Explain the steps.

(b) Also, state the step(s) not discussed in the above para. [4]

27. Mrs. Raj Laxmi is working as the Human Resource Consultant in a firm manufacturing cosmetic, which is facing a problem of high employee turnover. The CEO of the company has invited suggestions from her for retaining the talented employees & reducing the employee turnover. Mrs. Raj Laxmi recommends that the good employees be rewarded in a way that it creates a feeling of ownership among the employees and at the same time makes them contribute towards the growth of organisation.

(a) Identify the incentive and explain its type, which has been suggested by Mrs. Raj Laxmi to the CEO of the company

(b) Also explain any two other incentives of the same type. [4]

28. One of the questions that needs to be answered in the organizing function is 'At what level are decisions made?' Decision making authority in an organization can be pushed down to the lower levels or it may lie with the top management. However, it is not an 'either or' concept. When an organisation grows in size or complexity, there is tendency towards sharing decision making authority with the lower levels. This is because in large organizations, employees who are closely involved with certain operations tend to have more knowledge about them than the top management. An important concept of organizing function is discussed above.

Identify the concept and explain its importance by giving any four points. [4]

29. Define scientific management. State any three of its principles [4]

30. Roasted Coffee Corporation is a coffee house chain operating in 7 states of India. Through its effective organisational structure, it has grown despite pressure from competitors in the national market.

The Company has a Purchase and Production department, supply chain management and logistics department, Brand management department and Sales department.

This structure has facilitated operational efficiency, as employees became specialists within their own realm of expertise. They could be imparted specialised training as the focus was on a limited range of skills.

Identify the organisational structure of Roasted Coffee Corporation. State any three advantages of such organisational structure other than those discussed in the question. [4]

31. Explain the importance of planning in an organisation by giving four points. [6]

32. Himesh was concerned about the sedentary lifestyle people are leading nowadays. Their dependency on outside food is also increasing because corporate work culture demands working till late night at offices. So, he decided to start a restaurant, "Healthy Eating Point" to provide healthy eating options to the customers. After completing planning and organising functions, he identified various positions that are required to be filled i.e. a General Manager, an Accountant, two Chefs, two boys for serving the food in the restaurant and three boys for home delivery of food. He decided that his father, Karan, would be the General Manager of the restaurant. He would be paid Rs. 50,000 per month for his services. His father requested him to appoint his friend's son, Prem as an accountant who is well qualified for this post. Himesh agreed to this proposal. Earlier, Prem had a business of providing unskilled workers to different organisations from remote areas of the country. Prem took permission from Himesh to continue with the old business. Himesh happily agreed and asked him to provide five boys for serving and delivering the food. For the appointment of the two Chefs, Himesh approached a renowned Hotel Management Institute and was satisfied with the Chefs provided by the institute.

a. By quoting the lines from the above paragraph, explain the two sources of recruitment being used by Himesh for filling up the various job positions.

b. Also give the meaning of the function of management discussed in the above case. [6]

33. Leadership style refers to behaviour pattern, which leader reflects in his role as a leader. On the basis of this statement discuss the different types of leadership styles, with appropriate diagram and giving suitable examples. [6]

34. Distinguish between advertising and personal selling on any six broad aspects. [6]

OR

Explain the following functions of marketing management: -

- a. Standardisation and Grading
- b. Product Designing and Development
- c. Customer Support Service
- d. Storage or Warehousing.



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class:- XII
Time - 3 Hrs.

Subject:- History
F.M. :-80

General Instructions: -

1. Answer all the questions. Some questions have internal choice. Marks are indicated against each question. This question paper comprises of six sections.
2. Section A: question numbers 1 to 16 are objective type questions carrying one mark and should be answered in a word or one sentence each (**Attempt any 15**)
3. Section B: question numbers 17 to 19 are case based /source based having multiple choice questions. Each question has four sub-parts. Attempt **any three** sub-parts from each question.
4. Section C: answer to questions carrying three mark, question number 20-23, should not exceed 100 words each.
5. Section D: answer to questions carrying eight mark, question 24 to question 26, should not exceed 350.
6. Section E: question numbers 27 to 29 are source based questions carrying five marks each.
7. Section F :Question number 30 is a map question that includes the identification or location of significant test items.

Section - A

1. Name any two elaborate sacrifices in the vedic period. 1
(c. 1000BCE-500 BCE Onwards)
2. Vellalar or large land owners of ancient Thamizhakam are mentioned in -----literature. 1
3. Read the following information And mention the context in which the statement is connected and who wrote it : 1
“ It seems to me a suicidal and indefensible policy to allow the country to be looted of original works of ancient art.”
4. Match the following 1
 - A. Chaitya1. Organisation of monks
 - B. Vihara2. Buddhist Prayer Hall
 - C. Sangha3. Auspicious Buddhist worship centres
 - D.Srupa4. Dwelling place of Buddhist Monks

Codes

	A	B	C	D
a.	2	1	4	2
b.	1	2	3	4
c.	3	1	2	4
d.	2	4	1	3

5. What is votive inscription? 1
6. What does the amara nayaka system mean? 1
7. Who wrote the Harsha charita? 1
8. Gajapati rulers were rulers of which of the following states? 1
- a. Orissa
 - b. Deccan
 - c. Assam
 - d. Bengal
9. Abdul Razzak was an ambassador sent by the ruler of 1
- a. Persia
 - b. Russia
 - c. Portugal
 - d. Italy
10. which among the following is not a source of the Mauryan Empire? 1
- a. Prayaga Prahasti
 - b. Indica of Megasthanis
 - c. Ardhashastra
 - d. Rock edicts of Asoka
11. Who was the most famous ruler of Vijayanagara 1
- a. Rama Raya
 - b. Ramadeva Raya
 - c. Krishna Raya
 - d. Krishnadeva Raya

12. Correct the sentence and rewrite 1
'The Arthashastra is one of the best known legal texts of early India, written in Sanskrit and compiled between c. second century BCE and c second century CE'
13. Read the following statement about Vijaya nagara empire carefully. 1
1. Its capital was Hampi
2. It was founded by Colin Mackenzie
3. Contemporaries described it as *karnataka samrajyamu*
Which of the above statements is/are correct?
a. 1, 2 & 3
b. 2 & 3
c. Only 1
d. 1&2
14. Assertion(A): All royal orders of the Vijaya nagara rulers were signed "Shri Virupaksha ".
Reason (R) : The rulers of vijayanagara wanted to show their close connection with their state deity .
Codes. 1
a. Both A and R are true and R is the correct explanation of A.
b. Both A and R are true, but R is not the correct explanation of A.
c. A is true, but R is false.
d. A is false but R is true.
15. Assertion(A): Between 6th century and fourth century BCE Magadha became the most powerful Mahajanapadha. 1
Reason (R) :There were several ruthlessly ambitious kings and their ministers who helped implement their policies in Magadha
Codes.
e. Both A and R are true and R is the correct explanation of A.
f. Both A and R are true, but R is not the correct explanation of A.
g. A is true, but R is false.
h. A is false but R is true.

16. Identify the following image and write its name.

1



Section - B

17. Study this Gopuram of the Brihadishvara temple at Thanjavor carefully and answer any three the following questions by choosing the correct option.



- (i) The Gopurams in south Indian temples 1
- a. Royal Gateways under which main temple shrine is enclosed
 - b. Long pillared corridors that ran around the temple complex
 - c. Long pyramadical tower located above the temple shrine
 - d. Chariot streets paved with stone slabs and lined with pillared pavilions

- (ii) The Brihadishvara temple is constructed by rulers from 1
- a. Vijayanagar Empire
 - b. Chalukya Dynasty
 - c. Chola Empire
 - d. Hoyasala Dynasty

- (iii) The main reason for constructing tall Gopurams by rulers from Vijayanagara 1
empire was/were
- a. It signalled the presence of the temple from a great distance
 - b. It symbolised the material wealth, power and resource commanded by the kings
 - c. It was meant for protectio of temples from invasion
 - d. Both a and b

- (iv) consider the following statements regarding temple architecture of Vijayanagara 1
Empire. Choose the correct option
- a. They incorporated various elements from the earlier dynasties such as Hoysalasand Cholas.
 - b. Tall gopurams, decorated pillared halls and lavish use of sculptures were characteric feature of Vijayanagara temple architecture
 - c. Both a and b
 - d. Only b

18. Read the following extract of an Inscription carefully and answer any **Three** of the following questions by choosing the correct option.

