DELHI PUBLIC SCHOOL, BHILAI

Date : 12.09.2022 | FIRST TERM EXAMINATION-2022 | Time : 3 Hrs.

Class : XI | Subject : English Core | Max. Marks : 80

General Instructions:

- Answer all the questions.
- Specific instructions, wherever necessary are given. Follow them strictly.
- The question paper is divided into three sections: A, B & C. All the sections are compulsory.
  - Section A – Reading Skills (26 marks)
  - Section B – Writing Skills & Grammar (23 marks)
  - Section C – Literature (31 marks)
- The question paper consists of 6 printed sides.

Section A – Reading Skills (26 marks)

I. Read the passage given below answer the questions that follow:

1. "Who doesn't know how to cook rice? Cooking rice hardly takes time," said my father. So, I challenged myself. I switched from news to You Tube and typed, "How to cook rice?" I took one and a half cups of rice. Since I didn't have access to a rice cooker, I put the rice in a big pot. Firstly, the rice has to be washed to get rid of dust and starch. I thought I won't be able to drain the rice and that it will fall out of the pot. I observed the chef as I swirled the rice around and used my dexterous hands to drain it, not once, not twice, but three times. I looked down at the sink and saw less than 50 grains that made their way out of the pot. Suffice to say, I was up to the mark.

2. The video stated that the key to perfect rice is equal amounts of rice and water. I have heard that professionals don't need to measure everything; they just know what the right amount is. But as this was my first time in the kitchen, I decided to experiment by not measuring the water needed for boiling the rice. I wanted the rice to be firm when bitten, just like pasta. I don't enjoy the texture of mushy rice. It has to have that chutzpah; it has to resist my biting power just for a bit before disintegrating.

3. After what seemed like 10 minutes, all the water disappeared. I went in to give it a good stir. To my surprise, some of the rice got stuck to the pot. I tried to scrape it off but to no avail. At the same time, there was a burning smell coming from it. I quickly turned the stove off. "What have you done to the kitchen?" shouted Mother, while coming towards the kitchen. I managed to ward her off.

4. Finally, when the time came to taste my creation, I was surprised! It wasn't bad at all. The rice had the desired consistency. Sure, a little more salt would've been better, but I just added that while eating. The experience was fairly rewarding and memorable. It taught me a new sense of respect for those who cook food on a regular basis at home or engage in gourmet creations professionally.

On the basis of your understanding of the above passage, answer the questions that follow. (1x10=10)

(i) Father's question to the narrator, about knowing how to cook rice, was intended to:
(a) criticise the narrator's lack of abilities
(b) make the process sound simple
(c) discourage the narrator from taking up cooking
(d) showcase his own expertise in cooking rice

(ii) "I switched from news to You Tube... Pick the option in which the meaning of 'switch(ed)' is NOT the same as it is in the passage.
(a) He switched on the radio to listen to the news while having dinner.
(b) "Forget these diet supplements and switch to yoga, if you want a true sense of well-being".
(c) Mom switched to reading fiction recently because she was bored with cook-books.
(d) The company will switch the trucks to other routes to bring down city pollution.

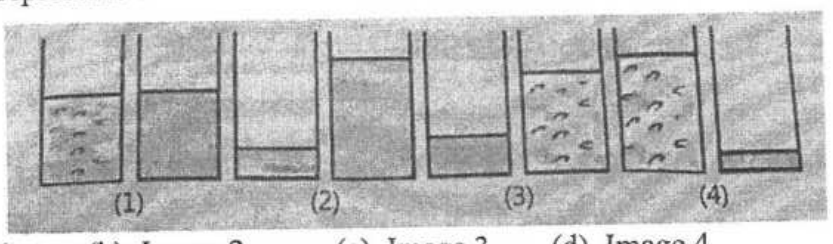
(iii) Based on your understanding of the passage, choose the option that lists the correct sequence of the process.
1. Use water to wash the rice.
2. Repeat the process three times.
3. Drain the water off.
4. Put rice in a utensil.
5. Swirl the water in and around the rice.

(a) 4,2,1,3,5 (b) 1,3,2,5,4 (c) 4,1,5,3,2 (d) 5,1,2,4,3

(iv) The narrator says that he has dexterous hands. He would have had a problem had it been the opposite. NOT BEING dexterous means, being:
(a) uncomfortable (b) clumsy (c) unclear (d) clueless

Contd...2

(v) Which option represents the correct ratio of water to rice for cooking 'perfect rice'?



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

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

(a) She commented on it (b) She brushed it aside
(c) She enquired about it (d) She handled it

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

(a) conscientious (b) nervous (c) presumptuous (d) courteous

(viii) Pick the option showing the CORRECT use of the word 'chutzpah:

(a) It is the court's duty to dispense chutzpah to everyone irrespective of caste or creed.
(b) The speaker may not have much of a stage presence, but you've got to admit she's got chutzpah.
(c) I could crack the code easily which proved me to be a chutzpah and I was the only one who could do so.
(d) After his father's demise, the daughter took over the family's chutzpah to save it from disaster.

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

(a) Turning the stove off (b) Being taken aback at the condition of rice
(c) Forgetting to scrape the stuck rice (d) Smelling the delicious aroma of cooked rice

(x) The narrator's creation was:

(a) almost perfect to taste (b) way off from what he wanted
(c) overly seasoned (d) quite distasteful

II. Read the passage given below and answer the questions that follow:

The Commonwealth of Nations, generally known simply as the Commonwealth, is a political association of 54 member states, nearly all former territories of the British Empire. The chief institutions of the organisation are the Commonwealth Secretariat, which focuses on intergovernmental aspects, and the Commonwealth Foundation, which focuses on non-governmental relations between member states.

The Commonwealth dates back to the first half of the 20th century with the decolonisation of the British Empire through increased self-governance of its territories. It was originally created as the British Commonwealth of Nations through the Balfour Declaration at the 1926 Imperial Conference, and formalised by the United Kingdom through the Statute of Westminster in 1931. The current Commonwealth of Nations was formally constituted by the London Declaration in 1949, which modernised the community and established the member states as 'free and equal'.

Member states have no legal obligations to one another, but are connected through their use of the English language and historical ties. Their stated shared values of democracy, human rights and the rule of law are enshrined in the Commonwealth Charter and promoted by the quadrennial Commonwealth Games.

Given below is the list of the countries that joined the Commonwealth in its initial years:

Members of the Commonwealth

Country	Date of Commonwealth Membership
United Kingdom	1931
Canada	1931
Australia	1931
New Zealand	1931
South Africa	1931
India	1947
Pakistan	1947
Sri Lanka (formerly Ceylon)	1948

On the basis of your reading of the passage, answer the following questions by choosing the correct options. (1x8 = 8)

(i) Pick the option that lists the statements that are NOT TRUE according to the passage.

1. The Commonwealth is a political association.
2. Member states have legal obligations to one another
3. Democracy is a shared value in Commonwealth states.
4. Canada joined the Commonwealth in 1931.

(a) Only 2 (b) Both 1 and 3 (c) Both 3 and 4 (d) Only 1

Contd...3

(ii) Which organisation is responsible for inter-governmental management of Commonwealth?
(a) Commonwealth Secretariat (b) Commonwealth Foundation
(c) Commonwealth Games (d) None of these

(iii) What is Commonwealth Foundation?
(a) A trust formed by Commonwealth Countries.
(b) An organisation formed by the United Nations.
(c) An institution of Commonwealth responsible for non-governmental relations.
(d) An institution of Commonwealth responsible for governmental activities.

(iv) British Commonwealth of Nations was created through
(a) Balfour Declaration (b) London Declaration (c) Geneva Declaration (d) Imperial Declaration

(v) What is the significance of London Declaration of 1949?
1. It constituted the British Commonwealth.
2. It ended the colonisation of Britain.
3. It laid the procedures for joining the organisation.
4. It established the member states as 'free and equal'.
(a) Both 3 and 4 (b) Both 1 and 2 (c) Only 4. (d) Only 2

(vi) The Commonwealth Charter enshrines the values of
(a) democracy (b) rule of law (c) human rights (d) All of these

(vii) In which year did Canada join the Commonwealth?
(a) 1931 (b) 1947 (c) 1948 (d) None of these

(viii) Pick the option that lists the correct ascending order of the countries joining the Commonwealth.
(a) Sri Lanka, Pakistan, Canada (b) South Africa, Sri Lanka, Pakistan
(c) South Africa, India, Sri Lanka (d) India, United Kingdom, Canada

III. Read the following passage and answer the questions that follow: **(8)**

1. A dam is a structure that is built on rivers, streams, or estuaries for conserving water. It directly helps to supply people with adequate water for consumption, industrial and irrigation purposes. Broadly, modern dams can be classified into two types–concrete dams and embankments. Concrete dams or masonry dams block streams that run through narrow gorges, whereas embankments control streams and rivers which flow through broad valleys.

2. The water stored in reservoirs helps to make up for water crisis in dry seasons. It also ensures the regular water supply for residential, industrial and agricultural consumption. They also help to control the flow of floodwater by diverting its course towards other uses, storing the excess water or releasing it with caution. One of the most significant roles of dams is irrigation. They provide water to the fields in the dry seasons. Dams help in generating hydropower which has emerged as an effective way of meeting the energy crisis in many regions of India. Besides this, they also provide recreational facilities like boating, skiing and fishing in the stagnant water.

3. Irrespective of their array of strengths, dams have a significant share of drawbacks. They lead to displacement of people during their construction. They often disrupt local ecosystems as a large area of forest cover is destroyed. It also disturbs the groundwater table. Besides this, they block the progression of water to other countries, states or regions.

(i) Make notes of the contents of the passage you have read. Use a format you consider suitable. Use recognizable abbreviations where necessary (5 to 6). Give a suitable title to the passage. (5)

(ii) Make a summary of the passage in about 50 words. (3)

Section B – Grammar & Writing Skills (23 marks)

IV. (i) Choose the correct option to fill in the blanks in the given passage: **(3)**

The first half of the 20th century was dominated by the two World Wars. The wars resulted in unprecedented numbers of casualties. Eight and a half million people are believed (1)..... fighting in the First World War of 1914-1918. During the Second World War as many as 60 million (2).....in Asia and the Pacific. From the total number of casualties, half (3).....civilians.

(1)	(a) that they died	(b) killing	(c) to have died	(d) died
(2)	(a) killed	(b) having died	(c) having been killed	(d) were killed
(3)	(a) were	(b) had been	(c) are	(d) is believed to be

(ii) The questions given below consist of certain sentences. Rearrange these sentences in proper sequence. Choose the correct option. **(2)**

(1) (i) He had many brothers.
(ii) When the old king died, there was fighting between the brothers for the throne.
(iii) Ashoka was born in the ruling Maurya family of Magadha.
(iv) Ashoka was able to defeat his brothers.

(a) (ii) (iii) (iv) (i)
(b) (iii) (i) (iv) (ii)
(c) (iii) (i) (ii) (iv)
(d) (i) (iv) (iii) (ii)

(2) (i) He is called so because he led India to freedom from British rule.
(ii) The first cause that he took up was of an indigo farmer of Champaran, Bihar.
(iii) Mahatma Gandhi is called the Father of the Nation.
(iv) He started fighting for India's freedom after he returned from South Africa.

(a) (iv) (iii) (i) (ii)
(b) (iv) (ii) (iii) (i)
(c) (iii) (i) (ii) (iv)
(d) (iii) (i) (iv) (ii)

(iii) Read the dialogues given below and complete the passage choosing the correct options. Do any two. **(2)**

Sunita : Tomorrow is your birthday. What do you want as a gift?
Neetu : That is a lovely thought but I don't want anything.

Sunita asked Neetu, since the next day was her birthday, (1)_____ .
Neetu replied that (2) _____ but (3) _____ .

(1) (a) what she wanted as a gift (b) what she wants as a gift
(c) what did she want as a gift (d) what she had wanted as a gift

(2) (a) that was a lovely thought (b) that is a lovely thought
(c) that has been a lovely thought (d) that had been a lovely thought

(3) (a) she did not want anything (b) she does not want anything
(c) she had not wanted anything (d) she will not want anything

V. (i) You are the Principal of National Public School, Jaipur. You require a Maths Teacher for your school. Draft a suitable advertisement in not more than 50 words for the 'Situation Vacant' column of the 'The National Times' stating essential and desirable qualifications, experience, etc. of the candidates. **(3)**

OR

You have a two-bedroom flat in Santa Cruz, Mumbai, which you want to let out. Draft an advertisement in not more than 50 words to be published in the Times of India under the classified columns.

(ii) Delhi Police is organising a Road Safety Week Programme in various schools. As the cultural secretary of AK Public Academy, draft a Poster to create awareness on the theme 'Road Safety'. **(3)**

OR

Malaria claims several lives every year. The poor and the underprivileged are often the victims. As the President of your Housing Society, design a poster to create awareness on Malaria. You are Ashok/Ashmita.

(iii) 'Peer pressure is harmful for teenagers'. Write a debate in 120 to 150 words either 'FOR' or 'AGAINST' the motion. **(5)**

OR

'Internet cannot replace class room teaching'. Write a debate in 120 to 150 words either 'FOR' or 'AGAINST' the motion.

(iv) As the Head boy/ Head girl of your school, you have found some students reaching the school late in the morning, coming late to their classrooms after lunch break, returning lazily to the theory class after doing practicals in the laboratory. Draft a speech in 120-150 words that you will deliver on **'The Importance of Punctuality in Life'.** You are Amit/ Amita. **(5)**

OR

Yoga unites the body, mind and soul. When you are in harmony, the journey through life is calmer, happier and more fulfilling. Write a speech in 120-150 words to be delivered in the morning assembly on the topic **'Yoga-a Way of Life'.** You are Karan/ Kajal, Head Boy/Head Girl of D.A.V.

Contd...5

Section C – Literature (31 marks)

VI. Read the given extracts carefully and answer the following questions: **(10)**

(i) **(3x1=3)**

Now she's been dead nearly as many years
As that girl lived. And of this circumstance
There is nothing to say at all
Its silence silences.

(1) Who does 'she' refer to in the above stanza?
(a) The poet (b) A girl
(c) Poet's mother (d) Poet's wife

(2) What figure of speech is used in the last line of the extract?
(a) Climax (b) Allusion
(c) Metaphor (d) Personification

(3) The poet's mother has been dead for
(a) ten years (b) twelve years
(c) sixteen years (d) fifteen years

OR

Showing her barred face identity mask
Then with eerie delicate whistle-chirrup whisperings
She launches away towards the infinite
And the laburnum subsides to empty.

(1) Whom does 'her' refer to?
(a) Laburnum top (b) Wind
(c) Goldfinch bird (d) Chicks of the bird

(2) What does the phrase 'launches away' in the extract mean?
(a) Flies away into the sky. (b) Takes away her chicks.
(c) Leaves the tree forever. (d) None of the above

(3) What poetic device is used in 'whistle-chirrup'?
(a) Personification (b) Transferred epithet
(c) Onomatopoeia (d) Simile

(ii) The common link of friendship was snapped. My grandmother accepted her seclusion with resignation. **(3x1=3)**

(a) Who is the narrator?
(b) Why did the common link of their friendship snap?
(c) What does the term 'with resignation' in the extract mean?

OR

We were getting no replies to our Mayday calls – which was not surprising in this remote corner of the world.

(a) What are Mayday calls?
(b) Why were these calls being made?
(c) Why were they not getting any replies to their Mayday calls?

(iii) I stared first at my cousin and then at the horse. There was a pious stillness and humour in each of them which on one hand delighted me and on the other frightened me. **(4x1=4)**

(a) Who is the narrator?
(b) Who is his cousin ?
(c) Why is the narrator delighted?
(d) Why was the narrator frightened at the same time?

OR

"Have you come back?" said the woman. "I thought that no one had come back."

(a) From which short story has this extract been taken?
(b) Who is the author?
(c) Who is the speaker? Whom is she speaking to?
(d) Why doesn't the speaker welcome the guest warmly?

Contd...6

VII. Write short answers in 40 to 50 words. **(3x2=6)**

(i) Answer <u>any one</u> of the following:

Why did the narrator of the lesson "We're Not Afraid to Die" want to go on a voyage? What preparations did they make prior to their journey?

OR

Khushwant Singh's grandmother had a great love for birds and animals. Support your answer giving two instances from the lesson.

(ii) Answer <u>any one</u> of the following:

In what state is 'The Laburnum Top' before the mother bird's visit? How is it transformed after her visit?

OR

Describe the moment depicted in the photograph of the poem 'A Photograph'. Who had clicked the photograph ?

VIII. Attempt <u>any one</u> of the following questions in 40 to 50 words. **(3x1=3)**

Whose horse had the boys taken ? What made the boys return the horse at the end of the story 'The Summer of Beautiful White Horse' ?

