



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI
PRE- BOARD-I EXAMINATION (2020-21)

Class:-XII
Time- 3 Hrs.

Subject:- English Core
M.M.-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)

1. Read the passage given below.

(1x10 = 10)

1. Academics has always been an essential part of human development. It prepares us to survive in the outside world and establish an identity of our own. But, is an individual's development restricted to merely academics? In India, from an early age, we have been taught that education is limited to the boundaries of academics only; the idea of getting out into the field, for gaining practical experience, is always considered a hoax. This has hindered students' development. But the truth is that education represents a considerably broader field than we know of it. Our teaching, from the basics, has been focused on getting good grades and job offers, rather than being creative and unique.

2. In the 21st century, the pure academics type of education is slowly paving way for a whole new type. The paradigm shift in the whole education system is evident. People have now come to understand that education is a 360 degree activity that should focus on students' overall development, rather than restricting them to the classroom.

3. Co-curricular activities that take place outside the classroom but reinforce or supplement classroom curriculum, in some way, have become a point of focus today. Such activities help in the growth of the child, in more than one way. Participating in these activities helps the youngsters grow mentally and emotionally, socially and individually, Intellectual development of a student may take place in the classroom, but for the aesthetic development such as team-building, character building and physical growth, a student must step out into the outside world. For instance, if a student is a part of school football team, he/she will learn team work and coordination, in a practical manner, which cannot be taught in the class.

4. Similarly, in colleges and institutions, there is a need for practical exposure so that the students can experience the actual working of an industry. For example, taking a student to a manufacturing firm will give him/her the real insight and better learning of the industry. Catering to this change, most professional colleges, including B-schools, have started providing practical exposure to students through regular guest lectures, industrial visits, conferences, seminars, cultural festivals and so on. With industry visits, students are able to better identify their prospective areas of work in the overall organisational function. Moreover, they help enhance interpersonal skills and communication techniques. In addition, guest lectures are equally important for all-round development of students. It is a great way for students to gain maximum exposure, as the guest speakers talk about their real Life experiences and not what is there in the textbooks.

5. Through such events, students are made to participate and coordinate different events wherein, they get to know how exactly things are managed. Classroom teaching provides the foundation and co-curricular activities provide practical exposure and opportunities to implement what students learn in the classroom. This helps in developing the overall personality of an individual, inculcating various soft skills in them, which otherwise are difficult to teach. Clearly, life beyond academics creates creative and empowered professionals.

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

i. Students' development is hindered by:

- a. limiting education to academies boundaries
- b. getting out to the field
- c. being creative and unique
- d. gaining practical knowledge

ii. The shift in the education system means:

- a. to restrict to classroom activities
- b. to focus on academic development
- c. to ignore 360 degree activity
- d. to focus on overall development

iii. Co-curricular activities that take place outside the classroom do not help in:

- a. team work and coordination
- b. mental and social growth
- c. intellectual development
- d. character building

iv. Guest speakers talk about:

- a. all-round development
- b. their real life experiences
- c. what is in textbooks
- d. gaining exposure

- v. Classroom teaching provides:
 - a. practical exposure
 - b. opportunities to implement what is learnt in classroom
 - c. chance to learn soft-skills
 - d. the foundation

- vi. Life beyond academics facilitates:
 - a. organisational functions
 - b. creativity
 - c. professional fields
 - d. industrial visits

- vii. From earlier times what has not been the focus of education?
 - a. Getting good grades and job offers
 - b. Individual's development restricted to academics
 - c. The idea of getting into the field for gaining practical knowledge
 - d. None of the above

- viii. For aesthetic development students should
 - a. go to the art gallery
 - b. go to cinema halls and watch movies
 - c. remain in the company of artists
 - d. move out of the classroom and participate in outdoor games

- ix. To get a better insight into industry, children should:
 - a. read books on industry
 - b. work hard in industry
 - c. visit industry
 - d. None of these

- x. What kind of co-curricular activities have become points of focus today?
 - a. Activities which help in scoring good grades
 - b. Activities outside classroom which supplement classroom curriculum in some way
 - c. The pure academic activities
 - d. None of the above

- xi. B-schools provide practical exposure to students by:
 - a. spending more time in laboratories
 - b. arranging inter-school competitions
 - c. guest lectures, industrial visits, conferences, seminars, cultural festivals and so on
 - d. None of the above

2. Read the passage given below.

(1x10 = 10)

1. Though more than a year has passed since the E-waste (Management and Handling) Rules came into effect in May 2012, their implementation is still in a nascent stage, at least in Varanasi, one of the major cities of Uttar Pradesh. In fact, the state ranks fourth among the 10 largest e-waste generating states in the country.

2. The e-waste (Management and Handling) Rules 2011 mandate is for safe disposal of electronic and electrical wastes through private bodies. According to the UPSPCB official, it is mandatory for the municipal corporation to provide a site to the private firm for proper disposal of e-waste. The site for this purpose has been made available in Ram Nagar area, he said. The E-waste (Management and Handling) Rules 2011 also suggest that it is the responsibility of the municipal corporation to ensure that e-waste, if found to be mixed with municipal solid waste, is properly segregated, collected and is channelized to either authorized collection centre or dismantler or recycler.

3. The Research Unit of the Rajya Sabha has compiled a comprehensive report on e-waste in India. According to the report, there are 10 states that contribute up to 70 per cent of the to e-waste generated in the country, while 65 cities generate more than 60 per cent of the to e-waste in India. Among the 10 largest e-waste generating states, Maharashtra ranks first followed by Tamil Nadu, Andhra Pradesh, Uttar Pradesh, West Bengal, Delhi, Karnataka, Gujarat, Madhya Pradesh and Punjab.

4. All over the world, the quantity of electrical and electronic waste generated each year, especially by computers and televisions, has assumed alarming proportions.

5. Globally, about 20-50 MT (million tonnes) of e-wastes is disposed of each year, which accounts for 5% of all municipal solid waste. A report of the United Nations predicted that by 2020 e-waste from old computers would jump by 400 per cent on 2007 levels in China and by 500 per cent in India. Additionally, e-waste from discarded mobile phones would be about seven times higher than 2007 levels and, in India, 18 times higher by 2020. Such predictions highlight the urgent need to address the problem of e-waste in developing countries like India where the collection and management of e-waste and the recycling process is yet to be properly regulated.

6. E-waste releases many toxic substances that are serious health hazards. Unless suitable safety measures are taken, these toxic substances can critically affect the health of employees and others in the vicinity -- who manually sort and treat the waste - by entering their body through respiratory tracts, through the skin, or through the mucous membrane of the mouth and the digestive tract. Therefore, the health impact of e-waste is evident. There is no doubt that it has been linked to the growing incidence of several lethal or severely debilitating health conditions, including cancer, neurological and respiratory disorders, and birth defects.

7. This impact is found to be worse in developing countries like India where people engaged in recycling e-waste are mostly in the unorganized sector, living in close proximity to dumps or landfills of untreated e-waste and working without any protection or safeguard. Workers engaged in these recycling operations are the urban poor and unaware of the hazards associated with them.

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

- i. It is mandatory that the should provide a proper e-disposal site to private firms.
- a. municipal committee
 - b. municipal corporation
 - c. health ministry
 - d. area counsellor
- ii. After segregation, the e-waste should be
- a. reused
 - b. reduced
 - c. recycled
 - d. resold
- iii. By 2020, e-waste from old computers would jump by per cent on 2007 level in India.
- a. 300
 - b. 400
 - c. 500
 - d. 600
- iv. The toxic substances enter the body through
- a. respiratory tracts
 - b. skin
 - c. digestive tract
 - d. all of these
- v. The implementation of e-waste rules is still in a nascent stage which means
- a. completely developed stage
 - b. not yet fully developed stage
 - c. in an unknown stage
 - d. both (i) and (ii)

- vi. When did the E-waste (Management and Handling) Rules come into effect ?
- May 2012
 - May 2011
 - June 2007
 - March 2020
- vii. There is an urgent need to address e-waste management in
- Small cities
 - Developed countries
 - Underprivileged countries
 - Developing countries
- viii. In India people engaged in recycling e-waste are mostly in the sector.
- Agricultural
 - Industrial
 - Organized
 - Unorganized
- ix. Which agency has compiled a report on e-waste in India?
- Estimates Committee
 - Rajya Sabha
 - Research Unit of Rajya Sabha
 - Municipal Corporation of Ram Nagar
- x. Which of the following words is the synonym of 'debilitating'?
- strengthening
 - killing
 - weakening
 - generating
- xi. Health of people treating e-waste is being affected critically. What among the following is not a correct reason for this?
- They are working without any safety measures
 - They are clearly aware of the health hazards
 - They live in close proximity to landfills of e-waste
 - None of these

LITERATURE (20 marks)

3. Read the extracts given below and attempt ANY TWO of the three given by answering the questions that follow. (4+4=8)

A.

“Why not organise yourselves into a cooperative?” I ask a group of young men who have fallen into the vicious circle of middlemen who trapped their fathers and forefathers. “Even if we get organised, we are the ones who will be hauled up by the police, beaten and dragged to jail for doing something illegal,” they say. There is no leader among them, no one who could help them see things differently. Their fathers are as tired as they are.

i. Who is ‘I’ in the lines given above ?

- a. Stephen Spender
- b. Louis Fischer
- c. Anees Jung
- d. Alphonse Daudet

ii. “Group of young men” refers to

- a. rag pickers
- b. bangle makers
- c. sahkars
- d. car mechanics

iii. What can encourage them to think out of the box?

- a. effective leadership
- b. cooperation of police
- c. a cooperative
- d. All of these

iv. Why should they organize themselves into a cooperative?

- a. to get out of the clutches of middlemen
- b. to escape the torture by police
- c. to court arrest
- d. to show leadership skills

B.

Then all effort ceased. I relaxed. Even my legs felt limp; and a blackness swept over my brain. It wiped out fear; it wiped out terror. There was no more panic. It was quiet and peaceful. Nothing to be afraid of. This is nice... to be drowsy... to go to sleep... no need to jump... too tired to jump... it's nice to be carried gently... to float along in space... tender arms around me... tender arms like Mother's... now I must go to sleep...I crossed to oblivion, and the curtain of life fell.

i. What did Douglas experience, as mentioned in the lines above?

- a. sensation of dying
- b. terror of death
- c. sleep induced
- d. None of these

ii. "Then all effort ceased." Why did this happen?

- a. Douglas was going down a third time
- b. He was physically exhausted
- c. His strategy to come out of water was not bearing fruit
- d. All of these

iii. Why did a blackness sweep over his brain?

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

iv. This excerpt is taken from

- a. 'The Sunny Side' by Franklin D. Roosevelt
- b. 'Of Men and Mountains' by William O. Douglas
- c. 'Beyond the Himalayas' by William O. Douglas
- d. 'Looking Forward' by Franklin D. Roosevelt

C.
"You are a good man," the General murmured and closed his eyes." "You will be rewarded."

But Sadao, searching the spot of black in the twilighted sea that night, had his reward. There was no prick of light in the dusk. No one was on the island. His prisoner was gone — safe, doubtless, for he had warned him to wait only for a Korean fishing boat.

i. Who was supposed to be on the island?

- a. Yumi
- b. Tom
- c. Old gardener
- d. General

ii. 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

iii. What does the 'spot of black' refer to?

- a. Two flashes in darkness for running out of food
- b. One flash in blackness signifying presence of the enemy
- c. No flash to show the presence of the enemy
- d. No flash signifying the escape of the enemy

iv. Why did the General think of rewarding Sadao?

- a. Sadao had saved his life by operating on him
- b. Sadao had saved an enemy's life
- c. Sadao had served Japanese army
- d. Sadao promised to stand by General if his carelessness about American prisoner is exposed

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, and let their tongues
Run naked into books the white and green leaves open
History theirs whose language is the sun.

i. What do the 'governor, inspector, visitor' in the poem depict?

- a. political people
- b. government officials
- c. administrators
- d. powerful and influential people

ii. "Break O break open...". What should they break?

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

iii. Poetic device used in the last line is

- a. Simile
- b. Personification
- c. Metaphor
- d. Alliteration

iv. The last four lines show poet's

- a. Dilemma
- b. Skepticism
- c. Optimism
- d. Pessimism

OR

B.

When Aunt is dead, her terrified hands will lie
Still ringed with ordeals she was mastered by.
The tigers in the panel that she made
Will go on prancing, proud and unafraid.

i. What is in store for Aunt after her death?

- a. she will still be wearing the ring
- b. she will still be gripped by the ordeals faced in her married life
- c. both (a) and (b)
- d. she will continue with her embroidery

ii. Who/what was Aunt mastered by?

- a. Man beneath the tree
- b. Her husband
- c. Tigers
- d. None of these

iii. Poetic device used in the last line is

- a. Simile
- b. Metaphor
- c. Pun
- d. Alliteration

iv. What does "proud and unafraid tigers" express?

- a. Aunt's persistent desire to be free and fearless
- b. Tigers are leaping out of the panel
- c. Aunt acquires the qualities of tigers
- d. Unafraid tigers surround Aunt Jennifer's grave

5. Attempt EIGHT questions from ten given below:

(1 X 8= 8)

- i. What can Earth teach us according to Pablo Neruda?
 - a. to carry the burden of mankind
 - b. to be fruitful despite apparent stillness
 - c. to be gentle towards all species
 - d. to be totally inactive

- ii. Why did M. Hamel blame himself?
 - a. he was too anxious to have his students learn
 - b. he was busy tending his garden
 - c. he often sent children to water his flowers instead of teaching them
 - d. he sent children to work at his mill

- iii. Charley had got lost in Grand Central Station earlier as well. Where had he come out in such a situation?
 - a. Lobby of Roosevelt Hotel
 - b. In an office building on forty-third street
 - c. Vanderbilt Avenue
 - d. Both (a) and (b)

- iv. Why does Derry's mother try to stop him from going back to Lamb's garden?
 - a. People have warned her against Mr. Lamb
 - b. Derry is a small boy and shouldn't be out alone
 - c. It is quite late
 - d. She wants to go with him

- v. How did Kamala Das put the thought of mother's old age away?
 - a. by counting trees
 - b. by looking at the youthful and jubilant world outside
 - c. by smiling endlessly
 - d. by focusing on driving

- vi. "And such too is the grandeur of the dooms". What is 'such' used for?
 - a. Some shape of beauty
 - b. Endless fountain
 - c. Lovely tales
 - d. Unhealthy ways

- vii. Why did the peddler look at Edla in boundless amazement?
 - a. She interceded for him in spite of knowing he was deceitful
 - b. She invited him for Christmas next year
 - c. She could convince him very easily for going to the manor house
 - d. She had found out that he had stolen something

- viii. Where had Gandhiji met J.B. Kripalani?
- Arts College in Muzaffarpur
 - Congress Convention in Lucknow
 - Tagore's Shantiniketan
 - Sabarmati Ashram in Ahmedabad
- ix. What helped the Governor reach the right Golden Lion Hotel?
- Reference of 313/271
 - Headington Roundabout
 - Ordnance Survey Map of Oxfordshire
 - Both (a) and (c)
- x. Where did Roger Skunk find three pennies to give them to Wizard?
- over a crick
 - in the tiptop of a big tree
 - in the magic well
 - in wizard's house

PART B (40 marks)

WRITING (16 marks)

6. Attempt ANY ONE of the following.

(1x3)

[A] Global School, Dwarka is organizing a musical evening with the renowned Santoor player Pandit Shiv Kumar Sharma. As the Cultural Secretary of the school, write a notice in not more than 50 words inviting the students of Classes XI and XII along with their parents for witnessing this show. You are Divyanshu/ Divya.

OR

[B] Himalayan Travels is planning a trekking trip to Gangotri glacier. Draft a classified advertisement in not more than 50 words to be published in newspaper inviting people to have an exotic experience.

7. Attempt ANY ONE of the following.

(1x 3)

[A] Delhi Fine Art Association is organizing an art exhibition and sale of the works of renowned artists. Draft an invitation for the art lovers of the city in not more than 50 words .

OR

[B] Your friend has purchased a new flat and you have received an invitation to attend the house warming ceremony. Write an informal reply of acceptance/regret in not more than 50 words to be sent to him. You are Raghav/Ragini, Koel Nagar, Agra.

8. Attempt ANY ONE of the following.

(1x 5)

[A] You come across an advertisement on internet for the job of a sports journalist in Galaxy News. The head office of this channel is at F-16, Fortune Towers, Carter Road, Mumbai. Write a job application to the Editor-in-chief showing your suitability for the post. You are Anand/ Anandita of Q-12, Sai Dham, Chandigarh. (Word limit: 120-150)

OR

[B] Indians are obsessed with the imported goods whereas the products of Indian art and handloom industries are in great demand in western countries. Write a letter to the editor of the National Herald in 120-150 words requesting people to value products made in India which would add to the income of poor artisans. You are Gaurav/Gauravi, 49, Madhav Street, Gwalior.

9. Attempt ANY ONE of the following.

(1x 5)

[A] Covid 19 has laid bare the need of an advanced healthcare system in India. It includes having a robust infrastructure, more number of doctors and medical staff and also paying attention to research and development in pharmaceuticals. Write an article on the importance of self-reliance in nation's health sector in 120-150 words. You are Dhvani/Dhruv.

OR

[B] 'Aasmaan', an NGO in Bengaluru organized a fashion show presenting differently abled children on the ramp. It was an attempt to develop self-esteem in such children and also an effort to create social awareness for their inclusion. You covered this event as a reporter of the Times of India. Prepare a report in 120-150 words for publication in your newspaper.

LITERATURE (24 marks)

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

- i. How did M Hamel bid farewell to Alsace and its people?
- ii. How can keeping still help in conserving environment?
- iii. Humans are themselves responsible for a pall over their dark spirits. How? What comes as their saviour?
- iv. What kind of baggage has been imposed on the child? Why can't he put it down?
- v. Why does Aunt Jennifer create animals that are so different from her own character?
- vi. How does the peddler save himself from being handed over to sheriff at ironmaster's house?

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

- i. How did people's comments cause Derry bearing a grudge towards society?
- ii. "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?
- iii. What was the reality phase that Jack had noticed about his daughter recently?

12. Attempt ANY ONE of the following questions in 120-150 words.

(1x5=5)

[A] Champaran movement not only empowered illiterates but also enlightened the educated and Gandhi was the force behind it. Explain.

OR

[B] Darkest fear of our lives can turn into biggest success, if one refuses to surrender. Elucidate with reference to 'Deep Water'.

13. Attempt ANY ONE of the following questions in 120-150 words.

(1x5=5)

[A] Evans was a criminal and a habitual jail breaker. But his wit wins him readers' admiration. Do you agree? Justify your answer.

OR

[B] Why does Jack Finney use time travel as a means of escape into a wishful world? How does he add a dimension of space to it?



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
PRE-BOARD-I EXAMINATION (2020-2021)

Class:- XII
Time - 3 Hrs.

Subject:- Physics
F.M. :- 70

General Instructions:

Read the following instructions very carefully and strictly follow them.

1. There are 33 questions in the questions 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 and
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

1. Name the physical quantity whose dimensional formula is $[M^1L^2T^{-2}A^{-1}]$.
2. Which waves are used to measure the speed of a cricket ball?

OR

A plane electromagnetic wave is propagating along the Z-direction. If the electric field component of this wave is in the direction $(\hat{i}+\hat{j})$, then the magnetic field component will be directed along

3. The magnitude F of the force between two straight, parallel current carrying conductors kept at distance 'd' apart , is given by $F = \frac{\mu_0 I_1 I_2}{2\pi d}$;

where I_1 and I_2 are the currents flowing through the two wires. Using this expression and the sign convention that

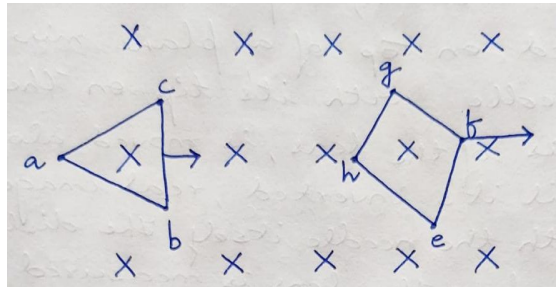
“ The force of attraction is assigned a negative sign and that of repulsion is assigned a positive sign”

draw graphs, showing the dependence of F on:

(i) $I_1 \cdot I_2$ when d is kept constant

(ii) d when the product $I_1 \cdot I_2$ is maintained at a constant positive value.

- 4 Two loops of different shapes are moved in the region of a uniform magnetic field. The loops are moved in the directions shown by arrows. What is the direction of the induced current in each loop (loop abc and loop efgh)?



OR

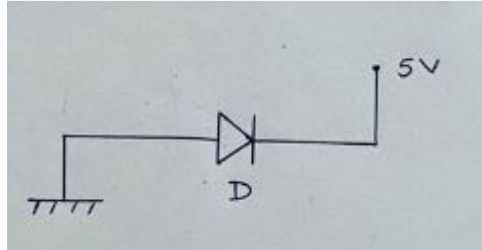
The output of a step down transformer is measured to be 24 V, when connected to a 12 W light bulb. Find the value of the peak current.

5. In a hydrogen atom, if the difference in the energy of the electron in $n=2$ and $n=3$ orbits is E , find the ionisation energy of the atom in terms of E .
6. On a single graph, show the variation of photo electric current versus collector potential for three different intensities $I_1 > I_2 > I_3$; two of which (I_1 and I_2) have the same frequency f and the third with intensity I_3 and frequency $f_1 > f$.
7. Mention briefly, the functions of :
- (i) Boron Rods and (ii) Heavy water in a nuclear reactor.

OR

Two nuclei have their mass numbers in the ratio 1:2. What will be the ratio of their nuclear densities?

8. A diode D is biased as shown. Draw the I-V characteristics of the corresponding biasing.



OR

Draw the I-V characteristics of a solar cell.

9. A voltage drop of 2V occurs across an LED and a current of $10 \mu\text{A}$ is passed through it, when it is operated with a 6V battery having a limiting resistor R. What is the value of R?
10. LEDs are made of compound semi-conductors and not by elemental semiconductors. Why?

For question number 11, 12, 13 and 14 , two statements are given -one labelled Assertion (A) and the other labelled Reason (R.) Select the correct answer to these questions from the codes (a) , (b), (c) and (d) as given below.

(a) Both A and R are the 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) : When two positive point charges move away from each other, their electrostatic potential energy decreases

Reason (R) : Change in potential energy between two points is equal to the work done by electrostatic forces.

12. Assertion (A) : Five charges (+q) each are placed at the five vertices of a regular pentagon. A sixth charge (- Q) is placed at the centre of the pentagon. Then the net electrostatic force on (- Q) is zero.

Reason (R) : Net electrostatic potential at the centre is zero.

13. Assertion (A) : The focal length of a lens depends upon the wavelength of light used.

Reason (R) : The more the wavelength, the lesser is the focal length.

14. Assertion (A): The pattern and the position of the fringes always remain the same, even after the introduction of a transparent medium in the path of a ray from one of the slits.

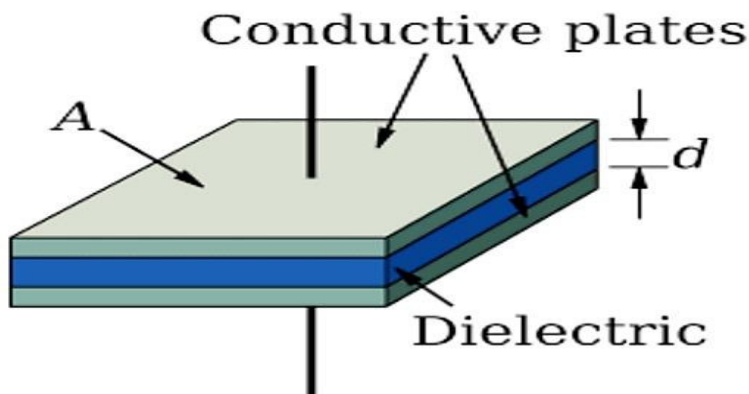
Reason (R) : The central fringe will be bright/dark depending upon the initial phase difference between the two coherent sources.

Section -B

Q.15 and Q.16 are case-study based questions and are compulsory. Attempt any four sub parts from each question. Each question carries 1 mark.

15. PARALLEL PLATE CAPACITOR:

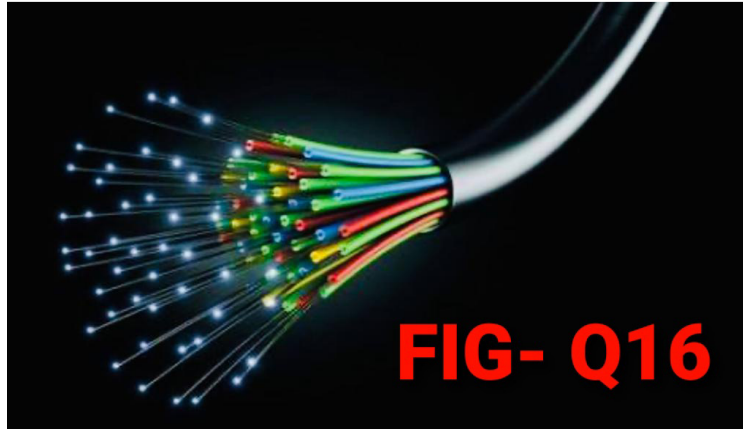
It is the simplest form of a capacitor. It can be constructed using two metal foil plates parallel to each other and connecting them across a battery. This charges the plates and an electric field is established between them.