“He was without an on earth ;he, by the overflowing of the multitude of(his) many good qualities adorned by hundreds of good actions has wiped off the fame of the other kings with the soles of (his) feet ;(he is)Purusha (the supreme being), being the cause of the prosperity of the good and the destruction of the bad(he is) incomprehensible ;(he is) one whose tender heart can be

captured only by devotion and humility; (he is) possessed by compassion ;(he is) the giver of many hundred thousands of cows;(his)mind has received ceremonial intiation for uplift of the miserable, the poor, the forlorn and the suffering;(he is) resplendent and embodied kindness to mankind ; (he is)equal to (the Gods)Kubera (the God of wealth) Varuna (the God of the ocean) Indra (The God of rains)and Yama (the God of death).....”

- i. What is the source of this excerpt? 1
 - a. Allahabad pillar inscription
 - b. Prayaga Prashasti
 - c. Both a and b
 - d. None of the above
- ii. Who was the Author of the above except? 1
 - a. Banabhatta
 - b. Harisena
 - c. Samudragupta
 - d. Chanakya
- iii. This excerpt is about 1
 - a. Banabhatta
 - b. Harisena
 - c. Samudragupta
 - d. Chanakya
- iv. Assertion: He was without an Antagonist on earth 1
Reason: He has many good qualities adorned by hundreds of good actions
 - a. Both A and R are true and R is the correct explanation of A.
 - b. Both A and R are true, but are is not the correct explanation of A.
 - c. A is true, but R is true
 - d. A is false, but R is true

19. Read the following excerpt from the Mahaparinibbana Sutta, part of the Sutta Pitaka carefully and answer **any three** questions.

As the Buddha lay, dying Ananda asked him “ what are we to do Lord, with the remains of the Tathagata(another name of the Buddha)? “.The Buddha replied, “Hinder not yourselves Ananda by honouring the remains of the Tathagata. Be zealous, be intent on your own good.’

But when pressed further, the Buddha said, “At the four crossroads, they should erect a thupa (pali for stupa) to the Tathagata. And whosoever shall there place garlands or perfume... or make in its presence calm of heart, that shall long to be to them for a profit and joy.”

- i. What is the main theme of Suta Pitaka? 1
- a. Buddha’s teaching
 - b. Monastic rules of conduct for monks and nuns
 - c. Collection of Buddhist philosophy
 - d. Stories from previous births of Buddha

- ii. Which among the following best describes the message of Buddha to Anand? 1
- a. Honour and follow the doctrine laid down by Buddha
 - b. Worship Buddha as incarnation of God and erect structures for him
 - c. Discover your own path through right knowledge and observation
 - d. None of the above

- iii. Choose the correct option 1

Assertion (A): Buddha asked Ananda to erect stupas at the four crossroads.

Reason (R): He wanted people to be zealous and follow their own righteousness path

Codes

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true, but are is not the correct explanation of A.
- c. A is true, but R is false
- d. A is false , but R is true

- iv. Stupa in Buddhism is considered sacred. It depicts 1
- a. Place of residence for monks and nuns
 - b. Prayer Hall
 - c. Place where relics of Buddha and other sainys were kept
 - d. Temples depicting scenes from Buddha’s life

Section - C

20. Identify the elements that went into the making of the Mughal ideal of Kingship. 3
21. Discuss the extent to religious beliefs shaped the events of 1857. 3
22. What made historians call Akbar as the great? 3
23. Was the rebellion of 1857 a planned one? Why do you feel so? 3

Section - D

24. "Chronicles are an important source for studying the Mughal Empire and its court".
Discuss in detail about the chronicles and what we have learned about the mughal courts from the chronicles . 8
25. What do visual representations tell us about the revolt of 1857? How do historians analyse these representations? 8
26. Explain the the role played by Women of the imperial household in the Mughal empire. 8

Section - E

27. Read the following passage carefully and answer the questions that follow.

These are Some of the rules laid down in the Vinaya Pitaka:

When a new felt (blanket) has been made by a Bhikkhu, it is to be kept for at least six years. If after less than six years he should have another new felt (blanket) made, regardless of whether or not he has disposed of the first, then unless he has been authorised by the Bhikkhu it is to be forfeited and confessed.

In case a Bhikkhu arriving at a family residence is presented with cakes or cooked grain meal, he may accept two or three bowlfuls if he so desires. If he should accept more than that, it is to be confessed. Having accepted the two or three bowlfuls and having taken them from there he is to share them among the Bhikkhus. This is the proper course here. Should any Bhikkhu having set out bedding in and lodging belonging to the sangha or having had it set out and then on departing neither put it away nor have it put it away or should he go without taking leave it is to be confessed.

1. What is Vinaya Pitaka? 1 mark
2. These rules are set for whom? By whom? 1+1=2 marks
3. Which are the three pitakas ? 2 marks

28. Read the following passage carefully and answer the questions that follow.

The attitude of the Taluqdars was best expressed by Hanwant Singh, the Raja of Kala kangar near Rai Bareilly. During the mutiny Hanwant Singh had given shelter to a British officer, and conveyed him to safety. While taking leave of the officer, Hanwant Singh told him "sahib, your countrymen came into this country and drove out our king. You send your officers round the districts to examine the titles to the estates. At one blow you took from me lands which from time immemorial had been in my family. I submitted. Suddenly misfortune fell upon you. The people of the land rose against you. You came to me whom you had deployed. I have saved you. But now - now I march at the head of my retainers to Lucknow to try and drive you from the country."

1. What does this excerpt tell you about the grievances of the Taluqdars? 2 marks
2. Who did Hanwant Singh mean by the people of the land? 1 mark
3. Explain briefly about the role played by the local rulers like taluqdars in the revolt of 1857? 2 marks

29. Read the following passage carefully and answer the questions that follow.

The Sudarshana (beautiful) Lake in Gujarat.

The Sudarshana lake was an artificial reservoir. We know about it from a rock inscription (2nd century CE) in Sanskrit, composed to record the achievements of the Shaka ruler Rudradaman. The inscription mentions that the lake, with embankments and water channels was built by a local governor during the rule of the Mauryas. However, a terrible storm broke the embankments and water gushed out of the lake. Rudradaman, who was then ruling in the area claimed to have got the lake repaired using his own resources, without imposing any tax on his subjects.

Another inscription on the same rock (c.5th century) mentions how one of the rulers of the Gupta dynasty got the lake repaired once again

1. How do we get to know about the Sudarshana Lake? 1 mark
2. Why did this lake require repair? 1 mark
3. How many times this lake was repaired according to inscriptions? 1 mark
4. Explain why did rulers give importance to making arrangements for irrigation? 2 marks

Section - F

(Just Name the places with the state they are located now if it is an online exam.)

30. A. Locate and Label the major capitals of the Mughals. (4 marks)
- B. Locate and label the capital of British India in 1857.



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class-XII
Time: 3 Hrs.

Subject - Political Science
Maximum Marks: 80

General Instructions:-

- All questions are compulsory.
- Answer to one mark question should not exceed 20 words.
- Answer to two marks question should not exceed 40 words.
- Answer to four marks question should not exceed 100 words.
- Answer to six marks question should not exceed 150 words.

SECTION - A (MCQ)

[1X16=16]

1. The Idea of Planning in India was drawn from:
 - (a) The Bombay Plan
 - (b) Experiences of the Soviet bloc countries
 - (c) Gandhian Vision of Society
 - (d) Demand by Peasant Organisation

(I) b and d only
(II) d and e only
(III) a and b only
(IV) all the above
2. How many plans have been completed so far in India?
 - (a) Twelve
 - (b) Six
 - (c) Eight
 - (d) Four
3. The Chairman of the National Development Council is:
 - (a) President of India
 - (b) Finance Minister of India
 - (c) Prime Minister of India
 - (d) Chief Minister of U.P.
4. The Planning Commission in India was set up in:
 - (a) 1953
 - (b) 1957
 - (c) 1960
 - (d) 1950
5. China made a sudden attack on India in:
 - (a) August 1962
 - (b) September 1962
 - (c) October 1962
 - (d) September 1965