OR

What was the address that Mrs S had asked her daughter to remember? Why did the narrator of the story want to forget the address?

IX. Attempt <u>any one</u> of the following questions in 120 to 150 words. **(6x1=6)**

Khushwant Singh's grandmother adapted herself to the changing circumstances. Support the statement giving at least three instances from the lesson.

OR

"We're Not Afraid to Die....." is a great example of team work, optimism and courage. Support this statement giving suitable examples from the lesson.

X. Attempt <u>any one</u> of the following questions in 120 to 150 words. **(6x1=6)**

What was the narrator's experience during her first and second visit to Mrs. Dorling's place? Was she able to achieve her purpose?

OR

In the story 'The Summer of the Beautiful White Horse' both the boys were very passionate about horse riding. How do they display this trait?

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DELHI PUBLIC SCHOOL, BHILAI

Date : 16.09.2022 **FIRST TERM EXAMINATION 2022** **TIME : 3 Hrs.**

Class - XI **SUBJECT – MATHEMATICS** **M.M. 80**

General Instructions :

Read the following instructions very carefully and strictly follow them :

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

(ii) **Part A** has Objective Type Questions and **Part B has** Descriptive Type Questions.

(iii) Both **Part A** and **Part B** have choices.

Part A

(i) It consists of **two** sections **I** and **II.**

(ii) **Section I** comprises of **16** very short answer type questions.

(iii) **Section II** contains 2 case studies. Each case study comprises 5 case-based MCQs. An examinee is to attempt any 4 out of 5 MCQs.

PARAT B

(i) It consists of **three** sections **III, IV** and **V.**

(ii) **Section III** comprises of **10** questions of **2** marks each.

(iii) **Section IV** contains of 7 questions of **3** marks each.

(iv) **Section V comprises of 3 questions of 5 marks each**

(v) **Internal choice are provided in 5 questions of Section – I, in 3 questions of Section – III, 2 questions of Section – IV and all questions of Section – V. You have to attempt only one of the alternative in all such questions.**

PART-A

Section-I

1. If $A = \{1,2,3,4,5\}$ then find the number of proper subsets of A

OR

Let A and B are two sets then $A \cap (A \cup B)'$ is equal to.....

2. Find the range of the function $f(x) = |x - 4|$

OR

Find the domain of the function $f(x) = \frac{x-2}{\sqrt{x-5}}$

3. If $f(x) = \frac{x+1}{x-1}$, show that $f[f(x)] = x$
4. If the ordered pairs $(x, -1)$ and $(5, y)$ belong to the set $\{(a, b): b = 2a - 3\}$, then find the value of a and b
5. If A= {1,3,7} B={15,7} then find the number of relation from A to B.

OR

The Cartesian product of A× A has 9 elements among which are found$(-2,0)$ and $(0,2)$, Find the remaining elements of A× A

6. Find the value of $sin\left(\frac{31\pi}{3}\right)$
7. Find the value of $tan15°$.
8. Which of the following is incorrect?

(a) $\cos x = 1$ (b) $\sin x = \frac{-1}{5}$ (c) $\sec x = \frac{1}{2}$ (d) $\tan x = 20$

9. The radius of a circle is 30 cm. Find the length of an arc of this circle, if the length of the chord is 30 cm

OR

Find the radian measure of degree measure angle $125°30'$

10. Find the real values of x and y if $(x + iy)(2 - 3i) = 4 + i$
11. Find the value of the expression $i^{49} + i^{68} + i^{89} + i^{110}$, where $i = \sqrt{-1}$
12. Find the value of $\sqrt{-3} \times \sqrt{\frac{-5}{3}}$
13. Express $\frac{(2+3i)}{(1+2i)}$ in the form of $a + ib$
14. Solve the inequation for x: $\frac{3(x-2)}{5} \leq \frac{5(2-x)}{3}$
15. Solve the inequation for x: $\frac{5-2x}{3} \leq \frac{x}{6} - 5$

Contd...2

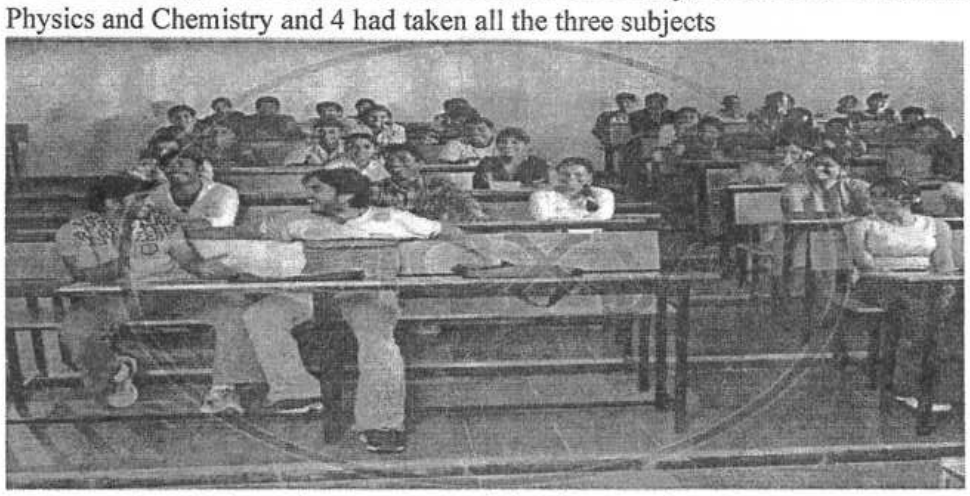
16. Find r if ${}^{5}P_{r} = {}^{6}P_{r-1}$

OR

In how many ways can the letter of the word PENCIL be arranged so that N and E are always together

Section-II

17. In a survey of 40 students of a school , it was found that 21 had taken Mathematics, 16 had taken Physics and 15 had taken Chemistry, 7 had taken Mathematics and Chemistry, 12 had taken Mathematics and Physics, 5 had taken Physics and Chemistry and 4 had taken all the three subjects



Based on above information answer the following questions:-

(i) The number of students who had taken Mathematics only is

(a) 5 (b) 6 (c) 7 (d) 8

(ii) The number of students who taken Physics and Chemistry but not mathematics, is

(a) 1 (b) 3 (c) 5 (d) 7

(iii)The number of students who had taken exactly one of the three subjects, is

(a) 12 (b) 14 (c) 16 (d) 18

(iv) The number of the students who had taken at least one of the three subjects, is

(a) 40 (b)38 (c)34 (d) 32

(v) The number of the students who had taken none of the three subjects, is

(a) 8 (b) 6 (c) 2 (d) 0

18. In a game, the cards written the letters of the word "PERMUTATIONS' are given to a group of children and asked to arrange them in all possible ways under the following conditions. Then the number of ways they can do it if

(i) there is no restriction, is

(a)$\frac{12!}{2!}$ (b) $\frac{12!}{3!}$ (c) $\frac{10!}{2!}$ (d)$\frac{11!}{2!}$

(ii) word starts with P and end with S, is

(a) $\frac{12!}{2!}$ (b) $\frac{10!}{2!}$ (c) $\frac{12!}{3!}$ (d) $\frac{12!}{}$

(iii) vowels are all together, is

(a) 8! 5! (b) $\frac{8!}{2!}$ (c) $\frac{7!5!}{2!}$ (d) $\frac{8!5!}{2!}$

(iv) there are always 4 letters between P and S, is

(a) $\frac{10!}{2!}$ (b) $\frac{10!}{2!} \times 7$ (c) $\frac{10!}{2!} \times 14$ (d) $\frac{10!}{4!} \times 7!$

(v) P comes before S, is

(a) $3 \times 11!$ (b) $2 \times 11!$ (c) $6 \times 11!$ (d) $3 \times 10!$

Contd...3

PART-B

Section-III

19. Find the domain for which the function $f(x) = 2x^2 - 1$ and $g(x) = 1 - 3x$ are equal

OR

Find the range of the function $f(x) = \frac{x-2}{3-x}$

20. If $f(x) = x + \frac{1}{x}$,. Prove that $[f(x)]^3 = f(x^3) + 3f\left(\frac{1}{x}\right)$
21. Prove that $sin^2 6x - sin^2 4x = \sin 2x . \sin 10x$
22. Find the value of $tan\frac{\pi}{8}$
23. Prove that $2\, cos\frac{\pi}{13}\, cos\frac{9\pi}{13} + cos\frac{3\pi}{13} + cos\frac{5\pi}{13} = 0.$
24. Find the modulus of $\frac{1+2i}{1-3i}$
25. If $x - iy = \sqrt{\frac{a-ib}{c-id}}$, then prove that $(x^2 + y^2)^2 = \frac{a^2+b^2}{c^2+d^2}$
26. Sole the inequality for x; $-5 < \frac{3(x-2)}{5} \leq 0$

OR

$\frac{3x-4}{2} \geq \frac{x+1}{4} - 1$

27. Find all pair of consecutive even positive integers, both of them are larger than 5 such that their sum is less than 23.
28. Prove that ${}^nC_r + {}^nC_{r-1} = {}^{n+1}C_r$

OR

Determine n if ${}^{2n}C_3 : {}^nC_3 = 11:1$

Section-IV

29. A school awarded 58 medals for honesty, 20 for punctuality and 25 for obedience. If these medals were bagged by a total of 78 students and only 5 students got medals for all the three values, find the number of students who received medals for exactly two of the three values

OR

If A and B are finite sets such that $n(A) = m, n\,(B) = n$, then find the least and greatest values of $n(A \cup B)$

30. Find the domain of the function $f(x) = \frac{1}{\sqrt{x-|x|}}$
31. Prove that $sin^2\frac{\pi}{18} + sin^2\frac{\pi}{9} + sin^2\frac{7\pi}{18} + sin^2\frac{4\pi}{9} = 2$

OR

Prove that $sin\frac{13\pi}{3} sin\frac{8\pi}{3} + cos\frac{2\pi}{3} sin\frac{5\pi}{6} = \frac{1}{2}$

32. Prove that $cos^2 x + cos^2\left(x + \frac{\pi}{3}\right) + cos^2\left(x - \frac{\pi}{3}\right) = \frac{3}{2}$
33. If α and β are different complex number with $|\beta| = 1$, then find $\left|\frac{\beta-\alpha}{1-\bar{\alpha}\beta}\right|$.
34. A company manufactures cassettes and its cost and revenue functions for a week are $C = 300 + \frac{3}{2}\,x$ and $R = 2x$, respectively, where x is the number cassettes produced . How many cassettes must be sold for the company to realize a profit
35. There are three letters and 3 directed envelopes. Write the number of ways in which no letter is put in the correct envelope.

Section-V

36. (a)Let A and B are two sets , If $A \cup X = B \cup X$ *and* $A \cap X = B \cap X = \emptyset$ for some set X, show that $A = B$
(b)Show that if $A \subset B$, then $C - B \subset C - A$

OR

Show that for any sets A and B (a) $A = (A \cap B) \cup (A - B)$ (b) $A \cup (B - A) = (A \cup B)$

37. A manufacturer has 600 liters of 12% solution of an acid. How many liters of a 30% acid solution must be added to it so that the acid content in the resulting solution will be more than 15% but less than 18%?

OR

How many liters of water will have to be added to 1125 liters of 45% solution of acid so that the resulting mixture will contain more than 25% but less than 30% acid content?

38. If the letter of the word 'SACHIN" are arranged in all possible ways listed as in a dictionary, then what is the rank of word 'SACHIN"/

OR

How many different words can be formed by using all the letters of the word "ALLAHABAD"?
(i) In how many of them vowels occupy the even positions?
(ii)In how many of them both L do not come together?

F-10

DELHI PUBLIC SCHOOL, BHILAI (C.G.)

CLASS XI | **FIRST TERMINAL EXAMINATION-2022** | **TIME: 3 HRS.**

16.09.2022 | **APPLIED MATHEMATICS** | **MAX. MARKS: 80**

GENERAL INTSTURCTIONS:

- This question paper contains two parts, A and B. Both parts are compulsory. Part A carries 24 marks and Part B carries 56 marks.
- Part A has objective type questions and Part B has descriptive type questions.

PART A:

- It consists of two sections I and II.
- Section-I comprises 16 has very short answer type questions of 1 marks each.
- Section-II comprises 2 questions on case study. Each case study has 5 case based MCQ's. Students have to attempt any 4 out of 5 MCQ's. An examinee has to attempt 4 out of 5 MCQ's.

PART B:

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

PART A (Section-I)

1. Expand: $\log_b \frac{4x^6}{9y^7}$
2. Find the mean of the positive factors of 24.
3. If A = {1, 2, 3, 4, 5}, B = {1, 3, 5, 7, 9}, then find the symmetric difference between A and B.
4. If x, $2x+1$ and $4x-1$ are the first three terms of an AP, then find the fourth term.
5. The product of the binary numbers 1100 and 111 is _____.
6. Find the value of $2 \times 2^{½} \times 2^{¼} \times 2^{1/8} \times \ldots \infty$.
7. Simplify: $5^0 \times 4^{-1} + 8^{1/3}$.
8. If the average of 9 observations is 23, then the sum of all observation is _____.
9. Write two consecutive binary numbers of 101111.
10. Let f be a function defined by $f(x) = 5x^2 + 2$, $x \varepsilon R$, then find $f(3) \times f(2)$.
11. If x is added to each observation, then by what quantity the average increases?
12. In an AP, the p^{th} term is q and the $(p+q)^{th}$ term is zero, then the q^{th} term is:
    (a) $-p$ (b) p (c) p+q (d) p – q
13. If A and B are two non empty sets such that n(A) = 2 and n(B) = 3, then find the number of relations from: (a) A to B (b) A to A
14. The 5^{th} term from the end of the sequence 2, 6, 18, . . ., 39366 is _____.
15. Find the range of the function $f(x) = 2 - 3x$, $x \varepsilon R$, $x>0$.
16. If $4^{2x} = \frac{1}{32}$ then find the value of x.

PART-A (SECTION-II)

Case study-1

17. In the binary system, we have only two digits 0 and 1. In the binary number the base is 2 and the position of each digit represents the power of the base. The rightmost position represents 2^0, second from right 2^1, third from the right 2^2 and so on.

    In case of fractional decimal numbers, first position after the decimal represents 2^{-1}, second position 2^{-2} and so on.

    Based on the above information, answer the following questions:

(a) The binary number $(1011101.111)_2$ is equivalent to decimal number:
    (i) 93.625 (b) 95.125 (c) 93.875 (d) 83.675

.....2/-

(b) The sum of binary number $(11011.011)_2 + (10101.101)_2$ is equivalent to decimal number.

(i) 48.875 (b) 49 (c) 47.525 (d) 48

(c) The subtraction of binary number $(101110.110)_2$ from $(111011.111)_2$ is equivalent to decimal number.

(i) 13.125 (b) 16.475 (c) 15.825 (d) 14.625

(d) The multiplication of binary number $(111101.1)_2$ and $(101010.01)_2$ is equivalent to decimal number.

(i) 2498.375 (b) 2496.125 (c) 2395.625 (d) 2598.375

(e) The division of binary number $(100001.01)_2$ by $(1001.1)_2$ is equivalent to decimal number.

(i) 2.5 (b) 3.5 (c) 4.25 (d) 5.125

Case study-2

18. Under MANREGA scheme 1000 new labourers are enrolled in Delhi. Earlier they were getting ₹ 200 as daily wages, but now the authorities have increased the budget for them by ₹ 15 lakhs per month. Based on these facts, answer the following questions:

(a) The present monthly budget of the ministry for 1000 labourers

(i) ₹ 65,00,000 (b) ₹ 75,00,000 (c) ₹ 70,00,000 (d) ₹ 55,00,000

(b) The increase in daily income per labour due to budget increase

(i) ₹ 50 (b) ₹ 55 (c) ₹ 60 (d) ₹ 75

(c) The new average of monthly income per labour.

(i) ₹ 7,000 (b) ₹ 6,000 (c) ₹ 6,500 (d) ₹ 7,500

(d) If 100 more labourers are added, then the average monthly income under new scheme is:

(i) ₹ 6500 (b) ₹ 7500 (c) ₹ 7000 (d) None of the above

(e) Had the budget been increased by ₹ 20,00,000 per month, then the approximate increase in daily income per labour would be:

(i) ₹ 267 (b) ₹ 260 (c) ₹ 250 (d) ₹ 245

PART-B (SECTION-III)

19. If G is the geometric mean between 'a' and 'b' then show that: $\frac{1}{G+a} + \frac{1}{G+b} = \frac{1}{G}$

20. Subtract the binary number 11010 from 110101 and check the result by converting them to decimal system.

21. If $a+b+c \neq 0$ and $\frac{b+c}{a}, \frac{c+a}{b}, \frac{a+b}{c}$ are in AP, then prove that $\frac{1}{a}, \frac{1}{b}, \frac{1}{c}$ are also in AP.

