

**DELHI PUBLIC SCHOOL, BHILAI (C.G.)**

**DATE : 15-09-2014**

**FIRST TERMINAL EXAMINATION, 2014 Time: 3 Hours**

**CLASS : XII**

**ENGLISH**

**M.M : 100**

**No. of Printed Pages :5**

**General Instructions :**

- i) The paper is divided into 4 sections : A, B & C. All sections are compulsory.
- ii) Read the instructions given with each section and follow them carefully.
- iii) Do not exceed the prescribed word limit while answering the questions.

**SECTION A (READING)**

**30 Marks**

- 1 **Read the following passage and answer the questions that follow :**

**(12)**

**READING**

1. Bang! A bird fluttered for seconds and fell to the ground. A ten year old bespectacled boy, who had shot the bird, ran and picked it up. The bird looked like a house sparrow, but, to the boy's surprise, it had a yellow patch on its throat. Puzzled, the boy took the sparrow to his uncle, Amiruddin Tyabji, a big game hunter and asked him what kind of bird it was. His uncle did not know, but took the boy to the office of the Bombay Natural History Society, a tiny room in a huge building in Apollo Street. The boy was introduced to WS Millard, the Honorary Secretary of the society.
2. Millard was amused to find an Indian boy keen to know the kind of sparrow he had bagged. He took him around the room, showing the many varieties of stuffed birds preserved there. One after another, drawers were opened and birds were displayed to the boy, who had not even imagined that so many kinds of them existed. He gasped when Millard opened a drawer which contained a large variety of sparrows. Examining carefully, Millard picked up one and showed it to the boy. Sure enough, the bird was exactly like the one he had brought with him a yellow throated sparrow. 'Uncle Millard', the boy exclaimed. "I didn't know there were so many kinds of birds! I wish to learn about them all," Millard smiled and nodded. He had till then not seen so much enthusiasm about birds! I wish to learn about them all", Millard smiled and nodded. He had till then not seen so much enthusiasm about birds even in an adult. Thereafter, the boy became a frequent visitor to that office. He began to learn how to identify a bird and stuff it for preservation.
3. The boy was Salim Moizuddin Abdul Ali, better known as Salim Ali, bird watcher extraordinary. Born on 12<sup>th</sup> November, 1896 Salim Ali was interested in birds till the end. He was a recipient of the J Paul Getty Wild Life Conservation Prize for his contributions to ornithology, the study of birds. He won several national honours and awards as well.
4. When he returned home from Burma, he did a course in Zoology and was appointed a guide at the museum of the Bombay Natural History Society. For some advanced training in stuffing and skinning of birds he went to Germany. But when he returned a year later, he found himself on the streets. For lack of funds his post in the museum had been abolished in his absence.
5. The Salim Ali family moved to a small house at Kihim, across the harbour. It was a quiet place set in the midst of trees. When the monsoon came that year, Salim saw the weaver birds there and it was a golden opportunity for Salim Ali to study them. For three to four months he patiently watched the activities in the colony for hours on end. The publication of his findings in 1930 brought him recognition in the field of ornithology and he won high acclaim.
6. The months he had spent watching the weaver birds also taught Salim Ali the importance of making first-hand observations and not to accept blindly the notions of anyone, however famous. He checked his observations several times and did not jump to conclusions. This gave his opinions great authority and sometimes brought him into confrontation with others considered to be doyens among ornithologists.
7. As a boy, Salim Ali had felt the need for a good book on Indian birds. The few books then available were without illustrations and contained long, boring descriptions, which were more likely to kill than kindle interest in birds, especially among young readers. In 1941, he tried to remedy this. *The Book of Indian Birds* that he wrote contained lively descriptions and coloured pictures of every species. It made spotting a bird easy for the layman.

::: 2 :::

8. In 1948, he began an ambitious project in collaboration with S Dillon Ripley, an ornithologist of international repute, to bring out in ten volumes the *Handbook of the Birds of India and Pakistan*. The work contains all that is known of birds of the subcontinent, their appearance, where they are generally found, their breeding habits, migration and what remains to be studied about them.
- a) On the basis of your reading of the passage, answer the following questions briefly : 9
- i) How did Millard feel, seeing the boy at the office of the Bombay Natural History Society? 1
  - ii) What was Salim's passion? Which award was conferred upon him? 2
  - iii) How did Salim's visit to Germany put him into trouble? 2
  - iv) Which project did Salim start? How is it significant for study of birds? 2
  - v) Why were Salim Ali's opinions on birds given great authority? 2
- b) On the basis of your reading, answer the following questions by choosing the correct option :  $1 \times 3 = 3$
- i) Which of the following words from para 1 means the same as 'post for which no payment is made'?  
a) Secretary b) Free c) Honorary d) Natural
  - ii) Which of the following words from para 5 means the same as 'shelter for ships'?  
a) Monsoon b) Port c) Colony d) Harbour
  - iii) Which of the following words from para 8 means the same as 'good but difficult'?  
a) Project b) Remains c) Ambitious d) Excellent