- (i) On which of the following does the capacitance of a capacitor not depend?
- (a) thickness of the conducting plates
 - (b) plate separation
 - (c) charge on the conducting plates
 - (d) area of the conducting plates
- (ii) The capacitance of a parallel plate capacitor becomes $4/3$ times its original value, if a dielectric slab of thickness, $t=d/2$ is inserted between the plates (where d is the plate separation). The dielectric constant of the slab is:
- (a) 8 (b) 4 (c) 6 (d) 2
- (iii) A $500 \mu\text{F}$ capacitor is charged at a steady rate of $100 \mu\text{C}/\text{sec}$. How long will it take to raise the potential difference between the plates of the capacitor to 10 V ?
- a) 5 sec b) 10 sec c) 50 sec d) 100 sec
- (iv) A capacitor of capacity C is connected with a battery of potential V . The distance between its plates is reduced to half, assuming that the battery remains the same.
- Then the new energy given by the battery will be:
- a) $CV^2/4$ b) $CV^2/2$ c) $3CV^2/4$ d) CV^2
- (v) If the entire space between the plates of a parallel plate capacitor is filled with a copper slab, its capacitance will become
- a) zero b) infinite c) one unit d) data is inadequate

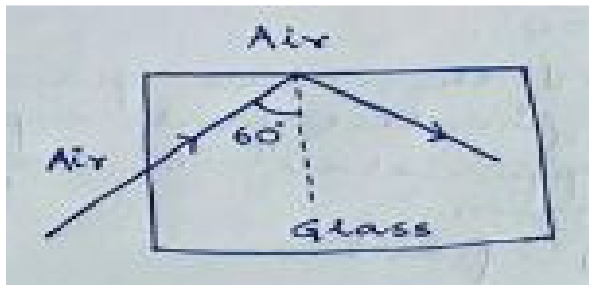
16. OPTICAL FIBRES

These fibres transmit light between its ends and are widely used these days for communication over long distances. It typically includes a core surrounded by a cladding material.



- i) The refractive index of cladding is:-
- a) equal to the refractive index of core
 - b) greater than the refractive index of core
 - c) lesser than the refractive index of core
 - d) may be lesser/greater than the refractive index of core
- (ii) Which of the following material/(s) can be used to fabricate an optical fibre?
- a) glass
 - b) plastic
 - c) both 'a' and 'b'
 - d) neither 'a' nor 'b'
- (iii) In which of the following telecommunication services can optical fibres be used?
- a) internet
 - b) television
 - c) telephone
 - d) all of these
- (iv) Which of these statement/(s) regarding optical fibres, is/are incorrect?
- a) They support higher bandwidth capacities.
 - b) They are less susceptible to electromagnetic interference
 - c) Both 'a' and 'b'
 - d) Neither 'a' and 'b'

- (v) A light ray is incident (as shown) at one end of an optical fibre material of $\mu = 1.5$, making an angle of incidence 60° on the lateral surface, so that it undergoes total internal reflection. How much time would it take to traverse the straight fibre of length 1 km?



- a) $3.3 \mu\text{s}$ b) $6.6 \mu\text{s}$ c) $5.75 \mu\text{s}$ d) $3.85 \mu\text{s}$

Section - C

17. 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 carry I and $\sqrt{3} I$ currents respectively.
18. Sketch a graph showing the variation of the fringe width with the distance of the screen from the plane of the slits (keeping the other parameters the same) in Young's Double Slit Experiment. How can the wavelength of light used be calculated from the slope of this graph?

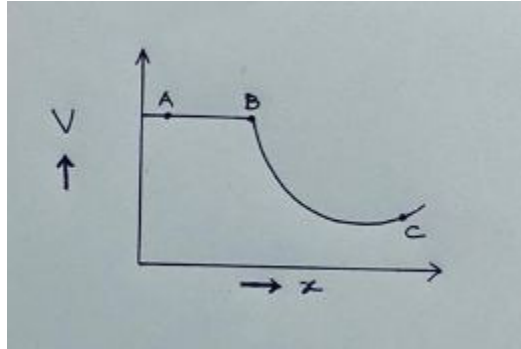
OR

A parallel beam of light of wavelength 600 nm is incident normally on a slit of width 'a'. If the distance between the slit and the screen is 0.8 m and the distance of the second order maximum from the centre of the screen is 1.5 mm, calculate the width of the slit.

19. Eight small drops, each of radius 'r' and having the same charge 'q' are combined to form a big drop. Find the ratio of the potentials of the bigger drop to the smaller drop.

OR

The figure shows the variation of electrostatic potential, V with distance, x for a given charge distribution. From the points A, B and C, identify the point at which the electric field is a) zero b) maximum. Justify.



20. Why are photodiodes preferably used in reverse biasing? Mention one advantage of a photo diode.
21. A long solenoid, with 20 turns per cm (each having radius 7 cm), has a small loop of area 4 cm^2 , placed coaxially inside the solenoid, normal to its axis. If the current carried by the solenoid changes steadily from 4A to 6A in 0.2 sec, what is the average induced emf in the loop while the current is changing?
22. Two coherent sources of intensity ratio α interfere. Find the expression for $\frac{I_{max} - I_{min}}{I_{max} + I_{min}}$ in terms of α .
23. Define "angle of dip". Show the important components of the earth's magnetic field at any place, using a labelled diagram. .
24. Draw the energy band diagram of an intrinsic semi-conductor, when it is doped with impurity atoms of Indium. Name the extrinsic semi-conductor so formed and mention the minority carriers present in it.

OR

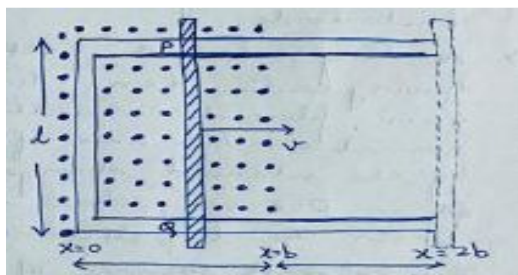
With reference to a full wave rectifier

- a) Draw its circuit diagram.
- b) State its principle
- c) Draw the input and the output waveforms.

25. One of the refracting surfaces of a glass prism, whose angle of the prism is A , is silvered. Light falling at an angle of incidence $2A$, on the first surface, returns back through the same path after suffering reflection at the silvered surface. Obtain an expression for the refractive index of glass in terms of A .

Section - D

26. The arm PQ of the rectangular conductor is moved from $x=0$ to the right side. The uniform magnetic field is perpendicular to the plane and extends from $x=0$ to $x=b$ and is zero for $x>b$. Only the arm PQ possesses substantial resistance ' r '. Consider the situation when the arm PQ is pulled outwards from $x=0$ to $x=2b$ and is then moved back to $x=0$ with a constant speed ' v '. Obtain expressions for the flux, the induced emf and the power dissipated as heat. Also sketch the variations of these three quantities with time.



27. Draw a labelled diagram for the measurement of internal resistance of a cell using a potentiometer. Mention two sources of error in the process. When is a potentiometer said to be more sensitive?

OR

A cell of emf E and internal resistance ' r ' is connected across a variable load resistor R . Draw (with justification) , the graphs for the variation of :-

- a) Emf with R
- b) Terminal Voltage (V) with R
- c) Terminal voltage (V) with I

28. State two salient features of photoelectric effect.

The maximum kinetic energy of the photoelectrons gets doubled when the wavelength of light incident on the surface changes from λ_1 to λ_2 .

Derive the expressions for:-

a) threshold wavelength λ_0 b) work function for the metal surface.

OR

The wavelength λ of a photon and the de Broglie wavelength of an electron have the same value. Show that the energy of photon is $\left(\frac{2\lambda mc}{h}\right)$ times the kinetic energy of electron , where m, c and h have their usual meanings.

An α - particle and a proton are accelerated from rest by the same potential. Find the ratio of their de-Broglie wavelengths.

29. Derive an expression for the wave number of an electron in the nth orbit.

30. Give one point of difference between nuclear fission and fusion.

A neutron is absorbed by a ${}^6_3\text{Li}$ nucleus , with the subsequent emission of an alpha particle.

Write the corresponding nuclear reaction. Calculate the energy released in this reaction.

Given: $m\left({}^6_3\text{Li}\right) = 6.015126 \text{ a.m.u.}$

$$m\left({}^4_2\text{He}\right) = 4.0026044 \text{ a.m.u.}$$

$$m\left({}^1_0\text{n}\right) = 1.0086654 \text{ a.m.u.}$$

$$m\left({}^3_1\text{H}\right) = 3.016049 \text{ a.m.u.}$$

Section - E

31. State Gauss' theorem. Use it to prove that the electric field at a point due to a uniformly charged , infinite plane sheet is independent of the distance from it.

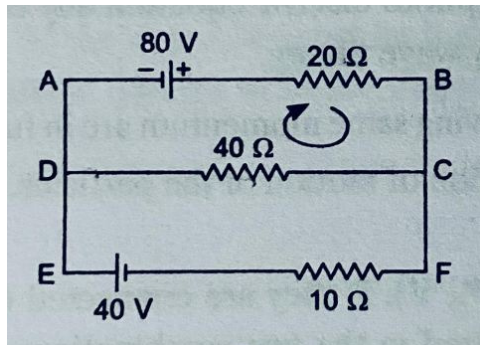
A capacitor of capacitance 'C' is charged fully by connecting it to a battery of emf E. It is then disconnected from the battery. If the separation between it's plates is now doubled , how will the following change?

- a) field strength
- b) energy stored by the capacitor. Justify in each case.

OR

What is 'end error' in a metre bridge? How is it overcome?

Using Kirchoff's laws, calculate the current through the 40Ω resistor.



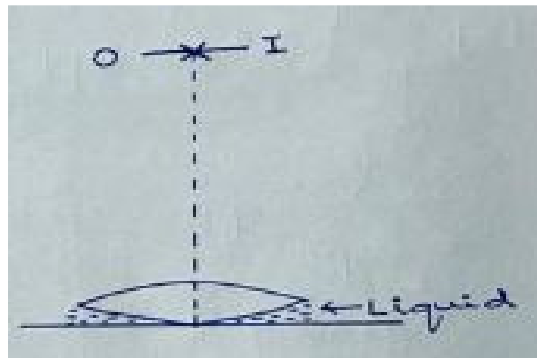
32. Explain briefly the working of an a.c generator with the help of a labelled diagram. Deduce an expression for the alternating emf generated in the coil. What is the source of energy dissipation in this device?

OR

Derive an expression for the average power dissipated over a cycle when a voltage $V = V_0 \sin \omega t$ is applied to a series LCR circuit.

A circuit is set up by connecting an inductance $L = 100 \text{ mH}$, resistor $R = 100 \Omega$ and a capacitor of reactance 200Ω in series. An alternating emf of $150\sqrt{2} \text{ V}$, $\frac{500}{\pi} \text{ Hz}$ is applied across the combination. Calculate the power dissipated in the resistor.

33. a) An equiconvex lens with radii of curvature of magnitude 'r' each, is put over a liquid layer poured on top of a plane mirror. A small needle, with its tip on the principal axis of the lens, is moved along the axis until its inverted, real image coincides with the needle itself. The distance of the needle from the lens is measured to be 'a'. On removing the liquid layer and repeating the experiment, the distance is found to be 'b'. Given that the two values of distances measured represent the focal lengths in the two cases, obtain a formula for the refractive index of the liquid.



- b) If $r = 10$ cm, $a = 15$ cm and $b = 10$ cm, find the refractive index of the liquid.

OR

- a) State the essential condition for diffraction of light.
- b) Discuss analytically, with the help of an appropriate diagram, diffraction due to a single slit. Find the relation for the width of the central maximum in terms of wavelength ' λ ', slit width ' a ' and the separation between the slit and the screen, ' D '.



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

PRE BOARD- I EXAMINATION (2020-2021)

Class:- XII
Time:- 3 Hrs.

Subject:- Mathematics
F.M. :- 80

General Instructions: -

1. This question paper contains two parts A and B. Each part is compulsory. Part A carries 24 marks and Part B carries 56 marks.
2. Part - A has Objective Type Question and Part-B has Descriptive Type Questions.
3. Both Part A and Part B have choices.

Part - A

1. It consists of two sections - I and II.
2. Section I comprises of 16 very short answers type questions.
3. Section - II contains 2 case studies. Each case study comprises of 5 case-based MCQs. An examinee is 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. You have to attempt only one of the alternative in all such questions.

Part - A

Section -I

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

1. Check the transitivity of the Relation

$$R = \{ (x,y):xy \text{ is a square of an integer, } x,y \in \mathbb{N} \}.$$

OR

Find R where R is a relation defined in N by aRb if $2a+3b=30$.

- If A and B are sets s.t $n(A) = 5, n(B) = 6$. Find all one-one and onto mappings from $A \rightarrow B$.
- Let $f: \left[-\frac{\pi}{2}, \frac{\pi}{2}\right] \rightarrow A$ be defined by $f(x) = \sin x$. If f is a bijection, write set A.

OR

Write the smallest and largest, Equivalence relation on the set.

$$A = \{1,2,3\}.$$

- For what value of x, is the matrix

$$A = \begin{bmatrix} 0 & 1 & -2 \\ -1 & 0 & 3 \\ x & -3 & 0 \end{bmatrix} \text{ a skew symmetric matrix?}$$

- If $A = \begin{bmatrix} 1 \\ 2 \\ 3 \end{bmatrix}$, write AA' .

- If A is a square matrix such that $A^2=A$, then write the value of $7A - (I+A)^3$, where I is identity matrix.

- Find the value of

$$\int \frac{x^3}{x+1} dx.$$

OR

$$\int e^x \frac{x-1}{(x+1)^3} dx.$$

- Find the Area bounded by the curve $y = x^3$, the x-axis and the ordinates $x = -2$ and $x=1$.

OR

Find the Area lying between the curves.

$$y^2 = 4x \text{ and } y = 2x.$$

9. Write the order and degree of the differential equation

$$\frac{d^2y}{dx^2} + \left(\frac{dy}{dx}\right)^{1/4} + x^{1/5} = 0 .$$

10. If \vec{a} and \vec{b} are unit vectors, then write the value of $|\vec{a} \times \vec{b}|^2 + (\vec{a} \cdot \vec{b})^2$.

11. Find the projection of the vector $\hat{i} + \hat{j} + \hat{k}$ along the vector \hat{j} .

12. If θ is acute angle and the vector $(\sin \theta) \hat{i} + (\cos \theta) \hat{j}$ is \perp to the vector $\hat{i} - \sqrt{3}\hat{j}$, then find the value of θ .

13. Find the pt of intersection of the lines $\frac{x}{1} = \frac{y-2}{2} = \frac{z+3}{3}$ and $\frac{x-2}{2} = \frac{y-6}{3} = \frac{z-3}{4}$.

14. Find the distance between the points (3,4,5) and the point where the

line $\frac{x-3}{1} = \frac{y-4}{2} = \frac{z-5}{2}$ meets the plane $x+y+z=17$

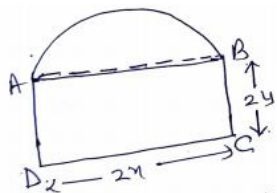
15. If $P(A) = 0.4$, $P(B) = 0.3$ and $P(B/A) = 0.5$ then find $P(A/B)$.

16. A bag contains 5 brown and 4 white socks. A man pulls out two socks. Find the probability that these are of same colour.

Section -II

Both the case study based questions are compulsory. Attempt any 4 sub parts from questions 17 and 18. And each question carries 1 mark.

17. A window consists of a semicircle with a rectangle on its diameter. Perimeter of the window is fixed. The diagram is as below:



(i) The perimeter of the window is :

(a) $2x + 4y + \pi x$ (b) $2x + 2y + \frac{\pi x}{2}$

(c) $4x + 4y + \pi x$ (d) $4x + 4y + \frac{\pi x}{2}$

(ii) Area of the window is

(a) $4xy$ (b) $4xy + \frac{\pi}{2} x^2$ (c) $4xy + \pi x^2$ (d) None of these

(iii) To get maximum light through the window the value of x and y should be.

(a) $x = \frac{\pi+4}{P}$ $y = \frac{P}{2\pi+1}$

(b) $x = \frac{P}{\pi+4}$ $y = \frac{P}{\pi+4}$

(c) $x = \frac{P}{\pi+4}$ $y = \frac{P}{2(\pi+4)}$

(d) $x = \frac{P}{2(\pi+4)}$ $y = \frac{P}{(\pi+4)}$

(iv) The height of the window, when maximum light enters will be:

(a) $\frac{P}{\pi+4}$ (b) $\frac{4P}{\pi+4}$ (c) $\frac{2P}{\pi+4}$ (d) None of these

(v) x in terms of y will be

(a) $\frac{4y-P}{2+\pi}$ (b) $\frac{P-4y}{2+\pi}$ (c) $\frac{P+4y}{2+\pi}$ (d) $\frac{y-p}{2+\pi}$

18. An insurance company is going in loss from last two years. To cover this loss, it is making some new policies. According to this it insures 2000 motorcycle drivers , 4000 car drivers and 6000 truck drivers. The probability of an accident involving a motorcycle, a car and a truck is $1/100$, $3/100$ and $3/200$ respectively.

Based on above information , answer the following :

i) One driver is chosen randomly from insured person, the probability that he/she is motorcycle driver is:

- a) $1/3$ b) $1/2$ c) $1/6$ d) $3/26$

ii) Probability that an insured car driver meets the accident is:

- a) $3/100$ b) $1/100$ c) $3/20$ d) None of these

iii) The total probability of meeting an accident of insured person is:

- a) $7/600$ b) $13/150$ c) $51/600$ d) 0

iv) Probability of choosing a motorcycle driver, given that he/she meets with an accident is

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

v) Probability of choosing a car driver, given that he/she meets with an accident

- a) $3/26$ b) $23/26$ c) $13/26$ d) None of these

Part B
Section - III

19. Find the value of $\tan^{-1}\left(\tan \frac{2\pi}{3}\right)$.

20. If $A = \begin{bmatrix} 1 & 3 \\ 2 & 1 \end{bmatrix}$, find the determinant of the matrix $A^2 - 2A$.

OR

Find the equation of the line joining A(1,3) and B(0,0) using determinants and find 'k' if D (k,0) is a point such that area of ΔABD is 3 sq units.

21. Find the values of 'a' so that the function f(x) defined by.

$$F(x) = \begin{cases} \frac{\sin^2 ax}{x^2} & , x \neq 0 \\ 1, & x=0 \end{cases}$$

may be continuous at $x = 0$

OR

Show that the function $f(x) = 2x - |x|$ is continuous at $x=0$

22. Find the intervals in which $f(x)=(x-1)^3 (x-2)^2$ is increasing or decreasing.

OR

Find the equation of the normal to the curve $y=2x^2+3\sin x$ at $x=0$.

23. Integrate and prove that

$$\int \frac{dx}{\sqrt{x^2-(x)^2}} = \log |x+\sqrt{x^2 - a^2}| + C$$

24. Find the area bounded by the curve $y=\cos x$ between $x=0$ and $x=3\pi/2$

25. Find the particular solution of the differential equation $\frac{dy}{dx} = -4xy^2$ given that $x=0$ when $y = 1$

26. Find the values of x for which the angle between the vectors $\vec{a}=2x^2\hat{i}+ 4x \hat{j}+\hat{k}$ and $\vec{b}= 7\hat{i}- 2 \hat{j}+x\hat{k}$ is obtuse.

27. Find vector and cartesian equation of the line through A(3,4,-7) and B (1,-1,6).

28. The probability that a teacher will give an un-announced test during any class meeting is $1/5$. If a student is absent twice, what is the probability that he will miss at least one test?

Part IV

29. Let A and B be two sets. Show that $f: A \times B \rightarrow B \times A$ defined by $f(a,b) = (b,a)$ is a bijection.

30. If $x^y = y^x$, find $\frac{dy}{dx}$.

31. If $u = \sin(m \cos^{-1}x)$, $v = \cos(m \sin^{-1}x)$

$$\text{P.T. } \frac{du}{dv} = \sqrt{\frac{1-u^2}{1-v^2}}$$

OR

If $x = \tan\left(\frac{1}{a} \log y\right)$, show that

$$(1+x^2) \frac{d^2y}{dx^2} + (2x-a) \frac{dy}{dx} = 0$$

32. Find the equation of tangent to the curve $y = \frac{x-7}{(x-2)(x-3)}$ at the point, where it cuts x-axis.

33. Integrate $\int \frac{1}{3+2x-x^2} dx$

OR

$$\int_0^{\pi/2} \frac{1}{3+2\cos x} dx$$

34. If the Area enclosed between the curves $y=ax^2$ and $x = ay^2$ ($a>0$) is 1 square unit, then find the value of 'a'.

35. Solve : $x dy - y dx = \sqrt{x^2 + y^2} dx$.

Section -V

36. If $A = \begin{bmatrix} 1 & 2 & 0 \\ -2 & -1 & -2 \\ 0 & -1 & 1 \end{bmatrix}$, find A^{-1} , using A^{-1} , solve the system of

linear equations $x-2y=10$, $2x - y - z = 8$, $-2y + z = 7$

OR

$$\text{If } A = \begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{bmatrix} \text{ and } B = \begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}, \text{ then}$$

find BA and use this result to solve the system of equations

$$y+2z=7, \quad x-y=3 \quad \text{and} \quad 2x+3y+4z=17.$$

37. Prove that the points, $(0,-1,-1)$, $(-4,4,4)$, $(4,5,1)$ and $(3,9,4)$ are coplanar. Find the equation of the plane containing them.

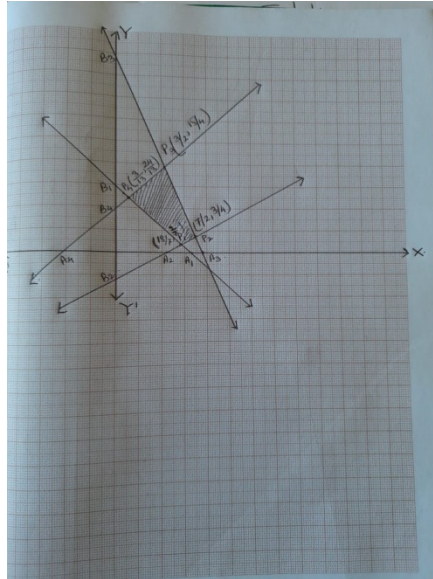
OR

Find the vector and cartesian equation of a plane containing the two lines.

$$\vec{r} = 2\hat{i} + \hat{j} - 3\hat{k} + \lambda(\hat{i} + 2\hat{j} + 5\hat{k})$$

$$\text{and } \vec{r} = 3\hat{i} + 3\hat{j} + 2\hat{k} + \mu(3\hat{i} - 2\hat{j} + 5\hat{k}).$$

38.



(i) If $Z = 5x + 2y$ where Z is objective function.

Find the maximum and minimum of the function Z .

(ii) Let $z = px + qy$ where $p, q > 0$ be the objective function. Find the condition on p and q so that maximum value of z occurs at P_2 and P_3 . Also find the no of maximum value in this case.

OR

Solve the given linear programming problems by graphical method.

Minimize $Z = 2x + 5y$

Subject to

$$x + y \leq 4$$

$$2x + 4y \leq 8$$

$$3x + y \leq 6$$

$$x, y \geq 0$$



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

PRE - BOARD-I, EXAMINATION (2020-21)

Class:-XII

Time- 3 Hrs.

Subject:- Chemistry

M.M.-70

General Instructions:-

- (i) Question paper comprises of four sections A, B, C and D.
- (ii) There are 33 questions in the question paper and all questions are compulsory.
- (iii) Section A: Q1 to Q2 are case based questions, having four MCQs or Reason-Assertion type, based on given passage, each carrying 1 mark.
- (iv) Section A: Q3 to Q16 are MCQs, Reason -Assertion type and one sentence type questions, carrying 1 mark each.
- (v) Section B: Q17 to Q25 are short answer questions and carry 2 marks each.
- (vi) Section C: Q26 to Q30 are short answer questions and carry 3 marks each.
- (vii) Section D: Q31 to Q33 are long answer questions carrying 5 marks each.
- (viii) There are no overall choices. However, internal choices have been provided.
- (ix) Use of calculators and log table, are not permitted.

SECTION - A

Q1. Read the passage given below and answer the following questions:

[1 X 4=4]

Proteins are the complex macromolecules present in living cells of both plants and animals and are very vital to living organism as they perform a wide variety of biological function. All proteins are made up of alpha amino acids which they form upon hydrolysis. With the exception of glycine, all amino acids are optically active in nature.

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

i. The main structural feature of protein is :

- (a) Ester linkage
- (b) Ether linkage
- (c) Peptide linkage
- (d) All of these

ii. Proteins are found to have different types of secondary structures viz alpha-helix and beta-pleated sheet structures, alpha-helix structure of protein is stabilized by :

- (a) Peptide bond
- (b) Vanderwaal's force
- (c) Hydrogen bond
- (d) Dipole- dipole interaction

iii. The simplest amino acid is:

- (a) Glycine
- (b) Alanine
- (c) Guanine
- (d) all of the above

iv. Each polypeptide has amino acids linked with each other in a specific sequence.

This sequence of amino acid is said to be

- (a) Primary structure of protein
- (b) Secondary structure of protein
- (c) Tertiary structure of protein
- (d) Quaternary structure of protein

Q2. Read the passage given below and answer the following questions: [1 X 4=4]

Alcohols and phenols are most important compounds used in our daily life. Alcohols are prepared by hydration of alkenes and reduction of carbonyl compounds. Alcohols are soluble in water. Boiling points increase with increase in molar mass. Alcohol, on dehydration gives alkene. Phenol is prepared from cumene, chlorobenzene etc.

In these questions a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.

- (a) Assertion and reason both are correct statements and reason is correct explanation for assertion.
 - (b) Assertion and reason both are correct statements but reason is not the correct explanation for assertion.
 - (c) Assertion is correct statement but reason is wrong statement.
 - (d) Assertion is wrong statement but reason is correct statement.
-
- (i) Assertion: phenol is more acidic than ethanol.
Reason: phenoxide ion is resonance stabilised.
 - (ii) Assertion: alcohols have higher boiling points than ethers of comparable molecular masses.
Reason: alcohols and ethers are isomeric in nature.
 - (iii) Assertion: like bromination of benzene, bromination of phenol is also carried out in the presence of Lewis acid.
Reason: Lewis acid polarizes the bromine molecule.

- (iv) Assertion: Phenol undergoes Kolbe's reaction whereas ethanol does not
Reason: Phenoxide is more basic than ethoxide ion.

SECTION - B

Following questions Q. 3 to Q. 7 are multiple choice questions with single correct answer carrying 1 mark each.