6. Expand NEFA
 - (a) North-Eastern Far Agency
 - (b) North Eastern Frontier Agency
 - (c) North-Eastern Fullest Agency
 - (d) North Eastern Farther Agency
7. The foreign policy of a country is the outcome of her economic policy” these remarks were made by:
 - (a) Indira Gandhi
 - (b) Jawaharlal Nehru
 - (c) Morarji Desai
 - (d) Charan Singh
8. Who accompanied the Tibetan spiritual leader Dalai Lama during the official Chinese visit to India in 1956?
 - a) Hua Guofeng
 - b) Zhao Ziyang
 - c) Chinese Premier Zhou Enlai
 - d) Li Peng
9. The United Nations was not created to take humanity to the heaven, but to save it from the hell.” Who made this statement?
 - (a) Pt. Jawaharlal Nehru
 - (b) Kofi Annan
 - (c) Ban Kimoon
 - (d) Dag Hammarskjold
10. What were the consequences of the Partition of India in 1947?
 - (a) Transfer of Population
 - (b) Refugees Problem
 - (c) Problem of Minorities
 - (d) All of these
11. The main reason for India’s partition is:
 - (a) Adamant attitude of Jinnah
 - (b) Communal riots and disorder
 - (c) Failure of the Interim Government
 - (d) All of these
12. Which among the following statements about the partition is incorrect?
 - (a) Partition of India was the outcome of the ‘Two Nation Theory.’
 - (b) Punjab and Bengal were the two provinces divided on the basis of religion.
 - (c) East Pakistan and West Pakistan were not contiguous.
 - (d) The scheme of partition included a plan for the transfer of population across the border.
13. The U.N. agency concerned with the safety and peaceful use of nuclear technology is:
 - (a) The UN Committee on Disarmament
 - (b) International Atomic Energy Agency
 - (c) UN International Safeguard Committee
 - (d) None of the above

14. WTO is serving as the successor to which of the following organisations:
(A) General Agreement on Trade and Tariff
(B) General Arrangement on Trade and Tariff
(C) World Health Organisation
(D) UN Development Programme
15. Who was the first woman President of the U.N. General Assembly?
(a) Sarojini Naidu
(b) ArunaAsaf Ali
(c) Vijay Lakshmi Pandit
(d) Raj KumariAmrit Kaur
16. Who blocked the Second term for Boutros Ghali as Secretary-General?
(a) USA
(b) India
(C) France
(d) China

SECTION - B (Source based)

17. Read the following passage carefully and answer the following questions.

On the 15th August 1947 Mahatma Gandhi did not participate in any of the Independence Day celebrations. He was in Kolkata in the areas which were torn by gruesome riots between Hindus and Muslims. He was saddened by the communal violence and disheartened that the principles of non violence and satyagraha that he had lived and worked for had failed to bind the people in troubled times.

He went on to persuade the Hindus and Muslims to give up violence. He was deeply concerned about ensuring that Muslims should be allowed to stay in India with dignity as equal citizens. Gandhiji's actions were however not Liked by all. Despite this he refused to accept armed protection and continued to meet everyone during his prayer meetings. On 30th January 1948 NathuramVinayakGodse walked up to Gandhiji during his evening prayer in Delhi and fired bullets at him killing him instantly. The Government of India after the incident crackdown on organizations that were spreading communal hatred.

- I) Why Gandhiji did not participated in Independence Day?
- a) Because he was saddened by communal violence
 - b) Because he was disheartened that his principle of non violence and satyagraha failed to bind people
 - c) Because he was unable to handle the situation of communal violence
 - d) Both a and b
- II) Why gandhiji's action were not liked by some people?
- a) Because he was deeply concerned about Muslims stay in India with dignitydignity
 - b) Because he was not supporting the Hindu community
 - c) Because he considered all the communities equal.
 - d) None of the above

III) Gandhiji was killed on.....

- a) 30th September, 1948
- b) 30th January, 1948
- c) 30th June, 1948
- d) 30th July, 1948

IV) What measures were adopted after the death of Gandhiji by Government of India?

- a) It favors those organisations that were spreading communal hatred
- b) It crackdown on organisations that were spreading communal hatred
- c) It negotiated with those organisations that were responsible for communal hatred
- d) None of the above

18. Read the following passage carefully and answer the question that follows:-

With the end of the Cold War in 1991 and non alignment both as an international movement and the core of India's foreign policy lost some of its earlier relevance and effectiveness. However nonalignment contains some core values and enduring ideas. It was based on the recognition that the colonised states share a historical affiliation and can become a powerful force if they come together. It means that the poor and often very small countries of the world need not become followers of any of the big powers and they could pursue an independent foreign policy. It was also based on resolve to democratise the international system by thinking about an alternative world order to redress existing inequities. These core ideas remain relevant even after the Cold War has ended.

I) What was the basis of nonalignment?

- a) It was based on a policy of staying away from two power blocs
- b) it was based on a philosophy of pursuing an independent foreign policy
- c) It was based on some core values and enduring ideas
- d) All of the above

II) When nonalignment lost its relevance and effectiveness to some extent?

- a) Before 1991
- b) After 1991
- c) After 2000
- d) After 2005

III) On what basis we can say that non alignment is still relevant?

- a) Due to its core ideas and values
- b) As it was an alternative world order to redress existing inequities
- c) As it took an independent stand
- d) None of the above

IV) Non-alignment was based on recognition that decolonised states share a.....

- a) Historical affiliation
- b) They can become a powerful force if they come together
- c) A core belief of being independent from world politics
- d) All of the above

SECTION - C

[2x4=8]

19. What is is Cuban Missile crisis?
20. What do you know about UNESCO
21. State the objectives of NITI Aayog.
22. Explain two main features of India's Foreign Policy.

SECTION - D

[4x5=20]

23. Do you agree with the statement" The Foreign Policy of Independent India has persued the dream of peaceful world"? Support your answers with any three suitable examples.
24. Mention any four realities that have changed after the world politics after the cold war.
25. What is Human Rights Watch? Describe it's main contribution to the field of Human Rights .
26. Who is that astounding leader who is popularly characterised as NCR in Indian political history? Throw light at his vital importance in Indian polity.
27. Describe briefly any four problems faced in the process of partition of India.

SECTION - E

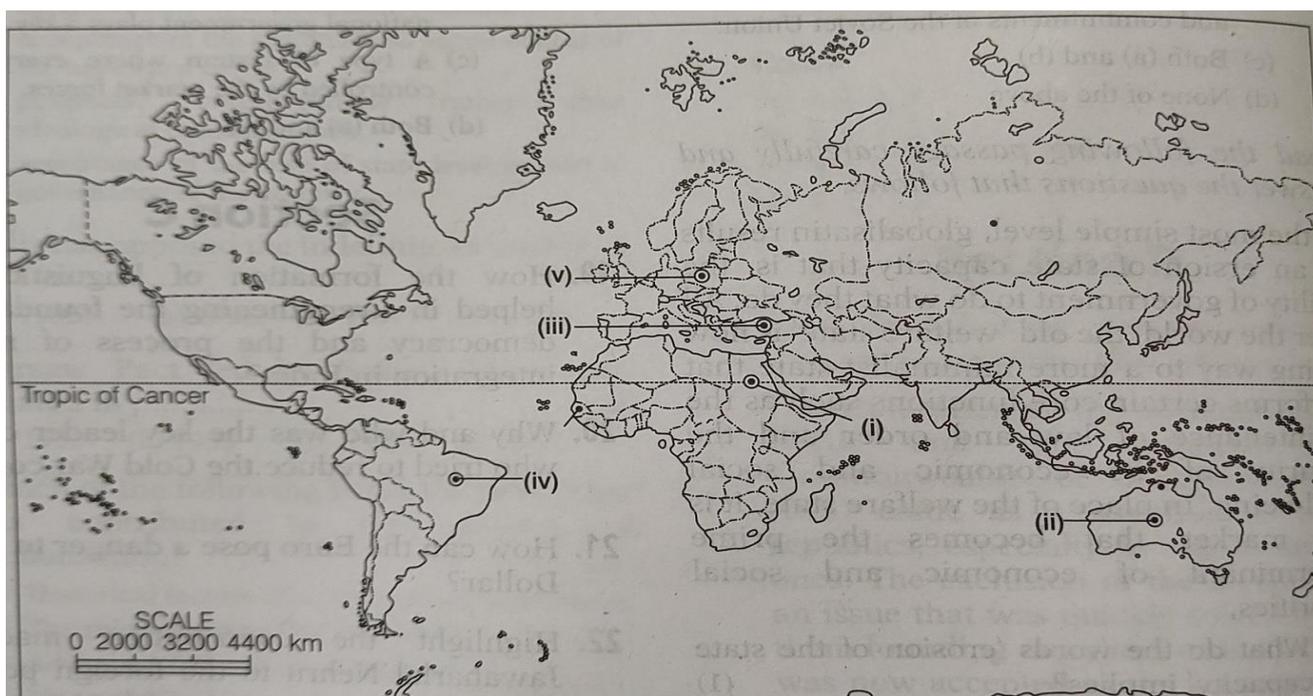
[6x3=18]

28. Which three complaints related to the UN Security Council were reflected in the resolution passed by the UN General Assembly in 1992? Describe any three criteria that have been proposed for new permanent members of the Security Council Council.
29. Highlight the developments in India's nuclear program? Also mention India- Israel relationship in context of the foreign policy.
30. Analyze the factors responsible for the disintegration of USSR with special reference to Perestroika and Glasnost.