OR

If $a^x = b^y = c^z$, such that a, b and c are in GP and x, y and z are unequal positive integers, then show that

$$\frac{2}{y} = \frac{1}{x} + \frac{1}{z}.$$

22. Solve: $\sqrt{\left(\frac{3}{5}\right)^{1-2x}} = 4\frac{17}{27}$ **OR** Simplify: $\frac{5^{n+2} - 6.5^{n+1}}{13.5^n - 2.5^{n+1}}$

23. Modulus function 'f' is defined by $f(x) = |x|$. What is the domain and range of 'f'? Draw its graph (No graph paper required).

24. Prove: $\frac{x+y+z}{x^{-1}y^{-1}+y^{-1}z^{-1}+z^{-1}x^{-1}} = xyz$.

25. Let A = {–2, –1, 0, 1, 2} and f: A → Z given by $f(x) = x^2 - 2x - 3$. Find the pre image of 6.

26. Which term of the sequence 25, 24¼, 23½, 22¾, . . . is the first negative term?

27. If the ordered pairs $(x^2 - 4x, y^2 - y)$ and (–4, 6) are equal, find x and y.

OR

Find a linear relation between the components of the ordered pair of relation R where:

R = {(2, 1), (4, 7), (1, –2), . . .}

28. If U = {1, 2, 3, 4, 5, 6, 7, 8}, A = {1, 2, 3}, B = {2, 4, 6}, then verify (A'UB) = (A∩B')'

SECTION-IV

(Question nos. 29-35 carry 3 marks each)

29. If 3 log $\sqrt{m}$ + 2 log $\sqrt[3]{n}$ – 1 = 0, find the value of m^9n^4.

OR

If abc=1, then prove that: $\frac{1}{1+a+b^{-1}} + \frac{1}{1+b+c^{-1}} + \frac{1}{1+c+a^{-1}} = 1$

30. The mean marks of boys and girls in an examination are 70 and 73 respectively. If the mean marks of all the students in the examination are 71, find the ratio of number of boys to the number of girls.

31. Evaluate using log tables: $\frac{(5.364)^3 \times (49.76)^{1/2}}{(83.45)^{1/3}}$.

32. Two finite sets have m and k elements. If the total number of subsets of first set is 56 more than the total number of subsets of second set, then find the values of m and k.

33. The sum of first four terms of an AP is 56. The sum of last four terms is 112. If the first term is 11, then find the number of terms.

OR

Find the number of identical terms in the two sequences given below:

3, 7, 11, 15, . . ., 367 and 2, 9, 16 . . ., 709.

34. Solve: $[3x - 4] = 5$.

35. If the first and the nth terms of a GP are 'a' and 'b' respectively and if P is the product of first 'n' terms, then prove that $P^2 = (ab)^n$.

SECTION-V

(Question nos. 36 to 38 carry 5 marks each)

36. In an University out of 100 students 15 offered Maths only, 12 offered Statistics only, 8 offered Physics only, 40 offered Physics and Maths, 20 offered Physics and Statistics, 10 offered Maths and Statistics, 65 offered Physics. By drawing a Venn diagram, find the number of students who:

(a) offered Maths (b) offered Statistics

(c) did not offer any of the above three subjects

OR

A survey of 1000 women is conducted in a town. The results show that 52% liked watching comedy movies, 45% liked watching fantasy movies and 60% liked watching romantic movies. In addition 25% liked watching comedy and fantasy movies both, 28% liked watching romantic and fantasy movies both and 30% liked watching comedy and romantic movies, 6% like watching none of these genres. Based on these facts.

(a) How many women liked watching all the three movie genres?

(b) Find the number of women who liked watching only one of the three genres.

(c) Find the number of women who liked watching atleast two of the given genres.

37. Find the domain and range of:

(a) $f(x) = \frac{1}{\sqrt{9-x^2}}$ (b) $f(x) = \frac{x^2}{1+x^2}$

OR

If $f(x) = \log\left(\frac{1+x}{1-x}\right)$, then show that $f(x) + f(y) = f\left(\frac{x+y}{1+xy}\right)$

38. The sum of n terms of two AP are in the ratio (5n+4) : (9n+6). Find the ratio of their

(a) 18^{th} terms (b) 25^{th} terms

OR

The sum of three numbers in GP is 56. If we subtract 1, 7 and 21 from these numbers in that order, we obtain an AP. Find the numbers.

* * * * *

DELHI PUBLIC SCHOOL, BHILAI

Date : 19.09.2022 **FIRST TERM EXAMINATION-2022** **Time : 3 Hrs.**

Class : XI **Subject : Computer Science** **Max. Marks : 70**

General Instructions :

- The question paper contains two parts A and B. Each part is compulsory
- Answer sequentially.
- Botha Part A and Part B have choices.
- 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 three Case Study questions. Each case study In each case study attempt any 4 out of the 5 sub-parts.
- Part – B is Descriptive type of questions. Part B has three sections.
  - A. Section – I is short answer question of 2 marks each in which two questions 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 options.
- All programming questions are to be answered using Python Language only.

PART – A

Section – I

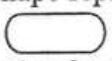
Questions 1 to 9 Any 7 questions to be attempted

01. A disk fragmentor is an example of **1**
    a. Application Software b. System Software c. Utility Program d. None

02. The hexadecimal digits are 0 to 9 and A to _____ **1**
    a. D b. E c. F d. G

03. The hexadecimal equivalent of $(58)_{10}$ is – **1**
    a. 1A b. 2A c. 3A d. 4A

04. What is an algorithm ? **1**
    a. A set of steps to solve a problem b. Software that analyzes data
    c. Hardware device that stores data d. None of these

05. What shape represents a decision in flowchart? **1**
    a.  b.  c.  d. None

06. The mode of python that gives instant result of typed statement is – **1**
    a. Interactive mode b. Script mode
    c. Combination of interactive and script modes d. All of these

07. What do you understand by the term immutable? **1**

08. An empty /null statement in Python is - **1**
    a. go b. pass c. over d. ;

09. Which of the following functions removes all the leading and trailing spaces from a string? **1**
    a. lstrip() b. rstrip() c. strip() d. All of these

Section – II

Question10 to 18 any 7 to be attempted

10. What is the output produced when this code executes? **1**

```
i=1
while (i<=7):
        i*=2
print(i)
```

    a) 8 b) 16 c) 4 d) no output

11. Consider the following code given: **1**

```
import random
r=random.randrange(100,999,5)
print(r,end=',')
r=random.randrange(100,999,5)
print(r,end=',')
r=random.randrange(100,999,5)
print(r,end=',')
```

    Which of the following are the possible outcomes of the above code?
    a) 655,705,220 b) 380,382,505 c) 100,500.999 d) 345,650,110

Contd...2

12. Consider the loop given below . 1

```
for i in range(10,5,-3):
    print(i)
```

How many times will the above loop run?

a) 3 b) 2 c) 1 d) Infinite

13. Give the output for the following when x=1,y=3 and z=2 1

a)
```
x**=y+z
print(x)
```

b)
```
x='5' +'5'
print(x)
```

14. Give the output for the following 1

a) print(5%10+10<50 and 29<= 29) b) (87//5.0) == int(87/5.0)

15. Guess the correct output 1

```
s="Hi!"
print(s*2)
```

a. Hi!Hi! b. TypeError: unsupported operand tye(s) for * : 'str' and 'int'

c. Hi!*2 d. None

16. Function range(3) is equivalent to : 1

a) range(1,3) b) range(0,3) c) range(0,3,1) d) range(1,3,0)

17. Consider the following lines of code , what will be the output? 1

>>>"*".join("Hello")

a) **'H*e*l*l*o'** **b) '*Hello'** **c) 'Hello*'** **d)None of these**

18. What is the output of following code? 1

```
if(4+5 == 10 ):
   print("TRUE")
else:
   print("FALSE")
print("TRUE")
```

a) TRUE b) TRUE c) FALSE d) None of these

TRUE FALSE TRUE

PART – B

Section – I

19. Write a program to take year as input and check whether if it is a leap year or not. 2

20. Write a program that reads a number of seconds and prints it in form : mins and seconds, e.g., 200 seconds are printed as 3 mins and 20 seconds. 2

21. Write a program to calculate the area of an equilateral triangle (area = $\frac{\sqrt{3}}{2} * side * side$) 2

22. Write a program to input the radius of a sphere and calculate its volume. ($V = \frac{4}{3}\pi r^3$) 2

23. Write a program to find the sum of digits of an integer number input by the user. 2

24. What is the similarity and difference between partition( ) and split( ) 2

25. What is a statement? What is the significance of an empty statement? 2

Or

Write a program to check whether given number is a palindrome or not.

26. Convert the following into equivalent numbers as per the number system indicated : **(Any two)**

a. $5620)_8$ to (?)$_2$ 2

b. $(125)_{10}$ to (?)$_2$ 2

c. $(789)_{10}$ to (?)$_{16}$ 2

d. $(10.75)_8$ to (?)$_{10}$ 2

27. Add the following binary numbers 2

110101 and 101111

28. Predict the output: 2

```
>>>x,y,z=10,20,30
>>>p,q,r=z-5,x+3,y-4
>>>print('x,y,z',x,y,z,end='@')
>>>print('p,q,r:',p,q,r)
```

Contd...3

Section – II

29. **Suggest appropriate functions for following tasks:** 3

i.) To check whether the string contains digits.

ii) To convert the first letter of a string to upper case

iii) To check whether all letters in the string are in capital letters.

30. What will be the output produced by the following code when a,b,c=1,1,2 3

```
d=a+b
e=1.0
f=1.0
g=2.0
h=e+f
k=f/g
print(c==d)
print(c is d)
print(g==h)
print(k==g)
print(g is h)
print( k is g)
```

31. Write a pseudo code to calculate the factorial of a number N. 3

Or

Draw a flowchart to find the sum of first 50 natural numbers.

32. Differentiate between break and continue statements using examples. 3

Or

Write a program to print the following pattern

1
212
32123
4321234
543212345

33. Write a program to print every integer between 1 and n divisible by m. Also report whether the number that is divisible by m is even or odd. 3

34. Write a program that inputs a line of text and prints out the count of vowels in it. 3

35. Write a program to find the sum of $1+\frac{1}{8}+\frac{1}{27}+\ldots..+\frac{1}{n^3}$,

where n is the number input by the user. 3

36. Consider the following string 3

sub="Computer Science"

What will the following string operations give as output:

i) **print(sub[-7:-1])**

ii) **print(sub[::-2]**

iii) **print(sub.islpha())**

Section – III

37. Write a complete python program to do the following 5

i) Read an integer X

ii) Determine the number of digits n in X

iii) Form an integer Y that has the number of digits n at ten's place and the most significant digit of X at the one's place.

iv) Output Y

(For example, if X is equal to 2134, the Y should be 42 as there are 4 digits and the most significant number is 2)

38. Write a program that prompts for a phone number of 10 digit and two dashes, with dashes after the area code and the next three numbers. Display if the phone number enter is valid format or not and display if the phone number is valid or not. For example ,017-555-1212 5

Or

Write a program that reads a string and displays the longest substring of the given string having just the constants.

DELHI PUBLIC SCHOOL, BHILAI

Date : 21.09.2022 **FIRST TERM EXAMINATION-2022-23** **Time : 3 Hrs.**
Class : XI **Subject : Engineering Graphics** **Max. Marks : 70**

General Instructions :

i. **Attempt any seven questions.**
ii. Internal choice is given in some questions.
iii. Use both side of drawing sheet if necessary.
iv. All dimensions are in mm.
v. Missing and mismatching dimension if any may be suitably assumed.
vi. Follow the SP: 46-2003 revised codes with first angle method of projection.

1. Write any five types of lines with their application and symbolic representation **(10)**

2. (a) Construct a quadrilateral MORE with MO = 60 mm, OR = 45 mm, ∠M = 60°, ∠O = 105° and ∠R = 105° **(06)**

(b) Draw the given equilateral triangle of side = 55 mm. Inscribe a circle in it. **(04)**

3. (a) Two circles of each radii, each = 25 mm have their centres 65 mm apart. Draw two external common tangents to these circles. **(06)**

(b) Write the sentence in single stroke capital letters in 10 mm letter height: "I love my country". **(04)**

4. (a) Construct a rhombus MNOP having its one side = 50 mm and the included angle ∠PMN = 60°. **(05)**

(b) Write any five difference between first and third angle projection method. **(05)**

5. Draw the projections of the following points on the same XY line,

(a) A, in the H.P. and 20 mm behind the V.P. **(02)**
(b) B, 40 mm above the H.P. and 25 mm in front of the V.P. **(02)**
(c) C, in the V.P. & 40 mm above the H.P. **(02)**
(d) D, 25 mm below the H.P.& 25 mm behind the V.P. **(02)**
(e) E, 15 mm above the H.P. and 50 mm behind the V.P. **(02)**

6. Draw the projection of a line AB 50 mm long in following positions.

(a) Parallel to and 30 mm in front of the V.P. and in the H.P. **(03)**
(b) Perpendicular to the V.P., 25 mm above the H.P. and its one end in the V.P. **(03)**
(c) Inclined at 30° to the H.P. and its one end 20 mm above it; parallel to and 30 mm in front of V.P. **(04)**

7. A pentagonal plate of 35 mm long edges is resting on one of its edge on H.P. Draw its projections if its plane is inclined at 45° to H.P. and perpendicular to V.P. **(10)**

8. A square pyramid base edge 40 mm and axis 65 mm long is resting on one of its base corner on the H.P. Draw projections if its axis is perpendicular to V.P. and one of its base edge inclined at 30^0 to H.P. **(10)**

DELHI PUBLIC SCHOOL, BHILAI

Date : 14.09.2022 **FIRST TERM EXAMINATION-2022** **Time : 3 Hrs.**

Class : XI **Subject : Physics** **Max. Marks : 70**

General Instructions:

(1) All questions are compulsory. There are 33 questions in all.

(2) This question paper has five sections : **Section A, Section B, Section C, Section D and Section E.**

(3) **Section A** contains ten very short answer questions and four assertion reasoning MCQs of 1 mark each,
Section B has two case-based questions of 4 marks each,
Section C contains nine short answer questions of 2 marks each,
Section D contains five short answer questions of 3 marks each and
Section E contains three long answer questions of 5 marks each.

(4) There is no overall choice. However internal choice is provided. You have to attempt only one of the choices in such questions.

SECTION – A

01. Name two physical quantities which have dimensions $M^1L^{-1}T^{-2}$. **(1)**

OR

Give two examples for dimension less variables.

02. Find the number of significant figures in **(1)**
(a) 0.005 (b) 0.270 cm

03. An object is in uniform motion along a straight line. What will be the position time graph for the motion of the object if $x_0 = +ve \quad and \quad v = -ve$. **(1)**

OR

Draw acceleration (Vs.) time graph to represent motion of an object under free fall, neglecting air resistance.

04. State triangle law of vector addition. **(1)**

OR

State Parallelogram law of vector addition.

05. A circular wheel of 0.50 m radius is moving with a speed of 10m/s. Find the angular speed. **(1)**

06. Athlete runs a certain distance before long jump. Name the law that explains it. **(1)**

07. If g is the acceleration due to gravity and λ is the wavelength, then which Physical quantity does $\sqrt{\lambda\, g}$ represent ? **(1)**

08. A lift is going up with the acceleration 2g. A man of mass m' is inside the lift. What will be reaction of the floor on the man ?

OR

The two ends of a spring balance are pulled each by a force of 10 kg wt. What will be the reading of the spring balance? **(1)**

09. What is the angle of friction between two surfaces in contact if the coefficient of friction is $^1/_{\sqrt{3}}$? **(1)**

10. A thief jump from the roof of a house with a box of weight W on his head. What will be the weight of the box as experienced by the thief during Jump ? **(1)**

For question numbers 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 true and R is the correct explanation of A.

(b) Both A and R are true but R is NOT the correct explanation of A.

(c) A is true but R is false.

(d) Both A and R are false.

11. **Assertion (A) :** An object can have constant speed but variable velocity.

Reason (R) : Speed is a scalar but velocity is a vector. **(1)**

12. **Assertion (A) :** When a body is projected at an angle 45°, its range is maximum

Reason (R) : For maximum range, the value of $Sin\ 2\theta$ should be equal to one. **(1)**

13. **Assertion (A) :** The dot product of one vector with another vector may be a scalar or a vector.