- Q.3. Low concentration of oxygen in the blood and tissue of people living at high altitude is due to :
- (a) Low temperature
 - (b) Low atmospheric pressure
 - (c) high atmospheric pressure
 - (d) Both low temperature and high atmospheric pressure
- Q.4. DNA and RNA contain four bases each which of the following bases, is not present in RNA?
- (a) Adenine
 - (b) Uracil
 - (c) Thymine
 - (d) Cytosine
- Q.5. Which of the following is the most stable in aqueous solution ?
- (a) Mn^{2+}
 - (b) Cr^{3+}
 - (c) V^{3+}
 - (d) Ti^{3+}
- Q.6. Magnetic moment is 2.83 BM is given by which of the following ion?
- (a) Ti^{3+}
 - (b) Ni^{2+}
 - (c) Cr^{3+}
 - (d) Mn^{2+}
- Q.7. The CFSE for octahedral $[CoCl_6]^{4-}$ is 18000 cm^{-1} . The CFSE for tetrahedral $[CoCl_4]^{2-}$ will be
- (a) 18000 cm^{-1}
 - (b) 16000 cm^{-1}
 - (c) 8000 cm^{-1}
 - (d) 20000 cm^{-1}

In the following questions: Q.8 to Q.11, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices: (carrying 1 mark each)

- (a) Assertion and reason both are correct statements and reason is correct explanation for assertion.
- (b) Assertion and reason both are correct statements but reason is not correct explanation for assertion.
- (c) Assertion is correct statement but reason is wrong statement.
- (d) Assertion is wrong statement but reason is correct statement.

Q8. Assertion: Non ideal solution, always form azeotropes.

Reason: boiling point of an azeotrope may be higher or lower than boiling points of both components.

Q9. Assertion: The α - hydrogen atom in carbonyl compounds is less basic.

Reason: The anion formed after the loss of α -hydrogen atom is resonance stabilized.

Q10. Assertion: Acetanilide is less basic than aniline.

Reason: acetylation of aniline results in decrease of electron density on nitrogen.

Q11. Assertion: Hoffmann's bromamide reaction is given by primary amines.

Reason: primary amines are more basic than secondary amines.

Q.12 to Q. 16 are very short answer type questions. Answer these in one word or one sentence. (carrying 1 mark each)

Q12. Using IUPAC norms write the formula for Hexa amminecobalt (iii)sulphate.

Q13. What is meant by chelate effect?

Q14. Write the structure of the following compound.

2-(2-Chlorophenyl)-1_iodoethane.

Q15. Which of the compounds will react faster SN1 reaction with the OH⁻ ions and why?

CH₃CH₂Cl , C₆H₅CH₂Cl

Q16. A compound Z with molecular formula C₃H₉N reacts with Benzene sulphonyl chloride to give a solid, insoluble in alkali. Identify Z.

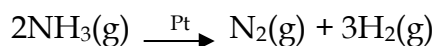
SECTION - B

[2x9=18]

Q17. (i) why are crystalline solids anisotropic?

(ii) why does LiCl acquire pink colour when heated with lithium vapour?

Q18. For a reaction



- (i) Write the order and molecularity of this reaction.
- (ii) Write the unit of rate constant K.

Q19. Write the mechanism of the following reaction



OR

What is meant by hydroboration oxidation reaction? Illustrate with an example.

Q20. Why do the transition metals have higher enthalpy of atomization? In 3d-series which element has the lowest enthalpy of atomization and why?

Q21. Account for the following

- (i) Actinoids show irregularities in their electronic configuration.
- (ii) Transition metals form coloured compounds.

Q22. $[\text{NiCl}_4]^{2-}$ is paramagnetic while $[\text{Ni}(\text{CO})_4]$ is diamagnetic though both are tetrahedral. Explain with the help of valence bond theory.

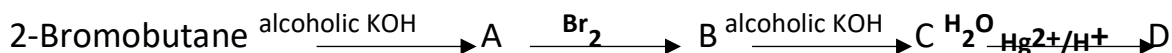
OR

On the basis of crystal field theory explain why $\text{CO}(\text{III})$ forms paramagnetic octahedral complex with weak field ligands, whereas it forms diamagnetic octahedral complex with strong field ligands.

Q23. Answer the following:

- (i) Haloalkanes easily dissolve in organic solvents, why?
- (ii) What is known as racemic mixture? Give an example.

Q24. Write the structural formulae of the organic compounds 'A', 'B', 'C' and 'D' in the following sequence of reaction.



Q25. (i) Arrange the following in increasing order of basic strength:

Aniline, p-Nitro aniline, p-Toluidine

(ii) Why aromatic amines cannot be prepared by Gabriel phthalimide synthesis?

SECTION - C

[3x5=15]

Q26. An element occurs in bcc structure. It has a cell edge length of 250 pm. Calculate its molar mass, if its density is 8.0 gm/cc. Also calculate the radius of an atom of this element.

Q27. (a) Give an example, where Physisorption changes to Chemisorption, with rise in temperature. Explain the reason for change.

(b) What causes Brownian movement in a colloidal solution?

(c) FeCl_3 is preferred over KCl in case of a cut leading to bleeding. Give reasons.

OR

Define the following terms:

- (i) Mutual coagulation
- (ii) Protective colloid
- (iii) Peptization

Q28. Following data were obtained for the reaction



t(s)	[N ₂ O ₅] mol/L
0	1.6 X 10 ⁻²
300	0.8 X 10 ⁻²
600	0.4 X 10 ⁻²

(i) Show that it follows first order reaction.

(ii) Calculate the half-life period. (log2 = 0.301 log4 = 0.6021)

Q29. A 10% solution (by mass) of sucrose in water has freezing point 269.15 K. Calculate the freezing point of 10 % glucose in water, if freezing point of pure water is 273.15 k.
[Molar mass : sucrose = 342 gm/mol; Glucose: 180gm/mol]

OR

The vapour pressure of pure benzene at a certain temperature is 0.85 bar. A non-volatile, non-electrolyte solid, weighing 0.5gm is added to 39.0 gm of benzene (molar mass 78gm/mol). Vapour pressure of the solution, then, is 0.845 bar. What is the molar mass of the solid substance?

Q30.

- (i) Arrange the following in decreasing order of bond dissociation enthalpy:
F₂, Cl₂, Br₂, I₂
- (ii) Bi does not form pπ - pπ bonds. Give reason for it.
- (iii) Write the balanced chemical reaction for the reaction of Cu with dilute HNO₃.

SECTION : D

[5x3=15]

Q.31. (a) State Kohlrausch's Law of Independent migration of ions. Suggest a way to determine (Limiting Molar conductance) i.e. λ° for CH₃COOH.

(b) When a certain electrolytic cell was filled with 0.1 M KCl, it has resistance of 85 ohms at 25°C, when the same cell was filled with an aqueous solution 0.052 M unknown electrolyte, the resistance was 96 ohms. Calculate the molar conductance of electrolyte at this concentration. [Conductivity of 0.1 M KCl = 1.29 X 10⁻² ohm⁻¹ cm⁻¹]

OR

(a) Out of the following pairs predict with reason, which pair will allow greater conduction of electricity :

- (i) Silver wire at 30° C or Silver wire at 60° C.
- (ii) 0.1 M CH₃COOH solution or 1M CH₃COOH solution.

(b) For the following cell :



Calculate the value of emf of the cell & ΔG at 298 K.

$$E^0\text{Al}^{3+}/\text{Al} = -1.66 \text{ V and } E^0\text{Fe}^{2+}/\text{Fe} = -0.44 \text{ V}$$

[5]

$$[\log 8 = 0.9013]$$

Q.32 (a) How will you distinguish between the following, by suitable chemical tests ?

(i) Benzoic acid & Ethyl benzoate.

(ii) Propanal & Propanone.

(b) A compound A (C₂H₆O) on oxidation by Pcc gave B, which on treatment with aqueous alkali & subsequent heating gave C. B on oxidation by KMnO₄ forms a carboxylic acid with molar mass 60 gm/mol. Deduce the structure of A, B and C with the help of reaction.

[5]

OR

(a) Write the chemical equation to illustrate each of the following name reaction.

(i) HVZ reaction.

(ii) Cannizzaro's reaction.

(b) Carry out the following conversions :

(i) Propanoic acid to acetic acid.

(ii) Benzoic acid to Aniline.

(iii) Propanone to Propene.

Q.33 (a) Give reason for the following :

- (i) Unlike Xenon, no distinct chemical compounds of helium are known.
- (ii) Fluorine is a stronger oxidizing agent than chlorine.
- (iii) SF₄ is easily hydrolysed, whereas, SF₆ is not easily hydrolysed.

(b) Draw the structure for HClO₄.

(c) Complete the following : XeF₂ + PF₅ →

[5]

OR

(a) Account for the following :

(i) Above 1000K sulphur shows paramagnetism.

(ii) In general, inter halogen compounds are more reactive than halogen compounds.

(iii) Moist SO₂ decolourises KMnO₄ solution.

(b) Draw the shape of XeOF₄.

(c) Complete the reaction : XeF₂ + H₂O →



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
PRE BOARD - I EXAMINATION (2020-21)

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. Hybrid seeds have to be produced year after year. Give reason. (1)
- 2. Name the homologous structures in the embryos of a typical dicot embryo and grass embryo. (1)
- 3. Which layer of microsporangial wall helps in the formation of sporopollenin? State its other function. (1)
- 4. How does the ovum help in preventing polyspermy? (1)
- 5. How many chromosomes do drones of honeybees possess? Name the type of cell division involved in the production of sperms by them. (1)
- 6. Pea flowers produce assured seed sets. Give a reason. (1)
- 7. Mention the DNA sequence coding for serine and the anticodon of tRNA for the same amino acid. (1)
- 8. What was the speciality of the milk produced by the transgenic cow Rosie? (1)
- 9. State what happens when an alien gene is ligated at Sall and PvuI site of pBR322 plasmid? (1)
- 10. According to IUCN Red list (2004) document, how many species of vertebrates and plants have become extinct in last 500 years? (1)

11. Assertion (A): Synthesis of daughter or new strand occurs continuously along the parent 3' → 5' strand.

Reason (R): DNA polymerase can polymerise nucleotides in 3' → 5' direction on 5' → 3' strand. (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. Both A and R are false.

OR

Assertion (A): Repetitive sequences make up very large portion of human genome.

Reason (R): Repetitive sequences do not have direct coding function in the genome.

- 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.

12. Assertion (A): A bacterial cell with no restriction enzyme could easily get infected and lysed by bacteriophages.

Reason (R): Restriction enzymes catalyze the synthesis of protection coat around bacterial cells that prevent bacteriophage attack.

- 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. (1)

13. Assertion (A): Tropical rainforests are disappearing fastly from developing countries such as India.

Reason (R): No value is attached to these forests because these are poor in biodiversity.

- 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. (1)

14. Assertion (A): Prolonged intraspecific competition causes an increase in the size of the niche of a population.

Reason (R): In such a population, use of a new type of resource will increase through the generations.

- 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.

(1)

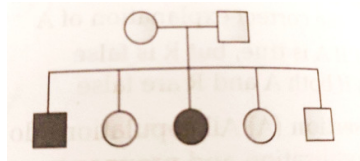
15. Read the following and answer **any four** questions from 15(i) to 15(v) given below:

Many human diseases have genetic component. Some of these conditions are under investigation by researchers associated with National Human Genome Research Institute (NHGRI). A genetic disorder is a disease caused in whole or in part by change in the DNA sequence away from the normal sequence. Genetic disorders can be caused by a mutation in one gene, by mutation in multiple genes or by a combination of gene mutations and environmental factors or by damage to chromosomes. Pedigree analysis is one such tool to help find out these traits in a family. (1x4=4)

(i) Pedigree analysis is very important in human being because

- a. it helps genetic counselors to avoid disorders
- b. it shows origin of traits
- c. it shows the flow of traits in a family
- d. All of the above

(ii) Given below is a pedigree chart of a family with five children. Which of the following conclusions can be drawn?



- a. parents are heterozygous
- b. parents are homozygous recessive
- c. parents are homozygous dominant
- d. None of the above.

(iii) Non-disjunction in meiosis results in

- a. trisomy
- b. normal diploid
- c. gene mutation
- d. None of these

(iv) Failure of segregation of chromatid during cell division cycle, results in the gain or loss of chromosome which is called

- a. aneuploidy
- b. euploidy
- c. polyploidy
- d. hypo polyploidy

(v) Monosomy and trisomy are represented respectively as

- a. $n-1, n+2$
- b. $2n+2, 2n+1$
- c. $2n-1, 2n+1$
- d. $2n-2, 2n+1$

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

Interferons (IFNs) are proteins produced by a variety of cells in the inflammatory response to infections. Their production is triggered by the immune system in response to pathogens or cytokines. Once triggered they induce numerous molecular changes that affect cellular responses including cell growth and inflammations. IFNs can play both pathological and beneficial roles in the nervous system. There are two major classes of IFNs, i.e. type I and type II. Type I and II IFNs use distinct but similar receptor systems. (1×4=4)

(i) The interferons can be used as

- a. antibacterial drugs
- b. antiviral drugs
- c. antibiotic drugs
- d. immunosuppressive drugs

(ii) Interferon is a type of protein which can be used to encounter

- a. homeostatic disorder
- b. hepatitis caused by virus
- c. common cold
- d. Both (b) and (c)

- (iii) A person has developed interferons in his body. He seems to carry an infection of
- typhoid
 - filariasis
 - malaria
 - measles
- (iv) Antibodies are
- proteins produced in response to pathogens in our body
 - secreted by the action of both T-lymphocytes and B-lymphocytes
 - molecules that specifically interact with an antigen
 - All of the above
- (v) Assertion (A): Interferons are a type of glycoproteins produced by body cells infected by virus.
Reason (R): Interferons interfere with viral replication at the site of injury.
- 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.
 - Both A and R are false.

SECTION-B

17. List any four characteristics of an ideal contraceptive. (2)
18. a. State the cause and symptoms of colour blindness in humans. (1)
- b. Statistical data has shown that 8% of human males are colour blind whereas only 0.4% of females are colour blind. Give reason. (1)
19. Human insulin when synthesised in the body needs to be processed before it can act. Give reasons. (2)
20. A recombinant DNA molecule was created by ligating a gene to a plasmid vector. By mistake, an exonuclease was added to the tube containing the recombinant DNA. How does this affect the next step in the experiment, i.e. bacterial transformation? (2)

OR

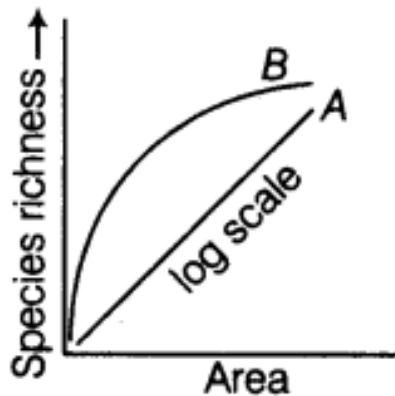
A and B are the two different cloning vectors in two different bacterial colonies cultured in chromogenic substrate. Bacterial colonies with cloning vector A were colourless whereas those with B were blue coloured. Explain the cause of difference in colour that appeared.

21. Why do predators avoid eating Monarch Butterfly? How does the butterfly develop the protective feature? (2)
22. What are recombinant proteins? How do bioreactors help in their production? (2)

OR

Why Taq polymerase is preferred in PCR? Mention the source of this enzyme.

23. List the features that make a stable biological community. (2)
24. How does our body adapt to low oxygen availability at high altitudes? (2)
25. The following graph shows the species-area relationship. Answer the following questions as directed.



- a. Name the naturalist who studied the kind of relationship shown in the graph.
Write the observations made by him. (1)
- b. Write the situations as discovered by the ecologists when the value of Z (slope of the line) lies between (1)
- 0.1 and 0.2
 - 0.6 and 1.2

SECTION-C

26. a. When and where do chorionic villi appear in humans? State their function.
b. Why is parturition called a neuroendocrine mechanism? Explain. (1 ½ + 1 ½)
27. Inheritance pattern of ABO blood groups in humans shows dominance, co-dominance and multiple allelism. Explain each concept with the help of blood group genotypes. (3)
28. Give reason:
- a. Why do farmers prefer biofertilisers to chemical fertilisers? (1)
- b. Why are the fruit juices bought from market clearer as compared to those made at home? (1)
- c. Why do leguminous plants do not require soil enrichment? (1)

29. How does RNA interference help in developing resistance in tobacco plant against nematode infection? (3)
30. a. What is the association between the bumble bee and its favourite orchid *Ophrys*? How would extinction or change of one affect the other? (1 ½)
- b. List any three ways of measuring population density of a habitat. (1 ½)
- OR**
- a. Explain any two defense mechanisms plants evolved against their predators. (2)
- b. How does predation differ from parasitism? (1)

SECTION-D

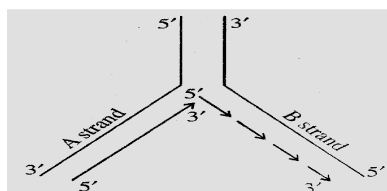
31. a. Draw a sectional view of a seminiferous tubule of human. Label Sertoli cells, spermatogonia and Leydig cells on it and write their functions.
- b. Explain the role of pituitary and sex hormones in the process of spermatogenesis. (3+2=5)

OR

The following is the illustration of the sequence of ovarian events 'A' to 'I' in a human female.



- a. Identify the figure that illustrates ovulation and mention the stage of oogenesis it represents. (1)
- b. Name the ovarian hormone and the pituitary hormone that have caused the above mentioned event. (1)
- c. Explain the changes that occur in the uterus simultaneously in anticipation. (1)
- d. Write the difference between 'C' and 'H'. (1)
- e. Draw a labelled sketch of the structure of a human ovum prior to fertilization. (1)
32. A DNA molecule which contains most of its nitrogen in the form of ^{15}N is allowed to replicate in a medium containing the nitrogen source ^{14}N .
- a. What will be the percentage of DNA strands that contain ^{15}N after 2 rounds of replication? (1)
- b. Who conducted this experiment and what conclusion they reached from this experiment? (1)
- c. Observe the diagram and answer the questions: (3)



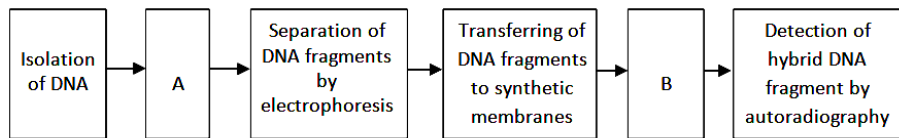
- i. What is the difference in the replication processes in A strand and B strand?
- ii. What is the role of DNA ligase in the replication process in B strand?
- iii. What is meant by replication fork?

OR

a. During the eukaryotic transcription, the genetic information encoded in the DNA will be transferred to mRNA. The mRNA thus formed will be processed and utilized in synthesis of protein.

- i. Both DNA strands are not copied during transcription. Why? (1)
- ii. What do template & coding DNA strands represent? (1)
- iii. What will be the result, if RNA is not spliced before translation? (1)

b. The steps in DNA fingerprinting are given below. Complete the flowchart (A &B). (1)



c. Mention any two applications of DNA fingerprinting. (1)

33. Trace the life cycle of malarial parasite in human body, when bitten by infected female. (5)

OR

- a. Cancer is one of the most dreaded diseases. Explain 'contact inhibition' and 'metastasis' with respect to disease.
- b. Name the group of genes that have been identified in normal cells that could lead to cancer. How do these genes cause cancer?
- c. Name any two techniques that are useful in detecting cancers of internal organs.
- d. Why are cancer patients given alpha -interferon as part of the treatment? (2+1+1+1=5)



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI
PRE - BOARD-I, EXAMINATION (2020-21)

Class : XII
Time : 03 Hours.

Subject : Computer Science.
Max Marks :70

General Instructions:

1. This question paper contains two parts A and B. Each part is compulsory.
2. Both Part A and Part B have choices.
3. Part-A has 2 sections:
 - a. Section – I is short answer questions, to be answered in one word or one line.
 - b. Section – II has two case studies questions. Each case study has 4 case-based sub-parts. An examinee is to attempt any 4 out of the 5 subparts.
4. Part - B is Descriptive Paper.
5. Part- B has three sections.
 - a. Section-I is short answer questions of 2 marks each in which two question have internal options.
 - b. Section-II is long answer questions of 3 marks each in which two questions have internal options.
 - c. Section-III is very long answer questions of 5 marks each in which one question has internal option.
6. All programming questions are to be answered using Python Language only.
7. Use of calculators and Programming devices , are not permitted.

Question No.	Part-A	Marks allocated
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Section-I

Select the most appropriate option out of the options given for each question. Attempt any 15 questions from question no 1 to 21.

1	Find the invalid identifier from the following a) UrClass b) False c) @1stName d) My_City	1
2	Given the lists L=[24,56,10,99,28,90,20,22,34] , then, output of print (L[3:-3])	1
3	Write the full form of CSV & EOL.	1

- 4 Identify the valid arithmetic operators in Python from the following : 1
a) // b) < c) ** d) and
- 5 Assume a tuple T is declared as T = (20, 30, 40, 50), which of the following is 1
incorrect ?
a) print(T[3])
b) T[2] = 56
c) print (max(T))
d) print (len(T))
- 6 How are Dictionaries different from Lists, in Python ? 1
- 7 A code of tuple is : 1
T1 = (2,4,3)
T3 =T1*3
print (T3)
What will be this code ?
- 8 Name the built-in mathematical function / method that is used to return an 1
absolute value of a floating number.
- 9 Write few Names of Social Networking Sites. 1
- 10 A Cine star Kiara, complaints that somebody has created a fake profile on 1
Facebook and defaming her character with abusive comments and pictures.
Identify the type of cybercrime for these situations.
- 11 In SQL, name the clause that is used to display the tuples in descending 1
order of an attribute.
- 12 In SQL, what is the use of “ ORDER BY ” clause? 1
- 13 Write two Aggregate functions used in SQL. 1
- 14 Which of the following is a DCL command? 1
a) SELECT b) ROLLBACK c) INSERT d) UPDATE
- 15 Suggest one Wired Fastest transmission medium suitable for Network Design. 1

- 16 Identify the valid declaration of L: 1
L = ['Tue', '19', 'dear', '57.6']
a. dictionary b. string c. tuple d. list
- 17 If the following code is executed, what will be the output of the following code? 1

book="WisdomAndInspiration"
print(book [6 :12])
- 18 In SQL, write the query to display the list of tables stored in a database. 1
- 19 Write the purpose & expanded form of Wi-MAX. 1
- 20 Which of the following types of table constraints will prevent the entry of duplicate rows? 1
a) Unique
b) Distinct
c) Primary Key
d) NOT NULL
- 21 Rearrange the following terms in decreasing order of data transfer rates. 1
Mbps, Tbps, Kbps, bps, Gbps

Section-II

Both the Case study based questions are compulsory. Attempt any 4 sub parts from each question. Each question carries 1 mark

- 22 A departmental store MyStore is considering to maintain their inventory using SQL to store the data. As a database administrator, Ashok has decided that :
- Name of the database - mystore
 - Name of the table - STORE
 - The attributes of STORE are as follows:
ItemNo - numeric
ItemName – character of size 20
Scode - numeric
Quantity – numeric

Table : STORE

ItemNo	ItemName	Scode	Quantity
2005	Sharpener Classic	23	60
2003	Ball Pen 0.25	22	50
2002	Get Pen Premium	21	150
2006	Get Pen Classic	21	250
2001	Eraser Small	22	220
2004	Eraser Big	22	110
2009	Ball Pen 0.5	21	180

- (a) Identify the attribute best suitable to be declared as a primary key, 1
- (b) Write the degree and cardinality of the table STORE. 1
- (c) Insert the following data into the attributes ItemNo, ItemName and SCode respectively in the given table STORE. 1
ItemNo = 2010, ItemName = "Note Book" and Scode = 25.
- (d) Ashok want to remove the table STORE from the database MyStore. 1
Which command will he use from the following:
- a) DELETE FROM store;
 - b) DROP TABLE store;
 - c) DROP DATABASE mystore;
 - d) DELETE store FROM mystore;
- (e) Now Ashok wants to display the structure of the table STORE, i.e, 1
name of the attributes and their respective data types that he has used in the table. Write the query to display the same.

23 Rohit Sharma is writing a program to create a CSV file "game.csv" which will contain user name and password for some entries. He has written the following code. As a programmer, help him to successfully execute the given task.

```
import _____ # Line 1

def addCsvFile(UserName,PassWord): # to write / add data into the
CSV file
    f=open(' game.csv', '_____') # Line 2
```

```

newFileWriter = csv.writer(f)
newFileWriter.writerow([UserName,PassWord])
f.close()

```

#csv file reading code

```

def readCsvFile():          # to read data from CSV file
    with open(' game.csv','r') as newFile:
        newFileReader = csv._____ (newFile)          # Line 3
        for row in newFileReader:
            print (row[0],row[1])
        newFile._____          # Line 4

```

```

addCsvFile("Dhawan","123@456")
addCsvFile("Smriti","smr@iti")
addCsvFile("Dhoni","myname@MSD")
readCsvFile()          #Line 5

```

- (a) Name the module he should import in Line 1. 1
- (b) In which mode, Rohit should open the file to add data into the file? 1
- (c) Fill in the blank in Line 3 to read the data from a csv file. 1
- (d) Fill in the blank in Line 4 to close the file. 1
- (e) Write the output he will obtain while executing Line 5. 1

Part – B

Section-I

24 Evaluate the following expressions: 2
a) $10 + 5 * 105 \%3 ** 2 // 2 * 4 - 2$

b) **not(5 < 10) and (10 < 5) or
(not(3 < 18)) and not 8 < 18**

25 Differentiate between Viruses and Worms in context of networking and data communication threats. 2

OR

Differentiate between Web server and web browser. Write any two popular web browsers.

26 Expand the following terms: 2
a. CDMA b. WLL c. WAN d. VoIP

27 Along with suitable example, differentiate between Local Variable & Global Variable. 2

OR

What is the significance of having functions, in a Program ? Provide example, as well.