SECTION - F

[5]

31. Study political outline map of the world given below in which 5 different countries have been marked as i) , ii) , iii) , iv) and v). Identify these countries and name them. Also classify them as first world, Second World and 3rd world countries



32. Study the following cartoon carefully and answer the question that follow -

- a. Identify the name and leader shown on the right in the cartoon
- b. What type of relationship does cartoon indicate between people and the ruler
- c. In your opinion how successful was the approach adopted by the leader on right to solve the issue of princely states.





DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class:- XII
Time - 3 Hrs.

Subject:-Sociology
F.M. :-80

General Instructions:-

1. Section No. 1-16. These are objective type questions.
 2. Section B includes question No. 17-25. These are very short type questions carrying 2 marks each. Answer to each question should not exceed 30 words.
 3. Section C includes question No. 26 to 32. These are short answer type questions Carrying 4 marks each .Answer to each question word limit should not exceed 80 words . Question 26 and 27 are case study based questions with 4 parts each carrying 1 mark each, marking the questions of 4 marks each.
 4. Section D includes question No. 33 -35. They are long answer type questions carrying 6 marks each. Question number 35 is to be answered with the help of the passage.
-

SECTION - A

[1X16=16]

1. The second stage of demographic transition is also called-----
 - A. Population explosion
 - B. Life expectancy
 - C. Traditional stage
 - D. Replacement level
2. Which states India are near the 'replacement level' of population growth?
 - A. Haryana
 - B. Kerala
 - C. Chandigarh
 - D. Punjab
3. Depends comprised of
 - A. Young people below 15
 - B. Old people above 70
 - C. 65 above old people
 - D. Both A and C
4. The first National Family Planning Policy was announced in
 - A. 1949
 - B. 1952
 - C. 1975
 - D. 1999

5. The term caste in the Indian context comprise of
 - A. Tribe
 - B. Varna
 - C. Jaati
 - D. Both B and C
6. Which of the following is true for caste
 - A. It is a choice
 - B. It is endogamous
 - C. It is not linked to occupation
 - D. It is based on egalitarianism .
7. The tribal language spoken by Indian tribes include
 - A. Indo-Aryan
 - B. Dravidian
 - C. Austric
 - D. Tibeto-Burman
8. The adivasis traded during medieval period-----
 - A. Salt
 - B. Forest produce
 - C. Elephants
 - D. All of these
9. Social exclusion and inequality are
 - A. Structured
 - B. Systematic
 - C. Unorganized
 - D. Both A and B
10. Which of the following is the form of capital of social resources?
 - A. Economic capital
 - B. Cultural capital
 - C. Social capital
 - D. All of these
11. Power whose basis is the threat or application of punishment is called
 - A. Charismatic authority
 - B. Traditional authority
 - C. Force
 - D. Authority
12. State try to establish and enhance political legitimacy through----
 - A. Nation building strategy
 - B. Communist strategy
 - C. Singular National identity
 - D. Imperial strategy

13. Our parliamentary, legal and educational system are based on which model?
- A. American model
 - B. British model
 - C. Indigenous model
 - D. French model
14. The emergence of machine production based on the inanimate power resources like steam and electricity is known as----
- A. Globalisation
 - B. Capitalism
 - C. Imperialism
 - D. Industrialisation
15. Who did Marathi translation of Vidyasagar's book Indu Prakash?
- A. Vishnu Shastri
 - B. Pandora Ramabai
 - C. Keshav Chandra sen
 - D. Veersalingam
16. Who was known as the Father of Indian Renaissance?
- A. Sir Syed Ahmad Khan
 - B. Jotiba Phule
 - C. Raja Ravi Verma
 - D. Raja Ram Mohun Roy

SECTION- B

[2X9=18]

17. What do higher rates of infant and maternal mortality indicates?
18. What do you mean by ageing of the population?
19. Explain the term Dominant caste.

OR

Define kinship.

20. Who are Dalits?
21. What is the correlation between disability and poverty?
22. What does the term Cultural Diversity mean?
23. Who are privileged minorities?
24. Explain capitalism as an economic system.

OR

What was the impact of western education in India ?

25. What is Secularisation of Caste?

26 . Read the given passage and answer the questions that follows.

Tea industry began in India in 1851. Most of the gardens were situated in Assam. In 1903, Industry employed 4,79,000 permanent and 93,000 temporary employees. Since Assam was sparsely populated and labour had to be imported from other provinces. But to bring thousands of people every year from their far-off homes into strange lands, possessing an unhealthy climate and infected with strange fevers, required the provision of financial and other incentives, which the tea planters of Assam were unwilling to offer. Instead , they had recourse to fraud and coercion; and they persuaded the government to aid and abet them in this unholy task by passing penal laws. The recruitment of labourers for tea gardens of Assam was carried on for years mostly by contractors under the provisions of the Transport of Native Labourers Act (No. III) of 1863 of Bengal as amended in 1865,1870 and 1873.

1. The Planters were fully aware that the laws of a colonised country did not have to stick to the -----norms that the British back home had to follow in Britain.
 - A. Democratic
 - B. Autocratic
 - C. Exclusionary
 - D. Discriminatory
2. The Tea -Industry is an example of how-----did not happen in India the way it did in Britain
 - A. De-industrialisation
 - B. Gentrification
 - C. Industrialisation
 - D. Exclusion
3. The government helped the planters by providing for-----in case of non-fulfilment of the contract by the labourers.
 - A. Penal sanction
 - B. Reward
 - C. Appreciation
 - D. Incentive
4. The life of the planter and that of the labourers in the Tea industry are ----- .
 - A. Contrasting
 - B. Similar
 - C. Equal
 - D. Cooperative

27. Read the given passage and answer the questions that follow the passage.

To diehards who have developed a kind of fanaticism against minority protection I would like to say two things. One is that minorities are an explosive force which, if erupts, can blow up the whole fabric of the state. The history of Europe bears ample and appalling testimony to the fact. The other is that the minorities in India have agreed to place their existence in the hands of the majority. In the history of negotiations for preventing the partition of Ireland, Redmond said to Carson "Ask for only safeguard you like for the Protestant minority but let us have a United Ireland." Carson's reply was "damn your safeguards, we don't want to be ruled by you." No minority in India has taken this stand.

1. Who has argued this?
 - A. Jyoti Rao Phule
 - B. B R Ambedkar
 - C. Mahatma Gandhi
 - D. Veersalingam

2. The notion of minority groups is more than a merely numerical distinction. It generally implies a relatively small but also -----groups.

3. Religious or cultural minorities need special protection because of the demographic dominance of the majority This protection can be assured through-----.
 - A. Economic equality
 - B. Political representation
 - C. Cultural diversity
 - D. None of these

4. "Hindus constitute an overwhelming majority in India." This can be misleading because Hindus are not a-----group.
 - A. Hierarchical
 - B. Divided
 - C. Homogenous
 - D. Diverse

28. Explain the main factors behind the assertion of tribal identity today.

29. In what ways can changes in social structure lead to changes in the family.

30. Caste is a discriminatory system. Explain.

31. Mention role and significance of Civil society .

OR

How Regionalism can be reduced?

32. Do you think modernisation is one of the reasons for generation conflict? Explain.

SECTION- D

[6X3=18]

33. How India's declining sex ratio can be curbed? What are the factors responsible for low sex ratio in India?

OR

Examine the India's Demographic Achievement.

34. In what ways colonialism has brought about a social, economic and political influence on Indian society to promote urbanization.?

35. Read the given paragraph carefully and answer the following questions. (3x2=6)

'Disabled -unfriendly' courts

Describing the non-consideration of handicapped persons for judge posts as an "exclusive" policy of the higher judiciary, a senior jurist says by continuing to ignore the handicapped, the judiciary is violating a statutory mandate. "The High court building itself is far from disabled-friendly." All entrances to the actual court complex are preceded by staircase and none of them has a ramp. Even to access the limited elevator facility, one has to climb several steps.

The condition of the City Civil Court, where many handicapped or injured persons come to depose before courts hearing accident claims cases, is worse. One can see disabled, injured or old people being carried up the stairs by their companions, says an advocate.

(The Hindu Wednesday, 2 August 2006.)

1. Describe the different ways in which the problems of the disabled are socially constituted? (3)
- 2." Social acceptance of disabled is more important than mere government policy and programmes". Comment. (3)

DELHI PUBLIC SCHOOL
SAIL TOWNSHIP RANCHI
HALF YEARLY EXAMINATION (2021-22)

Class-XII
Time: 3 hrs

Subject: Engineering Graphics
M.M: 70

GENERAL INSTRUCTIONS: Attempt all the questions. Use both sides of drawing sheet if necessary. All dimensions are in millimeters. Missing and mismatching dimensions, if any, may be suitably assumed. Follow the SP 46.2003 revised code (with first angle method of projection). In question 2, no view of hidden edges or lines are required. In question 4, hidden edges or lines are to be shown in views without section.