Reason (R) : If the product of two vectors is a vector, then product is called dot product. **(1)**

14. **Assertion (A) :** Centripetal force is always required for motion in curved path.

Reason (R) : On a banked curved track, vertical component of normal reaction provides necessary centripetal force. **(1)**

Contd...2

SECTION – B

Question NO. 15 and 16 are Case Study based questions and are compulsory.
Attempt any 4 sub-parts from each question. Each question carries 1 mark.

PROJECTILE

15. A projectile moves under the combined effect of two rectangular velocities. While studying the motion of the projectile we ignore the air resistance, the effect of earth's curvature and the effect due to rotation of earth. During the whole trajectory, the acceleration due to gravity is constant both in magnitude and direction. **(4)**

(i) A ball whose kinetic energy is E, is thrown at an angle of 45^0 to the horizontal, its kinetic energy at the highest point of its flight will be
(a) E (b) $\frac{E}{\sqrt{2}}$ (c) $\frac{E}{2}$ (d) Zero

(ii) At the highest point of a projectile in its trajectory, its velocity and acceleration are at an angle of
(a) 0^0 (b) 45^0 (c) 180^0 (d) 90^0

(iii) The maximum horizontal range of a projectile is 400 m. The maximum height attained by it will be
(a) 100 m (b) 200 m (c) 400 m (d) 800 m

(iv) A missile is fired for maximum range with an initial velocity of 20 m/s. If $g = 10\ m/s^2$, the range of the missile is
(a) 40 m (b) 50 m (c) 60 m (d) 20 m

(v) Two projectiles are fired from the same point with same speed at angle of projection 60^0 and 30^0 respectively. Which one of the following is true:
(a) Their maximum height will be same. (b) Their range will be same.
(c) Their velocity at the highest point will be the same. (d) Their time of flight will be the same.

HELMET :

16. A bike helmet protects out head using two simple principles of physics. The foam lining in the interior of the helmet increases the time over which the impulse acts, reducing the force there by. The rigid helmet spreads this force applying it over a wider area. Therefore, pressure exerted is reduced. It is the applied pressure that breaks the bones and the skin rather than the applied force. **(4)**

(i) The physical quantity which is equal to the change in momentum of a body is known as
(a) force (b) acceleration (c) impulse (d) reaction

(ii) The linear momentum of a body changes at a rate of 10 kg m/s. Force acting on the body is
(a) 1N (b) 10 N (c) 1 Kgf (d) 10 Kgf

(iii) A ball of mass m strikes a rigid wall with speed 'u' and rebounds with the same speed. The impulse imparted to the ball by the wall is
(a) $2\,mu$ (b) mu (c) $Zero$ (d) $-2\,mu$

(iv) The dimensional formula for impulse is
(a) $ML^{-1}T^{-1}$ (b) MLT^{-2} (c) MLT^{-1} (D) $M^{-1}LT^{-1}$

(v) For a given change in linear momentum, when time of impact increase, force
(a) decreases (b) increases (c) remains same (d) none of these

SECTION – C

17. Check the dimensional consistency of the equation $h = \frac{2\,S\,Cos\theta}{r\rho g}$ where h = height, s = surface tension, ρ = density, r = radius & g = acceleration due to gravity. **(2)**

18. If the value of atmospheric pressure is 10^6 dyne cm^{-2}, find its value in SI units using dimensional analysis. **(2)**

OR

The density of mercury is 13.6 g cm^{-3} in CGS system. Find its value in SI units using dimensional analysis.

19. Write two uses and two limitations of dimensional analysis. **(2)**

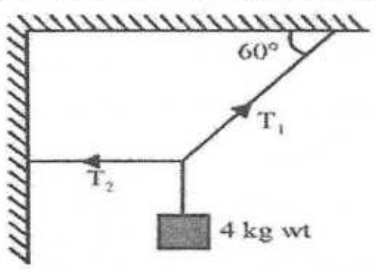
20. The displacement (in metre) of a particle moving along $x - axis$ is given by $x = 18t + 5t^2$. Calculate
(i) the instantaneous velocity at t=2s
(ii) instantaneous acceleration **(2)**

21. Two vectors, both equal in magnitude have their resultant equal in magnitude of the either. Find the angle between the vectors.

OR

Find the angle between the vectors $\vec{A} = \hat{\imath} + 2\hat{\jmath} - \hat{k}$ and $\vec{B} = -\hat{\imath} + \hat{\jmath} - 2\hat{k}$ **(2)**

22. What are concurrent forces? Determine the tension T_1 and T_2 in the strings shown in the figure **(2)**



23. Define coefficient of friction. On what factors does is depend on? **(2)**

OR

Define limiting friction. On what factors does it depend on?

Contd...3

24. Explain why
(a) a horse cannot pull a cart in empty space.
(b) fruits fall down from a tree, when its branches are shaken. **(2)**

25. A stone of 0.25 Kg tied to the end of a string is whirled round in a circle of radius 1.5 m with a speed of 40rev/$_{m\ in}$ in a horizontal plane. What is the tension in the string? **(2)**

SECTION – D

26. State the principle of homogeneity of dimensions. On the basis of it find the dimensions of a/b in the equation $F = a\sqrt{x} + bt^2$, where F is force, x is distance and t is time. **(3)**

27. The time period of revolution of a planet around the sun may be assumed to depend on radius of the orbit 'r', mass of the sun 'M' and the gravitational constant 'G'. Derive the expression for time period using the method of dimensions. **(3)**

28. A player throws a ball upward with an initial speed of 29.4 m/s.
(a) What are the velocity and acceleration of the ball at the highest point of its motion?
(b) To what height does the ball rise and after how long does the ball return to player's hand? (Take g=9.8m/s^2) . **(3)**

OR

A ball is thrown vertically upward with a speed of 20 m/s from the top of a multi-storeyed building. The height of the point from where the ball is thrown is 25 m from the ground.
(i) How high will the ball rise?
(ii) How long will it be before the ball hits the ground? (Take g=10m/s^2)

29. (a) Define scalar product of two vectors.
(b) Mention any two important properties of scalar product.
(c) A force $\vec{F} = 4\hat{\imath} + \hat{\jmath} + 3k\ N$ acts on a particle and displaces it through $\vec{S} = 11\hat{\imath} + 11\hat{\jmath} + 15\hat{k}\ m$. Calculate the work done by the force. **(3)**

OR

(a) Define cross product of two vectors. Name the rule for determining the direction of $\vec{A} \times \vec{B}$.
(b) Mention any two important properties of cross product.
(c) Prove that the vectors $\vec{A} = 2\hat{\imath} - 3\hat{\jmath} - \hat{k}$ and $\vec{B} = -6\hat{\imath} + 9\hat{\jmath} + 3\hat{k}$ are parallel.

30. State and prove the law of conservation of linear momentum. **(3)**

SECTION – E

31. What do you mean by Banking of roads? Draw a neat diagram and discuss the motion of a car on banked circular road having coefficient of friction μ . Hence derive the expression for optimum speed with which the car can take a safe circular turn. **(5)**

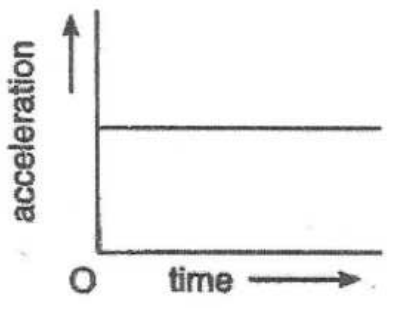
OR

(a) Plot a graph to show the variation of force of friction with the applied force and mark the region of state friction, limiting friction and kinetic friction.
(b) Define angle of friction and angle of repose. Using a proper diagram establish a relation between them.

32. A projectile is fired at an angle 'θ' with the horizontal with the initial velocity 'u'. Show that its trajectory is a parabola. Obtain he expression for
(i) maximum height attained
(ii) time of flight and
(iii) horizontal range. **(5)**

OR

(a) Derive the three kinematic equations for uniformly accelerated motion graphically.
(b) Acceleration time graph of a moving object is shown in the figure.
Draw velocity time graph and displacement time graph corresponding to this type of motion.



33. Define centripetal acceleration. With the help of a neat diagram derive an expression for the centripetal acceleration of a body with uniform speed 'v' along a circular path of radius 'r' . What will be direction of velocity and acceleration at any instant?

OR

What is meant by resolution of a vector? Analytically find the resultant $\vec{R}$ of two vectors $\vec{A}$ *and* $\vec{B}$ inclined at an angle θ . What should be the angle 'θ' between two vectors $\vec{A}$ *and* $\vec{B}$ for their resultant $\vec{R}$ to be maximum? **(5)**

DELHI PUBLIC SCHOOL, BHILAI (C.G.)

CLASS XI | **FIRST TERMINAL EXAMINATION-2022** | **TIME: 3 HRS.**

23.09.2022 | **CHEMISTRY** | **MAX. MARKS: ~~80~~ 70**

GENERAL INTSTURCTIONS:

Read the following instructions very carefully and strictly follow them:

- There are 33 questions in this question paper. All questions are compulsory.
- Section A – Qn. No. 1 to 16 are objective questions, Qn. nos. 1 & 2 are passage based questions carrying 4 marks each while Qn. No. 3 to 16 carry 1 mark each.
- Section B – Qn. Nos. 17 to 25 are short answer questions and carry 2 marks each.
- Section C – Qn. Nos. 26 to 30 are short answer questions and carry 3 marks each.
- Section D – Qn. Nos. 31 to 33 are long answer questions and carrying 5 marks each.
- There is no overall choice. However, internal choices have been provided.
- Use of log tables and calculators are not permitted.

Section-A

1. **Read the passage given below and answer the following questions:** 1x4=4

Stoichiometry is a section of chemistry that involves a calculation based on chemical equations. Chemical equations are governed by laws of chemical combination. The mass of reactants is equal to the mass of products. The compound obtained from different methods contains the same elements in the fixed ratio by mass. A mole is equal to 6.022×10^{23} particles. A mole is also equal to molar mass expressed in grams. One mole of every gas at STP has a volume of 22.4L.

The following questions (1 to 4) are multiple choice questions, choose the most appropriate answer:

(i) The number of moles of water in 360g of H_2O is:
(a) 30 (b) ~~(b)~~ 20 (c) 10 (d) 18

(ii) The number of atoms in 0.25 mole of carbon are:
(a) 1.506×10^{23} (b) 1.506×10^{22} (c) ~~(c)~~ 1.605×10^{23} (d) 1.605×10^{22}

(iii) The molar mass of a sample of gas which weighs 0.5g and occupies 1.12 Litres at S.T.P. conditions is:
(a) 10g (b) 100g (c) 0.1g (d) 1g

(iv) The amount of CO_2 that could be produced when 1 mole of carbon is burnt in air is:
(a) 4.4g (b) 16g (c) ~~(c)~~ 44g (d) 1.6g

2. **Read the passage given below and answer the following questions:** 1x4=4

An electron in an atom can be completely designated with the help of four quantum numbers. The Principal (n) Quantum number that tells about the size, Azimuthal quantum number about the shape while Magnetic number signifies the orientation of the electron orbital.

(i) The lowest value of n that allows g orbitals to exist is:
(a) 4 (b) 5 (c) 6 (d) 7

(ii) Which of the following describes 3d orbital?
(a) n=3, l=0 (b) n=3, l=2 (c) n=3, l=1 (d) n=3, l=3

(iii) Which of the following orbitals is not possible?
(a) 2s (b) ~~(b)~~ 2d (c) 2p (d) 3d

(iv) The number of unpaired electrons in $_{26}Fe$ are: 2,8,14,2
(a) 6 (b) 4 (c) 5 (d) 2

3. Among the given pairs of orbitals, 2s and 3s, which orbital will experience the larger effective nuclear change?

OR

How many electrons in an atom have n=4, $m_s = -1/2$?

4. Which one of the following is better way to express concentration of a solution?
   (a) Morality (b) Normality (c) Molality (d) Mole Fractions

5. A solution is prepared by adding 2g of a substance A to 18g of water. The mass percent of the solute is:
   (a) 20% (b) 10% (c) 30% (d) 15%

6. The IUPAC symbol for the element with atomic number 119 would be:
   (a) Unh (b) Uue (c) Uun (d) Une

7. Which of the following phenomenon was explained by particle nature of light?
   (a) Black Body radiation (b) Photoelectric effect
   (c) Interference (d) Both (a) and (b)

8. Molarity is the number of moles of solute present in 1 Kg. of solvent.
   (a) True (b) False

9. Which set has the correct decreasing order of oxidation states of Nitrogen?
   (a) HNO_3, NH_4Cl, NO, N_2 (b) HNO_3, NO, NH_4Cl, N_2
   (c) HNO_3, NO, N_2, NH_4Cl (d) NH_4Cl, N_2, NO, HNO_3

   OR

   The oxidation number of Cr in CrO_5 is:
   (a) 10 (b) 6 (c) 3 (d) 5

10. The oxidation number of central Bromine in Br_3O_8 is:
    (a) Zero (b) –1 (c) +4 (d) +2

    OR

    When zinc is added to $CuSO_4$ solution, metallic copper is formed because of:
    (a) reduction of zinc (b) hydrolysis of $CuSO_4$
    (c) Oxidation of zinc (d) reduction of SO_4^{2-} ions

11. Which one of the following has largest number of atoms?
    (a) 1g Na (b) 1g Li (c) 1gCl_2 (d) 1g Mg

    OR

    12.044×10^{23} atoms of oxygen contains:
    (a) 1 mole of oxygen atoms (b) 2 moles of oxygen atoms
    (c) 3 moles of oxygen atoms (d) 4 moles of oxygen atoms

In the following questions (12 to 16) a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following:

(i) Assertion and reason both are correct statements and reason is correct explanation for assertion.
(ii) Assertion and reason both are correct statements, but reason is not the correct explanation for assertion.
(iii) Assertion is correct statement, but reason is wrong statement.
(iv) Assertion is wrong statement, but reason is correct statement.

12. Assertion: Hydrogen has one electron in its orbit but it produces several spectral lines.
    Reason: There are many excited energy levels available.

13. Assertion: The free gaseous Cr atom has six unpaired electrons.
    Reason: Half-filled d-orbital has greater stability.

    OR

    Assertion: Electronic configuration of Cr^{3+} is same as of Sc (Z=21).
    Reason: Half-filled orbital configurations are very stable

14. Assertion: If the velocity of the electron is known precisely, the position of the electron will be uncertain.

    Reason: An electron is negatively charged.

15. Assertion: The period indicates the value of 'n' for the outermost or valence shell.

    Reason: The successive period in the periodic table is associated with filing up of the next higher principal energy level.

16. Assertion: It is impossible to determine the exact position and exact momentum of an electron simultaneously.

    Reason: The path of an electron in an atom is clearly defined.

SECTION-B

The following questions (17 to 25) are short answer type and carry 2 marks each.

17. Calculate the oxidation number of the atom underlined in the following:
    (a) $\underline{Mn}O_4^{2-}$ (b) $\underline{S}O_4^{2-}$

18. Calculate the amount of CO_2 that could be produced when:
    (a) 2 mole of carbon is burnt in air (b) 1 mole of carbon is burnt in 16g of dioxygen

    OR

    (a) What will be the mass of one ^{12}C atom in g. (b) Define mole.

19. Calculate the number of atoms in each: (a) 52 moles of He (b) 52 u of He

20. (a) Define oxidant.
    (b) In which type of compounds, oxygen has an oxidation number of –1?

    OR

    (a) Define reductant.
    (b) In which type of compounds, hydrogen has an oxidation number of –1?

21. Give the general outer shell electronic configuration of:
    (a) S-block elements (b) f-block elements

22. What is the maximum number of emission lines obtained when the excited electron of a H atom in n=6 drops to the ground state?

    OR

    Calculate the frequency of a light wave whose time period is 2.0×10^{-10}S.

23. Find the energy of the photon which has a wavelength of 0.50Å

24. In the given reaction: $N_2 + 3H_2 \rightarrow 2NH_3$, 50.0 kg of $N_2(g)$ and 10.0 kg of $H_2(g)$ are mixed to produce NH_3. Calculate the mass of ammonia (NH_3) produced.

25. (a) State Heisenberg's Uncertainty principle
    (b) Write the electronic configuration of Cu (At number=29)

SECTION-C

The following questions (26 to 30) are short answer type and carrying 3 marks each.