28 Rewrite the following code in Python after removing all syntax error(s). 2
Underline each correction done in the code, with reason.

```
L = ['a' , 'b' , 'c' , 'd' ]  
T = ( 0, 1, 2, 3)  
  
V1= 6  
V2= '6'  
for I in T  
    L[I] += V2  
    V1 = V1-1  
    print ( T[V1] )  
    print ( T[V2 : ] )
```

29 What possible outputs(s) are expected to be displayed on screen at the time 2
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(1,3)  
Upper =random.randint(2,4)  
for K in range(Lower, Upper +1):  
    print (AR[K],end="#" )
```

(i) 10#40#70# (ii) 30#40#50# (iii) 50#60#70# (iv)
40#50#70#

30 What do you understand by Alternate & Primary Keys in table(s)? Give 2
suitable example of these Keys from table(s), containing meaningful data.

- 31 Differentiate between *fetchone()* and *fetchall()* methods with suitable examples for each. 2
- 32 Write the full forms of DDL and DML. Write any two commands of DML in SQL. 2
- 33 Find and write the output of the following Python code: 2

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

Display('Fun@Python3.0')

Section- II

- 34 Write a function LShift(Arr,n) in Python, which accepts a list Arr of numbers and n is a numeric value by which all elements of the list are shifted to left. 3
 Sample Input Data of the list
 Arr= [10,20,30,40,12,11], n=2
 Output
 Arr = [30,40,12,11,10,20]
- 35 Write a function FileLong () in Python that accepts a filename and reports the file's longest line. 3

OR

Write a function CntLines() in Python, which should the number of lines in a text file POEM.TXT, which is starting with an alphabet 'A' .

36 Write the outputs of the SQL queries (i) to (iii) based on the relations Teacher and Posting given below: 3

Table : Teacher						
T_ID	Name	Age	Department	Date_of_join	Salary	Gender
1	Jugal	34	Computer Sc	10/01/2017	12000	M
2	Sharmila	31	History	24/03/2008	20000	F
3	Sandeep	32	Mathematics	12/12/2016	30000	M
4	Sangeeta	35	History	01/07/2015	40000	F
5	Rakesh	42	Mathematics	05/09/2007	25000	M
6	Shyam	50	History	27/06/2008	30000	M
7	Shiv Om	44	Computer Sc	25/02/2017	21000	M
8	Shalakha	33	Mathematics	31/07/2018	20000	F

Table : Posting		
P_ID	Department	Place
1	History	Agra
2	Mathematics	Raipur
3	Computer Science	Delhi

- i. SELECT Department, count(*) FROM Teacher GROUP BY Department;
- ii. SELECT Max(Date_of_Join),Min(Date_of_Join) FROM Teacher;
- iii. SELECT Teacher.name,Teacher.Department, Posting.Place FROM Teachr, Posting WHERE Teacher.Department = Posting.Department AND Posting.Place="Delhi";

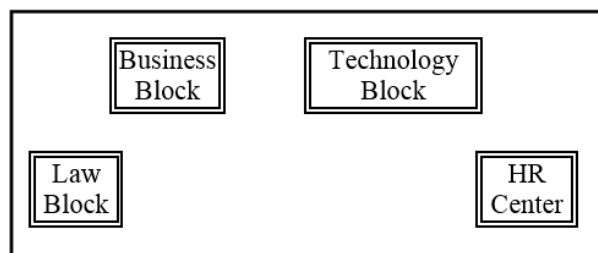
37 Along with necessary declarations, Write a function Push (Ar), where Ar is a list of numbers. From this list, push all numbers, divisible by 5 into a stack implemented by using a list. Display the stack, if it has at least one element, otherwise, exhibit appropriate error message. 3

OR

Along with necessary declarations, Write a function in Python Pop(Array), where Array is a stack implemented by a list of numbers. The function returns the value deleted from the stack. Add proper documentation.

Section-III

38 CUJ University is setting up its academic blocks at New Ranchi and is planning to set up a network. The University has 3 academic blocks and one Human Resource Center as shown in the diagram below: 5



Center to Center distances between various blocks/center is as follows:

Law Block to business Block	45m
Law block to Technology Block	85m
Law Block to HR center	110m
Business Block to technology Block	35m
Business Block to HR Center	40m
Technology block to HR center	20m

Number of computers in each of the blocks/Center is as follows:

Law Block	17
Technology Block	42
HR center	125
Business Block	27

- Suggest the most suitable place (i.e., Block/Center) to install the server of this University with a suitable reason.
- Suggest an ideal layout for connecting these blocks/centers for a wired connectivity.
- Which device will you suggest to be placed/installed in each of these blocks/centers to efficiently connect all the computers within these blocks/centers.
- Suggest the placement of a Repeater in the network with justification.
- The university is planning to connect its admission office in Delhi, which is more than 1250km from university. Which type of network out of LAN, MAN, or WAN will be formed? Justify your answer.

39

Write SQL commands for the following queries (i) to (v) based on the relations Teacher and Posting given below:

5

Table : Teacher

T_ID	Name	Age	Department	Date_of_join	Salary	Gender
1	Jugal	34	Computer Sc	10/01/2017	12000	M
2	Sharmila	31	History	24/03/2008	20000	F

3	Sandeep	32	Mathematics	12/12/2016	30000	M
4	Sangeeta	35	History	01/07/2015	40000	F
5	Rakesh	42	Mathematics	05/09/2007	25000	M
6	Shyam	50	History	27/06/2008	30000	M
7	Shiv Om	44	Computer Sc	25/02/2017	21000	M
8	Shalakha	33	Mathematics	31/07/2018	20000	F

Table : Posting		
P_ID	Department	Place
1	History	Agra
2	Mathematics	Raipur
3	Computer Science	Delhi

- i. To show all information about the teacher of History department.
- ii. To list the names of female teachers who are in Mathematics department.
- iii. To list the names of all teachers with their date of joining in ascending order.
- iv. To display teacher's name, salary, age for male teachers only.
- v. To display name, bonus for each teacher where bonus is 10% of salary.

40

Write a program, using binary file "Empl.dat" and write into it the employee details (EmpNo, EmpName, Age, Salary), of employees, available in the form of dictionaries.

5

OR

Write a Program, using binary file "Stud.dat" to get student data (RollNo, Name, Marks) from user and write onto the file, as long as the user desires.

@ @= # = = = The End = = = # = @@



DELHI PUBLIC SCHOOL

SAIL Township, Ranchi

PRE-BOARD EXAMINATION 2020

Class: XII

Subject: Informatics Practices

Max Marks: 70

Time: 3 Hrs.

General Instructions:

1. This question paper contains two parts, A and B. Each part is compulsory.
2. Both Part A and Part B have choices.
3. **Part A** has two sections:
 - **Section-I** is short answer questions, to be answered in one word or one line (Any 15 question).
 - **Section-II** has two case study questions. Each case study has 5 case-based sub-parts. An examinee is to attempt any 4 out of the 5 sub-parts.
4. **Part B** is Descriptive Paper, has three sections:
 - **Section-I** is short answer questions of 2 marks each in which two questions have internal options.
 - **Section-II** is long answer questions of 3 marks each in which two questions have internal options.
 - **Section-III** is very long answer questions of 5 marks each in which one question has internal options.

PART-A: Section-I

[Attempt any 15 questions from questions 1 to 21]

1. **State whether True or False:** (1)
 - (i) Copying someone else's work or programs and claiming them as your own is an act of plagiarism.
 - (ii) Cyber bullying is an attempt to acquire sensitive information such as usernames, passwords and credit card details by sending emails or instant messaging.
2. **Fill in the blanks:** (1)

T20 match analysis in Dubai is to be plotted. The command used to give title to y-axis as 'Total Score' of each team in a graph is..... .

(i) plt.show()	(ii) plt.plot("TotalScore")
(iii) plt.ylabel("TotalScore")	(iv) plt.title("TotalScore")
3. **Write the output of the following SQL command.** (1)

```
Select Round(67834.238,-3);
```

(i) 68000	(ii) 67000
(iii) 67834.000	(iv) 70000
4. **Which method is used to access horizontal subset of a DataFrame?** (1)

(i) iterrows()	(ii) sort_values()
(iii) head()	(iv) iteritems()
5. **In Pandas, emp is a Series that stores names of the employees.** (1)

```
emp=pd.Series(["Archana", "Tiya", "Manit", "Sanskaar"])
```

Which command is used to assign the index as ("Emp1", "Emp2", "Emp3", "Emp4") explicitly?

(i) emp_index=('Emp1', 'Emp2', 'Emp3', 'Emp4')
(ii) emp.index=('Emp1', 'Emp2', 'Emp3', 'Emp4')

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])
student={"English":a,"Hindi":b}
df=pd.DataFrame(student) print(df)
```

20. As soon as a.....enters your system, it immediately starts replicating itself with the sole goal of infecting as many networked systems and inadequately-protected computers as possible. (1)

21. Name the term used to describe traces of online activities that an individual performs on social media, online shopping, etc. (1)

Part-A: Section-II

[Both the case study-based questions (22 & 23) are compulsory. Attempt any four sub-parts from each question. Each sub-question carries 1 mark.]

22. Assume a dataframe df that contains data about IT Quiz Contest with 'SC1', 'SC2', 'SC3', 'SC4', 'SC5' as indexes shown below. Give the output of any four questions from (i) to (v).

	School	Total_Students	Winner	Runner-up
SC1	APS	40	32	8
SC2	KPS	30	18	12
SC3	KKPS	20	18	2
SC4	MMPS	18	10	8
SC5	TPS	28	20	8

- (i) >>> df.shape (1)
- (ii) >>> df1[2:4] (1)
- (iii) >>> df.loc['SC2' : 'SC4' , 'Winner'] (1)
- (iv) >>> df.iloc[2:4] (1)
- (v) >>> df.Total_Students (1)

23. Consider the following table Spice given below:

S.No	Spice_Name	Spice_Price	Spice_Qty	Spice_Manufacturer
SP101	Turmeric	250.00	5	MDH
SP102	Red Chilly	200.00	7	Catch
SP103	Cinnamon Powder	2500.00	2	MDH
SP104	Cumin Powder	240.00	4	TATA
SP105	Black Pepper	550.00	2	Catch

- (i) To increase the price of 'Turmeric' by Rs 100. (1)
- (ii) To display the Spice Name, Spice Price and Spice Manufacturer of all the Spices in descending order of Quantity. (1)
- (iii) Insert a new row with the following values:
SP1006, Cardamom, 1450.00, 4, TATA. (1)
- (iv) Write the output of the following command: (1)
SELECT Spice_Name, Spice_Price from Spice where Spice_Name LIKE '%Powder';
- (i) Spice_Name Spice_Price
Cinnamon Powder 2500.00

(ii)	Spice_Name	Spice_Price
	Cinnamon Powder	2500.00
	Cumin Powder	240.00
(iii)	Spice_Name	Spice_Price
	Cumin Powder	240.00
(iv)	Spice_Name	Spice_Price
	Cumin Powder	240.00
	Black Pepper	550.00

Now choose the correct option:

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

(v) Help Aarti to display Spice Name in capital letters along with Spice price rounded off to nearest integer. (1)

- (a) Select upper(Spice_Name), round(Spice_Price,0) from Spice;
(b) Select toupper(Spice_Name), round(Spice_Price,0) from Spice;
(c) select upper(Spice_Name), truncate(Spice_Price,0) from Spice;
(d) select Spice_Name, round(Spice_Price,1) from Spice;

PART-B: Section-I

[Attempt any *Nine* questions of Ten questions from Q.no 24 to 33]

24. Write Python code to create the following DataFrame books using Python Pandas. Use any method of DataFrame creation that you have learnt: (2)

BookName	Class	Price
Let us C	BCA	270
Artificial Intelligence	B.Tech	350
Database Management	BCA	450
Computer Architecture	BCA	550

Give index as 'B1', 'B2', 'B3', 'B4'

25. Differentiate between aggregate functions and single row functions. (2)

OR

What is a Primary Key? List the criteria for selecting a Primary key for a table.

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

- (i) SelectMod(13,3); (ii) SelectPower(5,3);
(iii) Select Length("Data Science"); (iv) SelectMonth('2020-03-12');

27. What will be the output of the following program: (2)

```
import pandas as pd
a=pd.Series([10,20,30,40,50],index=['a','e','i','o','u'])
print(a*5)
print(a<30)
a['i']=1000
print(s)
```

28. Gunjan has entered the following SQL command on Table 'Result' that has TotalMarks as one of the columns: (2)

```
SELECT count(TotalMarks) from RESULT;
```

The output displayed is 43.

Then, Gunjan enters the following command:

```
SELECT count(*) from RESULT;
```

Now the output displayed is 50.

What could be the possible reason for different outputs? How many total records are there in the table Result?

29. Consider the following SQL string: "Operating System" (2)

Write the use of SUBSTR command to display:

- (i) "Opera" (ii) "stem"

OR

Considering the same string "Operating System", write SQL commands to display:

- (i) the position of the substring 'era' in the string "Operating System"
(ii) Replace the word Operating with "Computational"

OR

30. Lekisha wants to plot a bar chart for the students of 6th class of different sections who have opted for the given subjects. Complete the code to perform the following operations: (2)

- (i) To plot bar chart using the given data set of subjects and students.
(ii) To provide xticks as subjects.

```
import matplotlib.pyplot as plt
Students=[10,12,15,17,19]
Subject=["French","Sanskrit","ICT","Music","Art"]
_____ // Statement 1
_____ // Statement 2
plt.show()
```

31. What is the output of the following code: (2)

```
import pandas as pd
s = pd.Series([10,20,30,40,50,60,70,80,90,100])
a=s.where(s > 50)
print(a)
```

32. Deepanjali received an SMS from her bank querying a recent transaction that she made online and asking for the pin number. Answer the following questions as to what she should do on receiving this SMS. (2)

- (i) Should she SMS her pin number to the given contact number?
(ii) Should she call the bank helpline number to recheck the validity of the SMS received?

33. List two Network security components. (2)

Part-B: Section-II

[Attempt all]

34. Consider the following dataframe 'df_Student': (3)

AdmNo	Name	Class	Weight	Height
H1001	Tiana	IX B	50	163
H1006	Jiya	IX A	55	167
H1009	Shreyas	IX A	59	164

- Write the command to add a new column 'Age' having the following data: Age= (13,15,14)
- Write a command to permanently delete the record of student having AdmNo H1009.
- Write a command to display records in ascending order of age.

35. Explain the difference between a web hosting and web server with suitable examples. (3)

OR

Differentiate between Star topology and Bus topology.

36. A dictionary 'toys' contains the following: (3)

```
toys={'Name':[ 'Talking Tom', 'Blocks', 'Number game', 'ludo'],  
      'Price':[ 400,250, 300,150]}
```

Write statements for the following:

- Create a Dataframe named "stock"
- Add a column called 'discount' with the following data: [30, 40, 15, 25]
- Delete column discount with all values.

37. A relation Product is given below: (3)

P_No	Ptype	P_Manufacturer	Price	Qty
P1001	Pencil	Natraj	15	20
P1002	Ball Pen	Reynolds	10	50
P1003	Gel Pen	Flair	20	100
P1004	Sketch Pen	Doms	50	35
P1005	Paint Brush	Doms	30	15
P1006	Pencil	Natraj	15	30
P1007	Ball Pen	Reynolds	10	10
P1004	Sketch Pen	Doms	50	60
P1005	Paint Brush	Doms	30	85
P1006	Pencil	Natraj	15	45

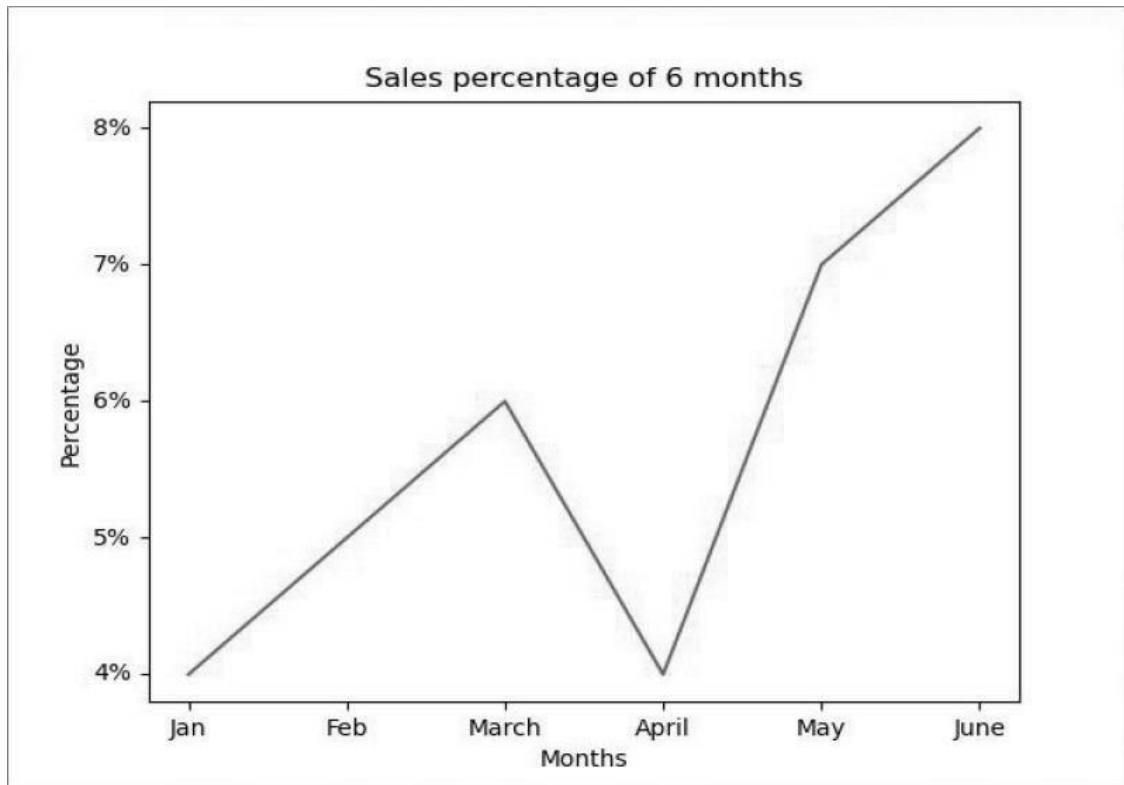
Write SQL commands to:

- Display the Average price of each type of Product having quantity more than 30.
- Increase the price of the products manufactured by Doms by 2%.
- Display the Maximum and Minimum price of all types of Products.

Part-B: Section-III

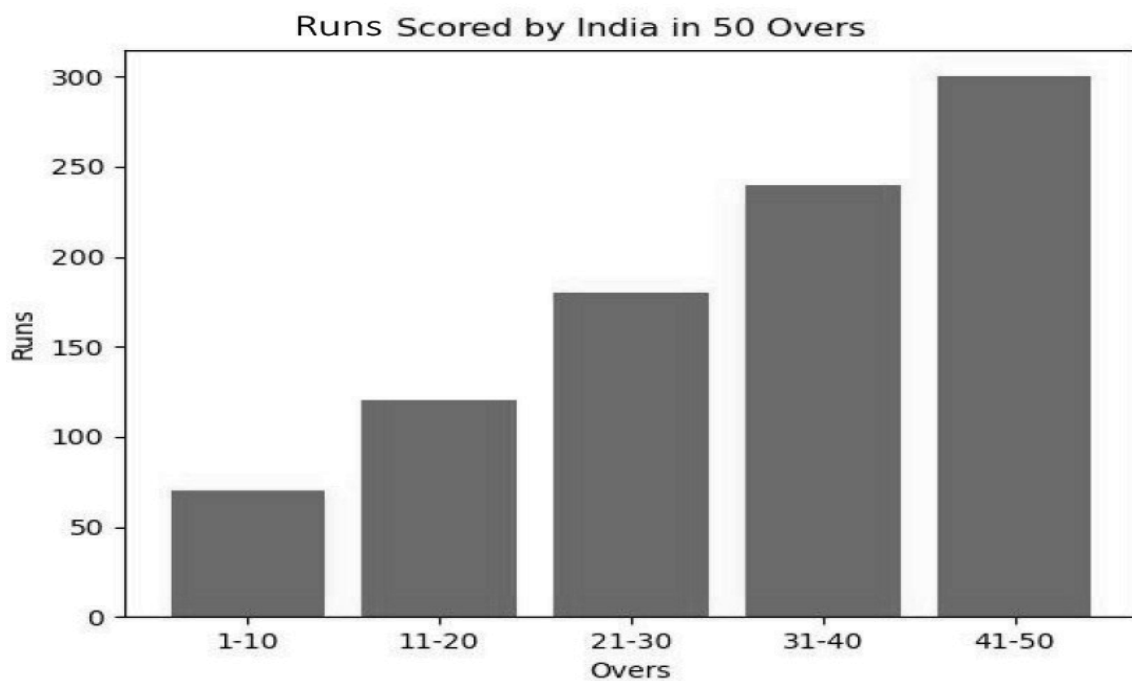
[Attempt all]

38. Write a code to plot the Sales Percentage of Bags for the last 6 months as shown in the figure given below: (5)



OR

- Write a code to plot the histogram to display the total runs scored by India in a match as shown in the figure given below: Runs=[70, 120,180,240, 300]



[7]

39. Write a program in Pandas to create the following DataFrame TotalMarks from a Dictionary: (5)
[2+1+1+1]

RollNo	Name	TERM I	TERM II
1	Anshu	55	76
2	Prachi	82	88
3	Divyansh	95	98
4	Chetan	76	78
5	Sahil	68	65

Perform the following operations on the DataFrame TotalScore:

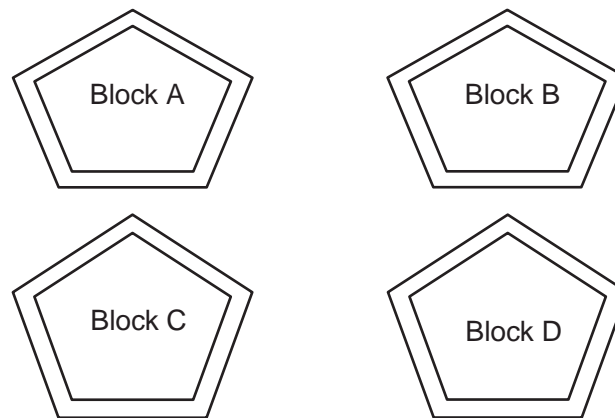
- (i) Create a DataFrame TotalMarks.
- (ii) Add both the Marks of a Student and assign to column "Total".
- (iii) Display the highest marks in both TERM I and TERM II of the DataFrame.
- (iv) Display the DataFrame.

OR

Write the SQL functions which will perform the following operations: [1+1+1+1+1]

- (i) To display the string ("information technology") in Uppercase.
- (ii) To remove spaces from the beginning and end of a string, "Informatics".
- (iii) To display the name of the day, e.g., Friday or Sunday from your date of birth, dob.
- (iv) To display the starting position of your first name(fname) from your whole name(name).
- (v) To compute the remainder of division between two numbers, n1 and n2.

40. The Virtual Connects organization has set up its new centre at Noida for its office and web-based activities. It has 4 blocks of buildings as shown in the diagram below: (5)



Distance between the various blocks is as follows:

A to B	40 m
B to C	120 m
C to D	60 m
A to D	170 m
B to D	150 m
A to C	70 m

Number of computers:

Block A	25
Block B	50
Block C	125
Block D	10

- (i) Suggest the most suitable place (the Block) to install the server of this organization with a suitable reason.
- (ii) Suggest an ideal layout for connecting these blocks/centres for a wired connectivity.
- (iii) Which device will you suggest to be placed/installed in each of these blocks to efficiently connect all the computers within these blocks?
- (iv) Suggest the placement of a Repeater in the network with justification.
- (v) The organization is planning to link its office to an office in the hilly areas. Suggest a way to connect it economically. Justify your answer.

###

Please save you answer book in the following format to upload and mail

[RollNo][dot][Class/Section][dot][YourName]

Example: **10.12A.AdityaMishra**

Mail id: TheAryanNews@gmail.com



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP RANCHI
PRE BOARD-1 EXAMINATION (2020-21)

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: [5X1=5]

- i. A stud is a bolt :
 - a) Having head on left
 - b) Having head inside it
 - c) Having head on the right
 - d) Without a head
- ii. The end of the stud which is screwed in the body of a casting is called?
 - a) External thread
 - b) Bolt end
 - c) Nut end
 - d) Metal end
- iii. Knuckle thread is a modified form of?
 - a) BSW thread
 - b) Square thread
 - c) V-thread
 - d) Metric thread
- iv. The smallest diameter of an external or internal screw thread is called?
 - a) Minor diameter
 - b) Pitch diameter
 - c) Major diameter
 - d) Pitch circle diameter
- v. For a single start thread the lead is equal to?
 - a) pitch
 - b) half the pitch
 - c) twice the pitch
 - d) major diameter

2.

- i. Construct an isometric scale. **[4]**
- ii. A vertical triangular pyramid, base edge 40 mm and axial height 60 mm, is resting on its base on H.P. One of its base edge is perpendicular to V.P. Draw its isometric proj. Show the axis and indicate the direction of viewing. Give all the dimensions. **[7]**
- iii. A cylinder (base diameter 50 mm and height 60 mm) with its axis perpendicular to H.P. is placed centrally on top of rectangular face of a horizontal triangular prism (side of triangle 40 mm and length of axis 70 mm). The prism is resting on its long edge with its axis parallel to both V.P and H.P. Draw the isometric proj. of the combination of solids. Show the axis of each of solid and indicate the direction of viewing. Give all the dimensions. **[13]**

3.

- i. Draw to scale 1:1, the standard profile of a B.S.W screw thread, taking enlarged pitch 40 mm. Give standard dimensions. **[8]**

OR

Draw to scale 1:1, the front view and side view of hexagonal headed bolt of diameter 20 mm, keeping the axis horizontal and parallel to both H.P and V.P. Give standard dimensions.