1. Answer the following multiple choice questions: [1x5=5]

- i. Radius is generally represented by the letter:
 - a) R
 - b) R
 - c) D/2
 - d) None
- ii. Hatching lines are inclined at an angle of
 - a) 30°
 - b) 45°
 - c) 90°
 - d) None
- iii. Which one is a head less bolt
 - a) Key
 - b) Cotter
 - c) Stud
 - d) None
- iv. Number of cotter used in sleeve and cotter joint is
 - a) 1
 - b) 2
 - c) 3
 - d) None
- v. Body of bushed bearing made of
 - a) C.I
 - b) MS
 - c) HSS
 - d) None

- 2.
- a) Construct an isometric scale.

[4]

b) A hexagonal prism of 30mm base side, axis 60mm long is resting on the ground of one of its rectangular faces. Axis is parallel to both H.P and V.P. Draw the isometric projection. Give all the dimension. Show the direction from viewing. [7]

c) A cone of base diameter 40mm, height of the axis 60mm is centrally placed on the top surface of pentagonal prism of base side 50mm, height 55mm. Base side parallel to the V.P. It is resting on the ground of its base. Common axis is vertical. Draw the isometric projections. Give all the dimensions. Show the direction from viewing. [13]

3.

a) Draw to scale 1:1, the standard profile of square thread, taking enlarged pitch is 40mm. Give the standard dimensions.

OR

Draw to scale 1:1, front view and side view of of hexagonal headed bolt of diameter 20mm. Axis parallel to both H.P and V.P. Give the standard dimensions. [8]

b) Sketch free hand front view and top view of snap head rivet of diameter 20mm. Axis is vertical. Give the standard dimensions.

OR

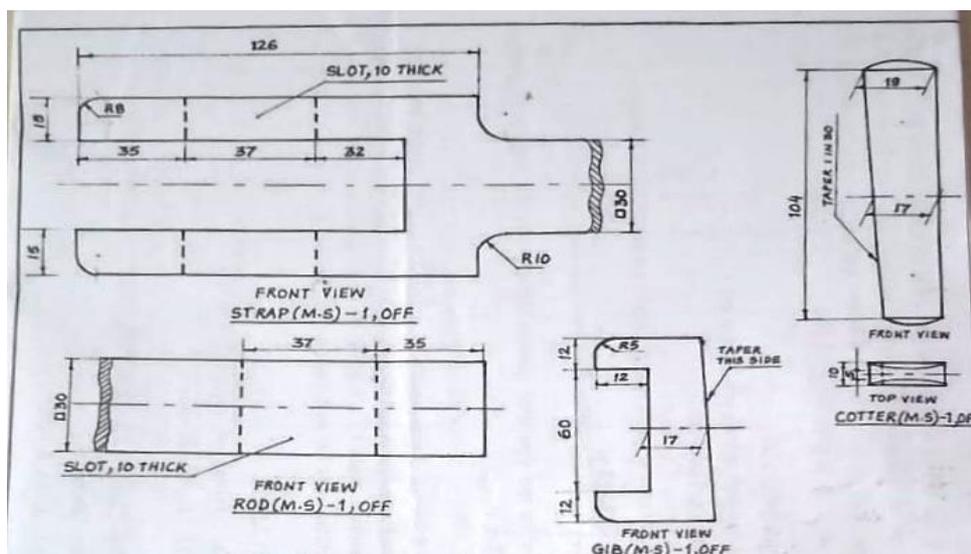
Sketch free hand front view and top view of plain stud bolt of diameter 20mm. Axis is vertical. Give the standard dimensions. [5]

4. FIG-1, Disassemble the parts of gib and cotter joint. Assemble these parts correctly and draw to scale 1:1

i. Front view upper half in section. [16]

ii. Side view from left. [6]

Print the title and the scale used. Draw the projection symbol. Give six important dimensions. [6]



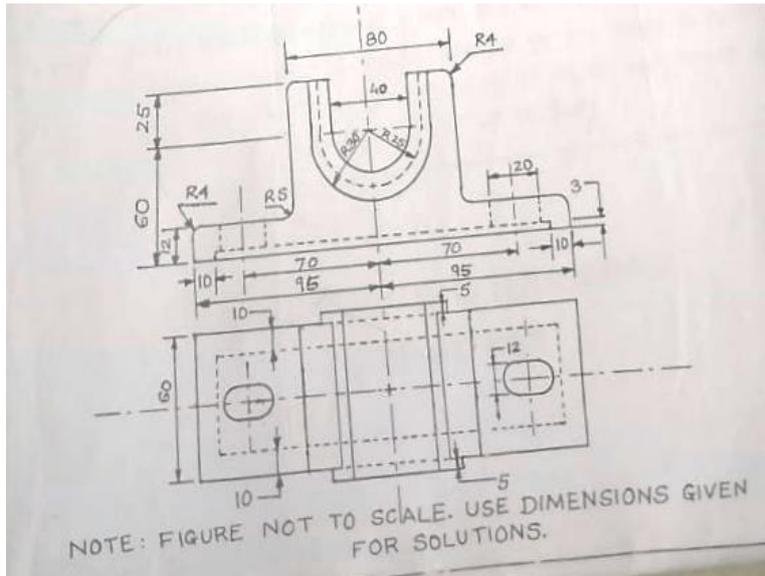
OR

FIG-2, Show the assembly of an open bearing. Disassemble the base and the bush and draw the following views to scale 1:1 keep the same position of the base and the bush with respect to H.P and V.P.

i. Front view of base, showing right half in section and its left side view. **[16]**

ii. Front view left half in section of bush and top view **[8]**

Print the title of both and scale used. Draw the projection symbol. Give 8 important dimensions. **[6]**





DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class-XII
Time: 3 Hrs.

Subject - Entrepreneurship
Maximum Marks: 70

General Instructions:

1. There is no overall choice, though internal choice is given.
 2. Read the question carefully before attempting.
-

1. Vaibhav was working with Rishav, a new entrepreneur, as a Production Manager. For smooth and coordinated flow of work, he had to pay attention towards various elements. To ensure predetermined quality of products, he had to compare the performance with established standards. Identify the element being discussed above which is related to one of the components of a 'Business Plan'.
(A) Routing
(b) Scheduling
(c) Dispatching
(d) Inspection [1]

2. Sumeet is a budding rural entrepreneur who is working on improving the health index of the women in rural areas. Sumeet needs to understand various health issues confronted by women in order to create a socially committed organisation. For this, he wants to gather information about the target market or customers in an organized manner. This organized effort of Sumeet is known as _____ (Fill in the blank) [1]

3. Growing flowers and selling to floral decorators is an example of the following sources of idea field.
(A) Service sector ideas
(B) Trading related ideas
(C) Natural resources
(D) Market driven ideas [1]

4. Neeru who has done LLB from a renowned Law college wanted to open her own legal consultancy firm with her friend who has completed LLM recently. Neeru discussed the different information of the business plan with her friend stating the authority and responsibility of each member, management team, salary to be given, dress code etc. Identify the type of business plan Mentioned above.
(A) Operational plan
(B) Organisational plan
(C) Manpower plan
(D) None of these [1]

5. 'Swachh Jal private Ltd.' is the manufacturers of water purifiers. The company has developed a new water purifier that not only converts the hard water into soft water but also kills the bacteria and other harmful micro organisms present in it. The company has named this water purifier as 'Gangotri' and for its marketing, appointed salesmen throughout the country. The company also trained the salesmen to provide information about the usefulness of the 'Gangotri' water purifiers to the customers and motivate them to buy the same. Name the promotion strategy adopted by the company.

- (A) Personal Selling
- (B) Publicity
- (C) Advertisement
- (D) Public relations

[1]

6. Match the following columns:

Column 1: BUSINESS	Column 2: UNIT OF SALE
(i) Mall	(a) Diner
(ii) Restaurant	(b) Customer
(iii) Cricket Match	(c) Audience
(iv) Theatre	(d) Spectator

- (A) i - b; ii - a; iii - d; iv - c
- (B) i - d; ii - b; iii - c; iv - a
- (C) i - c; ii - a; iii - b; iv - d
- (D) None of these

[1]

7. Identify the promotion strategy shown in the image given below:



- (A) Below the line
- (B) Above the line
- (C) Through the line
- (D) Both (a) and (b)

[1]

8. Which of the following considerations related to market is/are to be followed by an entrepreneur, while selecting a suitable channel of distribution?