26. Balance the following equation by ion-electron method:
    $MnO_4^- + Fe^{2+} + H^+ \rightarrow Mn^{2+} + Fe^{3+} + H_2O$ (Acidic medium)

    OR

    Balance the equation by ion-electron method: $MnO_4^- + I^- \rightarrow MnO_2 + I_2$ (Basic medium)

27. Chlorine is prepared in the laboratory by treating $MnO_2(s)$ with HCl (aq) as per the following reaction: $4HCl(aq) \rightarrow MnO_2(s) \rightarrow MnCl_2(aq) + Cl_2(g) + 2H_2O$

    How many grams of HCl react with 5.0g of manganese dioxide? (Gram At.mass of Mn=55g and gram At. mass of Cl=35.5g)

28. Calculate the wave number for the longest wavelength transition in the Balmer series of atomic hydrogen.

OR

The energy associated with the first orbit in the hydrogen atom is -2.18×10^{-18} J $atom^{-1}$. What is the energy associated with the fifth orbit?

29. Give three characteristic properties of d-block elements.

30. (a) What do you understand by disproportionation reaction?
    (b) In the given reaction, write the (i) oxidation-half reaction and (ii) reduction-half reaction: $P_4 + OH^- \rightarrow PH_3 + H_2PO_2^-$ (Balancing not required)

SECTION-D

31. (a) State law of multiple proportions.
    (b) Calculate the Molarity of nitric acid in a sample which has a density, 1.41gmL^{-1}, and mass percent of HNO_3 in it is 69%.
    (c) Determine the molecular formula of an oxide of iron in which the mass percent of iron and oxygen are 69.9% and 30.1% respectively. Given that molar mass of oxide is 159.8g/mole. (At. mass: Fe = 55.85, O=16.00 amu)

OR

    (a) State Avogadro's law.
    (b) Calculate the Molarity of sugar ($C_{12}H_{22}O_{11}$) if its 20g is dissolved in enough water to make a final volume upto 2L. 342
    (c) An oxide of nitrogen has the percent composition: N=26; O=74. Calculate the empirical formula of the oxide. (At. mass: N=14, O=16 amu)

32. (a) State Hund's rule of maximum multiplicity.
    (b) Using s, p, d notations describe the orbital with the following quantum numbers:
    (i) n = 3, l = 1 (ii) n = 4, l = 2
    (c) What will be the wavelength of a ball of mass 0.1 kg moving with a velocity of 10ms^{-1}?

OR

    (a) State Pauli's Exclusion principle.
    (b) Using s, p, d notations describe the orbital with the following quantum numbers:
    (i) n = 4, l = 3 (ii) n = 2, l = 1
    (c) What will be the wavelength of a ball of mass 0.2 kg moving with a velocity of 10ms^{-1}?

33. (a) Give the IUPAC name of the element with atomic number 115.
    (b) Predict the (i) period and (ii) group number to which the element with atomic number 54 belongs.
    (c) Give the block and group number of the element satisfying the electronic configuration: $(n-1)d^2\ ns^2$ for n=4.

OR

    (a) Give the IUPAC name of the element with atomic number 112.
    (b) Predict the (i) period and (ii) group number to which the element with atomic number 28.
    (c) Give the block and group number of the element satisfying the electronic configuration: $(n-1)d^5\ ns^2$ for n=4.

* * * * *

F-13

DELHI PUBLIC SCHOOL, BHILAI (C.G.)

DATE : 19-09-2022 **FIRST TERM EXAMINATION, 2022** **Time: 3 Hours**

CLASS : XI **BIOLOGY** **M.M : 70**

No. of Pages Printed : 3

General Instructions :

1. **All questions are compulsory.**
2. **The question paper consists of four sections A,B, C and D with 33 questions.**
   - **Section A has 14 questions of 1 mark each and 2 case based questions.**
   - **Section B has 9 questions of 2 marks each.**
   - **Section C has 5 questions of 3 marks each.**
   - **Section D has 3 questions of 5 marks each.**
3. **There is no overall choice. However, internal choices have been provided in some questions.**
4. **Wherever necessary, neat and properly labeled diagram should be drawn.**

SECTION A

1. Name the smallest free living prokaryote without cell wall. (1)
2. What are pseudo coelomate animals? Give an example. (1)
3. Name the anticoagulant present in leech. (1)
4. Mannitol is the storage food in which group of algae? (1)
5. Water vascular system is found in animals of which phylum? (1)
6. Which is the most accepted model of bio membrane. State the postulate of the model. (1)
7. Name the excretory organ present in animals of phylum Asthropoda. What is the scientific name of King Crab? (1)

   OR

   Name the second largest animal phylum. What is the function of radula?
8. What do you mean by anoxygenic photosynthesis ? (1)
9. What is the genetic material present in Tobacco Mosaic Virus ? (1)
10. What do group of related genera represent? (1)

DIRECTION (Q.No. 11 to 14)

In each of the following questions, a statement of Assertion (A) is given followed by corresponding statement of Reason (R). Of the statements, mark the correct answer as :

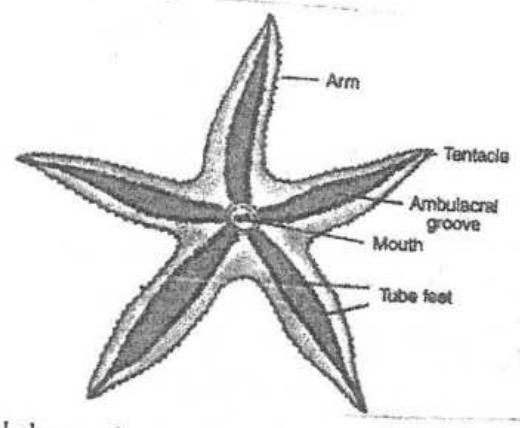
a) Both A and R are true and R is the correct explanation of the assertion (A)
b) Both A and R are true but R is not the correct explanation of the (A)
c) A is true but R is false.
d) Both A and R are false.

11. a) Assertion [A] Euglenoids change their shape. (1)
    Reason [R] They have no rigid cell wall.

    OR

    b) Assertion [A] Red algae contribute in producing coral reef.
    Reason [R] Some red algae secrete and deposit Calcium Carbonante over the wall.
12. a) Assertion [A] In Nereis worms mesoderm pouches occur in the false coelom (1)
    Reason [R] Nereis are diploblastic animals
13. a) Assertion [A] To give scientific name to a plant there is ICBN. (1)
    Reason [R] It uses articles, photographs and recommendations to name a plant.
14. a) Assertion [A] Structural homology provide information about common lineage. (1)
    Reason [R] Molecular homology is useful in distinguishing various taxa.

15. Study the following diagram and answer any four questions. (4)



i) What is the symmetry of the animal shown above.
   a) Bilateral b) Irregular c) Pentaradial (d) Spherical

ii) What is the name of the animal.
   a) Asterias b) Antedon c) Echinus (d) Cucumaria

iii) What is the peculiarity of its arms?
   a) They undergo autotomy b) Presence of unibilateral grooves.
   b) Occurrence of reddish eye d) All of these

iv) How does fertilisation occur in the animal?
   a) In external medium (b) Internal through copulation
   c) Shedding of sperms (d) Taking of gametes through vascular system

v) To which phylum the above animal belongs?

16. **Read the following and answer any four questions :** (4)

Camillo Golgi (1898) , first observed densely stained reticular structures near the nucleus. They were named Golgi Bodies after him. These are flat, disc shaped sacs or cisternae of of 0.5µm to 1.0 µm diameter. These are stacked parallel to each other. Large number of cisternae are present in Golgi complex. They have cis the forming face and trans the maturing face. They perform the function of packaging. It is involved in the formation of lysosomes.

1) Golgi cisternae formed faces of the Golgi apparatus are
   a) Similar b) Different c) Interconnected d) Both b and c
2) Where are lysosomes formed
   a) Over the forming face b) over the maturing face c) from tubules d) from rough vesicles
3) Golgi complex is made up of
   a) Cisternae, tubules, vesicles and vacuoles
   b) Cisternae and tubules
   c) Only cisternae and vesicles
   d) Cisternae, tubules and vacuoles.
4) Golgi apparatus is generally situated at
   a) Base of microvilli (b) Base of flagellum
   (c) Anywhere in cytoplasm (d) Near one end of nucleus.
5) State any two functions of Golgi apparatus other than mentioned in the paragraph .

SECTION B

17. What is bioluminescence? Name a bioluminiscent protistan alga.
18. Which plants are called amphibians of plant kingdom? Why are they so called? (2)
19. In a given habitat there are 20 plant species and 20 animal species. Should we call this a diversity of biodiversity. Justify your answer. (2)
20. What is the importance of pneumatic bones and air sac in Aves? (2)

(OR)

Balanoglossus belong to which phylum? How do they respire ? Name the excretory organ. (2)

21. Both Gymnosperm and Angiosperm bear seeds then why are they classified separately? (2)
22. State any two differences between ovipary and vivipary. (2)
23. What is mesosome in a prokaryotic cell. Mention any two functions of it. (2)

24. Why is mitosis called equational division? (2)

(OR)

What is G_0 phase of cell cycle ? State the significance of it. (2)

25. What do the term phycobiont and mycobiont signify. (2)

SECTION C

26. Write any two diagnostic characters of : (3)
    a) Slime mould (b) Chrysophytes (c) Sporozoans
27. What is heterospory? State any two significance of it. (3)
28. Mention any three functions of (3)
    (a) Rough Endoplasmic Reticulum (b) Lysosomes
29. Arthopods constitute the largest group of the animal kingdom. State any three reason for it. (3)

(OR)

How would you distinguish Liverworts from Mosses.

30. Draw a well labeled diagram of virus. How are viroids different from prions? (3)

SECTION D

31. Draw a well labeled diagram of Nucleus. (5)
    (a) State a function of nucleolus
    (b) State any four difference between euchromatin and heterochromatin.

(OR)

(a) Classify and draw different types of chromosomes based on the position and centromere
(b) What is the function of histones?
(c) State any two difference between chromosome and chromatin material.

32. a) With the help of diagram explain the prophase of mitosis in cell division.. (5)
    b) State the difference between karyokinesis and cytokinesis.

(OR)

a) What are the different phases of Interphase.
b) With the help of diagram explain the metaphase stage of mitotic cell division.

33. a) What are the unique features of phylum Annelida (any four) (5)
    b) Write the scientific name of Earth worm.
    c) Give an example each of dioecious and monoecious Annelid.

(OR)

a) What are the the unique features of phylum porifera (any four).
b) What is gemmule? Write its function.
c) Define pinacocyte and porocyte

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DELHI PUBLIC SCHOOL, BHILAI

Date : 19.09.2022 **FIRST TERM EXAMINATION-2022** **Time : 3 Hrs.**

Class : XI **Subject : Economics** **Max. Marks : 80**

General Instructions :

- This question paper contains two parts
  - Part A – Statistics (40 Marks)
  - Part B – Microeconomics (40 Marks)
- Marks for questions are indicated against each question.
- Question No. 1 to 10 and Question No. 18-27 (including two case Base Questions) are one-mark questions are to be answered in one word/sentence.
- Case Based Questions (CBQ's) are Question No.7-19 and Question No. 24-27.
- Question NO.13-15 & Question No.30-32 are 4 marks questions and are to be answered in 80-100 words each.
- Question No. 16-17 & Question No. 33-34 are 6 marks questions and are to be answer5ed in 100-150 words each.
- Answer should be brief and to the point and above word limit be adhered to as far as possible.

PART A – STATISTICS – 40 Marks

Q.01 Statistics is the study of ..... Facts. (1)
(a) Quantitative (b) Qualitative (c) Both (d) Neither

Q.02 ..... is the first stage in Statistical investigation. (1)

Q.03 What do you mean by discrete series? (1)

Q.04 The quantity of characteristic whose value changes from one investigation to another is called ..... (1)

Q.05 In an ascending order of magnitude of frequency distribution, if we add frequencies one by one to the previous frequencies, we get. (1)
(a) Less than cumulative frequency distribution.
(b) More than cumulative frequency distribution.
(c) Relative frequency distribution.
(d) None of the above

Q.06 In the following question Assertion (A) is followed by a statement of Reason (R). Choose the correct alternative given below:
Assertion (A) : In Bar diagram, data are presented in the form of bars or rectangles.
Reason (R) : Pie diagram show absolute value.
(a) Both Assertion (A) & Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
(b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A).
(c) Assertion (A) is true Reason (R) is false.
(d) Assertion (A) is false & Reason (R) is true.

Read the following case carefully and answer the questions given below: (1x4=4)

The population census is carried out once in every 10 yrs. in India. Most recently population census in India 2011. Demographic data obtained by census method is a comprehensive source of secondary data. It relates to demographic indicators like death rate and birth rate, literacy, work force, life expectancy and composition of population etc. which is published by the Registrar General of India every 10 yrs. The data relating to estimation of the total area under crops in India are obtained by using village records maintained regularly by Patwari.

Q.07 Which of the following are important sources of secondary data ?
(a) Census of India (b) NSSO (c) Both (d) None

Q.08 Which method is used, when the population under investigation is infinite?

Q.09 Data collected by published or unpublished sources is called ..... .

Q.10 Census method is suitable when the population has a small size. (True/False)

Q.11 (A) Distinguish between Simple Bar diagram and Sub-divided Bar diagram. (3)

OR

(B) Represent the following data by Sub-divided Bar -Diagram.

Year →	2009-10	2010-11	2011-12	2012-13
Food	130	200	300	250
Fertilizer	170	150	100	150
Mineral Oil	300	350	400	600

Q.12 What do you mean by classification of data? Name the method of classification. (3)

Q.13 (A) What are the limitations of Sampling method? (4)

OR

(B) Discuss the advantages of Sampling Method.

Q.14 Define Series and explain different types of series. (1+3=4)

Contd...2

Q.15 Draw a Histogram from the following information: (4)

Daily wages →	10-15	15-20	20-25	25-30	30-40	40-60	60-80
No. of workers →	7	19	28	15	12	12	8

Q.16 What are the kinds of errors that you envisage in the process of collection of data? (6)

OR

Describe The questionnaire method of collecting Primary Data. What precaution must be taken while preparing a questionnaire?

Q.17 What is Pie-diagram? Draw a pie-diagram to represent the following data. (6)

Food	700
Clothing	280
Rent	210
Medicine	140
Other items	70

PART B – MICROECONOMICS – 40 Marks

Q.18 Economy can never operate outside the PPF with the given resources and technology. (True/False) (1)

Q.19 Opportunity cost is the : (1)

(a) Fuller Utilization of resources. (b) Unutilization of resources

(c) Cost of next best alternative foregone (d) None of the above

Q.20 Read the following statement carefully and choose the correct alternative. (1)

Statement 1 : Marginal Opportunity cost refers to the value of a factor in its next best (or second best) alternative use.

Statement 2 : Technological advancement shifts the PPC to the right.

Alternatives :

(a) Both the Statements are true. (b) Both the Statements are false.

(c) Statement 1 is true and Statement 2 is false. (d) Statement 2 is true and Statement 1 is false.

Q.21 Read the following statement carefully. Write True or False with a reason. (1)

If $\frac{MU_x}{P_x} > \frac{MU_y}{P_y}$, the consumer should buy more of commodity 'Y' and less of commodity 'X'.

Q.22 What is meant by cardinal measurement of utility? (1)

Q.23 MRS indicates : (1)

(a) Slope of PPC (b) Slope of IC (c) Slope of Budget line (d) Slope of Income line

Read the following case study carefully and answer the questions.

In our income rises, we generally tend to buy more of the goods. More income would mean more pens, more shirts, more shoes, more cars and so on. But there are exceptions. If initially, you are buying coarse grains, how would you take increase in income now. Perhaps, as a first step, you would discard the consumption of inferiors. Surely this happens in the desert of Rajasthan where the rich minority eats wheat while the poor majority eats bajra as their staple food.

Q.24 The Law of Demand does not apply on ..... . (normal good/Giffen goods) (1)

Q.25 Inferior goods are those whose income effect is ..... (Positive/negative (1)

Q.26 A fall in income of the consumer (in case of normal goods) will cause : (1)

(a) upward movement along the demand curve. (b) downward movement along the demand curve.

(c) leftward shift of the demand curve. (d) Rightward shift of the demand curve.

Q.27 As a result of rise in consumer's income the demand curve for coarse grains (inferior goods) becomes (1)

(a) A horizontal straight line (b) A vertical straight line (c) Shift to the right (d) Shifts to the left

Q.28 What is the reason for the concave shape of PPF? Explain. (3)

OR

Describe the central problem of 'What to produce" of an economy.

Q.29 Distinguish between change in Quantity demanded and change in demand. (3)

Q.30 "With the fall in the price of substitute, the demand for good also declines." Explain with appropriate diagram. (2+2=4)

Q.31 Which changes can cause a rightward shift in the demand curve of a commodity? (4)

OR

Explain 'Law of Demand' with the help of a schedule and diagram.