- ii. Sketch free hand, front view and top view of a stud bolt with square neck of size M20 mm, keeping the axis vertical. Give standard dimensions. **[5]**

OR

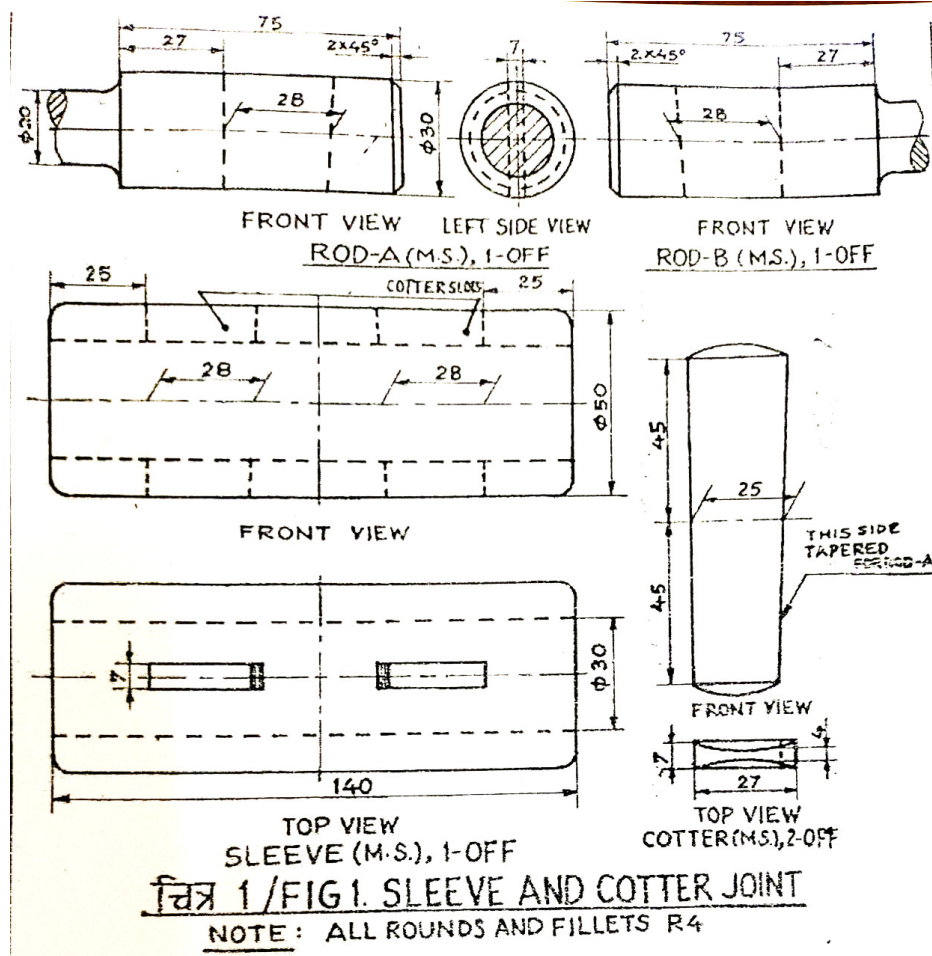
Sketch freehand the front view, top view of a hexagonal nut of diameter 20 mm. Axis is vertical. Give the standard dimensions.

4.

Fig-1 shows the details of the parts of sleeve and cotter joint. Assemble these parts correctly and then draw the following views using scale 1:1, inserting 56 mm threaded portion of each rod inside the body of the turnbuckle.

- i. front view, upper half in section. **[28]**
- ii. right hand side view

Print the title and scale used. Draw the projection symbol. Give 6 important dimensions.



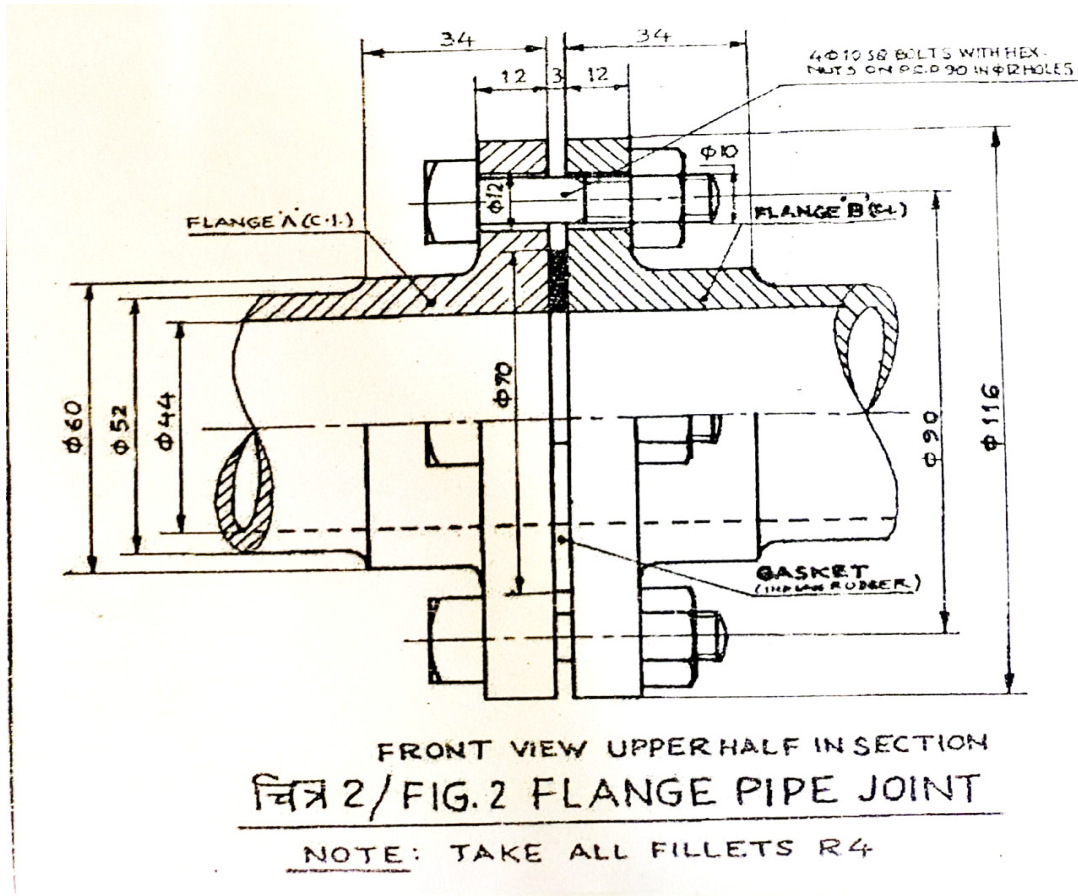
OR

Fig-2 shows the assembly of the parts of a flange pipe joint. Disassemble the parts correctly and then draw to scale 1:1, Keeping them in the same position with respect to H.P and V.P.

- i. Flange B:
 - a) Front view, upper half in section.
 - b) Right side view.

- ii. Gasket:
 - a) Full sectional front view.
 - b) Left hand side view.

Print the titles of both and the scale used. Draw the projection symbol. Give six important dimensions.





DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
PRE BOARD - I (2020-21)

Subject: Fine Art- Graphics
Class: – XII

Max. Mark:- 30
Time:- 2 Hrs

Section: First

(1x6=6)

General Instructions: Answer to be written for each question in a word or sentence.

1. (a) What symbol is depicted with Navy Blue colour in our National Flag?
(b) Which statement is true:
 - (i) Artist Nainsukh has depicted in his painting a group of people going to Vrindavan
 - (ii) A famous painting from Jahangir School depicting the Krishna lifting Mount Goverdhan
- (c) Which is the top colour in our National Flag
 - (i) Orange
 - (ii) Saffron
 - (iii) India Saffron
 - (iv) Green
- (d) Name of painting which shows Shahjahan accompanying groom with well decorated crown.
- (e) Contemporary (modern) Indian Graphic print _____ depicts the concept of fertility and power of worship.
 - (i) Children
 - (ii) Man Women and Tree
 - (iii) Devi
 - (iv) Of Walls
- (f) Where did the Pahari School of Miniature Painting originate?
 - (i) Basholi
 - (ii) Guler
 - (iii) Kangara
 - (iv) Garhwal

Section: Second

(2x3=6)

General Instructions: Answer to be written for each is about 30 words.

1. Evaluate the artistic achievements of any of the following painters with reference to his particular painting included in your course of study:
 - (i) Nuruddin
 - (ii) Nainsukh
 - (iii) Nihal Chand

2. Differentiate the compositional arrangement of miniature paintings 'Chaugan Players' and 'Chand Bibi Playing Polo (Chaugan)'
3. Which are the human life values and emotions shown in any of the following Bengal school or Modern Art? Explain in short:
 - (i) Journey's End
 - (ii) Man, Woman and Tree

Section: Third

(3x2=6)

General Instructions: Answer to be written for each question in about 100 words.

1. Appreciate any of the following miniature paintings included in your course of study, duly based on its: (1) Name of the painter, (2) Medium & Technique, and (3) Composition:
 - (i) Marriage Procession of Dara Shikoh

OR

 - (ii) Falcon on a Bird-Rest
2. Write an essay on origin and development of the Deccan School of Miniature painting?

Section: Forth

(6x1=6)

General Instructions: Answer to be written in about 200 words.

1. Identify any relevant painting of the Contemporary (modern) Indian Art included in your course of study comprising of the following features and explain them in that artwork accordingly:
 - (i) The depiction of skeletal human and animal figures in the graphic print by Somnath Hore, is an expression of his sensitivity towards injustice to them and the life-long protest against it.

OR

 - (ii) The bitter truth of the real painful life of the simple folks around him is revealed in the sculptures by Ramkinker Baij.

Section: Fifth

(6x1=6)

General Instructions: Essay to be written for in not more than 350 words

1. Describe
 - (i) any of the Rajasthani Painting base on the mythological book.

OR

 - (ii) the main feature of The Mughal Miniature School



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

PRE- BOARD-I EXAMINATION (2020-21)

Class:-XII

Time- 3 Hrs.

Subject:- Accountancy

M.M.-80

General Instruction:

1. There are 32 questions in Question paper and all are compulsory.
2. Marks are indicated against each question.

PART -A

1. **The amount of subscription received in advance is shown in** 1
 - a) Liabilities side of Balance Sheet
 - b) Assets side of Balance Sheet
 - c) Payments side of Receipts and Payments Account
 - d) None of these
2. **If a partner withdraws equal amount at the end of each quarter , then _____ are to be considered for interest on total drawings.** 1
 - a) 5.5 months
 - b) 6 months
 - c) 4.5 months
 - d) 7.5 months
3. **State the conditions under which the capital balance may change under system of Fixed Capital Account.** 1
4. **In a firm 10% of net profit after deducting all adjustments, including reserve is transferred to General Reserve. The net profit after all adjustments but before transfer to General Reserve is Rs. 88,000. Calculate the amount is to be transferred to General Reserve.** 1
 - a) Rs. 5,000
 - b) Rs. 8,000
 - c) Rs. 8,800
 - d) Rs. 4,400

5. Any change in existing agreement of partnership or existing relationship of the partners is known as _____.(fill in the blank) 1
6. A, B and C are partners sharing profits in the ratio of 3 : 2 : 1. They admitted D into the firm A, B and C agreed to to give $\frac{1}{3}$ rd $\frac{1}{6}$ th and $\frac{1}{9}$ th share of their profit . The share of profit of D will be 1
- a) $\frac{11}{54}$
- b) $\frac{13}{54}$
- c) $\frac{1}{10}$
- d) $\frac{12}{54}$
7. X ltd purchased the assets from Y ltd Rs. 16,50,000. X limited issued Equity Shares of Rs. 10 each at 10% premium against the payment. The number of Equity Shares issued by X ltd will be 1
- a) 16,500
- b) 15,000
- c) 1,50,000
- d) 1,65,000
8. The maximum number of members in private company can be _____(fill in the blank) 1
9. A and B are partners sharing profits in the ratio of 2 : 1. C a new partner admitted for $\frac{1}{4}$ th share. At the time of admission , loss from Revaluation is Rs. 90,000. Pass journal entry for distribution of loss between partners. 1

10. At the time of dissolution of a partnership firm. The provision for doubtful debts is transferred to which account? 1

- a) Realisation Account c) Partner's Current Account
 b) Partner's Capital Account d) Cash Account

11. X ltd forfeited 400 shares of ₹ 10 each, Rs. 7 called up, originally issued at a premium of Rs. 4 per share on allotment, for non payment of first call of Rs. 2 per share. Pass journal entry at the time of forfeiture. 1

12. Retirement or Death of a partner will create a situation for the continuing partners, which is known as 1

- a) Dissolution of partnership
 b) Dissolution of partnership firm
 c) Winding up of business
 d) None of these

13. A, B and C are partners in a firm sharing profits in the ratio of 5 : 3 : 2. As per their partnership agreement, the share of deceased partner is to be calculated on the basis of profits and turnover of previous accounting year. B expired on 31.12.2019. Turnover till the date of death was Rs. 18,00,000. Their profits and turnover for the year 2018-19 amounted Rs. ₹ 4,00,000 and Rs. 20,00,000 respectively. An amount of _____ will be given to his executors as his share of profits till the date of death (fill in the blank) 1

14. From the following particulars taken from the Cash Book of a Health Club, prepare Receipts and Payments Account Rs. 3

Cash in Hand (opening)	17,000
Cash at Bank (opening)	85,000
Subscription	5,61,000
Donations	1,19,000
Investment Purchased	2,72,000
Rent Paid	68,000
General Expenses	73,100
Postage and Stationery	6,800
Courier charges	3,400
Sundry Expenses	8,500
Cash in Hand (closing)	40,800

OR

Calculate the amount of stationery to be debited to income and expenditure account

?

Stock of Stationery on 01.04.2019	7,500
Creditors for Stationery on on 01.04.2019	5,500
Advance paid for Stationery on 31.03.2019	1,500
Amount paid stationery for Stationery during the year 2019-20	17,000
Stock of Stationery on 31.03.2020	3,500
Creditors for Stationery on 31.03.2020	1,600
Advance paid for Stationery on 31.03.2020	1,200

15. Sita , Geeta and Reeta are partners in a firm sharing profits and losses in the ratio of 4 : 3 : 1. As per the terms of partnership deed , on the death of any partner, goodwill was to be valued at 50% of the net profits credited to that partner's capital account during the last three completed years before her death. Sita died on 28th Februrary 2020. The profits for the last five years were 31.03.2015 ₹ 60,000, 31.03.2016 Rs. 97,000, 31.03.2017 Rs. 1,05,000, 31.03.2018 Rs. 30,000 and 31.03.2019 Rs. 84,000. On the date of Sita's death, building was found undervalued by Rs. 80,000 which was to be considered Profit from last Balance Sheet to the date of death is calculated on the basis of last year's profit Pass necessary journal entries in the books of firm on Sita's death. 4

OR

Rohit , Raman and Raina are partners in a firm. Their capital accounts on 01.04.2019 stood at Rs. 2,00,000, Rs. 1,20,000, Rs. 1,60,000 respectively. Each partner withdrew Rs. 15,000 during the financial year 2019-20. As per the provisions of their partnership deed.

- i. Interest on Capital was to be allowed @ 5% p.a
- ii. Interest on Drawing was to be charged @ 4% p.a
- iii. Profits and losses were to be shared in the ratio of 5 : 4: 1

The net profit of Rs. 72,000 for the year ended 31.03.2020 was divided equally amongst the partners without providing for the terms of deed. You are required to pass a single adjustment entry to rectify the errors.

16. Pass necessary journal entries in the following cases on the dissolution of a partnership firm of partners A, B, Cand D. 4

- i. Realisation expenses of Rs. 5,000 were born by A, however it was paid by B
- ii. Investment costing Rs. 25,000 (comprising 1,000 shares) had been written off from the books completely. These shares are valued at Rs. 20 each and were divided among the partners.
- iii. B's loan Rs. 50,000 settled at Rs. 45,000.
- iv. Machinery (book value Rs. 6,00,000) was given to creditors at a discount of 20%.

17. A, B, and C entered into partnership on 01.04.2019 with a capital at Rs. 5,00,000, Rs. 3,00,000 and Rs. 2,00,000 respectively. In addition to Capital C has advanced a loan of Rs. 1,00,000. Since they had no agreement to guide them, they faced following issues during and at the end of the year. 4
- I. A wanted interest on capital to be provided @ 8% p.a. but B and C did not agree.
 - II. C wanted that interest on loan to be paid to him @ 10% p.a. but A and B wanted to pay @ 5% p.a.
 - III. A and B demanded to share profits in the ratio of their capital contribution. C is not in agreement with this proposal.
 - IV. B being working partner demands a lumpsum payment of Rs. 40,000 as remuneration for which other partners are not in agreement.
- You are required to suggest and help them resolve these issues.
18. Sagar Ltd was registered with an authorised capital of Rs. 1,00,00,000 divided into 1,00,000 Equity Shares of Rs. 100 each. The company offered for Public Subscription 60,000 Equity Shares. Application for 56,000 shares were received and allotment was made to all applicants. All the calls were made and were duly received except the second and final call of Rs. 20 per share on 700 shares. Prepare Balance Sheet of the company showing the different types of Share Capital. 4
19. (i) Tata Ltd issued 1,00,000 8% debentures of Rs. 10 each at Rs. 12 on 01.04.2019. The issue was fully subscribed. In term of the issue of debentures interest was payable at the end of the financial year. Tax deducted at source is 10%. Pass journal entries for the above transactions. 3
- (ii) K Ltd took over the assets of Rs. 15,00,000 and liabilities of Rs. 5,00,000 of P Ltd for a purchase consideration of Rs. 13,68,500. Rs. 25,500 were paid by issuing a promissory note in favour of P Ltd payable after two months and the balance was paid by issue of 9% debentures of Rs. 100 each at a premium of 25 %.
- Pass necessary journal entries for the above transaction in the books of K Ltd. 3

20. From the following receipts and payments account for the year ended 31.03.2020 and additional information given, Prepare the income and expenditure account of Bharat Sports Club for the year ended 31.03.2020

6

Receipts	Amt (Rs.)	Payments	Amt (Rs.)
To Balance b/d		By Salary	16,500
Cash	890	By Billiard Table	17,500
Bank	7,000	By Office Expenses	4,100
To Subscription	22,200	By Stationery	2,300
To Life Membership Fee	32,200	By Tournament Expenses	20,500
To Tournament Fund	20,000	By Furniture Purchased	7,700
To Locker Rent	1,500	By Sports Equipment	12,000
To Sale of Old Sports Material	2,500	By Fixed Deposit (01.01.2020) @ 10% p.a.	30,000
(Costing Rs.2,200)		By Balance c/d	
To Interest on Fixed Deposit	500	Cash	690
To Legacy	37,500	Bank	22,000
To Entrance Fees	9,000		
	<u>1,33,290</u>		<u>1,33,290</u>

Additional information : (i) Subscription outstanding on 01.04.2019 werer Rs. 1,500 and on 31.03.2020 were Rs. 2,000. On 01.04.2019 the club had building Rs. 40,000 , Furniture Rs. 15,000 , Sports equipment Rs. 16,000.

Change depreciation on these items @ 10% including purchases during the year.

21. ABC ltd offered for Public Subscription 10,000 shares of Rs. 10 each at Rs. 11 per share . Money was payable as follows :- Rs. 3 on application , Rs. 4 on allotment including premium, Rs. 4 on first & final call. Applications were received for 12,000 shares and the directors made pro rata allotment. Akansha an applicant for 120 shares could not pay the allotment and call money . Sudha a holder of 200 shares failed to pay the call. All the shares were forfeited . Out of the forfeited shares 150 shares (the whole of Akansha shares being included) were reissued at Rs. 8 per share. Record journal entries for the above transactions.

8

OR

TATA ltd invited application for issuing 75,000 Equity Shares of Rs. 100 each at a premium of Rs. 30 per share . The amount was payable as follows :

On Application and Allotment Rs. 85 per share including premium on First and Final call the balance amount.

Applications for 1,27,500 shares were received. Application for 27,500 shares were rejected and shares were allotted on pro rata basis to the remaining applicants. Excess money received on application and allotment was adjusted towards sum due on first and final call. The calls were made A shareholder who applied for 1,000 shares failed to pay the first and final call money . His shares were forfeited. All the forfeited shares were reissued at Rs. 150 per share fully paid up. Pass necessary journal entries in the books of TATA ltd.

22. A, B and C are partners sharing profits in the ratio of 5 : 3 : 2

8

Balance Sheet as at 31.03.2020

Liabilities	Amt (Rs.)	Assets	Amt (Rs.)
Creditors	1,00,000	Cash in hand	40,000
Expenses Owing	20,000	Debtors	60,000
Reserve Fund	30,000	Buildings	1,00,000
Workmen Compensation Fund	10,000	Bills Receivable	40,000
Capital		Goodwill	20,000
A -	60,000	Profit & loss	30,000
B -	60,000	Patents	30,000
C -	40,000		
	3,20,000		3,20,000

A retired on 01.04.2020. The following adjustments were made

- 1) New profit sharing between B and C is 1:1 Goodwill for the firm is valued at Rs. 60,000
- 2) Expenses owing increased by Rs. 10,000
- 3) Creditors increased to Rs. 1,05,000
- 4) Rs. 10,000 bills receivable discounted and are not recoverable
- 5) Patents are now value less
- 6) Rs. 20,000 unrecorded investment brought into books
- 7) Rs. 10,000 paid to A in cash and balance transferred to his loan account.

Prepare necessary Accounts and Balance Sheet .

25. In a company's balance sheet, calls in arrears are shown under: 1
- a) Contigent Liabilities
 - b) Current Liabilities
 - c) Shareholders Fund
 - d) Reserves and Surplus

26. State whether Cash deposited into bank will result in flow, out flow or no flow of Cash? Give reason. 1

27. Common Size Statements are those in which individual figures are converted into _____ to some common base (fill in the blank) 1

28. A company issued capital. A shareholder paid all money on allotment while first call is not called by company. Where will you show this advance in Balance Sheet of the company? 1

- a) Current Assets
- b) Long Term Liabilities
- c) Current Liabilities
- d) None of these

29. What will be the value of Shareholder's Fund, if 12% debentures are Rs. 5,00,000 and Debt Equity Ratio is 2.5 : 1 1

- a) Rs. 5,00,000
- b) Rs. 2,00,000
- c) Rs. 4,00,000
- d) Rs. 3,00,000

30. Calculate Current Ratio and Debt Equity Ratio from the following information ; 3

Non Current Assets Rs. 16,00,000	Current Assets Rs. 4,00,000
Working Capital Rs. 2,00,000	Non Current Liabilities Rs. 12,00,000

OR

Under which head and sub head will the following items appear in the balance sheet of a company

- a) Computer Software under development
- b) Unclaimed Dividends
- c) Provision for Tax

31. Prepare a Comparative Statement of Profit & Loss from the following

4

31.03.2019	31.03.2020	
Revenue from Operation	20,00,000	25,00,000
Cost of Material consumed	10,00,000	13,00,000
Other Expenses	Nil	1,20,000
Tax Rate	50%	50%

OR

From the following Balance Sheet of R ltd, Prepare a Common Size Statement Balance Sheet of R ltd as at 31.03.2020

Particulars	31.03.2020	31.03.2019
Equity and Liabilities		
Share holder's Fund		
Share Capital	2,50,000	2,00,000
Reserves and surplus	80,000	60,000
Current Liabilities		
Trade Payable	70,000	40,000
Total	4,00,000	3,00,000
Assets		
Non Current Assets		
Fixed Assets		
Tangible Assets	1,60,000	1,20,000
Intangible Assets	20,000	30,000
Current Assets		
Inventories	80,000	30,000
Trade Receivables	1,20,000	1,00,000
Cash & Cash Equivalent	20,000	20,000
	4,00,000	3,00,000

32. Prepare Cash Flow Statement on the basis of information given in the Balance Sheet of R Ltd as at 31.03.2019 and 30.03.2020

6

Particulars	Note no.	31.03.2019 Rs.	31.03.2020 Rs.
Equity and Liabilities			
Shareholders Fund			
Share Capital		2,00,000	2,50,000
Reserves & Surplus	1	50,000	70,000
Non Current Liabilities			
Long Term Borrowings	2	1,00,000	80,000
Current liabilities			
Trade Payable	3	60,000	1,60,000
Other current liabilities	4	25,000	20,000
Total		4,35,000	5,80,000
Assets			
Non current Assets			
Fixed Assets			
Tangible Assets	5	1,50,000	2,00,000
Intangible Assets	6	10,000	2,000
Long Term Advances		1,00,000	1,30,000
Current Assets			
Inventory		70,000	90,000
Trade Receivable		40,000	60,000
Cash & Cash Equivalents		65,000	98,000
		4,35,000	5,80,000

Notes to Accounts

	Particulars	31.03.2019 Rs.	31.03.2020 Rs.
1.	Reserves & Surplus		
	General Reserve	50,000	70,000
2.	Long Term Borrowings		
	12% Debentures	1,00,000	80,000
3.	Trade Payable		
	Creditors	40,000	60,000
	Bills Payable	20,000	1,00,000
		60,000	1,60,000
4.	Other Current Liabilities		
	Outstanding Expenses	25,000	20,000
5.	Tangible Fixed Assets		
	Machinery	2,00,000	2,60,000
	(-) provision for Depreciation	(50,000)	(60,000)
		150,000	2,00,000
6.	Intangible Fixed Assets		
	Goodwill	1000	2,000

Additional information :-

- (i) During the year a piece of Machinery with a book value of Rs. 30,000, provision for depreciation on it Rs. 10,000 was sold at a loss of 50% of book value.
- (ii) Debentures were returned on 31.03.2020.