- (A) Number of buyers
- (B) Types of buyers
- (C) Buying habits
- (D) All the above

[1]

9. Bhavna started a pottery unit employing differently abled people to make and sell sculptors made of clay. She also made sure that the material she used is easily decomposable. During the months of September and October she increased the scale of production as the festival of Diwali was round the corner. Identify the component of business environment at macro level that is reflected in the above situation.
- (A) Political environment
 - (B) Technological environment
 - (C) Ecological environment
 - (D) None of these

[1]

OR

North West Airlines started their operations from India to various parts of the country in the year 2015. The company had successful in its operations as more people preferred to travel by air due to change in the life style and attitude towards work and leisure. It is _____ factor as per PESTEL Model.

- (A) Social
- (B) Technological
- (C) Economical
- (D) None of these

10. _____ is that part of a brand which can be recognized but not vocalized.
- (A) Brand Name
 - (B) Brand Mark
 - (C) Trade Mark
 - (D) None of these

[1]

OR

Which of the following is/are in the form of questions, statements and exclamations?

- (A) Tag Lines
- (B) Base Lines
- (C) End lines
- (D) All the above

11. It is commonly observed that the prices of air tickets vary depending on the season, date and demand. Similarly the price per kilometer rises when there is a rise in the demand for Uber service. Companies use this technique to drive more profit during the demand period, and the low prices are offered to attract customers during the low demand period. Identify the strategy or technique followed in the above examples.
- (A) Price Skimming
 - (B) Cost-Plus Pricing
 - (C) Variable Pricing
 - (D) None of these

[1]

12. Amrita started her boutique business near an industrial area and she was not getting clients as she had expected. Which of the following factors have been ignored before starting the boutique?
(A) Assured market scope
(B) Practicability of the idea
(C) Potential of future growth
(D) All the above [1]
13. Hema, an entrepreneur, decided to open a chain of retail stores to sell fast food items like pizza, burger etc. Mention the area where she should open these outlets?
(A) Rural area
(B) Urban area
(C) Both (A) and (B)
(D) None of these [1]
14. The calculation method for the breakeven point of sales mix is based on the _____ approach method.
(A) Contribution
(B) Sales
(C) Cost
(D) None of these [1]
15. What does Total Cost include?
(A) Only Variable Cost
(B) Only Fixed Cost
(C) Both (A) and (B)
(D) None of these [1]
16. B & H is a leading advertising firm. They recruit new graduates through college placements. During an interview, a student was asked to list the four rules for planning any advertising activity, he replied that the following is required: Aim, Target, Desire, Competitors. Are the given rules correct? Justify your answer. [1]
17. Carrying cost refers to the total cost of holding inventory which includes interest, space cost, insurance etc. (State True/False) [1]
18. A summary of the projected assets, liabilities and net worth of the entrepreneur is depicted through pro forma balance sheet. (State True /False) [1]
19. It is always advisable to mention in the business plan, the socio-economic benefits expected to acquire from the proposed investment. Identify which of the following is not an economic and social variable.
(A) Employment generation
(B) Import substitution
(C) Land and Building
(D) Ancillarisation [1]

20. A company is called an artificial person because _____
 (A) It does not have the shape of a natural person
 (B) It cannot be sued in the court of law
 (C) It is invisible and intangible
 (D) It exists in the eyes of law [1]

21. What is the minimum paid up capital required to start a Private Ltd. Company?
 (A) Rs. 1,00,000
 (B) Rs. 5,00,000
 (C) Rs. 10,00,000
 (D) Rs. 50,00,000 [1]

22. A problem is a road block in a situation, something that sets up a conflict and forces you to find a solution. When an entrepreneur identifies such a road block, he/she is said to have identified the problem.
 State any four uses of Problem Identification in the above context. [2]

23. What do you mean by Personal Selling? State the role of sales person. [2]

24. Rohan is a budding musician created a lot of musical notes for his upcoming video. He was extremely thrilled to listen to his compositions. He presented his compositions to his friend Victor. The release of musical video of Rohan was getting delayed for a few months due to shortage of cash. Meanwhile Victor used most of the musical compositions of Rohan in his video.
 Rohan was extremely upset to know that his friend had cheated him and used his work. What could have Rohan done to safeguard his work? Identify and explain it. [2]

25. What do you mean by Break-Even Point?
 Illustrate with the help of an example. [2]

26. What do you mean by Ordering Costs and Carrying Costs? [2]

OR

What do you mean by Gross Profit?

27. Paramveer singh runs an online business for Gym Equipment. Annual demand for the waist Flexors is 16,000 units. The annual holding cost per unit is Rs. 48 and the cost to place an order is Rs.1,500. Calculate the Economic Order Quantity of Waist Flexors. [3]

28. ' Ayush Generic Medicines', a chemist shop sells generic medicines. On 15/2/2019 medicines as per the details given below were sold:

NO. OF CUSTOMERS	Billed amount Per Customer (Rs.)
15	370
20	430
45	500
25	1,000
95	1,200

Calculate the average amount of medicines sold per customer. [3]

29. Explain the various factors involved in sensing opportunities briefly. [3]

OR

What do you mean by 'Analysis of Environment'? State any four sources of collection of information for environmental scanning.

30. Sensitivity to environmental factors is crucial for an entrepreneur. If a company is able to adapt to its environment, it would succeed in the long run. Explain any four benefits of understanding the relevant environment, briefly. [4]

31. The depth and detail in the business plan depends on the size and scope of the proposed new venture. There is no fixed content for a business plan as it varies according to the entrepreneur's goals and audience, who are being targeted. Explain the formats of a business plan that are commonly drawn for start-ups. [4]

OR

Every organisation comes into existence when a number of persons join hands. All these people work to achieve the organizational goals set by the entrepreneur. Human resource is of paramount importance for the success of any organisation.

Explain how manpower plan helps to assess how many people are required and how to procure personnel.

32. Mahesh, an entrepreneur is planning to enter into a new business of manufacturing laptop bags with an inbuilt lock facility. Being highly complex and tedious, its manufacturing operations need to be well planned. He decides that the complete bag will be manufactured at his own factory i.e., no part of its manufacturing process will be outsourced. Identify the important component of business plan that is discussed above. Also, state what needs to be described in the above stated manufacturing situation. [4]

33. 'When a manufacturer selects some channel of distribution he/she should take care of such factors which are related to the quality and nature of the product.' Do you agree? Describe any four points in support of your answer. [6]

34. Explain any six characteristics of Partnership form of organisation briefly [6]

OR

Explain any six characteristics of Sole Proprietorship briefly.

35. What do you mean by creativity? Explain the steps of creativity briefly. [6]

OR

What do you mean by Trend Spotting? Explain the ways in which an entrepreneur spots trends.



DELHI PUBLIC SCHOOL, RANCHI

Half Yearly Examination (2021- 2022)

Class:- XII
Time- 2 Hrs.

Subject:- Fine Art- Painting/ Graphics
Maximum Marks: 30

Section: First

(1x6=6)

1. Answer to be written for each question in a word or sentence.

- (i) What is Miniature painting?
- A. Folk Painting
 - B. Graphics Print
 - C. Small size Painting
 - D. Landscape Painting
- (ii) Falcon on a Bird Rest was painted for a highly realistic manuscript named.....?
- A. Akbar Nam
 - B. Hamza Nama
 - C. Jahangir Nama
 - D. Razma Nama
- (iii) Flower-beds, rich colours, we can see in which school?
- A. Hyderabad
 - B. Golkonda
 - C. Tanjore
 - D. Bijapur
- (iv) Which statement is correct?
- A. Multiple Radha & Krishna in Bikaner Sub School
 - B. Multiple Radha & Krishna in Basohli Sub School
 - C. Multiple Radha & Krishna in Kangra Sub School
 - D. Multiple Radha & Krishna in Jodhpur Sub School
- (v) The famous painter of the Mughal School _____ has brilliantly depicted the marriage procession of the Mughal Prince.
- A. UstadFaquirullah Khan
 - B. Miskin
 - C. Haji Madni
 - D. UstadMansoor
- (vi) What is RazmaNama?
- A. Illustration Ramayana
 - B. Illustration Akbar Nama
 - C. Illustration ZafarNama
 - D. Illustration of Mahabharata

Section: Second

(2x3=6)

2. General Instructions: Answer to be written for each is about 30 words. (Any three)

- (a) Aesthetically analyses the painting "Krishna lifting Mount Govardhana.
- (b) Which human life-values are shown in the following art-works?
Hazarat Nizamuddin Aulliya and Amir Khusro or Kabir & Raidas .
- (c) Write a short note on the following artist (i) Nainsukh or (ii) Dana
- (d) Write a short note of anyone miniature painting in India Pala School, Jain school, central Indian school
- (e) Describe the painting of "the Indian Monalisa".