Q.32 Explain the relationship between TU and MU with the help of a schedule and a diagram. (2+1+1=4)

Q.33 What is production possibility curve? Show it with the help of an example and diagram. (6)

OR

Distinguish between Market economy and Centrally Planned economy.

Q.34 Suppose a consumer, wants to consume two goods 'X' and good 'Y'. Consumer's income is ₹ 20.00, the price of 'X' is ₹ 4 per unit and price of 'Y' is ₹ 2 per unit.

(a) Write down the equation of Budget line. (1)

(b) How much of good 'X' can the consumer consume if he spent his entire income on that good. (1)

(c) How much of good 'Y' can be consumed spends his entire income on that good? (1)

(d) What is the slope of Budget line? (1)

(e) Draw a Budget line. (1)

(f) On the basis of the above information, find out those bundles (combinations) of 'X' and 'Y', which form the Budget line. (1)

DELHI PUBLIC SCHOOL, BHILAI

Date : 23.09.2022 **FIRST TERM EXAMINATION-2022** **Time : 3 Hrs.**
Class : XI **Subject : Business Studies** **Max. Marks : 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.

SECTION-A

Q.1 The owner is rewarded for conducting business and bearing the risk. What is the form of reward the owner receives? **(1)**
a) Remuneration b) Commission c) Bonus d) Profit

Q.2 This removes the hindrance of persons **(1)**
a) Transportation b) Trade c) Communication d) Advertising

Q.3 Which of the following is not an economic cause of business risks? **(1)**
a) Negligence of employees b) Interest rate fluctuation
c) Higher Taxes d) Change in technology

Q.4 Which industry is engaged in breeding plants and animals for their use in further production? **(1)**
a) Extractive Industry b) Genetic Industry c) Synthetical Industry d) Processing Industry

OR

Commerce includes:
a) Business and Trade b) Business and Industry c) Trade and Aids to Trade d) None of the Above

Q.5 A prospectus is issued for **(1)**
a) Inviting public for raising share capital
b) Seeking permission to start business operations
c) Inform public about the formation of the company
d) Appointing Board of Directors

Q.6 Preliminary contracts are signed **(1)**
a) Before the incorporation
b) After Incorporation before capital subscription
c) After Incorporation but before commencement of business
d) After commencement of business

Q.7 A government company is any company in which the paid up capital held by the government is not less than **(1)**
a) 49 per cent b) 51 per cent c) 25 percent d) 50 percent

Q.8 Airport Authorities of India is a public enterprise. Identify the form of organisation. **(1)**
a) Statutory Corporati b) Departmental Undertaking
c) Government Company d) Multi National Corporation

Q.9 A government company purchases shares in the name of **(1)**
a) Prime Minister of India b) State Chief Minister
c) Chief Justice of India d) President of India

Q.10 Once the claim is settled, the ownership title transfers from Insured to Insurer. Identify the element **(1)**
a) Subrogation b) Contribution c) Indemnity d) Mitigation

Q.11 OLX.com is an example of **(1)**
a) B2C commerce b) B2B commerce c) C2C commerce d) B2E commerce

OR

E-Commerce does not include
a) A business's interactions with its suppliers
b) A business's interaction with its customers
c) Interactions among the various departments within the business
d) Interactions among the geographically dispersed units of the business

Q.12 This is not a characteristic of E-business **(1)**
a) Convenience b) Consumer satisfaction
c) Global reach d) Personal touch

Contd...2

Read the following text and answer question No.13-16 on the basis of the same:

Preeti, Priya and Prashant mutually decide to start a partnership business of manufacturing toys. They also decided that Prashant's association with the firm will not be revealed to the general public. Priya and Preeti will take active part in carrying out the business of the firm. After few months they mutually decide to admit Aditya as a partner who allowed them to use his name for the benefit of the firm. However, Aditya said that he will neither invest capital nor share profits and will not take part in the management of business.

Q.13 What shall be the liability of Aditya towards the debts of the firm? **(1)**
a) Limited b) Unlimited c) No liability d) None of the above

Q.14 Which type of partner are Preeti and Priya? **(1)**
a) Sleeping Partners b) Active Partner c) Nominal Partners d) Partners by Estoppel

Q.15 Which type of partner is Aditya? **(1)**
a) Nominal Partner b) Sleeping partner c) Active Partner d) Secret Partner

Q.16 Since Prashant's association with the firm is unknown to general public, what shall be his liability towards the debts of the firm? **(1)**
a) Limited b) Unlimited c) No Liability d) None of the above

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

Arvind, Badal and Chandan live in the same locality. The decided to take fire insurance for their house. Arvind gets his house insured against fire for ₹10 Lakh and during the policy period, his house gets damaged due to fire and the actual amount of loss is ₹15 Lakh. The insurance company acquired the burning material and approved his claim. Badal gets his office insured against fire for ₹20 Lakh but does not take enough precautions to minimize the chances of fire like installing fire extinguishers in the office. During the policy, a fire takes place in his office and he does not take any preventive steps like throwing water and calling the employees from the fire fighting department to control the fire. He suffered a loss of ₹15 Lakh. Chandan took a fire insurance policy of ₹30 lakh for his factory at an annual payment of ₹24,000. In order to reduce the annual premium, he did not disclose that highly explosive chemicals are being manufactured in his factory. Due to a fire, his factory gets severely damaged. The insurance company refused to make payment for the claim as it became aware of the highly explosive chemicals.

Q.17 How much can Arvind claim from the Insurance company? **(1)**
a) ₹10 Lakh b) ₹15 Lakh c) ₹5 Lakh d) Nil

Q.18 Which Principle is violated in case of Badal? **(1)**
a) Mitigation b) Insurable Interest c) Utmost Good Faith d) Indemnity

Q.19 How much can Badal claim from the Insurance company? **(1)**
a) ₹20 Lakh b) ₹15 Lakh c) ₹2 Lakh d) Nil

Q.20 Which Principle is violated in case of Chandan? **(1)**
a) Mitigation b) Insurable Interest c) Utmost Good Faith d) Indemnity

SECTION-B

Q.21 Rajiv wants to start a whole sale business of readymade garments, but he is hesitating as it involves various problems such as customers for moving goods from place of production to market, informing customers about new designs and varieties added every season, threat of risk, loss by fire or accident, storing the excess stock of goods, etc. He approaches his friend Sandeep who explained him about some branches of commerce, which can help Rajiv to overcome his hesitation.

(a) State the type of business Rajiv is planning to start.
(b) Specify any two types of Auxiliaries to trade which can help Rajiv to overcome his problems. Quote the line for each type from above Para. **(3)**

OR

Explain the role of profit in a business.

Q.22 Kudos Ltd. invited general public to subscribe for its shares of ₹150 crores through an initial public offer. The company received applications for shares of ₹130 crores. Can the company proceed with the allotment of shares? Support your answer with a brief explanation. **(3)**

Q.23 State the differences between Statutory Corporation and Government company on the basis of
(a) Ownership (b) Finance and (c) Public Accountability **(3)**

Q.24 Joshi Autos manufactures bicycles for which they order gears, chains, spokes, rim etc from different business units. Use of internet has given them wider choice of suppliers across the state. They also find online buying very convenient and time saving.

a) Identify the component of e-business used in the above case.
b) Explain any two advantages of e-business by quoting lines from the above para. **(3)**

OR

Distinguish between Traditional Business and e-Business on the basis of (a) Physical presence (b) Operating cost and (c) Transaction Risk

Contd...3

SECTION-C

Q.25 Glowmore Ltd. is engaged in manufacturing consumer products like soap, shampoo, face cream etc. One of their shampoo gained a good market demand. The owner decided to increase the price by 40% to earn higher profits. The face cream though did not have a good market, the company decided to market the cream to be a skin lightening cream but it was not actually true. Also to reduce the operating cost, the company decided to remove some of their workers. Glowmore Ltd. has also failed to make proper arrangements for disposal of wastes and effluents. Identify the social objectives ignored by Glowmore Ltd. by quoting lines from the para. **(4)**

Q.26 Explain the types of partnership classified on the basis of Duration and on the basis of Liability. **(4)**

Q.27 Write a short note on: **(2+2=4)**

a) Articles of Association b) Certificate of Incorporation

Q.28 The Ministry of Railway is a ministry in the Government of India, responsible for the country's rail transport. The ministry is headed by the minister of Railways, a cabinet level minister who presents the rail budget every year in parliament. India Railways is financed by the government through allocation of funds in the Annual General Budget of the parliament. Government treasury provides finances and revenue earned is also paid into the treasury. How will you categorize Indian Railways as a form of public sector enterprise? State **any three** features of this type of public sector enterprise by quoting lines from the above para. **(1+3=4)**

OR

Write a short note on Public Private Partnership highlighting (i) Aim, (ii) Partners in PPP and (iii) two features.

Q.29 Kshitij gets his office insured against fire of ₹10Lakh with ABC Insurance Co. Ltd. and ₹5 Lakh with XYZ Insurance Co. Ltd. How Much compensation can he claim from ABC Insurance Co. Ltd. and XYZ Insurance Co. Ltd if a loss of ₹3 Lakh occurred. Explain the Principle of Insurance applied in the above case. **(2+2=4)**

OR

Write a note on RTGS and NEFT highlighting the following:

(i) Write the full form of RTGS and NEFT
(ii) Basis of Settlement,
(iii) Minimum/Maximum amount stipulation
(iv) Time involved in transfer of funds

Q.30 Megha owns a garment boutique in Nasik. Due to pandemic her shop remained closed for many days resulting in heavy losses. Her friend Deepa suggested her to sell her garments through Online Shopping sites for Fashion and Lifestyle like Myntra, limeroad, amazon etc. This gave Megha an idea to start selling her garments online.

(i) Explain any two features of e-business.
(ii) State any two benefits that Megha can get through e-business. **(4)**

SECTION-D

Q.31 Define Business Risk. Explain the types of business risk and any three causes of business risk.**(1+2+3=6)**

OR

What do you understand by trade? Discuss the types of trade in detail.

Q.32 Explain the Clauses of Memorandum of Association of a company. **(6)**

OR

Gopal Sharma and Balram Sharma are two brothers, who inherited some ancestral property. They decided to form a Hindu Undivided Family (HUF) business consisting of four male members. Gopal Sharma is the elder brother. So he became 'Karta'. The business took a loan of ₹20 lakh from Punjab National Bank having maturity period of 5 years. Due to poor financial position of the business, they were unable to repay the loan. They sold the ancestral property for ₹10 lakh and paid the same to Punjab National Bank. They could not pay the balance amount of loan with interest. The bank filed a case for recovery of the balance amount. Gopal Sharma pleaded the court that the loan was taken for the purpose of business, therefore, all the members of the business were liable to repay the loan. The court held that all other members were responsible only to the extent of their share in business, and the business property was already sold. However, Gopal Sharma, being 'Karta' would have to repay the balance amount even by selling his personal properties. Gopal Sharma had to sell some of his personal assets to repay the balance amount to bank loan.

(a) Is the court's decision justified? Give reasons in support of your answer.
(b) Explain any three other features of HUF businesses.

Q.33 Explain Current Account, Fixed Deposit Account and Multiple Option Deposit Account briefly stating two benefits of each account. **(6)**

Q.34 (a) Compare Life Insurance and Marine Insurance on the following basis: **(4+2=6)**

i. Subject matter ii. Duration iii. Indemnity iv Insurable Interest

(b) Explain the concept of Reinsurance with the help of an example.

DELHI PUBLIC SCHOOL, BHILAI

DATE : 14.09.2022 **FIRST TERM EXAM 2022-23** **Time: 3 HOURS**

CLASS : XI **SUBJECT – ACCOUNTANCY (055)** **Max. Marks : 80**

General Instructions:

(1) There are 29 questions in the question paper.
(2) All questions are compulsory.
(3) All parts of a question must be attempted at one place.
(4) Each question carries marks indicated against it.
(5) Answer should be brief and to the point.
(6) Draw formats and show your workings wherever required.

1. If life insurance premium is recorded as a business expense, which of the following Accounting Principles is violated by the accountant:
   (a) Money Measurement Principle (b) Accounting Period Principle
   (c) Business Entity Principle (d) Revenue Recognition Principle (1)
2. State whether the following statement is True or False?
   "Under the Accrual Basis of Accounting, expenses are recorded only when paid in cash." (1)
3. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R):
   Assertion (A): Non-monetary transactions are not recorded in the books of accounts.
   Reason (R): Accounting provides information about the profitability and financial soundness of a business concern.
   In the context of the above two statements, which of the following is correct?
   (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) Both (A) and (R) are false.
   (d) (A) is false, but (R) is true. (1)
4. M/s. Raunak Sanghvi Agencies received ₹ 25,000 as advance from therir customer M/s. Anmol Traders in the month of March, 2022 for supply of goods to them in the month of May, 2022. The accountant of M/s. Raunak Sanghvi Agencies has recorded the abvoe received amount as their liability instead of sales for the year ended 31st March, 2022. Name the principle of accounting which has been applied by the accountant here. (1)
5. Complete the following sentence by filling the blank space:
   If goods are sold in July, 2022 on 3 months' credit, then as per cash basis of accounting, the sale will be recorded in the month of _____. (1)
6. Which of the following will decrease an asset and a liability at the same time?
   (a) Goods sold on credit (b) Goods purchased on credit
   (c) Expenses paid in advance (d) Payment to creditors (1)
7. If assets of a business at the end of a year are ₹ 5,00,000 and creditors' equity is ₹ 2,00,000, the owners' equity of that business will be:
   (a) ₹ 5,00,000 (b) ₹ 2,00,000 (c) ₹ 3,00,000 (d) ₹ 7,00,000 (1)
8. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R):
   Assertion (A): When a loan is repaid by a business firm, the Loan Account is debited by the amount paid for it.
   Reason (R): When there is decrease in the amount of liability, it is recorded on the debit side of the liability account.
   In the context of the above two statements, which of the following is correct?
   (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) Both (A) and (R) are false.
   (d) (A) is false, but (R) is true. (1)
9. Goodwill Account is a:
   (a) Personal Account (b) Nominal Account (c) Valuation Account (d) Real Account (1)
10. Which of the following is not a source document?
    (a) Cash Memo (b) Invoice (c) Bills Payable (d) Pay-in-Slip (1)
11. Amount paid to Amar, from whom goods were purchased at a trade discount of 10%, in full settlement at a cash discount of ₹ 1,800 which was 2% of the purchase value of goods. The list price of the goods purchased from Amar was:
    (a) ₹ 90,000 (b) ₹ 96,,000 (c) ₹ 1,00,000 (d) ₹ 1,20,000 (1)
12. Goods purchased from Mahi of the list price ₹ 50,000 less trade discount 10%. Out of these, goods of the list price ₹ 3,000 were not as per the specification, so these goods were returned back to Mahi. Mahi's Account will be (1)
    (a) Debited with ₹ 2,700 (b) Credited with ₹ 2,700 (c) Debited with ₹ 3,000 (d) Credited with ₹ 3.000

Contd...2

13. Proprietor of a business withdrew goods from the business for private use. It will be posted to the:
    (a) Credit of Drawings Account (b) Credit of Purchases Account
    (c) Debit of Purchases Account (d) Credit of Capital Account (1)
14. Out of the following, balance of which account is shown on the credit side of Trial Balance:
    (a) Purchases Account (b) Discount Received Account
    (c) Sales Return Account (d) Bills Receivable Account (1)
15. On 1st April, 2022, balance of cash column of cash book was ₹ 40,000. After receiving interest of ₹ 800 from bank, withdrawing ₹ 8,000 from bank and after purchasing goods for ₹ 15,000 at 10% cash discount, the balance of cash will be:
    (a) ₹ 35,300 (b) ₹ 19,300 (c) ₹ 33,000 (d) ₹ 34,500 (1)
16. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R):
    Assertion (A): Debit side of Bank column of Cash Book will always exceed the credit column. (1)
    Reason (R): The debit balance shown by Bank Column of the Cash Book is termed as Bank Overdraft.
    In the context of the above two statements, which of the following is correct?
    (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) Both (A) and (R) are false.
    (d) (A) is false, but (R) is true.
17. Accounting is a continuous process which starts with identifying financial transactions. State the other steps involved in the process of accounting.