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DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
PRE BOARD - I EXAMINATION (2020-21)

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 questions together.
-

Answer the following questions:

1. Organisation structure establishes relationships between
 - a. organisation and environment.
 - b. organisation and society.
 - c. people, work and resources.
 - d. suppliers and customers.1
2. India's population is expected to grow under 0.5% during 2013-14 due to decline in fertility rate and increase in life expectancy. These changes in India's demography will also have implications such as the proportion of elementary school-going children will witness significant declines, lack of hospital beds and increase in retirement age. The related feature of business environment being described in the above line is....
 - a. Totality of external forces
 - b. Interrelatedness
 - c. Dynamic nature
 - d. Relativity1
3. Purchase Manager and Sales Manager are a part of -
 - a. Top level management
 - b. Middle Level Management
 - c. Lower level Management
 - d. None of these1
4. As a result of major government initiatives, more and more people are going 'green'. In order to keep in line with the trend, 'Clapaway' a carpet cleaning company has advertised that they only use natural cleaners that come from renewable resources and that all their service vehicles are hybrid vehicles that use both gas and electricity. Identify one of the points related to the importance of business environment and its understanding by managers which is being highlighted in the above case.
 - a. It helps in assisting in planning and policy formulation
 - b. It helps in coping with rapid changes
 - c. It helps in improving performance
 - d. It enables the firm to identify opportunities and getting the first mover advantage1

5. Which one of the following is a step of planning?
- | | | |
|---------------------------------------|--------------------------------|---|
| a. Analysis of organisation structure | c. Analysis of environment | |
| b. Analysis of employee behaviour | d. Analysis of employee morale | 1 |
6. Political conditions in the USA, differ from those in China or Sri Lanka. Which feature of business environment is highlighted above?
- | | | |
|---------------------------------|----------------------|---|
| a. Totality of external sources | c. Inter relatedness | |
| b. Relativity | d. Dynamic Nature | 1 |
7. Aman, MD of ABC Constructions Ltd is of the view that in case of construction companies and automobile manufacturers, low longer-term rates are beneficial because they result in increased spending by consumers for buying homes and cars on borrowed money. Which element of business environment is highlighted above?
- | | | |
|------------------------------|--------------------------|---|
| a. Economic Environment | c. Social Environment | |
| b. Technological Environment | d. Political Environment | 1 |
8. Top management is concerned with formulation of
- | | | |
|--------------------------------|---------------------|---|
| a. Guidelines for supervisors. | c. Long-term plans. | |
| b. Short-term plans. | d. None of these. | 1 |
9. In a marketing firm, the financial manager pays more attention towards an increase of 3% in the marketing cost as compared to a 15% increase in the courier expenses. Identify the concept being used by the manager.
- | | | |
|----------------------------|---------------------------|---|
| a. Management by exception | c. Critical point control | |
| b. Corrective action | d. None of the above | 1 |
10. Reducing the workers absenteeism in a factory by 10% is an example of
- | | | |
|--------------------------|----------------------|---|
| a. Quantitative Standard | c. Deviation | |
| b. Qualitative Standard | d. None of the above | 1 |
11. Divisional structure leads to conflict in
- | | | |
|--------------------------|----------------------|---|
| a. Resource allocation. | c. Motivation. | |
| b. Marketing management. | d. Planning process. | 1 |

OR

Degree of decentralisation indicates

- | | |
|------------------------------------|-------------------------------|
| a. Degree of authority delegation. | c. Degree of power delegation |
| b. Degree of responsibility | d. Degree of accountability. |

12.	COLUMN A	COLUMN B	
	(i) Finding wants and filling them	(a) Production Concept	
	(ii) Supremacy of the product quality	(b) Selling Concept	
	(iii) Aggressive sales promotion	(c) Product Concept	
	(iv) Easy availability and affordability	(d) Marketing Concept of products	
	a. (i)-(a);(ii)-(d);(iii)-(c);(iv)-(b)	c. (i)-(c);(ii)-(d);(iii)-(a);(iv)-(b)	
	b. (i)-(b);(ii)-(a);(iii)-(d);(iv)-(c)	d. (i)-(d);(ii)-(c);(iii)-(b);(iv)-(a)	1

OR

	COLUMN A	COLUMN	
	(i) Name of the whole class of the product	(a) Brand Mark	
	(ii) A part of brand which can be spoken	(b) Trademark	
	(iii) A part of brand which cannot be spoken	(c) Generic Name	
	(iv) A registered brand name	(d) Brand Name	
	a. (i)-(c);(ii)-(d);(iii)-(a);(iv)-(b)	c. (i)-(d);(ii)-(c);(iii)-(a);(iv)-(b)	
	b. (i)-(b);(ii)-(a);(iii)-(d);(iv)-(c)	d. (i)-(d);(ii)-(c);(iii)-(b);(iv)-(a)	

Read the following passage and answer the questions that follow the passage-

Kajal Ltd. is involved in providing services connected with recording of allotment of securities or transfer of ownership of securities for its clients. It also provides various types of services to investors and investors rely on this company to a large extent before taking any decision. Some investors often request to convert a security (eg. share certificate) from its physical form to electronic form.

The company provides full satisfaction and support to all its investors and has allotted specialised staff for solving their all types of queries.

- | | | |
|-----|---|---|
| 13. | Which kind of services Kajal Ltd. is providing to investors/clients? | 1 |
| 14. | Give the term for conversion of security from its physical form to electronic form. | 1 |
| 15. | Who is a depository participant? | 1 |

16. Name two depositories registered with SEBI. 1

Read the following text and answer question No.17-20 on the basis of the same:

Yamuna Prasad, a small shopkeeper in Bikaner, Rajasthan used to sell the famous 'Bhujia-Sev'. It was a quick selling product for locals and foreign tourists. His second generation expanded the business and got 'Yamuna Ki Bhujia' registered with concerned authorities. Gradually the brand offered a wide range of products to its customers like namkeen, sweets, bakery items etc. However, 'Bhujia-Sev' remained the most popular product of the brand creating maximum revenue.

'Yamuna Ki Bhujia' offered its products at competitive prices even while offering customer services like gift packaging and free home delivery to become a household name. Now it has virtually become a synonym for bhujia-sev in the market, so much so, that people ask for 'Yamuna Ki Bhujia' instead of bhujia-sev. 'Yamuna Ki Bhujia' has developed a strong distribution network in India and abroad by setting up retail outlets and reaching out to the customer through internet selling.

Promotion of the brand had always been low profile, till the increase in competition pushed it to hire the services of a professional advertising agency, VIGYAPAN PVT.LTD for promoting the product. On the advice of VIGYAPAN PVT.LTD, 'Yamuna Ki Bhujia' has also worked upon managing public opinion by developing relations with the masses through sponsoring cultural and sporting events, maintenance of public parks etc.

17. 'His second generation expanded the business and got 'Yamuna Ki Bhujia' registered with concerned authorities.'

With reference to the given text 'Yamuna ki Bhujia' is a _____ giving it a legal protection against its use by anyone else.

- a. Brand value c. Trademark
b. Trait mark d. Brand mark

1

18. 'Yamuna Ki Bhujia' offered its products at competitive prices even while offering customer services like gift packaging and free home delivery to become a household name.

Identify the factor affecting the element of marketing mix being discussed above.

- a. Marketing methods used c. Objectives
b. Extent of competition in the market d. Product cost

1

19. 'Yamuna Ki Bhujia' has developed a strong distribution network in India and abroad by setting up retail outlets and reaching out to the customer through internet selling.

Identify the decision related to the element of marketing mix being discussed above.

- a. Storing and assorting products in order to create time utility
b. Regarding the channels or using intermediaries
c. Both a & b
d. Regarding branding, packaging and labelling

1

20. On the advice of VIGYAPAN PVT.LTD, 'Yamuna Ki Bhujia' has also worked upon managing public opinion by developing relation with the masses through sponsoring cultural and sporting events, maintenance of public parks etc. Name the department in the organisation which is generally responsible for performing the above important task of managing public opinion.

a. Marketing Department

b. A separate department created in the firm for the purpose

c. An outside agency

d. Any of the above.

1

21. State the three basic features of management as a profession

3

22. Explain in detail the concepts of 'Training' and 'Development'.

3

23. 'Planning is looking ahead and controlling is looking back'. Comment.

3

OR

'An effort to control everything may end up in controlling nothing'. Explain.

24. Give the meaning of both the parts of capital market.

3

OR

State any three protective functions of SEBI

25. Atul-the Assistant Manager, Vikas -the Marketing Head and Leena-The Human Resource Manager of 'Montac Enterprises Ltd.' decided to leave the company.

The Chief Executive Officer of the company called the Human Resource Manager, Leena and requested her to fill up the vacancies before leaving the organisation. Leena suggested that her subordinate Miss Rama Wadhwa is very competent and trustworthy, if she could be moved up in the hierarchy, she would do the needful. The Chief Executive Officer agreed for the same. Miss Rama Wadhwa contacted 'Smith Recruiters' who advertised for the post of marketing head for 'Montac Enterprises Ltd.'. They were able to recruit a suitable candidate for the company. Atul's vacancy was filled up by screening the database of unsolicited applications lying in the office.

i. Name the internal/external sources of recruitment used by 'Montac Enterprises Ltd.' to fill up the above-stated vacancies. Explain the same.

ii. Also state & explain any two merits of each of the above identified sources of recruitment.

4

26. Jack Welch was chairman and CEO of General Electric between the year 1981 and 2001. During the tenure at GE, the company's value rose 4,000 %. When he retired from GE he received a severance payment (retirement benefit) of \$417 million, the largest such payment in history. He once remarked "If you pick the right people and gave them the opportunity to spread their wings, and put compensation as a carrier behind it, you almost don't have to manage them".

In the context of the above paragraph -

- a. Identify & explain the style of leadership he is referring to in the above paragraph.
 - b. State any three features of the style of leadership as identified in part (a). 4
27. Directing is the heart of the management process. Do you agree? Give any four reasons in support of your answer. 4

OR

Rahim was working in an enterprise on a daily wage basis. It was difficult for him to fulfil the basic needs of his family. His daughter fell ill. He had no money for his daughter's treatment. To meet the expenses of her treatment, he participated in a cycle race and won the prize money. The cycle company offered him a permanent pensionable job which he happily accepted.

1. Identify the needs of Rahim that are satisfied by the offer of the cycle company.
 2. Also, explain two other needs of Rahim followed by above that are still to be satisfied.
28. Explain the concept and any four objectives of Financial Management. 4

OR

'Sound Financial Planning is essential for the success of any business enterprise'.

Explain this statement by giving any four reasons.

29. Bakers Mart is catering to corporate clients. It is facing a lot of competition. 4

What impact will this have on its working capital requirements? Also, explain three other factors which could affect its working capital requirements.

30. Explain any four points of importance of consumer protection from the point of view of business. 4

31. Explain the following techniques of scientific management:

- a. Functional Foremanship
- b. Differential piece wage rate system. 3x2=6

32. **'Serious Business'** is a balloon manufacturing firm. With the arrival of foreign firm it is feeling the pressure of improving its business strategy. Because of the firm's advance planning it could not suddenly bring changes in its plans as the whole organisation had started implementing the decided plan. But this year the organisation wants to ensure success. However, the firm knows that the external environment is changeable and continues to vary in a fast manner. The organisation wants to prepare in advance for a better future. It has decided to allocate a portion of its budget specifically for proper planning as it knows there are going to be expenses like Expert's fee, survey charges, etc. Name & explain any three limitations of planning have been identified in the above case? [3x2=6]

OR

'Flows Technology' deals in bulb manufacturing business. It plans for a successful year of production and sale this year. It has in advance given targets to all its departments and employees. The departments and employees are happy about this. They know that now they won't have to do unconcerned activities thus leading to more focused approach resulting in saving of resources. The company is thinking of starting two new plants in the southern portion of India. For this some concrete plan has to be made. The main core team of the company has decided to weigh all the options and then choose the best one. The road might be long but the company is geared to face all the challenges. In the above case identify and explain any three importance of planning highlighted.

33. A company has been registered under the Companies Act with an authorized share capital of Rs.20,000 crores. Its registered office is situated in Delhi and manufacturing unit in a backward district of Rajasthan. Its marketing department is situated in Bhopal. The company is manufacturing Fast Moving Consumer Goods (FMCG).
1. Suggest and explain the suitable organisation structure for the company.
 2. Explain any four advantages of this organisation structure. 6
34. Explain any four factors which affect the determination of the price of a product. 6



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP RANCHI
PRE BOARD-I, EXAMINATION (2019-2020)

SUBJECT: ECONOMICS
TIME: 3 Hrs

CLASS: XII
M. MARKS: 80

General instructions:

- i) *All question in both section are compulsory.*
 - ii) *Question no. 1-10 and 18-27 are multiple choice 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. Which of the following is not a 'factor payment'. [1]

- a) Free uniform to defence personnel
- b) Salaries to the member of parliament
- c) Rent paid to the owner of a building
- d) Scholarship given to the students

OR

National income includes:

- a) Old age pensions
- b) Money sent by NRI to his family in India
- c) Transfer payments from rest of the world
- d) None of the above

2. State , whether the following statement is true or false [1]
' All financial institutions are banking institutions.'

3. Which of the following measure of money supply are considered as monetary base? [1]

- a) M1
- b) M2
- c) M3
- d) M4

Read the following and answer the question numbers 4,5,6 and 7 on the basis of same:

Government of India is facing a large fiscal deficit and interest payments on loans and borrowings. Some economists have suggested to raise wealth tax and income tax along with an indirect tax like GST. But raising of direct taxes would have an impact on consumption and aggregate demand.

4. According to the theory of Keynesian economics, value of APC(Average propensity to consume) can never be _____ [1]
 - a) unity
 - b) zero
 - c) more than one
 - d) less than one
5. Effective demand refers to: [1]
 - a) AD which is met by corresponding supply
 - b) AD which is necessary to achieve full employment
 - c) Different levels of AD at different levels of
 - d) None of the above
6. The formula of calculating primary deficit is _____ [1]
7. Which one of the following is a combination of direct taxes? [1]
 - a) Excise duty and wealth tax
 - b) Service tax and income tax
 - c) Wealth tax and gift tax
 - d) GST ant VAT
8. _____ is a mixture or hybrid of fixed and flexible exchange rates. [1]
9. What is depreciation of currency? [1]
10. Monetary transactions arises only due to international sale and purchase of financial assets. True/ false. [1]
11. In which sub- account and on which side of balance of payments account will foreign investments in India be recorded? Give reasons. What will be the effect on India's exchange rate? [3]
12. How will the following be treated while estimating national income? Give reasons.[3]
 - a) Capital gains on sale of a house
 - b) Prize won in a lottery
 - c) Interest on public debt

OR

Calculate 'Sales' from the following data:

- a) Net value added at factor cost----- 300 lakh
- b) Intermediate consumption----- 240 lakh
- c) Indirect tax----- 30 lakh
- d) Depreciation ----- 40 lakh
- e) Change in stock ----- (-) 60 lakh

13. In the present scenario when the industrial growth is low, do you think a cut in Repo rate by the RBI would accelerate the pace of Industrial growth? [4]
14. An economy is in equilibrium. From the following data calculate Autonomous consumption:
- Income = 5000 [4]
 - Marginal propensity to save = 0.2
 - Investment expenditure = 800.

OR

What is excess demand? Explain the role of ‘reverse repo rate’ in removing it.

15. In the budget (2016), the government has hinted at lowering its expenditure on subsidies. Examine the economic value of this policy. [4]
16. State the following statements are true or false. Give valid reasons for your answers. [6]
- Unplanned inventories accumulate when planned investment is less than planned saving.
 - Deflationary gap exists when aggregate demand is greater than aggregate supply at full employment.
 - Average propensity to save can never be negative.
 - When investment multiplier is 1, the value of MPC is 0.
 - Sum of MPC and APC is always equal to 1.
 - If the ratio of MPC and MPS is 3:1, the value of multiplier will be 5.

OR

What is “effective demand principle” in Keynesian theory of employment?
Discuss using a schedule or a diagram.

17. From the following data calculate (a) Gross domestic product at factor cost and (b) Factor income to abroad : [6]
- Compensation of employees ----- 800
 - Profits -----200
 - Dividends -----50
 - Gross national product at market price-----1400
 - Rent -----150
 - Interest -----100
 - Gross domestic capital formation -----300
 - Net fixed capital formation -----200
 - Change in stock -----50
 - Factor income from abroad -----60
 - Net indirect tax-----120

SECTION B

18. Read the following statements—Assertion (A) and Reason (R). choose one of the correct alternatives given below: [1]

Assertion (A): Railways were introduced by the Britishers in India.

Reason (R) : For the development of the country.

Assertion

- a) Both Assertion (A) and reason (R) are false
- b) Assertion (A) is true and Reason (R) is false
- c) Assertion (A) is false and Reason (R) is true
- d) All the above.

19. Policy of Import substitution was targeted to protect _____ industries. [1]

20. _____ implied a significant shift in the role of RBI from ‘ a regulator’ to ‘a facilitator’ of the financial sector. (Liberalisation/Privatisation) [1]

21. Choose the correct alternative showing chronological order of the following events[1]

- i) Sampoorna Gramin Rozgar yojana
- ii) Twenty point programme
- iii) Swarna Jayanti shari rozgar yojana
- iv) Mahatma Gandhi national rural employment guarantee act.

- a) Iii), i), ii), iv),
- b) Ii), i), iv), iii)
- c) Ii), iii) ,i),iv)
- d) I),iv),iii),ii)

22. Workforce refers to that part of: [1]

- a) Labour force which is employed
- b) Population which is employed
- c) Population which is forced to work
- d) Labour force which is employed

23. Human capital refers to the stock of _____ of a nation at a point of time. (skill/production) [1]

24. Which of the following is an option of employment outside agriculture? [1]

- a) Animal husbandry
- b) Horticulture
- c) Fisheries
- d) All the above

25. _____ infrastructure accelerates the process of human development. (economic/social) [1]

26. Which of the following is an example of abiotic component of environment? [1]
- Bacteria
 - Animal
 - Humans
 - Minerals

27. Great Leap Forward (GLF) was the campaign launched in China in : [1]
- 1956
 - 1958
 - 1962
 - 1968

28. Compare and analysis the given data with valid reasons. [3]

Country	Annual growth rate of population (2015)	Gender ratio (per 1000 males)
India	1.2	929
China	.5	941
Pakistan	2.1	947

OR

What similar developmental strategies have India and Pakistan followed for their respective developmental paths?

29. Why the percentage of female workers are lower in urban areas? [3]
30. Both economic and social infrastructure are crucial for economic development of a country. Do you agree? Give reason in the support of your answer. [4]

OR

It is observed that growth in GDP has not been very effective in tackling the problem of poverty in India. What measures do you suggest to overcome the problem?

31. Agriculture sector appears to be adversely affected by the reform process. Why? [4]
32. Though the public sector is very essential for industries, many public sector industries incur huge losses and are drain on the economy's resources. Discuss the usefulness of public sector undertakings in the light of this fact. [4]
33. Define agriculture marketing. Discuss the principle measures initiated by government to improve marketing system for the farmers in India? [6]

OR

Critically evaluate the role of rural banking system in the process of rural development in India.

34. Briefly explain the three-dimensional attack on Poverty. Critically evaluate the results of poverty alleviation programmes implemented in India since independence. [6]



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

PRE BOARD - I EXAMINATION (2020-2021)

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 1mark and should be answered in one 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 4 sub-parts. Attempt any sub-parts from each question.
4. Section C: Answer to questions carrying 3 marks (question 20 to 23) should not exceed 100 words each.
5. Section D: Answer to questions carrying 8 marks (Questions 24 to 26) should not exceed 350 words each.
6. Section E : question number 27 to 29 are source-based questions carrying 5marks each.
7. Section F : Question number 30 is a Map question that includes the identification and location of significant test items. Attach the map with the answer book.

Section - A

Attempt any 15 questions

1. The artisans of Harappa civilisations used carnelian for making jewellery. From where it was obtained?
2. Define Relief of Lucknow
3. Read the following information and mention the context in which the statement is connected.
“The rulers of Vijayanagara drew on different traditions to create an imperial culture.”
4. Which among the following, appropriately define the term Yavana?
 - a. The early port city in Eastern India used for trading with South Asian countries.
 - b. The early kingdom in Jammu and Kashmir
 - c. Term used to denote tribal people
 - d. Sanskrit word used for the Greeks and other people who entered the sub continent from the North-West

5. Which school of art was influenced by Hellenistic style of art in India?

6. Correct the following statement and rewrite it

The Punjab province was epicentre of the Revolt of 1857, it was also known as the Nursery of Bengal Army.

7. At whose court did Humayun take refuge after the defeat at the hands of Sher Shah Suri?

- a. Mongols
- b. Afghans
- c. Timurids
- d. Safavid

8. What was the significance of Mahanavami Dibba in Vijayanagara?

9. Differentiate between Alvars and Nayanars

10. Choose the correct option

Assertion (A) Travellers from different parts of the world visited the Vijayanagara Empire.

Reason (R) :Krishnadevaraya's work Amuktamalyada advised kings to take care of foreign sailors and travellers.

Codes

- 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 not false
- d. A is false, but R is true.

11. The didactic sections of Mahabharata added in 200-400 CE largely resemble which ancient text?

- a. Sutta pitaka
- b. Manusmriti
- c. Dharmashastra
- d. Upanishad

12. ---- was the Viceroy of India when the Revolt of 1857 happened.

13. Define the term Maktubat.

14. Match the following

	List I	List II
A	Chaitanya	Rajasthan
B	Basavanna	Bengal
C	Mirabai	Punjab
D	Baba Guru Nanak	Karnataka

Codes

A B C D

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

15. Consider the following statements regarding paintings of Ajanta caves.

1. They depict tales from Ramayana
2. Paintings are three dimensional
3. They have naturalistic quality and used shading techniques
4. They depict stories of major characters of Mahabharata.

Which of the following statements are correct?

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

16. Who among the following represented 'Tribals' in the constituent Assembly

- a. Jaipal Singh
- b. NG Ranga
- c. B R Ambedkar
- d. Budhu Bhagat

Section B

17. 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 a salutation there, or perfume... or make a salutation there, or become in its presence calamity of heart, that shall long be to them for a profit and joy.”

- i. What is the main theme of Sutta Pitaka? (1)
- Buddha’s teaching
 - Monastic rules of conduct for monks and nuns
 - Collection of Buddhist philosophy
 - Stories from previous births of Buddha.
- ii. Which among the following best describes the messages of Buddha to Anand
- Honour and follow the doctrine laid down by Buddha
 - Worship Buddha as incarnation of God and erect structures for him (stupa)
 - Discover your own path through right
 - None of the above
- iii. Choose the correct option
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.
- 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 not false
 - A is false, but R is true.
- iv. Stupa in Buddhism is considered sacred, it depicts
- Place of residence for monks and nuns.
 - Prayer hall
 - Place where relics of Buddha and other saints were kept
 - Temples depicting scenes from buddha’s life

18.

Study this Mughal painting entitiled Jahangir's dream carefully and answer and three of the following questions by choosing the correct option :



- i. This painting in which 'Jahangir is shooting the figure of poverty's suggests
 - a. Emperor's quest for welfare of all
 - b. Emperor's love for hunting and archery
 - c. Propagation of message of divine theory of kingship
 - d. None of the above
- ii. In the given painting, what does the dark cloud represents?
 - a. Symbolism of enemies of mughals.
 - b. Symbolism of poverty
 - c. Internal challenges faced from Mughal nobilities
 - d. Prevalance of superstition among the rulers of Mughal Empire.
- iii. The angle shown in paintings most correctly resemble.
 - a. Power of the Mughal Kings came directly from God.
 - b. Passage of divine lights to the Mughal Kings
 - c. Painters attempt to depict Emperor as all encompassing and powerful.
 - d. All of the above
- iv. Motive of the lion and lamb was regularly used in Mughal paintings, the main reason behind it was :
 - a. Justice was among highest virtue in Mughal empire and this motif represented Peaceful existence of both strong and weak
 - b. Jehangir and other Mughal Kings were fond of hunting and this motive represented for now violent in the empire
 - c. Embarras had responsibility to protect we can treat everyone as equal
 - d. Both a and c

19. Study this extract regarding debate on separate elect rates for depressed classes and answer any three of the following questions:

In response to Mahatma Gandhi's opposition to the demand for separate elect rates for the depressed classes, Ambedkar wrote:

Here is a class which is undoubtedly not in a position to sustain itself in the struggle for existence. The religion, to which they are tied, instead of providing them an honourable place, brands them as lepers, not fit for ordinary intercourse.

Economically, it is a class and entirely dependent upon the high-caste Hindus for earning its daily bread with no independent way of living open to it.

Nor are always closed by reason of the social prejudices of the Hindus but there is a definite attempt all through our Hindu society to bold every possible door so as not to allow the depressed classes any opportunity to rise in the scale of life.

In these circumstances, it would be granted by all fair minded persons that as the only path for a community so handicapped by to succeed in the struggle for life against organized tyranny, some share of political power in order that it may protect itself is a paramount necessity.

- i. Choose the correct option :
- Assertion(A): Gandhiji was against the idea of separate electorate for the depressed classes.
Reason(R):He believed that it would permanently segregate the depressed classes from the mainstream of the society.
Codes
- 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 not false
d. A is false, but R is true.
- ii. What was the main reason behind poor social status of depressed classes?
- a. They were of unsound mind and uneducated
b. They were economically dependent on upper classes for their survival.
c. Upper class is blocked every avenues for their growth
d. Both (b) and (c)
e.
- iii. Why did doctor BRM Baker believe that separate electorates will be beneficial for growth and development of depressed classes?
- a. It will render political voice to them.
b. It will organize them into politically aware and the growth conscious community.
c. It will undo the historical injustice meted out to them.
d. All of the above.

- iv. The main difference between the arguments of BR ambedkar and Gandhi on separate electric was:
- Gandhiji argued for the destruction of untouchability and was against separate electorates whereas ambedkar believed that it will give political voice and representation to the depressed classes.
 - Gandhiji was more keen on inclusive development of all whereas ambedkar demanded exclusive rights for depressed classes.
 - Both a and b
 - None of the above

Section - C

- List of some of the problems faced by epic graphist.
- Explained, how the constraint assembly reflected the diversity of the people of India and their opinions.
- What was Damin-i-koh? How it came into being?
- What do you think the advantages and disadvantages of enclosing agricultural land within the fortified area of the city of Vijayanagara ?