Section: Third

(3x2=6)

3. General Instructions: Answer to be written for each question in about 100 words. (Any two)

- (a) Life depiction of birds and animals in the Mughal miniature paintings.
- (b) What are the characteristics of Golkonda style of painting for example?
- (c) What are the characteristics of Basholi style of painting for example?
- (d) Delineation of Raga-Raginis (Ragamala painting) in the Rajasthan miniature paintings.

Section: Forth

(6x1=6)

4. General Instructions: Answer to be written in about 200 words. (Any one)

- (a) Write about the compositional arrangement and aesthetic -the grandeur of the following miniature painting:-'Bharat Meets Rama at Chitrakut or Nand, Yashoda and Krishna with Kinsmen going to Vrindavan.
- (b) How Mughal School of Paintings is different from other schools? Give examples of few Paintings of Mughal school.
- (c) Appreciate any one of the following miniature paintings, based on its
(i) name of artist / sub school (ii) medium and technique (iii) subject matter
(iv) composition "Krishna Lifting Mount Goverdhan" (Mughal School).

5. Section: Fifth

(6x1=6)

General Instructions: Essay to be written for in not more than 350 words (Any one)

- (a) Write an essay on the origin and development of the Mughal Or Deccan School of Miniature Painting
- (b) Why do we like/dislike the miniature painting of Mughal School? Give reasons with examples.

Very Important points/Tips for Fine Art Theory Exam:-

- ▶ **Distribute time** according to questions and complete all answers in that time frame. 5 questions of 6 marks each, of 2 hours and Full Marks:30.
- ▶ **Underline** important data and points (keywords) with dark pencil / black pen always to highlight it for the examiner.
- ▶ **Change paragraph** as and when required. Leave one line after one paragraph and two lines after completing the answer.
- ▶ Write the main data in starting, as the **name of the painting, school, sub-school, period, artist, medium, the subject then composition/ arrangement, colour & description** (Fundamental- elements & principals) of artwork and in the last **collection**.
- ▶ Features / Characteristics should be written **in points** according to aesthetic parameter.
- ▶ The answer should be **according to the question**. Don't start the answer with 'This' or 'It'. Start as asked in question form.
- ▶ **Handwriting** should be good to score better marks.



DELHI PUBLIC SCHOOL, SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAM (SESSION 2021-2022)

CLASS-12th

TIME-2 HOURS

SUBJECT-HINDUSTANI MUSIC VOCAL

TOTAL MARKS-30

खण्ड-अ

निम्नलिखित में से किन्ही 15 (पंद्रह) प्रश्नों के सही उत्तर दीजिए।

(1X15=15)

सभी प्रश्नों के अंक समान हैं।

- 1) स्वर में कंपन पैदा करने की क्रिया को क्या कहते हैं?
i)मीड ii) गमक iii) अलंकार iv)आरोह
- 2) सात स्वरों के सप्तक को 22 श्रुतियों पर भिन्न-भिन्न प्रकार से स्थापित करने को क्या कहते हैं?
i) मूर्च्छना ii) श्रुति iii) ग्राम iv) स्वर
- 3) प्राचीन काल में देसी संगीत को क्या कहकर पुकारा जाता है?
i)गान ii) गीत iii) प्रार्थना iv)गायन
- 4) फैयाज खां का उपनाम क्या था?
i)मन रंग ii)प्राण पिया iii)सवाई गंधर्व iv)प्रेम पिया
- 5) निम्नलिखित में से आश्रय राग कौन सा है ?
i)भैरव ii)बागेश्री iii)भीमपलासी iv)बिहाग
- 6) "संगीत परिजात" का फारसी अनुवाद किसने किया ?
i)भाव भट्ट ii)दीनानाथ iii)भातखंडे iv)ओंकार
- 7) "अफताबे मौसी" की उपाधि किन्हें प्राप्त है ?
i)चांद खां ii)फैयाज खां iii)करीम खां iv)बड़े गुलाम अली
- 8) जिस राग में रे ध स्वर कोमल लगता हो तो वह किस थाट का राग कहलाता है ?
i)भैरवी ii)खमाज iii)भैरव iv)काफी
- 9) सा - प संवाद में श्रुति अंतर है-
i)16 ii)13 iii)9 iv)22

- 10) (सा) संकेतित करता है-
i)गमक ii)खटका iii)कोमल स्वर iv)मीड
- 11) उस्ताद फैयाज खां को कहां दफनाया गया था?
i)मुरादाबाद ii)बड़ौदा iii)पटियाला iv) दिल्ली
- 12) निम्न में कौन गमक के भेदों से संबंधित है?
i) तिरिप ii)सुकराभरण iii)अवस्खलित iv)वस्तु
- 13) झपताल में खाली किस मात्रा पर पड़ती है?
i)तीसरी मात्रा पर ii)छठी मात्रा पर
iii)आठवीं मात्रा पर iv)पहली मात्रा पर
- 14)प्रातः कालीन संधिप्रकाश राग को कब गाया व बजाया जाता है?
i)शाम 4:00 से 7:00 ii)सुबह 7:00 से 10:00
iii)शाम 7:00 से 10:00 iv)सुबह 4:00 से 7:00
- 15) निम्न में से किस अध्याय में वाग्गेयकार के लक्षण का उल्लेख किया गया है ?
i)प्रबंधाध्याय ii)प्रकीर्णाध्याय iii)विवेकाध्याय iv)तालाध्याय
- 16) रात 12:00 बजे से सुबह 12:00 बजे तक गाए व बजाए जाने वाले राग को क्या कहते हैं?
i)उत्तरांगवादी राग ii)पूर्वांगवादी राग
iii)संधि प्रकाश राग iv) मौसमी राग
- 17) निम्न में से कौन सा बोल रूपक के बोलों में शामिल है?
i)धी धी ना ii)ती ती ना
iii)धा धी ना iv)ती धी ना
- 18) बागेश्वरी में कौन से स्वर वर्जित होते हैं?
i) ग-नी ii)रे-प iii)रे-नी iv)ग-प
- 19) राग भैरव में नहीं गाई जाती है
i)ध्रुपद ii)तराना iii)ठुमरी iv)खयाल
- 20)जिस राग के आरोह में 5 स्वर व अवरोह में 6 स्वर लगता है, उस राग को हम क्या कहते हैं ?
i)औडव - षडव ii)संपूर्ण - संपूर्ण
iii)संपूर्ण - षडव iv)औडव - संपूर्ण

- 21) संगीत रत्नाकर ग्रंथ में शारंगदेव ने मार्गी तथा देसी संगीत के कुल मिलाकर कितने उपभेद बतलाए गए हैं ?
i)5 ii)10 iii)8 iv)12

खंड-ब

निर्देश - किन्ही तीन प्रश्नों के उत्तर दीजिए।सभी प्रश्नों के अंक समान हैं। (5X3=15)

1)अपने पाठ्यक्रम के किसी एक राग में द्रुत ख्याल की स्वरलिपि लिखिए।

2)पंडित आहोबल के कार्य "संगीत पारिजात" को पूरी तरह समझाइए ।

अथवा

"संगीत रत्नाकर" का संक्षिप्त परिचय दीजिए

3)रूपक ताल को भातखंडे पद्धति में ठेका व दुगुन को लिपिबद्ध करें साथ ही साथ पूर्ण परिचय लिखें ।

4)अलंकार किसे कहते हैं ?अलंकार का महत्व बताते हुए भैरव राग में दो उदाहरण लिखें ।

अथवा

निम्न को परिभाषित

मूर्च्छना, तान

5)हिंदुस्तानी संगीत में किन चार सिद्धांतों के आधार पर रागों का समय निश्चित किया गया है ?
स्वर - संयोग से समय निर्धारण के बारे में समझाइए।



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class:- XII
Time- 3 Hrs.

Subject:- Physical Education
M.M-70

General Instructions:-

- (a) The Question paper consists of 30 questions and all are compulsory.
- (b) Question no. 1 to 12 carry 1 mark each and are multiple choice questions.
- (c) Question no. 13 to 16 carry 2 marks each and shall not exceed 40-60 words.
- (d) Question no. 17 to 26 carry 3 marks each and shall not exceed 80-100 words.
- (e) Question no. 27 to 30 carry 5 marks each and shall not exceed 150-200 words.