    (OR)

    What is meant by financial accounting? State any two objectives of this branch of accounting. (3)
18. What do you mean by a Cash Voucher? Name any two transaction for which a credit cash voucher is prepared. (3)
19. Explain the qualitative characteristics of accounting information. (4)
20. Nischay Jain of Durg is a trader of electronic goods. He supplied the following information relating to his income and expenses for the year ending 31st March, 2022:
    Goods sold during the year for ₹ 70,00,000 for which ₹ 20,00,000 yet to be collected from debtors. He had invested ₹ 10,00,000 in the shares of some companies on which he received dividend of ₹ 80,000 during the year. He had raised a loan of ₹ 15,00,000 from SBI @ 9% p.a. on which interest for the months of February and March 2022 has not been paid. He paid rent of the showroom for 11 months at ₹ 40,000 per month and paid salary to the staff of ₹ 5,00,000. Salary yet to be paid to employees amounted to ₹ 1,00,000. He received commission of ₹ 2,50,000 during the year out of which ₹ 50,000 belongs to the year 2020-21 and commission of ₹ 30,000 for the year 2021-22 is yet to be received. He had purchased electronic goods of ₹ 50,00,000 during the year out of which 30% was on credit basis.
    From the above information, answer the following questions by showing the calculations:
    (i) How much amount of revenue from Sale of Goods will be taken under the Cash Basis of Accounting?
    (ii) What amount of interest on loan from SBI is to be included in the expenses under the Accrual Basis of Accounting?
    (iii) Calculate the amount of expenses paid for salary and rent under Cash Basis of Accounting.
    (iv) Calculate the amount of Commission Income under Accrual Basis of Accounting. (4)
21. Prove that the accounting equation is satisfied in all the following transactions of Smriti Bajaj:
    (i) Started business with cash ₹ 50,000 and goods ₹ 20,000.
    (ii) Bought goods for cash ₹ 15,000 and on credit for ₹ 10,000.
    (iii) Goods costing ₹ 24,000 sold at a profit of 33⅓%. Half the payment received in cash.
    (iv) Purchased furniture for office use ₹ 6,000 and for household use of Smriti ₹ 4,000. (4)
22. Calculate the amount of external equities as on 31st March, 2022 in each of the following cases:
    (i) Total Assets at the end of the year ₹ 1,15,000; owner's capital in the beginning ₹ 60,000; Revenue during the period ₹ 70,000; Expenses during the period ₹ 65,000.
    (ii) On 1st April, 2021, Ninad started business with a capital of ₹ 2,00,000 and a loan of ₹ 50,000 borrowed from a friend. During 2021-22, he earned profit of ₹ 50,000. On 31st March, 2022 the total assets were ₹ 6,00,000.

    (OR)

    What will be the effect of the following adjustments on Accounting Equation?
    (i) Outstanding Salary
    (ii) Prepaid Insurance
    (iii) Interest on Capital
    (iv) Depreciation charged on Machinery (4)

Contd...3

23. On which side will the increase in the following accounts be recorded? Also mention the nature of the accounts on the basis of Modern Classification of Accounts:
    (i) Land and Building Account
    (ii) Interest Payable Account
    (iii) Rent Received Account
    (iv) Himanshu (Proprietor) (4)

24. What do you mean by Ledger? Why is the Ledger called the book of final entry? Give any two differences between Journal and Ledger. (4)

25. Explain the following assumptions of accounting with the help of suitable examples to them:
    (i) Going Concern Assumption
    (ii) Consistency Assumption
    (iii) Accrual Assumption

    (OR)

    Explain any two effects of each of the following principles:
    (i) Money Measurement Principle
    (ii) Business Entity Principle
    (iii) Accounting Period Principle (6)

26. Narayan started his own business of buying and selling electronic goods on 1st April, 2022 and employed two salesmen and one helper. He invested ₹ 25,00,000 in the business as initial amount and deposited half of the amount in current account opened with Punjab National Bank. He purchased two computers of ₹ 40,000 and one laptop of ₹ 30,000 for office use. He raised a loan from Punjab National Bank @ 9% p.a. of ₹ 10,00,000. Interest on the loan will be paid every month. He also purchased a furnished office Building of ₹ 15,00,000. He purchased a second hand delivery van of ₹ 1,40,000 and spent ₹ 40,000 on its immediate overhauling, repairing, denting and painting. He purchased goods of ₹ 2,50,000 on credit from Kshitij at 20% trade discount. He also purchased goods of ₹ 3,00,000 for the business from Kanha and paid the amount to him by a cheque of his personal bank account. He sold goods costing ₹ 4,00,000 at 20% profit on sales to Krishna on credit. At the end of the month, he paid 60% of the amount to Kshitij at 2% cash discount and incurred the following expenses:
    (a) Paid salary to the salesmen at ₹ 20,000 each by cheque and ₹ 10,000 to the helper in cash; and
    (b) Paid Life Insurance Premium of ₹ 10,000 by cheque.
    (c) Interest on Bank Loan of April is not yet paid.

    From the above information, answer the following questions:
    (i) The amount of total fixed assets is:
    (e) ₹ 17,50,000 (f) ₹ 17,80,000 (g) ₹ 17,10,000 (h) ₹ 17,00,000
    (ii) Amount invested as capital by Narayan is:
    (a) ₹ 25,00,000 (b) ₹ 28,00,000 (c) ₹ 12,50,000 (d) ₹ 24,90,000
    (iii) How much amount is due to be paid to creditors? Show your calculations.
    (iv) What is the amount of Long-term Liabilities?
    (v) The amount of expenses of the business incurred for the month of April excluding purchases is:
    (a) ₹ 50,000 (b) ₹ 30,000 (c) ₹ 57,500 (d) ₹ 35,500
    (vi) The amount receivable from debtors is:
    (a) ₹ 4,00,000 (b) ₹ 4,80,000 (c) ₹ 2,00,000 (d) ₹ 5,00,000 (6)

27. From the following list of balances extracted from the books of M/s Shikha Associates, prepare a Trial Balance as at 31st March,2022. The amount required to balance should be entered as capital:

	₹		₹
Purchases	18,20,000	Proprietor's Withdrawals	60,000
Stock on 1st April, 2021	3,50,000	Sundry Debtors	3,60,000
Sales	40,00,000	Sundry Creditors	1,20,000
Sundry Expenses	15,000	Bad Debts	10,000
Leasehold Premises	5,00,000	Investments @ 10%	2,00,000
Freehold Premises	18,00,000	Interest on Investments	20,000
Return Inwards	25,000	Long-term Borrowings	6,00,000
Furniture and Fixtures	2,90,000	Loan from SBI	8,00,000
Equipment	8,00,000	Interest on Loan	65,000
Repairs to Equipment	5,000	Petty Cash Account	400
Depreciation	80,000	Balance at Bank	34,600
Stock on 31.3.2022 (Not Adjusted)	4,60,000		

(6)

28. Enter the following transactions in the Journal of Shantanu Stores, Kharsia:

    2022
    April, 1 Started business with ₹ 5,00,000; paid into bank ₹ 4,00,000.
    April, 4 Purchased goods for ₹ 1,40,000 in all, out of which half the goods were on credit from Gaurav.

Contd...4

April, 7 Purchased Building for ₹ 2,00,000 by cheque and paid in cash 2% brokerage on its purchase and ₹ 24,000 on its registration.

April, 12 Sold goods to Tushar for ₹ 2,00,000. Tushar paid one-fourth amount in cash.

April, 16 A cheque of ₹ 1,48,000 is received from Tushar in full settlement and the deposited the cheque in the bank immediately.

April, 20 Paid fire insurance premium on building by cheque ₹ 5,000 and Shantanu's life insurance premium by cheque ₹ 4,000.

April, 25 Received a sum of ₹ 2,500 being rent for a portion of the building let out.

April, 28 Paid stationery expenses ₹ 1,800; office cleaning expenses ₹ 2,000 and for advertisement in the Hindustan Times ₹ 2,500.

OR

Journalise the following transactions:

(i) Purchased a machinery for ₹ 48,000 and paid ₹ 2,000 wages for its installation.

(ii) Timber of ₹ 60,000 and bricks for ₹ 40,000 was purchased for the construction of a building.

(iii) Purchased a second hand machinery for ₹ 20,000 and spent ₹ 1,000 on its carriage and ₹ 15,000 on its repair. Payment was made by cheque.

(iv) Paid ₹ 2,000 for the repair of a machine and ₹ 5,000 for the rent of the shop.

(v) ₹ 50,000 were withdrawn by the proprietor for the marriage of his daughter and goods of ₹ 10,000 were also withdrawn for the purpose of marriage.

(vi) Hemant who owed ₹ 10,000 is declared insolvent and from his official receiver only 40 paise in the rupee could be received as final dividend.

(vii) Received a V.P.P. from Hari Nath for ₹ 5,800. Paid cartage of ₹ 200 to collect it.

(viii) Placed an order with Shubham for the supply of goods costing ₹ 50,000. For this purpose, 10% paid as advance to the supplier. (8)

29. Enter the following transactions in the Cash Book with Cash and Bank Columns of Vandana:

2022		₹
January, 1	Cash in Hand	70,000
	Bank Overdraft	50,000
4	Sold goods for cash	50,000
5	Cash deposited into bank	80,000
6	Purchased goods from Meena	30,000
7	Cheque issued to Meena in full settlement	28,800
8	Withdrawn from bank for personal use	5,000
12	Sold goods to Ajay and cheque received from him	25,000
17	Cheque received from Ajay deposited into bank	
20	Bank charges	500
22	Interest charged by bank	2,500
23	Received cash from Ramesh	28,000
28	Paid Vandana's life insurance premium by cheque	15,000
30	Deposited into bank the entire balance after retaining ₹ 5,000 cash in business.	

OR

Enter the following transactions in a Cash Book with Cash and Bank Columns. Also pass necessary journal entries in the Journal

2022

January, 1 Bank Overdraft ₹ 12,000
Cash in Hand ₹ 2,300

5 Purchased goods of list price ₹ 40,000; Trade Discount 15%. Payment made by cheque.

6 Sold goods of list price ₹ 30,000; Trade Discount 10%. Payment received by cheque.

7 Cheque received from Deepa ₹ 4,000.
Discount allowed ₹ 200.

9 Cheque of Deepa deposited in the bank.

12 Cheque issued to Radha ₹ 2,500.
Discount received ₹ 50.

15 Deepa's cheque returned dishonoured by bank.

20 Money withdrawn from bank for office use ₹ 3,400.

23 Fees of children paid by cheque ₹ 750.

25 Cheque received from Hari and endorsed it to Shyam on 27th January.

27 Bank Charges ₹ 20

31 Paid into bank the entire balance after retaining ₹ 700 at office. (8)

DELHI PUBLIC SCHOOL, BHILAI

Date : 16.09.2022 | **FIRST TERM EXAMINATION-2022** | **Time : 3 Hrs.**
Class : XI | **Subject : Informatics Practices** | **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/MCQ, to be answered in one word.
   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 has 3 Sections**
5. **Part - B is Descriptive type.**

a. Section-I is short answer questions of 2 marks each .
b. Section-II is long answer questions of 3 marks each.
c. Section-III is very long answer questions of 5 marks each.

PART - A
SECTION-I

Q. Attempt any 7 questions from Q1 to Q9.

1. _____Software which gives date and time service, is known as Application Software. State True/False. **1**

2. _____Exa Bytes make 1 Zetta Byte. **1**

3. Name one computer of 1st generation. **1**

4. The memory which is Non-volatile in Nature is - **1**
   a. Cache memory
   b. RAM
   c. Buffer
   d. None of these

5. 5th Generation computers uses _____ technology as one of the main features – **1**
   a. Data Capturing
   b. Artificial Intelligence
   c. Key-Lock feature
   d. Virus Protection

6. Which of the following is a function of an Operating System Software - **1**
   a. It acts as an interface between a user and hardware.
   b. It removes unwanted softwares.
   c. Translates high level language code.
   d. None of the above

7. Data Capturing means input data to convert it into digital form . State True/False - **1**

8. _____ is a software used as Compression Tool. **1**

9. Name one software which is used as Word Processor. **1**

Q Attempt any 7 questions from Q10 to 18.

10. Name the developer of Python Programming Language . **1**

11. The statement – **1**
   print(type(100)) – will give output as –
   a. <class 'int'>
   b. <class 'float'>
   c. <class 'str'>
   d. None

12. What output will be generated by the given code – **1**
   print(45%50) –
   a. True
   b. False
   c. 45
   d. 95

Contd...2

13. What output will be produced by the following code – **1**

```
print(10+25-30/2 )
```

14. a=10+5j **1**

The data type of a is -

a. boolean
b. int
c. float
d. complex

15. **50>20<30** – this chained expression will evaluate True/ False. **1**

16. From the given list sort-out the invalid identifier - **1**

N_O , if , 1no , _total

17. Escape sequence' \t' is used for Horizontal Tab - State True/False. **1**

18. For execution of a single statement in Python _____ mode is preferred. **1**

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 .

19. Consider the given Python code and answer the following -**(any 4)** **1X4=4**

```
x, y , w,z =10,20,30,40
x=y+w
w= z//10
y=z-w
print(x,y,w,z)          #output1
w=x*y+z % 5
print(w)                #output2
st='Garden'
```

i. What output will be generated by statement output1 in the above given code.
ii. if z will be divided by (0) zero then which error will be raised. Name the Exception.
iii. What output will be generated by statement output2 in the above given code.
iv. Give single python statement to display the value of variable st 7 times.
v. What is the data type of identifier st .

20. Given a Python code snippet, read it carefully and answer the following – **(any 4)** **1x4=4**

```
for num in range(10,20,5 ):
    print("PEACE")
    print("Pathway")
```

i. How many times body of loop will be executed
ii. If I want to repeat body of loop 3 times then what changes will be required.
iii. What output will be generated by the above given code
iv. Which identifier/variable is working as control variable of loop.
v. What is iteration ?

PART - B
SECTION-I

21 What is the function of "Arithmetic and Logic Unit" ? **2**

Or

Define the term "BUS". Name any 2 types of BUS.

22. Define Operating System Software. Name two Popular Operating System Software. **2**

OR

Write one advantage and one disadvantage of Open Source Software over Proprietary software.

23. Give name of any 2 Distributions of Python. Also give extension file name of Python programs. **2**

24. Mention two characteristics or features of Python Programming Language. **2**

25. Explain "Identity Operators" and "Membership Operators" ? **2**

OR

Define **Literals** and **Tokens** in Python.

26. Write a program in Python which will take 3 numbers from user and will display their average. **2**

27. Write a program to enter two integer numbers and check whether the first number is divisible by second or not. **2**

28. Write a Python script that asks the user to enter time in seconds and it should convert the given time into minutes and display it. **2**

Contd...3

29. Give python code to display the given series - 2
1,4,7,10,13,16,.....40
or
What is empty statement. Why is it needed?

SECTION-II

30. Write a Python program that takes three integer numbers and prints the largest of these. 3

31. Give Python code to display all numbers divisible by 5 between given lower and upper range (limit). 3
OR
Write a program to print a multiplicative table (multiples) of a given integer number.

32. Write Python Program that reads two numbers and an arithmetic operator (+ , - , * , / , %)
And displays the computed result. 3

33. What is Debugging? Explain all 3 types of Errors found in a Program (with suitable example of each) 3

34. What output will be generated by the given code snippets - 3

```
import  math as ma
print(ma.ceil(20.5)
print(ma.floor(10.8)
print(ma.sqrt(49))
```

SECTION-III

35. Study the code given below – **1x5=5**

```
p=0
p+=20
p*=10
p%=2
```

a. What will be the final value of p.
b. Name data type of variable p.
c. Give python statement to assign a new value "WORK HAARD" to identifier p.
d. What kind of operators are used in the above given code?
e. What do you understand by "Dynamic Type Casting"?

36. **a.** What are 3 different Logical operators used in Python? Explain each with suitable example. - 2
b. Explain chained comparison operator with suitable example code. 1
c. Name all mutable and immutable data types of Python. 2

37. Read given Python code and answer the following - **1x5=5**

```
S1="Virtual-Reality"
S2="Augumented-Reality"
print (S1[1:4])      #statement1
print(S1+S2)         #statement2
print(S1*2)          #statement3
```

i. What output will be generated by the above given code in statement1
ii. What output will be generated by the above given code in statement2
iii. Give python code to display "No of Characters" present in the identifier S1
iv. Write any two jump statements.
v. What output will be obtained by statement3.

OR

Write a program to input sales of a Salesman. Calculate his Commission as follows –

Sales	Commission Rate
0- 5000	2% of Sales
50001- 10000	5% "
10001- 20000	7%
20001-30000	9.5%
& above	12.5%

DELHI PUBLIC SCHOOL, BHILAI

Date : 16.09.2022 **FIRST TERM EXAMINATION-2022** **Time : 3 Hrs.**
Class : XI **Subject : Home Science** **Max. Marks : 70**

GENERAL INSTRUCTIONS:

1. All questions are compulsory.
2. There are total **36** questions.
3. Question paper is divided into three sections-**A, B and C**.
4. **Section A** has question no.**1to 14** (objective type questions) and are of **1** mark each.
5. **Section B** has question no. **15 to 21** (case study based multiple choice questions) and are of **1** mark each.
6. **Section C** has question no.**22 to 27** of **2** marks each, question no.**28 and 29** of **3** marks each, question no.**30 to 33** of **4** marks each and question no.**34 to 36** of **5** marks each.
7. Internal choices are given in some questions.
8. Support your answers with suitable examples wherever required.