Section D

- In the history of nationalism, Gandhiji was often identified with the making of a nation. Describe his role in the freedom struggle of India.
- Discuss with examples how Patti and Sufi St promoted the development of regional language?
- Explain the system of land grants and trade from 600 BCE to 600CE.

Section E

- Read the passage given below and answer the following questions.

The Mughal Nobility

This is how Chandra bhan Barahman described the Mughal nobility in his book Char Chaman(Four Gardens), written during the reign of Shah Jahan. People from many races (Arabs, Iranians, ducks, tajiks, cards, tatars, Russians, abyssinians, and so on)Ann from many countries(Turkey, Egypt , Syria, Iraq, Arabia, Iran, Khurasan, Turan)-In fact, different groups and classes of people from all societies- have sought refugee in the Imperial court, as well as different groups from India, men with knowledge and skills as well as warriors for example, Bukharis and Bhakkaris, Saiyyads of genuine lineage, Shaeikhzdas with Noble ancestry, Afghan tribes such as the Lodis, Rohillas, Yusufzai, and Casts of rajputs, who were to be

addressed to us Rana, Raja, Rao and Rayan i.e Rathor, Sisodia Kachhwaha, Hada, Gaur, Chauhan, Panwar, Bhaduriaya, Solanki, Bundela, Shekhawat, And all the other Indian tribes such as Ghakkar, Khokar, Baluchi, and others Who wielded the sword and mansabs from 100 to 7000 zat, likewise land owners from the steppes and mountains, from the regions of Karnataka, Bengal, Assam, Udaipur, Srinagar, Kumaon, Tibet and Kistwar And so on whole tribes and groups of them have been privileged to kiss the threshold of Imperial court (i.e. Attend the court or find employment).

- i. Name the different races and countries from where people came to Mughal court. (1)
- ii. List of the different groups in India who sought refuge in Mughal court? (2)
- iii. What was the rank of mansabs as described in the passage? List Afghan tribes and Rajputs caste mentioned in the passage (2)

28. Read the passage given below and answer the following questions.

Rules for monks and nuns

These are some of the rules laid down in the vinaya pitaka:

When a new felt (blanket/ rug) has been made by a bikku, it is to be kept for at least six years. If after less than six years he should have another new felt(blanket/rug) made, regardless of whether or not he has disposed of the first, then unless he has been authorized by the bhikkus it is to be forfeited and confessed.

In case of BQ arriving at the family residence his presented with cakes or cooked grain meal, he may accept two or three bowlful if he so desires.

If he should accept more than that, it is to be confessed. Having accepted the two or three bowlful an having taken them from there, he is to share them among the bhikkus . This is the proper course here. Should any bhikku, Having set out bedding in a lodging belonging to the sangha or having had it set out and then on departing neither put it away nor have it put away or should he go without taking leave it is to be confessed.

- i. What is Vinay pitaka? Explain its importance. (1)
- ii. Why do you think men and women joined sanga? Give two reasons. (2)
- iii. What was the both sangha? Mentioned 2 rules laid by the sangha that should be observed by the bhikkus. (2)

29. Read the passage below and answer the following questions.

Maulvi Ahmadulla Shah

Was one of the main malvis who played an important part in the revolt of 1857. Educated in Hyderabad, he became a preacher when young. In 1856, he was seen moving from village to village preaching jihad, religious war, against the British and urging people to rebel. He moved in a palanquin , with drum beaters in front and followers at the rear.He was therefore popularly called Danka Shah the maulvi with the drum(danka).British

officials panicked as thousands began following the maulvi and many Muslims began seeing him as an inspired Prophet.

When he reached Lucknow in 1856, he was stopped by the police from preaching in the city. Subsequently, in 1857, he was jailed in faizabad. When released he was elected by the mutinous 22nd native infantry as their leader.

He fought in the famous battle of chinhut in which the British forces under Henry Lawrence were defeated. He came to be known for his courage and power. Many people in fact believed that he was invincible, had magical powers, and could not be killed by the British. It was this belief that partly formed the basis of his authority.

- | | | |
|------|---|---|
| i. | Who was Maulvi Ahmaddulla Shah? | 1 |
| ii. | Why was maulvi ahmadullah Shah was popular? | 2 |
| iii. | Which battle was fought by him? What important information the passage conveyed to you? | 2 |

Section F

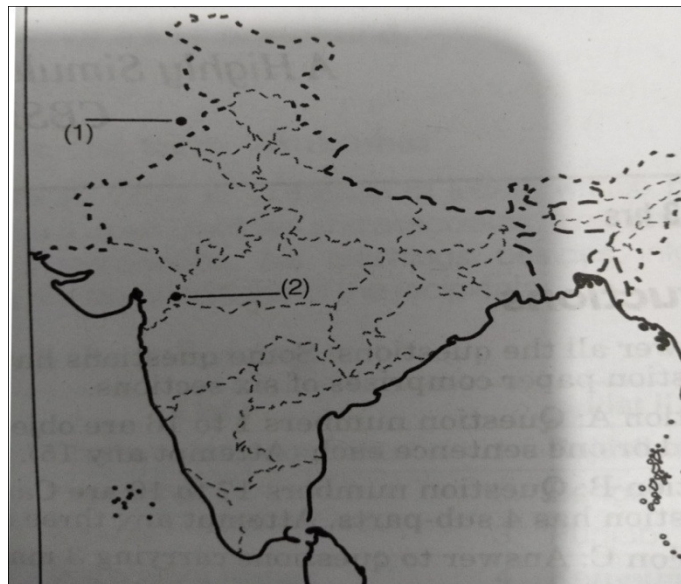
30.

30.1

- i. Name the First Capital of magadha
- ii. Most famous stoupa placed in madhyapradesh
- iii. The place of launch of the Dandi March

30.2

Identify the two places under Babur.





DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
PRE BOARD - I EXAMINATION (2020-21)

Class:- XII
Time:- 3 Hrs.

Subject:- Political Science
F. M:- 80

General Instructions:-

- a) All questions are compulsory.
- b) Section a has 16 objective type questions of one mark each.
- c) Section B has 2 passage based question 17 and 18 having multiple choice questions of one mark each
- d) Section C Question number 19-22 carries 2 marks each answer to this question should not exceed 40 words each
- e) Section D Question number 23-27 carries 4 marks each. Answer to this question should not exceed 100 words each
- f) Section E Question number 28-29 pertain to map and cartoon questions carrying 5 marks each to be answered accordingly.
- g) Section F Question number 32-30 to carry 6 marks each. Answers to these questions should not exceed 150 words each.

SECTION - A

1. Which of these statements about the nature of coalition politics after 2014 elections is correct:
 - a) From one party led coalition to multi party coalition.
 - b) From multiparty coalition to one party led dominated coalition.
 - c) From one party led coalition to one party dominated coalition
 - d) From 2 party led coalition to one party dominated coalition
2. The 2 provinces which were divided by the partition of India and Pakistan were....
 - a) Punjab and Bengal
 - b) Delhi and Punjab
 - c) Madras and Delhi
 - d) Bengal and Madras
3. The 2 countries of South Asian region which have to retain their Democratic tradition since independence are.....
 - a) India and Sri Lanka
 - b) India and Pakistan
 - c) Maldives and Sri Lanka
 - d) Bangladesh and Sri Lanka

4. What does the European Union flag stands for?
 - a) It stands for unity among the European people.
 - b) It stands for peaceful harmony among the European people.
 - c) It stands for completeness among the European people.
 - d) It stands for fraternity among the European people.

5. The signatories of limited test ban Treaty of 1963 are...
 - a) USA, UK, USSR
 - b) UK, USA, India
 - c) South Africa, UK, USA
 - d) India, USA, China

6. Who was the cofounder of NAM?
 - a) Jawaharlal Nehru
 - b) Sardar Vallabhai Patel
 - c) Mahatma Gandhi
 - d) BR Ambedkar

7. Choose the wrong statement:
 - a) The difficulties in the relationship between governments of India and Sri Lanka are mostly over ethnic conflict in the island nation
 - b) India signed a free trade agreement with Sri Lanka
 - c) India's help in post tsunami reconstruction in Sri Lanka has also brought the 2 countries closer
 - d) India's security agencies see the Maoists movement in Sri Lanka as a growing security threat.

8. Soviet union political system was based
 - a) Capitalism
 - b) Liberalism and free economy
 - c) Socialism and communism
 - d) Privatization

9. The United progressive alliance led by Congress in 2004 and 2014 was under the leadership of.....
 - a) HD DeveGowda
 - b) Manmohan Singh
 - c) PV Narasimha Rao
 - d) IK Gujral

10. What does the 12 stars of European flag symbolise?
- a) It's symbolises fraternity
 - b) It's symbolises perfection
 - c) It's symbolises completeness and unity
 - d) Both a and b
11. SAARC began in the year.....
- a) 1982
 - b) 1983
 - c) 1985
 - d) 1986
12. Which one of the following statements related to Iraq invasion by us is incorrect?
- a) More than 40 other countries were involved in this invasion
 - b) The UN had given consent to invade Iraq
 - c) The invasion was to prevent Iraq from developing weapons of mass destruction
 - d) The US has lost 3000 military personnel in war
13. ILO was founded in...
- a) October 1920
 - b) October 1919
 - c) October 1921
 - d) October 1922
14. Which political party has won the biggest number of seats in the lower house since 1984 elections?
- a) Congress party
 - b) Bhartiya Janata Party
 - c) United front
 - d) National Front
15. Which party dominates the political affairs of Maldives?
- a) Maldivian Democratic Party
 - b) Awami League
 - c) 7 party alliance
 - d) None of the above

16. Arrange the following in chronological order:

- 1) Establishment of ASEAN
 - 2) Establishment of European Union
 - 3) Establishment of ASEAN Regional Forum
 - 4) Establishment of Organisation for European Economic Cooperation
- a) 2,1,3,4
 - b) 4,1,2,3
 - c) 3,1,2,4
 - d) 2,4,1,3

SECTION - B

17. Read the given passage and answer the questions mentioned below the paragraph.

Indira Gandhi change the Congress into highly centralised and undemocratic party organization, from the earlier federal, Democratic and ideological formation that Nehru had led....But this....could Not have happened had Indira Gandhi not change the entire nature of politics. This new populist politics turned political ideology....Into a mere electoral discourse use of various slogans not meant to be translated into government policies..... During its great electoral victories in early 1970s amidst the celebration, the Congress party died as a political organization.

- I) Which political leader change the Congress into a highly centralised and undemocratic party organization?
 - a) Lal BahadurShastri
 - b) Ram ManoharLohia
 - c) Indira Gandhi
 - d) K. Kamraj

- II) What according to the author is the difference between the strategies of Nehru and Indira Gandhi?
 - a) Nehru let the Congress into federal Democratic and ideological nature whereas Indira Gandhi led it into a highly centralised and undemocratic party.
 - b) Nehru let the Congress into a charismatic way whereas Indira Gandhi led into a decentralised party
 - c) Nehru let the Congress in a Democratic manner whereas Indira Gandhi led in an undemocratic manner.
 - d) All of the above

- III) In which year we can say that Congress almost died as a political organization?
- a) Early 1960s
 - b) Early 1970s
 - c) Early 1980s
 - d) Early 1990s

18. Read the given passage and answer the questions mentioned below the paragraph.

The disintegration of the USSR and the formation of Commonwealth of independent states CIS was declared and the Central Asian republics were made the founding members of CIS, which was a critical issue. Russia was now accepted as the successor state of Soviet Union and inherited the Soviet seat in the United Nations Security Council and also accepted the international treaties and commitments of the Soviet Union.

Russia took over as the only nuclear state of post Soviet space and carried out some nuclear disarmament measures with us due to which old Soviet Union was dead and buried. Internal weakness of Soviet political and economic institutions failed to meet the aspirations of the people. This was the major reason for disintegration of Soviet Union.

Another reason for the collapse of USSR was the rise of nationalism and the desire for sovereignty within various republics including Russia and Baltic republics. The Soviet Union became stagnant due to rampant corruption, unwillingness to allow more openness in government and decentralization of authority's in a vast land.

- I) Which state was accepted as a successor state of Soviet Union?
- a) Czech Republic
 - b) Russia
 - c) Estonia
 - d) Ukraine
- II) Who were the founding members of the CIS after the disintegration of USSR?
- a) Central Asian republics
 - b) Baltic republics
 - c) Ukraine
 - d) Estonia
- III) What was the major reason responsible for the disintegration of Soviet Union mentioned in the passage?
- a) The rise of nationalism and desire for sovereignty.
 - b) Internal weaknesses of Soviet Union and its political and economic institutions failed to meet aspirations of people
 - c) Economic stagnation for many years led to severe consumer shortages
 - d) Rampant corruption and unwillingness to allow more openness

- IV) Why Soviet Union became stagnant?
- Due to rampant corruption
 - Unwillingness to allow more openness in government
 - Centralization of authority
 - All of the above

SECTION - C

- How the era of multiparty system leads to the era of coalition at the center?
- Why were the states reorganised on linguistic basis in India in 1956?
- Does globalization leads to cultural homogenization or cultural heterogenisation or both? Justify.
- Discuss the role played by syndicates in the Congress party.

OR

What does defection stand for in Indian politics? Highlight any two demerits of this practise.

SECTION - D

- Explain the philosophy of integral humanism given by Deendayal Upadhyay.
- Explain any four conflicts during the presidential election of 1969
- Describe any 2 developments witnessed by India after 1990

OR

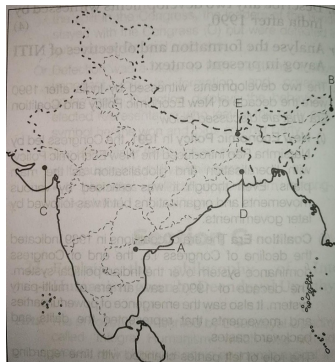
Analyse the formation and objectives of NITI Aayog in present context.

- Analyse the circumstances that you think were responsible for the declaration of emergency in 1975.
- How we can say that Russia has emerged as a new centre of power in the 21st century.

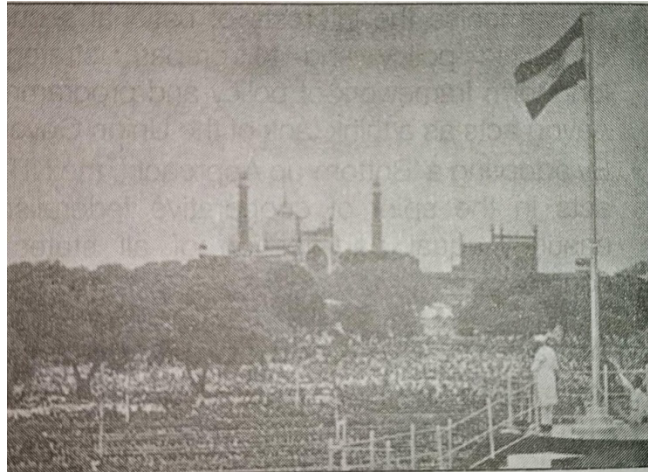
SECTION - E

- In the given map of India five states have been marked as A, B, C, D and E. Identify these states on the basis of the information given below and write their correct names in respective serial number. Information given about the Lok Sabha election results 1977.

- The state where Indian National Congress was in majority
- The state where Janata Party was in majority
- The state where other parties were in majority
- The state where left parties were in majority
- The mountainous state where Indian National Congress won all the seats



29. Study the following picture and answer the questions that follow.



- I) With which occasion the above pictures concerned? In the picture who is addressing to whom and from where? (2)
- II) Why that day is called a "Red Letter's Day" in Indian history? (2)
- III) In which circumstances India was born on the historical day? (1)

SECTION - F

30. Assess the 4 principles of India's foreign policy. In the post Cold War era what is the nature of India's foreign policy?

OR

What are the 3 Democratic upsurge that emerged in the post independence history of India? Explain.

31. What is Cold War? Why did the Super powers depend on military alliances with small countries during the Cold War?

OR

Assess India's role in non aligned movement.

32. State the political implications or impacts of globalization.

OR

Explain the establishment and objective of UNESCO, UNICEF and ILO in detail.



DELHI PUBLIC SCHOOL

SAIL TOWNSHIP, RANCHI

PRE BOARD- I EXAMINATION (2020-2021)

Class:- XII
Time:- 3 Hrs.

Subject:- Sociology
F.M. :- 80

General Instructions: -

1. The question paper is divided into four sections.
2. There are 35 questions in all. All questions are compulsory.
3. Section A includes question No. 1-16 . These are objective type questions.
4. 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.
5. Section C includes question No. 26 to 32. These are short answer type questions Carrying 4 marks each .Answer to each question should not exceed 80 words . Question 26 and 27 are case based questions with 4 parts each carrying 1 mark , making the question of 4 marks each.
6. Section D includes question No. 33 -35. They are long answer type questions carrying 6 marks each. Answer to each question should not exceed 200 words each. Question No. 35 is to be answered with the help of the passage.

SECTION---A

1. Mark the statement as True or False:

A rising dependency ratio can be a source of economic growth and prosperity due to the larger proportion of non-workers relative to workers.

2. Famines were caused by high levels of continuing poverty and malnutrition in an agro- climatic environment. Scholars like Amartya Sen has added the cause
 - A. Variation in rainfall
 - B. Inadequate efforts on the part of State
 - C. Lack of adequate means of transport
 - D. Failure of Entitlement

3. The hierarchical ordering of caste is based on the distinction between-
 - A- Material power and spiritual power
 - B. Complementary and Non Complementary
 - C. Purity and Pollution
 - D. Low status and High status
4. Jotirao Govindrao Phule denounced the injustice of the caste system. In 1873 he founded ----- which was devoted to securing Human rights.
5. National Development particularly in the Nehruvian era has benefited the main stream at the expense of the tribes.
Choose the incorrect statement.
 - A. Loss of forest led to displacement
 - B. Heavy In- migration of Non -tribals
 - C. Rise of Job opportunities
 - D. Accelerated the process of exploitation

OR

The positive impact of successes such as the----- for Jharkhand and Chhatisgarh after a long struggle is moderated by continuing problems.

6. The term Prejudice Literally means 'Pre-Judgement' . That is-----
 - A. Essentially negative pre-judgement
 - B. Often based on hearsay rather than on direct evidence.
 - C. An opinion formed after considering available evidence
 - D. Prejudices are not resistant to change in the face of new information.
7. Choose the wrong statement.
'Policies that promote assimilation are aimed at'---
 - A. Persuading, Encouraging or Forcing all citizens to adopt a uniform set of cultural values and norms.
 - B. These values and norms are usually entirely or largely those of the dominant social group.
 - C. Other Non- dominant or subordinated groups are expected to give-up their own cultural values
 - D. Public culture be restricted to a common national pattern

8. One of the characteristic feature of the communalism is its claim that -----
identity overrides everything else.
9. In Max Weber's Well known definition ---
- A. A body that successfully claims a monopoly of legitimate force in a particular territory'.
 - B. A nation is a sort of large-scale community- it is a community of communities
 - C. A nation is a peculiar sort of community that is easy to describe but hard to define.
 - D. Nations are communities that have a state of their own.
10. Unlike Britain where the impact of industrialization led to more people moving into urban areas, in India the initial impact of the same British industrialization led to more people moving into-----.
11. Devaki recalls that when she was small, in her house boiled eggs were eaten in eggcups and her mother would make the porridge and serve it separately on the table with the hot milk and sugar, to be mixed in each person's bowl.
This way of living explicit—
- A. Modernisation
 - B. Westernisation
 - C. Sanskritisation
 - D. Colonial encounter

OR

Within India , social reformers from Punjab and Bengal exchanged ideas with reformers from Madras and Maharashtra . Keshav Chandra Sen of Bengal visited Madras in 1864. Pandita Ramabai travelled different corners of the country.

This reflects following aspect of modern framework of change in colonial India---

- A. Modern society Organisation
 - B. New ideas of Liberalisation and freedom
 - C. Modes of communication
 - D. Interpretation of sacred texts.
12. The spate' of farmers' suicide that has been occurring in the different parts of the country since 1997-98 can be linked to the 'agrarian distress' caused by structural changes in economic and agricultural policies.

Which one of the following is not included in these changes ?

- A. The changed pattern of Landholdings
- B. Changing cropping pattern
- C. Improved irrigation facility
- D. Liberalisation policy

13. Globalisation of agriculture allowed the entry of multinationals as sellers of inputs . This has led to the increased dependence of farmers on expensive fertilizers and pesticides. Which has---

Choose the incorrect statement.

- A. Reduced their profit
- B. Put many farmers in to debt
- C. Exposed global market for them
- D. Created an ecological crisis in rural area

14. Commercialisation of agriculture has been linked to the growth of migrant agricultural labour. Migrant workers come mainly from drought -prone and less productive regions. These migrant workers have been termed as-----

15. "What I object is the craze for machinery , not machinery as such. The craze is for what they call labour-saving machinery. Men go on 'saving labour' till thousands are without work and thrown on the open street to die of starvation. -----wrote these lines?

16. Social movements often arise with the aim of bringing about changes on a public issues. While social movements seek to bring in social change,-----sometimes arise in defence of status quo.

SECTION--B

17. The state-level child sex ratio odder even greater cause for worry. As many as six states and union territories have a child sex ratio of under 900 females per 1000 males. Punjab is the worst off with an incredibly low child sex ratio of 793 (the only state below 800), followed by Haaryana, Chandigarh, Delhi, Gujarat and Himachal Pradesh.

State the major causes responsible for low child sex ratio.

OR

Among the most famous theories of demography is the one associated with the English political economist Thomas Robert Malthus (1766- 1834). Malthus's theory of population growth- outlined in his Essay on Population (1798)- was rather a pessimistic one.

On what grounds Malthus's theory was criticized by liberals and Marxist scholars ?

18. Discuss the features of Caste- system.
19. What is the co-relation between disability and poverty?
20. What are different kinds of social resources? Explain.
21. What is Regionalism?

OR

Who are Minorities in the sociological sense?

22. What is secularization of caste ?
23. How is there a close connection between agriculture and culture ?
24. What are the risk factors associated with mining sector workers ?
25. What are the distinct modes of protest ?

SECTION--C

26. Read the given passage and answer the questions that follow the passage.

Scholars have agreed that all major social institutions and specially the institution of caste underwent major changes during the colonial period. In fact , some scholars argue that what we know today as caste is more a product of colonialism than of ancient Indian tradition. Not all of the changes brought about were intended or deliberate. Initially, the British administrators began by trying to understand the complexities of caste in an effort to learn how to govern the country efficiently. Some of these took the shape of very methodical and intensive surveys and reports on the 'customs and manners ' of various tribes and castes all over the country.

1.The census became a regular ten yearly exercise conducted by the British -Indian government from----- onwards.

- A. 1861
- B. 1871
- C. 1881
- D. 1891

2. Scholars feel that this kind of direct attempt to count caste and the officially record caste status changed the institution itself. Earlier caste identities had been----

A. Much more fluid and less rigid

B. Much more rigid and less fluid.

C. Flexible yet to some extent rigid

D. Based on equality

3. Many British administrative officials were also amateur-----and took great interest in pursuing such surveys and studies.

A. Excavators

B. Historians

C. Anthropologists

D. Ethnologists

4. The Government of India Act of 1935 gave legal recognition to the lists or scheduled castes and tribes. All the so-called -----castes were included among the scheduled castes.

A. Shudras

B. Untouchables

C. Low and backward

D. Socially backward

27. Read the given passage and answer the questions that follow the passage.

Gohana is a small, Dusty town on the Sonapat- Rohtak highway of Haryana with billboards promising progress...Past the town squire , Gohana's largest dalit neighbourhood ,Valmiki Colony, has risen from the ashes. On 31 August 2005 it was looted and burnt by a mob of Jats after a Jat youth was killed in a scuffle with some dalit youngsters. Dalits had fled their homes fearing attacks by Jats after the murder; the patrolling police had chosen not to stop mobs from torching 54 dalit houses.

1. From the pre- independent struggles and movements to contemporary political organizations like the -----Dalit political assertion has come a long way.

A. Bahujan Samaj Party

B. Jan Pratinidhi Party

C. Rashtriya Janta Dal

D. Samajvadi party

2. To End, Prohibit and Punish caste discrimination especially untouchability ,one of the earliest law passed is-----
 - A. Prevention of Atrocities Act
 - B. Caste Disabilities Removal Act
 - C. Humiliation of Dalits Act
 - D. 93rd Amendment Act

3. Reaction of Dalit Youth after Gohana incidence reflects---
 - A. Fear of High caste
 - B. Submission to Jats
 - C. Accepted the status quo
 - D. Defiance of caste hierarchy

4. The Police administration simply watched their houses burn . As police was dominated by the---
 - A. Dalits
 - B. Jats
 - C. Outsiders
 - D. Scavengers

28. Explain the basic argument of the Theory of the Demographic Transition. Why is the transition period associated with a 'Population Explosion'.

29. What is Community Identity and how is it formed?

OR

What is Civil Society? Mention its role and significance

30. Explain M.S.A. Rao's three levels of Urbanisation observed in independent India.
31. Colonialism in India introduced a wide array of changes leading to structural changes. Explain.
32. Describe the Regional inequalities created due to the Green Revolution Programme.

SECTION---D

33. Vast Cultural Diversity is successfully accommodated in India. Justify.
34. What is the basic task of the manager? How can he make the workers more productive.

OR

How has Liberalisation affected employment pattern in India?

35. Read the given passage and answer the questions that follow the passage.

Sociologists attempt to classify Dalit Movements have led them to believe that they belong to all types, namely reformatory, redemptive, revolutionary.

...the anti-caste movement which began in the 19th century under the inspiration of Jotiba Phule and was carried out in the 1920s by the non-Brahmin movements in Maharashtra and Tamilnadu and then developed under the leadership of Dr. Ambedkar had characteristics of all types. At its best it was revolutionary in terms of society and revolutionary in terms of individuals. In partial context, the 'post Ambedkar Dalit movement' has had revolutionary practice.

- A. Identify the reasons why the Dalit movement can be termed reformist as well as redemptive. (4)
- B. Name two Dalit leaders who struggled for the upliftment of Dalits. (2)



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
PRE BOARD - I EXAMINATION (2020-21)

Class:- XII
Time:- 3 Hrs.