Q 1. Xerophthalmia is main disease that is caused by the deficiency of vitamin _____ (1)

- a) C
- b) D
- c) E
- d) A

OR

Water is made up of hydrogen and oxygen elements in the ratio

- a) 1:2
- b) 3:1
- c) 2:1
- d) 1:3

Q 2. Works like preparation and maintenance of the ground are done by _____ (1)

- a) Refreshment committee
- b) Ground and equipment committee
- c) Announcement committee
- d) Finance committee

OR

If there are large number of teams and the organizers want to complete the tournament early , which type of tournament is best

- a) Knock out tournament
- b) Combination tournament
- c) League tournament
- d) None of above

Q 3. Main purpose of “ Chair stand test “ is to measure - (1)

- a) Upper body strength
- b) Lower body strength
- c) Upper body flexibility
- d) Lower body flexibility

Q 4 . Garudasana and Ardhchakrasana are performed to rectify which postural deformity (1)

- a) Bow legs
- b) Flat foot
- c) Knock - knees
- d) Scoliosis

Q 5 . In Fartlek training method , the rate of heart beat ranges between : (1)

- a) 120 - 140 bpm
- b) 130 - 150 bpm
- c) 140 - 160 bpm
- d) 160 - 180 bpm

Q 6. Manika Batra is related to which game/sports ? (1)

- a) Tennis
- b) Badminton
- c) Squash
- d) Table Tennis

Q 7 . Senior citizens fitness test was developed by (1)

- a) Harold M. Barrow
- b) Brouha and others
- c) Kraus and Weber
- d) Rikli and Johns

Q 8 . Fracture where a part of broken bone enters another bone is called : (1)

- a) Compound fracture
- b) Impacted fracture
- c) Comminuted fracture
- d) Complicated fracture

OR

Which of the followings are involved in injuries called “ Sprain “ ?

- a) Bones
- b) Tendons
- c) Ligaments
- d) Blood vessels

- Q 9 . Thrusting the chin forward is the correct example of which movement (1)**
- Retraction**
 - Elevation**
 - Protraction**
 - Depression**

- Q 10 . Other name of Vitamin C is : (1)**
- Ascorbic acid**
 - Thiamin**
 - Both 'a' and 'b'**
 - None of the above**

- Q 11 . Given below are the two statements labeled Assertion (A) and Reason (R). (1)**

- Assertion (A): Planning is the foremost function in sports.**
- Reason (R): Planning gives a view of future course of action**

In the context of above two statements, which one of the following is correct?

- Both (A) and (R) are true and (R) is the correct explanation of (A).**
- Both (A) and (R) are true, but (R) is not the correct explanation of (A).**
- (A) is true, but (R) is false.**
- (A) is false, but (R) is true**

- Q 12 . Match list - I with list - II and select correct answer from the code given below : (1)**

List I

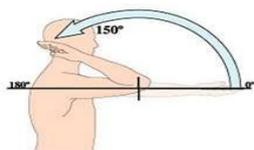
List II

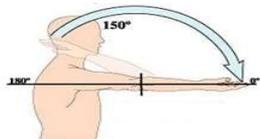
- | | |
|----------------------|---|
| a) Iron | i) Proper Thyroid function |
| b) Sodium | ii) Development of strong bones |
| c) Phosphorus | iii) Functioning of nervous system |
| d) Iodine | iv) Formation of Hemoglobin |

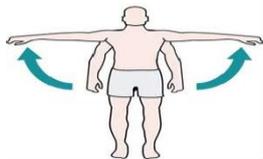
- | | i | ii | iii | iv |
|-----------|----------|-----------|------------|-----------|
| a) | 1 | 2 | 3 | 4 |
| b) | 2 | 1 | 4 | 3 |
| c) | 3 | 4 | 1 | 2 |
| d) | 4 | 3 | 2 | 1 |

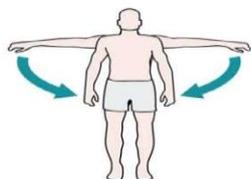
Q 13. Identify the human movement and give their names

(2)









Q 14 . Write any two advantages and disadvantages of league tournament ?

(2)

Q 15 . Write any two functions of fats in our body ?

(2)

OR

Differentiate between Isotonic and Isokinetic exercises .

Q 16 . Write four myths related to food ?

(2)

Q 17 . Anita was facing the problem of Kyphosis. Due to this , she was under stress and tension. One day , her physical education teacher came to know about the problem. She advised Anita some corrective exercise to minimize the deformity of Kyphosis. After few months of regular exercise, she was confident enough to get rid of Kyphosis.(3)

1 . Kyphosis is a problem related to :

- a) Heart
- b) Spine
- c) Brain
- d) Legs

2. Kyphosis is -

- a) Side ward curvature of the spine
- b) Abnormal curvature of Spine (Cervical region)
- c) Abnormal curvature of Spine (Lumber region)
- d) All of the above

3. Which of the following is a corrective measure of Kyphosis :

- a) Horse riding
- b) Walk on Toes
- c) Dhanurasana
- d) Savasana

Q 18 . State Newton`s law of motion and explain their implications on sport of your choice. (3)

Q 19 . Explain physiological factor determining endurance? (3)

OR

Explain physiological factor determining speed ?

Q 20 . Explain any three micro nutrients. (3)

Q 21 . Define flexibility and discuss the various types of flexibility . (3)

Q 22 . Draw a knock out fixture of 12 teams . (3)

Q 23 . Enlist the spinal curvature deformities ? Explain the causes and precautions of Kyphosis . (3)

Q 24 . Explain Rock port one mile Test in detail . (3)

Q 25. What is Greenstick fracture ? How will you manage transverse fracture. (3)

Q 26 . Discuss about reaction ability and balance ability. (3)

Q 27 . Elucidate the reasons of low participation of women in sports and games ? (5)

Q 28 . Suggest corrective measures for flat foot and lordosis ? (5)

OR

Suggest corrective measures for Scoliosis and Knock Knees?

Q 29 . Discuss about the methods to control healthy body weight for lifetime. ? (5)

OR

Explain water soluble vitamins in details?

Q 30 . Define endurance and discuss any two methods of improving endurance. (5)



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
HALF YEARLY EXAMINATION (2021-2022)

Class-XII
Time: 2 Hrs.

Subject - Odissi Dance
Maximum Marks: 30

General Instructions:

- Please check that this question paper contains 8 questions.
- Please write down the serial Number of the question before attempting it.

Q1. Complete the following sentences. (Attempt any five question, each question carries one mark)

- a) Singers sing Alapa to give the identification of _____ before singing a song.
- b) Pallavi is the _____ and glamoured department of odissi dance.
- c) Preliminarily odissi dancers move their _____ head & neck keeping apace at par in food with rhythm.
- d) Chhau dance found in three styles named often the _____ where they are performed.
- e) The technique of the Chhau dance stems from the _____ System of exercise.
- f) A theoretical treatise an ancient Indian dramaturgy and histrionics especially _____ theatre.
- g) After _____ age, it is accepted that the Natya Shastra written by Bharat Muni is the oldest among the books written in Sanskrit in India.

Q2. State whether the following are true or false: (Attempt any five question, each question carries one mark)

- a) Guru PankajCharan Das was the adopted son.
- b) Guru KelucharanMohapatra was the first winner of Padma Vibhusan Award from the state of Odisha.
- c) PatharaAkhadarun by Mohan CharanMohapatra.
- d) IndraniRahman presented an Odissi dance demonstration choreographed by Guru Deba Prasad Das in the year 1957.
- e) Tandu or Nandi of Lord Shiva's army.
- f) Nandikeswarhad deep knowledge of Natya Kala.
- g) Abhinaya Chandrika is an authoritative scripture of Odissi dance.

Q- 3. Match the following pairs correctly:

(0.5X10=5 Marks)

- a) Nritta - Bhadrak
- b) Nritya - RavanChhaya
- c) Chhurita - Shanta Rasa
- d) Natya - Fear
- e) Laya - Performing Arts
- f) Rasa - Three types
- g) Terror - Nata
- h) Tranquility - Jaubatta
- i) Angul - Two parts
- j) MugalTamsa - Three parts

Q.4. Write the definition of any two of the following.

(2 Marks)

- a) Vibhag (b) Bisama (c) Bikata (d) Laghu

Q.5. Write the definition of any one of the following.

(2 Marks)

- a) Shringara Rasa b) Karuna Rasa

Q.6. Attempt any one question:

(3 Marks)

- a) Definition of Pallavi.
- b) Angika Abhinaya.

Q.7. State the difference between the following terms:

(3 Marks)

- a) Nritta and Nritya
- b) Vachika Abhinaya and Aharya Abhinaya

Q- 8. Attempt any one question:

(5 Marks)

- a) What do you know about basic overview of the broad areas covered in the Natyashastra.
- b) Briefly describe Guru PankajCharan Das life3 histry.
- c) Briefly describe about Chhau dance.