SECTION A (OBJECTIVE TYPE QUESTIONS)

Multiple choice questions:

1. Cow peas belong to the group of: 1

a) Milk, Meat and Products b) Pulses and Legumes c) Fats and Sugars d) Fruits and Vegetables

2. One gram of protein releases _____ Kcal of energy. 1
a) 4 b) 7 c) 2 d) 9

3. A bicycle which is not used by you is: 1
a) Human Resource b) Non-Human Resource c) Community Resource d) Not a resource

4. "Choosing between alternatives" is a step of: 1
a) Implementing b) Controlling c) Planning d) Organising

5. The first manufactured fibre was: 1
a) Viscose b) Polyester c) Rayon d) Spandex

OR

Bluetooth devices transmits voice and data at the rate of:
a) 1Mbps b) 1Kbps c) 1Tbps d) 1Gbps

6. The direction of yarn in woven fabric is referred as: 1
a) Warp b) Weft c) Selvedge d) Grain

7. Name the traditional folk media of Bihar. 1
a) Bidesia b) Panihari c) Yakshagna d) Chakri

OR

The task during the period of adolescence, according to _____is to develop a sense of identity, a satisfactory self-definition.
a) Sarojini Nai b) Rajkumar c) Erikson d) Kamaladevi Chattopadhyay

8. TV was introduced in India in: 1
a) 1929 b) 1959 c) 1969 d) 1989

Fill in the blanks:

9. The term 'Communication' stems from Latin word _____. 1

10. A rope like mass of loose fibres is called _____. 1

11. The system which passes information electronically from sender to receiver is _____. 1

12. The process of separation of seeds from fibres in cotton is known as _____. 1

13. Name any two human resources. 1
14. Which tools are used for printing the fabric by hands? (Any 2) 1

OR

What does connectedness suggest?

Contd...2

SECTION B (CASE STUDY BASED QUESTIONS)

A balanced diet is one which includes a variety of foods in adequate amounts and correct proportions to meet the day's requirements of all essential nutrients such as proteins, carbohydrates, fats, vitamins, minerals, water, and fibre. Such a diet helps to promote and preserve good health and also provides a safety margin or reserve of nutrients to withstand short durations of deprivation when they are not supplied by the diet. The safety margin takes care of the days we fast, or the short-term deficiency of certain nutrients in the daily diet. If the balanced diet meets the Recommended Dietary Allowances (RDAs) for an individual, then the safety margin is already included since RDAs are formulated keeping extra allowances in mind.

15. A balanced diet should contain food stuffs from: 1
a) Three food groups b) Four food group c) Two food groups d) Five food groups

16. Cereals should not supply more than _____% of total calories. 1
a) 20 b) 35 c) 75 d) 50

17. Foods are grouped in the food group on the basis of: 1
a) Their availability b) Flavour c) Functions in body d) Nutrients present

OR

Eating disorder develops at the age group of:
a) 12-18 b) 15-21 c) 10-15 d) 13-20

18. _____ is a macro nutrient. 1
a) Iron b) Vitamins c) Protein d) Calcium

There are many types of fabric available in the market. Variation in different fabrics is due to the basic fibre content (cotton, wool, e.g.) or the type of yarn. When you look at the fabrics you may be able to distinguish between different structures as well. There are two main types of fabrics that are made directly from fibres–felts and non-woven or bonded fibre fabrics. These fabrics are formed by laying the fibre (after carding and combing) in the form of a matt and then adhesion is caused between them.

19. Filling yarns running along the width wise grains are: 1
a) Warp b) Weft c) Selvedge d) Grain

20. Fabric is strongest along the: 1
a) Selvedge b) Grain c) Weft d) Warp

21. The main method of fabric construction is: 1
a) Weaving b) Knitting c) Finishing d) Both a and b

SECTION C

22. What is media? 2
23. Write two properties of acrylic fibre. 2
24. What do you understand by the term 'Finish'? What is "routine" in the process of finishing? 2

OR

Explain the two eating disorders that may arise during adolescence.

25. What are shared resources? 2
26. Mention two ways in which the term 'Physical fitness' is used. 2
27. Briefly describe any two key changes that characterise the increasing complexity during the period of Middle Childhood. 2

OR

How does social identity differ from personal identity?

28. What do you mean by "Affectionate parenting" ? What are its advantages? 3
29. What are the different stages of colour application? 3

OR

Each one of us have a different unique identity. Give reason.

30. What are the characteristics of resources? Explain with suitable examples. 4
31. Briefly explain the stages involved in the conversion of fibre into a yarn. 4
32. What can be done to overcome the problems related to dieting? 4

OR

List the factors that influence eating behaviour.

33. Write properties of Nylon fibre. 4
34. What is communication? Classify communication based on the type of interaction and the levels of communication. **5**

OR

Mention any five functions of media.

35. Give the guidelines for using the basic food groups. **5**
36. Briefly explain the first step of the management process with a suitable example **5**

DELHI PUBLIC SCHOOL, BHILAI

Date : 21.09.2022 **FIRST TERM EXAMINATION-2022** **Time : 3 Hrs.**
Class : XI **Subject : Physical Education** **Max. Marks : 70**

General Instructions :

(i) The question paper consists of 30 questions and all are compulsory.
(ii) Question **1–12** carry **01** mark each and are Multiple-Choice Questions.
(iii) Questions **13–16** carry **02** marks each and shall not exceed **40–60** words.
(iv) Questions **17–26** carry **03** marks each and shall not exceed **80–100** words.
(v) Questions **27–30** carry **05** marks each and shall not exceed **150–200** words.

Q.1 Career in Sports Journalism is related to :
(a) Health (b) Coaching (c) Teaching (d) Communication Media

OR

How many components are included in the Khelo India Scheme ?
(a) 15 (b) 18 (c) 12 (d) 16

Q.2 Which of the following is not component of Khelo India Scheme?
(a) Play Field Development
(b) State Level Khelo India Centres
(c) Sports for Film Stars
(d) Sports for Women

Q.3 Fit India Movement was launched on 114th Anniversary of
(a) Mahatma Gandhi (b) Bhagat Sing (c) P.T. Usha (d) Major Dhyan Chand

OR

According to historical rocords, the first ancient Olympic games can be traced back to :
(a) 776 BC (b) 786 BC (c) 700 BC (d) 715 BC

Q.4 When was the first modern Olympic Games started ?
(a) 1850 (b) 1896 (c) 1900 (d) 1931

Q.5 How many rings are there in the Olympic Flag ?
(a) 5 (b) 6 (c) 7 (d) 8

Q.6 Which of the following is/are element(s) of yoga ?
(a) Yama (b) Niyama (c) Asana (d) All of these

Q.7 How many kriyas (purification processes) are there ?
(a) 3 (b) 4 (c) 6 (d) 9

OR

Where does the Internaitonal Olympic Committee have its head quarter ?
(a) Sydney (b) Delhi (c) England (d) Switzerland

Q.8 Which of the following is/are type of yogic kriya(s)?
(a) Neti (b) Kapalabhati (c) Nauli (d) All of the above

Q.9 Pratyahar refers to :
(a) Meditation (b) Concentration (c) Withdrawal of sense (d) Posture

Q.10 When did Special Olympic Programme come to India?
(a) 1955 (b) 1988 (c) 2011 (d) 2014

Contd...2

Q.11 Which of the following is/are the objective(s) of the Adaptive Physical Education ?

(a) Medical Check-up
(b) Utilisation of Special Type of Equipment
(c) Creation of Special Environment
(d) All of the above.

Q.12 Which of the following professional(s) is required for children with Special Needs ?

(a) School Counsellor
(b) Physiotherapist
(c) Physical Education Teacher
(d) All of the above

Q.13 Mention the eight elements of Ashtanga Yoga.

Q.14 Give two objectives of Fit India Movement.

Q.15 Name two types of disabilities.

Q.16 Define disorder

OR

What is Olympic Motto?

Q.17 Explain the role of counsellor and Special Educator for the Children with Special Needs?

Q.18 Discuss the main functions of IOC.

Q.19 Discuss the aims of Adaptive Physical Education.

Q.20 What do you mean by health-related careers in Physical Education.

Q.21 Discuss about Olympic Flame and Olympic Oath.

Q.22 Write three points of importance of yoga in modern times.

Q.23 What do you mean by Inclusion?

Q.24 Enlist the careers in communication media.

OR

What is coaching as career in Physical Education?

Q.25 Mention and explain olympic values.

Q.26 Write down any five difference between Asana and Pranayama.

Q.27 Name five components of Niyama.

Q.28 Write short notes on any two of the following :-

(i) career in Book Writing
(ii) career in Sports Photography
(iii) career in Sports Industry.

Q.29 What are the role of NOC ?

OR

Explain International Federations (Ifs).

Q.30 What is meant by intellectual disability? Mention its symptoms.

DELHI PUBLIC SCHOOL, BHILAI

Date : 08.09.2022 **FIRST TERM EXAMINATION-2022** **Time : 50 Minutes**

Class : XI **Subject : General Knowledge** **Max. Marks : 50**

Name of the student: _____ Class/Sec._____ Roll No._____

Invigilator's Signature _____ Marks obtained : _____/50

GENERAL INSTRUCTIONS:

(i) All questions are compulsory.
(ii) Write the correct option in the box provided.
(iii) Each correct answer carries 1 mark.

01. Who was the first to climb Mount Everest twice?
(a) Phu Dorjee (b) Nwang Gombu (c) Tenzing Norgay (d) Bacchendri Pal

02. What is the full form of NATO?
(a) North Atlantic Treaty Organization (b) North American Treaty Organization
(c) North American Trade Organization (d) None of these

03. Which one is the classical dance of Tamilnadu?
(a) Kathakali (b) Kuchipudi (c) Bharatanatyam (d) Kathak

04. Which part of the computer helps to store information?
(a) Monitor (b) Key Board (c) diskdriver (d) Printer

05. Which of the city is situated on the bank of river Tapti?
(a) Surat (b) Nasik (c) Ankaleshwar (d) Ahmedabad

06. Which is the smallest state in the world?
(a) Vetican City (b) Monaco (c) Nauru (d) Maldives

07. When did the Euro come into being?
(a) 1st Jan., 1996 (b) 1st Jan., 1997 (c) 1st Jan., 1998 (d) 1st Jan., 1999

08. What is the last month of the Hindu Calendar?
(a) Chaitra (b) Falgun (c) Kartik (d) None of these

09. Which was the first Indian film to have used Dolby Sound?
(a) Aarpar (b) 1942-A Love Story (c) Parinda (d) None of these

10. Which type of Lens is used to correct myopia?
(a) Concave Lens (b) Convex Lens (c) Plano Convex Lens (d) Cylindrical Lens

11. Who invented the mobile phone
(a) Willis Haviland Carrier (b) Paul Cornu (c) Ted Hoff (d) Martin Cooper

12. Where is the Kendra Sahitya Academy located?
(a) New Delhi (b) Mumbai (c) Patna (d) Chennai

13. What is the rarest blood group?
(a) B negative (b) AB negative (c) A negative (d) O negative

14. Application for approval of name of a company is to be made to
(a) SEBI (b) Registrar of Companies
(c) Government of India (d) Government of State in which Company is to be registered.

15. The tropic of Cancer does not pass through.
(a) India (b) Pakistan (c) Bangladesh (d) Myanmar

16. DDT is a
(a) insecticide (b) Herbicide (c) Fungicide (d) All of these

17. If 200% of a number is 90, then what is the 80% of that number
(a) 24 (b) 36 (c) 42 (d) 48

18. Mahatma Gandhi started Dandi March from
(a) Ahmedabad (b) Sabarmati (c) Dandi (d) Porbandar

19. The selling price of an article is ₹ 118 and the profit earned is 50%.
The cost price of the article is
(a) ₹ 78.66 (b) ₹ 68.79 (c) ₹ 80 (d) ₹ 77

20. Which is the largest fish in the world?
(a) Piranha (b) The Giant Squid (c) The Whale Shark (d) Scolidon

21. Word "USB" stands for
(a) Universal Serial Bus (b) Universal Serial Boost
(c) Uniform Serial Bus (d) Uniform Serial Boost

22. What is the Index of Bombay Stock Exchange?
(a) Composite Index (b) Sensex (c) Nifty (d) Either b or c

Contd...2

23. Where is Bandhavgarh National Park situated?
(a) Uttar Pradesh (b) Rajasthan (c) Assam (d) Madhya Pradesh

24. Tehri Dam, the tallest dam in India situated in which state?
(a) Uttarakhand (b) Uttar Pradesh (c) Jammu & Kashmir (d) Himachal Pradesh

25. RADAR is the abbreviation of
(a) Radio Decoding & Ranging (b) Rays Detecting & Ranging
(c) Radio Detection & Ranging (d) Radio Detecting & Ranging

26. Kinetic theory of gas was put forward by
(a) Maxwell (b) Bernoulli (c) Rutherford (d) Newton

27. Zojila pass connects-
(a) Nepal and Tibet (b) Leh and Kargil (c) Leh and Srinagar (d) Kashmir and Tibet

28. Which is known as "Ganga of Chhattisgarh"?
(a) Indravati (b) Doodh (c) Kharun (d) Mahanadi

29. Where is Bambleshwari Temple situated ?
(a) Antagarh (b) Dongargarh (c) Bilaspur (d) Raipur

30. Who is the Governor of Chhattisgarh?
(a) Balramji Das Tandon (b) Anusuiya Uike (c) Om Prakash Kohli (d) Krishan Kant Paul

31. When was Chhattisgarh formed?
(a) 1st November, 1999 (b) 1st November, 2000 (c) 1st November, 2001(d) 1st November, 2002

32. How many Loksabha Seats are there in Chhattisgarh?
(a) 9 (b) 10 (c) 11 (d) 12

33. Bhoramdeo Temple is in
(a) Bijapur (b) Raigarh (c) Korba (d) Kawardha

34. Uber Cup is associated with
(a) Golf (b) Football (c) Badminton (d) Table Tennis

35. The highest honour given to a sports person across sporting disciplines-
(a) Arjuna Award (b) Rajiv Gandhi Khel Ratna Award
(c) Dronacharya Award (d) None of these

36. Durand Cup is associated with
(a) Football (b) Hockey (c) Cricket (d) Golf

37. Ozone in stratosphere extends upto Km.
(a) 10-15 Km (b) 15-25 Km (c) 0-15 Km (d) 15-40 Km

38. The first SAF (South Asian Federation) Games were held at
(a) Dhaka (b) New Delhi (c) Kathmandu (d) Colombo

39. Winner of the first Indian Premier League.
(a) Deccan Charges (b) Rajasthan Royals (c) Chennai Super Kings (d) Mumbai Indians

40. Which of these Sanctuaries is in "Uttarakhand"?
(a) Corbett National Park (b) Bandipur Sanctuary
(c) Kaziranga Sanctuary (d) Periyar Sanctuary

41. Who was the first actress to nominated as a member of Rajya Sabha?
(a) Hema Malini (b) Wahida Rehman (c) Nargis Dutt (d) Jaya Bachchan

42. When did Rabindranath Tagore become a Novel Laureate?
(a) 1912 (b) 1913 (c) 1914 (d) 1915

43. When was the new Rupee symbol introduced in India?
(a) 2007 (b) 2008 (c) 2009 (d) 2010

44. Where is the old temple of 'Mama-Bhanja' situated in Chhattisgarh?
(a) Khallari (b) Rajim (c) Barsur (d) Rajnandgaon

45. The famous Pandwani Maestro Teejan Bai from C.G. was awarded in 2019.
(a) Bharat Ratna (b) Padm Shree (c) Padm Vibhushan (d) Shaurya Chakra

46. Who is the Union Finance Minister of India?
(a) Rajnath Singh (b) Nitin Gadkari (c) Nirmala Sitharama (d) Smriti Irani

47. Which country is known as the Gift of the Nile?
(a) Sudan (b) Egypt (C) Turkey (d) None of these

48. Which of the following places is called the "Prayag of Chhattisgarh"?
(a) Ratanpur (b) Dongargarh (c) Rajim (d) Champakaranya

49. Headquarter of United Nations Development Programme is located in
(a) The Hague (b) Geneva (c) New York (d) London

50. Who is the Chief Minister of the State Telangana?
(a) K. Chandrashekar Rao (b) N. Chandra Babu Naidu
(c) K. Siddaramaiah (d) Oommen Chandy