Subject:- Entrepreneurship
F. M:- 70

General instructions:-

1. There is no overall choice, though internal choice is given.
2. Read the question carefully before attempting.

1. Bhavna started a pottery unit employing differently abled people to make and sell sculptures 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 |
|------------|-------------------|----------------|----------|

2. _____ 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 |
|---------------|----------------|---------------|-------------------|

3. A merger between Coca-Cola and Pepsi beverage division is an example of _____.

(a) Vertical Merger	(b) Horizontal Merger
(c) Product extension merger	(d) None of these

[1]
4. Find the Odd one out from the following:

(a) Accounts Receivables	(b) Short Term Investments
(c) Prepaid Insurance	(d) Outstanding Expenses

[1]
5. 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]

6. Calculate ROI from the following information:

Net Profit after Interest and Tax is Rs. 6,00,000; Interest on Long term borrowing is Rs. 1,00,000; Capital employed is Rs. 80,00,000; Tax Rs. 4,00,000 [1]

- (a) 7.5% (b) 8.75%
(c) 13.75% (d) None of these

OR

On a particular day, a super market sells 1,000 different products of different prices to 50 customers . The cost of goods sold is Rs. 1,50,000 and the Total billed amount is Rs. 1,75,000. The unit price of the super market is _____

- (a) Rs. 3,500 (b) Rs. 3,000
(c) Rs.175 (d) Rs.150

7. 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]

8. 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]

OR

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

9. After assuming the future demand, every company needs to determine when to place an order for stock and how much to order. This can be calculated using _____ formula. [1]

OR

Gross profit per unit is calculated by using the formula _____

10. The merger between the Walt Disney Company and the American Broadcasting Company is an example of _____ merger. [1]
11. _____ is the first stage in the process of innovation. [1]

OR

_____ is a convenient frames of reference for streamlining the ' Process of generation of ideas'.

12. Reema was manufacturing beauty products and was always on the lookout to improvise her products. She used social media and online surveys to understand the latest trend in customer needs and overall in cosmetics industry. Through the surveys, she understood that the customers prefer natural ingredients like multani mitti or neem in place of chemicals in the beauty products.

Responding to customers' needs, she developed "Multani Mitti cum Neem Face Pack" in an attractive package. It was highly priced as she knew that the customers will be ready to pay the price for the quality. Her face pack was an instant success.

Identify the way in which Reema spotted this trend.

- (a) Read trend
 - (b) Talk trend
 - (c) Think Trend
 - (d) None of these
- [1]

13. Urvasi, a graduate of Horticulture from Kurukshetra University came across a barren land near Solan when she visited this place. Urvasi was fond of strawberries and was inquisitive to understand the reason why strawberries could not be grown there. She took this as a challenge and believed in its success. Best quality strawberries now mark the beauty of that barren piece of land.

Identify the idea field from where the idea has been generated from the following.

- (a) Trading Related
 - (b) Natural Resources
 - (c) Service Related
 - (d) None of these
- [1]

14. Identify the type of advertising depicted in the image given below:



- (a) Point of sale
- (b) Ambient
- (c) Direct Mail
- (d) Online

[1]

OR

In which of the following types of branding, either the entrepreneur's name or the company's name may be used for all the products.

- (a) Umbrella Branding
- (b) Family Branding
- (c) Both (a) and (b)
- (d) Neither (a) nor (b)

State True or False for the following statements: (Q.No.15-18)

15. During Mergers and Acquisitions the value of the combined entity is expected to be greater than the sum of the independent values of the merging firm. [1]

OR

A Public Company takes over a Private Company is an example of Reverse Acquisition.

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. [1]
17. Carrying cost refers to the total cost of holding inventory which includes interest, space cost, insurance etc. [1]
18. A summary of the projected assets, liabilities and net worth of the entrepreneur is depicted through pro forma balance sheet. [1]
19. Procurement of "right person, at right job, at right time" is the objective of _____ plan. [1]
20. 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]

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]

OR

Harsha started her herbal beauty products shop in Chandigarh with a capital of Rs. 9,00,000. She took a loan of Rs. 5,00,000 from the State Bank of India at 9% p.a. interest. During the year ended 31st March, 2019 her sales were Rs. 20,90,000 and the cost of goods sold was Rs. 15,30,000. She paid monthly rent of the shop Rs.11,000 and a monthly salary of Rs. 25,000 to the employees. The Tax rate is 30%. Calculate the Return on Equity.

28. Differentiate between Private Limited company and Public Limited Company.(On the basis of any 3 points) [3]
29. Praveen started a school bag business with his brother. Both were very excited about the new venture. With meticulous planning and a lot of hard work they were able to sell 1,000 bags in the first year. But they did not earn any profit. Both were happy because they were not at loss and revenue generated was equal to the cost. Now they were moving towards earning profit in the second year.
- (i) Identify the component of financial plan discussed above.
- (ii) By giving any four points, state how this component is useful for the entrepreneur. [3]
30. In addition to 'number of persons', 'Profit sharing' and 'agreement', there are various other features of Partnership. Explain any Four such factors. [4]

OR

Why is a business plan valuable for an entrepreneur? Explain with the help of any Four points.

31. Bright lights Private Limited started a business of making three varieties of bulbs. From the following information, calculate Break-Even for the three varieties of bulbs for the company in units.

Particulars	LED Bulbs Zero watt (Rs.)	LED Bulbs 10 watts (Rs.)	LED Bulbs 20 Watts (Rs.)
Sales Price	80	45	60
Variable Cost	40	15	20
Sales Mix	50%	20%	30%

Fixed Costs for the Production Process is Rs. 76,000. [4]

32. Slurppy is a new mixed fruit juice introduced by Amit Beverages Ltd. The mixed fruit juice has been fortified using various vitamins and minerals. The company designed a unique package for the product which made it very attractive. Their sales figures were an indication of their success.

In order to capture huge market share, they decided to give exclusive rights to retailers to manufacture and sell the product to the public.

Identify and explain this concept. State any three advantages of the same to Amit Beverages Limited. [4]

33. Source based question:

Nike Inc. is a good example of a business that uses different kinds of communications to attract customers.

Nike Inc. uses celebrities to represent the ideal customer or consumer of its products. Target customer see that their favourite celebrities use Nike's products. As a result, these customers become motivated to purchase and use these products.

Nike's store personnel are trained to provide assistance to customers. Customer experience is enhanced because of trained assistance and persuasion from sales personnel. Customers feel empowered in making informed buying decisions. This tactic helps make customer feel good about the products they buy from the company.

The company approaches and promotes its products to sports organizations in colleges and universities to develop loyalty among target customers and motivate them to purchase the company's products. Nike usually motivates new customers by giving additional benefits/special offers to target customers.

Nike implements a way of addressing social issues linked to its business. For example, the company experiences social pressure regarding the use of Sweat shops as well as pressure to improve green technology integrations in the business. Many of these issues are included among the considerations in developing Nike Inc.'s corporate social responsibility strategy and stake holder management approaches. For this the company applies sponsoring sports events and other similar activities to communicate to its target customers regarding what the business does to address relevant social issues.

Information given above, states that Nike Inc. applies a strategic combination of various tools of an element of marketing mix. Identify the element of marketing mix and explain the tools that are discussed above. [6]

34. In 2015, Jaya Ltd. started a toy manufacturing unit using robot technology. The toys manufactured by the company became popular amongst the children. But since the cost of the toys was high, the company could not earn good profit. The business is of high risk along with higher expected returns. The company wants to increase production so that they can reduce cost per unit. For this the company wants additional investment of Rs. 50 lakhs. The company approached Ashok who has just retired from Indian Space Research Organisation and who is an influential person.

Ashok agreed to give the loan to the company provided that his loan is converted into Equity Shares after two years. The company agreed to Ashok's proposal.

(a) Identify, what type of investor is Ashok?

(b) State any five features of the same identified in (a) above. [6]

35. While preparing an Operational Plan, an entrepreneur has to pay attention towards various elements. Explain these elements. [6]

OR

Explain the steps for idea and opportunity assessment after the product identification has been done by the entrepreneur.



DELHI PUBLIC SCHOOL
SAIL TOWNSHIP, RANCHI
PRE BOARD - I EXAMINATION (2020-21)

Class:- XII
Time:- 2 Hrs.

Subject:- Odissi Dance
F. M:- 30

1. Complete the following sentences. (Attempt any five question, each question carries one mark) [1x5=5]
- a. Pallavi is a _____ part of Odiaaidance.
 - b. _____ is considered as the father of Indian theatrical art forms.
 - c. _____types of single hand movement.
 - d. _____Matra in Ekatali.
 - e. NatyaShastra by Bharat Muni and Abhinaya Darpana by Nadikeshvara are considered to be the original source of _____ dance.
 - f. _____had a deep knowledge of Natya Kala, Music, History and SaundayShastra.
 - g. _____ types of Bhramari are there.
 - h. Pakawaj, Flute, Manjira, Veena and Violin used in ____ dance.
2. State whether the following are true or false: (Attempt **any five** question, each question carries one mark) [1x5=5]
- a. Action related with the parts of body is called Angika Abhinaya.
 - b. Various way of moving around us is called Bhramari.
 - c. Moving round alternately on one foot will be the Garuda Bhramari.
 - d. PurliaChhau dance is listed on UNESCO'S World heritage list of dances.
 - e. Five types of celestial emotions according Abhinaya Darpana.
 - f. Four kinds of foot movements according Abhinaya Darpana.
 - g. MaheswaraMahapatra belongs to Bharadvjagotra

3. Match the following pairs correctly: [5]

- | | |
|-----------------|------------------------------|
| a) Odissi Dance | a) metal cymbals |
| b) Rambha | b) Mardal |
| c) Mrugaksha | c) Bajuband |
| d) Hansapakshya | d) Dhaap Dance |
| e) Cuttack | e) ChaitiGhodaNacha |
| f) Kandhamal | f) Dhangeda-DhangigediNacha, |
| g) Soneepur | g) wings of Swan |
| h) Bahichudi | h) Eyes of deer |
| i) Pakhawaj | i) Bharat Muni |
| j) Manjira | j) UdraNritya |

4. Write the definition of **any two** of the followings, [2]

- a) Matra b) Laya c) Taal d) Abartan

5. Write the definition of **any two** of the followings,

- a) Beebhatshya Rasa b) Adbhuta Rasa
c) Bhayanaka Rasa d) Santa Rasa [2]

6. Attempt **any two** questions each questions: [3]

- a) Kanchula and Bahichudi b) Ukuta and Mardala c) Pallavi and Mangalacharan.

7. State the difference between the following terms: - [3]

- a) Tandava and Lasya b) Abhinaya Darpana and Abhinaya Candrika.

8. Attempt **any one** question each questions: [5]

- a) Briefly describe Guru Pankaj Charan Das life history.
b) Briefly describe the Aharya of Odissi Dance.
c) What do you know about basic overview of the broad areas cover in the NatyaShastra.

DELHI PUBLIC SCHOOL

1st Pre-Board (Session 2020-21)

Class-XII th
Subject- Hindustani Music Vocal

Time- 2 Hrs
Total Marks-30

खंड-अ (Part-A)

1. बहुवैकल्पिक प्रश्न

- निम्नलिखित में से किन्हीं 15 (पंद्रह) प्रश्नों के सही उत्तर इंगित (✓) कीजिए।
- सभी प्रश्नों के अंक समान हैं।

(1x15)

1) राग मालकौंस में कौन से स्वर प्रयुक्त होते हैं?

- A) सा ग म, ग म ग सा B) नि सा ग रे सा, सा ग म
C) ग म ध प, ग म रे सा D) रे म प, रे म रे सा

2) राग भैरव के वादी संवादी स्वर हैं

- A) ग, म B) रे, ध C) ध, रे D) प, रे

3) झपताल में कितने विभाग एवं कितने खाली हैं?

- A) 5 एवं 1 B) 4 एवं 1 C) 6 एवं 1 D) 3 एवं 2

4) राग मालकौंस गाने के लिए तानपुरे को निम्न में से किस व्यवस्थानुसार मिलायेंगे?

- A) म सा सा सा B) प सा सा सा
C) नि सा सा सा D) ग सा सा सा

5) सन्धिप्रकाश रागों के अनिवार्य स्वर हैं


- A) रे ध कोमल तथा ग कोमल B) ग नि कोमल तथा रे कोमल
C) रे ध कोमल तथा ग शुद्ध D) ग नि कोमल तथा रे शुद्ध

6) उत्तरांगवादी और पूर्वांगवादी राग का होना निर्भर करता है, रागों के

- A) संवादी स्वर पर B) विवादी स्वर पर
C) वादी स्वर पर D) अनुवादी स्वर पर

7) बागेश्री में लगने वाले कोमल स्वर

- A) रे-ध B) रे-नि C) ग-नि D) ध-नि

- 8) कृष्णराव शंकर पंडित का घराना
A) किराना B) ग्वालियर C) आगरा D) पटियाला
- 9) 'पद्म विभूषण' से सम्मानित संगीतज्ञ
A) उस्ताद फ़ैयाज़ खां B) अब्दुल करीम खां C) बड़े गुलाम अली खां D) पंडित कृष्णाराव शंकर
- 10) धमार ताल में 'ग' बोल कौन सी मात्रा पर आती है?
A) 6वीं मात्रा B) 7वीं मात्रा C) 8वीं मात्रा D) 9वीं मात्रा
- 11) तीन ग्रामों से कुल कितनी मूर्छनाएँ उत्पन्न होती हैं-
A) 21 B) 24 C) 07 D) 06
- 12) 'म प ध ग् s s s रे सा' ये विशेष स्वर संगतियाँ
A) राग भीमपलासी की हैं B) राग मालकौंस की हैं C) राग बागेश्री की हैं D) राग भैरव की हैं
- 13) उस्ताद बड़े गुलाम अली खां के पिता थे
A) काले खां B) अब्दुल्ला खां C) अली बख्श खां D) अब्दुल करीम खां
- 14) निम्न में से कौन सा ताल और गायन शैली दोनों हैं?
A) ध्रुपद B) तराना C) धमार D) ख्याल
- 15) 'संगीत पारिजात' ग्रंथ का अनुवाद फ़ारसी में, द्वारा किया गया था।
A) प० शारंगदेव B) प० आहोबल C) प० दीनानाथ D) प० विष्णु नारायण भातखंडे
- 16) ग नि कोमल स्वरों वाले राग का गायन समय
A) 7 से 10 B) 10 से 12 C) 10 से 4 D) 4 से 7
- 17) एक स्वर से दूसरे स्वर तक ध्वनि को खंडित किए बिना जाने को कहते हैं-
A) अलंकार B) तान C) मीड D) कण
- 18) कई स्वरों को एक मात्रा में गाने बजाने के लिए चिन्ह
A) X (सम का) B) () (कोष्ठक का) C) S (अवग्रह का) D)  (अर्धचाँद का)
- 19) "सा , नि ध , सा, म ध नि ध, म, ग रे, सा " किस राग की पकड़ है-
A) बागेश्री B) भीमपलासी C) मालकौंस D) भैरव
- 20) किसी स्वर के ऊपर कोई स्वर दिया हो तो उसे क्या समझना चाहिए-
A) मीड स्वर B) खटका स्वर C) अलंकारिक स्वर D) कण स्वर
- 21) वाद्याध्याय में पंडित जी ने सारे वाद्यों को कितने भागों में विभाजित किया है-
A) दो B) तीन C) चार D) पाँच

खण्ड- ब (Part -B)

निर्देश- किन्ही तीन प्रश्नो के उत्तर दीजिए। सभी प्रश्नों के अंक समान हैं।

(3x5)

1) निम्नलिखित में से किन्ही तीन को परिभाषित कीजिए-

अलंकार, मूर्छना, तान , गमक

2) पंडित कृष्णराव शंकर के जीवन चरित्र तथा भारतीय संगीत के प्रति उनके योगदान का संक्षिप्त विवरण दीजिए।

अथवा

पंडित आहोबल के कार्य 'संगीत पारिजात' को पूरी तरह समझाइये।

3) अपने पाठ्यक्रम में निर्दिष्ट किसी मध्यरात्रि राग में एक द्रुत ख्याल स्वरलिपि सहित लिखिए।

4) 'मेरु' के प्रयोग के विशेष संदर्भ में तानपुरे के किन्ही चार अंगों पर प्रकाश डालिए।

अथवा

हिंदुस्तानी संगीत में रागों के समय सिद्धांत के आधार पर किये गए वर्गीकरण में 'पूर्वांग' व 'उत्तरांग' का क्या महत्त्व है? व्याख्या कीजिये।

5) धमार ताल की ठाह, दुगुन एवं चौगुन ताल लिपिबद्ध कीजिए।



DELHI PUBLIC SCHOOL RANCHI

PRE BOARD-I EXAMINATION - 2020-2021

Subject: Fine Art- Painting

Max. Mark:- 30

Class: – XII

Time:- 2 Hrs

Section: First

(1x6=6)

General Instructions: Answer to be written for each question in a word or sentence.

1. Contemporary (Modern) Indian Painter M.F. Hussain has used which of the following medium in his famous Painting “Mother Teresa”?

- a) Oil Colours
- b) Water Colours
- c) Pastel Colours
- d) Acrylic Colours

2. Match Table I with Table II and choose correct answer from options given below:

Table I

Table II

- | | |
|--|--------------------------|
| a. Krishna with Gopis | a. Jaipur Sub-School |
| b. Nand, Yashoda and Krishna with kinsmen going to Vrindavan | b. Basohli Sub-School |
| c. Bharat Meets Rama at Chitrakut | c. Kishangarh Sub-School |

3. The Indian Green colour used in Indian National Flag symbolizes which of the following?

- a) Truth & Peace
- b) Courage and Sacrifice
- c) Faith and Prosperity
- d) Closeness and Stability

4. Which one of the following included in your course of study is not a Contemporary (Modern) Indian Sculpture?

- a) K. LaxmaGoud
- b) Amarnath Sehgal
- c) P.V. Jankiram
- d) D.P. Roy Chaudhuary

5. Mention the title of painting done by the painters Nandlal Bose of the Bengal School.
- a) Journey's End
 - b) Radika
 - c) Shiv & Sati
 - d) Meghdoot
6. Jamini Roy was deeply influenced by the folk art tradition of Bengal. Evaluate the statement with the help of a painting included in your course of study?
- a) Of Walls
 - b) Haldi Grinder
 - c) Mother and child
 - d) Mother Teresa

Section: Second

(2x3=6)

General Instructions: Answer to be written for each is about 30 words.

(Any Three)

- (1) Evaluate the compositional-arrangement of any of the selected miniature-painting from each of the following, duly based on the aesthetic-parameters:
- a) Bharat meets Rama at Chitrakut

OR

- b) Krishna with Gopis
- (2) Evaluate the compositional arrangement of any one of the following in short:
- a) Saint Kabir and Raidas

OR

- b) Krishna lifting Mount Govardhan
- (3) Write a short note on any of the followings:
- a) Chand Bibi Playing Polo (Chaugan)

OR

- b) Hazrat Nizamuddin Auliya and Amir Khusro

Section: Third

(3x2=6)

General Instructions: Answer to be written for each is about 100 words.

(Any Two)

- (1) Why do you like or dislike any of the selected art work from the following. Justify your answer on the basis of the aesthetic parameters:
- (a) Journey's End
- OR**
- (b) Shiva & Sati

- (2) Identify any relevant painting of the Contemporary (modern) Indian Art included in your course of study comprising of the following features and explain them in that artwork accordingly:
- a) Depiction of skeletal human and animal figures in the graphic-print by Somnath Hore, is an expression of his sensitivity towards injustice to them and the lifelong protest against it.

OR

- b) Which human life values are expressed in 'Santhal Family', explain in short.

Section: Forth

(6x1=6)

General Instructions: Answer to be written for each is about 200 words

(Any one).

1. Appreciate in detail any of the following Modern-Paintings based on its (a) Name of the Painter, (b) Medium & Technique, (c) Subject matter and (d) Composition
- a) Rama Vanishing Pride of Ocean

OR

- b) Mother Teresa

Section: Fifth

(6x1=6)

General Instructions: Essay to be written for is not more than 350 words

(Any one).

- (i) Contribution of Bengal school in promoting nationalism.
- (ii) Write an essay on the development of Contemporary (Modern) Indian Art



DELHI PUBLIC SCHOOL SAIL TOWNSHIP DHURWA, RANCHI-4

PRE BOARD EXAMINATION

SESSION-2020-21

Class: XIIth

Maximum marks: 70

Subject: Physical Education (048)

Time: 3 Hours

GENERAL INSTRUCTIONS

- a. The question paper contains 30 questions and all are compulsory
- b. Question 1 to 12 carry 1 mark each
- c. Question 13 to 16 carry 2 marks each and shall not exceed 40-60 words
- d. Question 17-26 carry 3 marks each and shall not exceed 80-100 words
- e. Question 27 to 30 carry 5 marks each and shall exceed 150-200 words

1. which vitamin deficiency leads to night blindness:
 - a. Vitamin B6
 - b. Vitamin A
 - c. Vitamin K
 - d. Vitamin C

OR

Which one of these are the macro minerals:

- a. Iron
 - b. Copper
 - c. Cobalt
 - d. Potassium
-
2. Formula for finding the total number of matches in double league tournament:
 - a. $N(N-1)/2$
 - b. $N(N+1)/2$
 - c. $N(N-1)$
 - d. $N(N+1)$

3. In which type of diabetes, injection of insulin is required daily for its treatment:
- Type I
 - Type II
 - Type III
 - Both 'A' and 'B'

OR

A person, whose blood pressure reading is beyond _____ mmHg, is said to be having hyper tension.

- 120/80
 - 100/60
 - 140/90
 - both 'A' and 'B'
4. in which type of disorder the brain has difficulty in receiving and responding to information that comes in through the senses:
- ODD
 - ADHD
 - SPD
 - OCD
5. Jwala Gutta is related to which game/sport:
- Cricket
 - Wrestling
 - Table-tennis
 - Badminton
6. In which type of fracture bone is broken and damages the internal organs:
- Simple Fracture
 - Compound Fracture
 - Complicated Fracture
 - Comminuted Fracture
7. Shrugging the shoulder is the example of:
- Dorsiflexion
 - Planter Flexion
 - Depression
 - Elevation

OR

Circumduction includes:

- a. Flexion, Abduction, Adduction, Hyper extension
- b. Flexion, Adduction, Abduction, Extension
- c. Flexion, Extension, Planter flexion, Hyper extension
- d. Both 'A' and 'C'

8. Which one of these personality are unable to express their emotions specially anger:

- a. Type 'D' personality
- b. Type 'B' personality
- c. Type 'A' personality
- d. Type 'C' personality

9. Which one of these method was developed by Perrine in 1968:

- a. Isotonic exercise
- b. Interval training method
- c. Isokinetic exercise
- d. Isometric exercise

10. Amount of air which an individual can inhale and exhale with maximum effort is called:

- a. Vital air capacity
- b. Tidal air capacity
- c. VO2 Max
- d. Both 'A' and 'B'

11. Given below are the two statement labeled Assertion (A) and reason (R)

Assertion: In pace run, athlete has to complete the whole distance of a race at a constant speed.

Reason: Ability to maintain maximum speed for maximum time or maximum distance is called locomotor ability

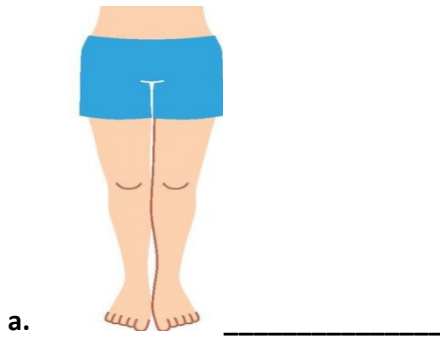
- a. Both 'A' and 'R' are true and 'R' is the correct explanation of 'A'
- b. Both 'A' and 'R' are true, but 'R' is not the correct explanation of 'A'
- c. 'A' is true but 'R' is false
- d. 'A' is false but 'R' is true

12. Match list-I with list-II and select correct answer from the code given below:

LIST-I		LIST-II	
CATEGORY		BMI	
i	Normal weight	i	<18.5
ii	Over weight	ii	18.5-24.9
iii	Obesity class I	iii	30-34.9
iv	Under weight	iv	25-29.9

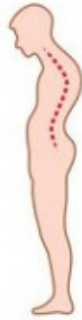
	i	ii	iii	iv
A	2	3	4	1
B	2	4	1	3
C	2	4	3	1
D	2	3	1	4

13. Identify the below given postural deformities and write their names:





c.



d.

14. Write the advantages and disadvantages of league tournament?

15. Write the benefits and contraindications of Tadasana?

16. Explain any two big five personality theory?

OR

Explain any two Jung's classification?

17. Explain any three methods to improve flexibility?

18. Briefly explain any three types of personality?

19. Explain any three of the following:

- a. Planter flexion
- b. Dorsi flexion
- c. Circumduction
- d. Rotation
- e. Supination

OR

Explain any two laws of Motion with sports related example?

20. Explain the treatment of Laceration and Sprain?

21. Elaborate physical factor determining strength?

OR

Elaborate physical factor determining endurance?

22. Explain Harvard step test in detail?

23. Briefly discuss about reasons of less participation of women's in sports?

24. Briefly explain symptoms of ADHD in children and adults?

25. Explain the benefits of asana for prevention of diseases?

26. Briefly explain any three macro nutrients?

OR

Briefly explain about food myths?

27. Draw a fixture of 17 teams participating in tournament on the basis of knock-out ?

28. Briefly explain pitfalls of dieting?

OR

Briefly explain the methods to control healthy body weight?

29. Define Speed and explain its types?

OR

Define coordinative abilities and explain its types?

30. Rohan is working on a project to collect data for assessing motor fitness test among young children at football ground. He plans to administer test for assessing Speed, flexibility lower back and hamstring muscles and Explosive strength of legs. List the test he should conduct and also explain the procedure of tests.

**AFTER APPROVAL OF HEAD OF DEPARTMENT (PHYSICAL
EDUCATION) SANTOSH KUMAR SINGH**