A 2. Read the passage given below and answer the questions that follow : 10

1. 'Can it be true', King Vikramaditya asked in anguish, looking around the well-lit and crowded court. No one replied. All were shocked by the royal astrologer's prediction. "Yes, my lord, this is so, however bitter it may be for you", replied the royal astrologer, breaking the silence. His voice was full of grief. Yet it was authoritative. "The position of the planets predicts the death of the prince at the age of 18".
2. While the king controlled his emotions, the queen, sitting beside him, could not contain herself. "No!No!" she wailed. "My lord, you should see to it that this prediction proves false".
3. Though the king had full faith in his astrologer, Mihira, he took every precaution to save his son. But, on the predicted day, a boar killed the prince. When the news reached the king, he immediately summoned Mihira to his court. "I am defeated, you have won", he told Mihira.

The astrologer was as sad as the king. He said, "My Lord, I have not won. It is the science of astronomy and astrology that has won." "Whatever it may be, my respected astrologer", said the king, "it has convinced me that your science is nothing but truth. And for your mastery of the subject, I now confer upon you the Magdha kingdom's greatest award, the emblem of the *varahan* (boar)." From that time, Mihira came to be known as Varahamihira.

4. Varahamihira was born in AD 499 into a family of Brahmins settled at Kapitha, a village near Ujjain. His father, Adityadasa, was a worshipper of the Sun God and it was he who taught Mihira astrology. On a visit to Kusumpura (Patna) young Mihira met the great astronomer and mathematician Aryabhatta. The meeting inspired him so much that he decided to take up astrology and astronomy as a lifetime pursuit.
5. At that time, Ujjain was the centre of learning, where many schools of arts, science and culture were blooming in the prosperity of the Gupta reign. Mihira, therefore shifted to this city, where scholars from distant lands were gathering. In due course, his astrological skills came to the notice of Vikramaditya Chandragupta II, who made him one of the Nine Gems of his court. Mihira travelled widely, even as far as Greece. He died in 587 AD.
6. Varahamihira was learned in the Vedas, but was not a blind believer in the supernatural. He was a scientist. Like Aryabhatta before him, he declared that the Earth was spherical. In the history of science, he was the first to claim that some 'force' might be keeping bodies stuck to the round Earth. The force is now called gravity.

7. He committed one blunder, however. He was sure that the Earth was not in motion. "Had it been so," he said, "a bird moving in the direction opposite to the Earth's motion (which is westwardly) would return to its nest as soon as it had flown from it".
8. Varahamihira made some significant observations in the field of ecology, hydrology and geology. His claim that plants and termites serve as indicators of underground water is now receiving attention in the scientific world. He was also a prolific writer. His mastery of Sanskrit grammar and poetic metre enabled him to express himself in a unique style.
9. His encyclopedic knowledge and his lively presentation of subjects as dry as astronomy made him a celebrated figure. His treatises such as *Panchasiddhantika* (five principles), *Brihatsamhita* (master collection) and *Brahjataka* (astrological work), have put him on as high a pedestal in astrology as Kautilya's in political philosophy, Manu's in law and Panini's in grammar.
10. About his own treatises, Varahamihira says "The science of astrology is a vast ocean and it is not easy for everyone to cross it. My treatises provide a safe boat". That was no boast. Even now they are acknowledged as masterpieces.

**Questions :**

- a) On the basis of your reading of the passage, answer the following questions briefly :
- |                                                                  |   |
|------------------------------------------------------------------|---|
| i) Who was Mihira? Why was everyone shocked by his prediction?   | 2 |
| ii) How did Mihira come to be known as Varahamihira?             | 2 |
| iii) Why did Mihira decide to take up astrology and astronomy?   | 1 |
| iv) What is his greatest contribution to the history of science? | 1 |
| v) 'Mihira was a versatile genius'. Justify.                     | 1 |
- b) On the basis of your reading , answer the following questions by choosing the correct option.  $1 \times 3 = 3$
- |                                                                                      |
|--------------------------------------------------------------------------------------|
| (i) Which of the following words from para 3 means the same as 'preventive measure'? |
| a) Controlled   b) Precaution   c) Predicted   d) Respected                          |
| (ii) Which of the following words from para 7 means the same as 'stupid mistake'?    |
| a) Committed   b) Error   c) Blunder   d) Idiotic                                    |
| (iii) Which of the following words from para 10 means the same as 'recognised'?      |
| a) Treatises   b) Boast   c) Checked   d) Acknowledged                               |

A 3. Read the passage given below and answer the questions that follow :

8

Petty corruption can be checked, but not the sophisticated variety. It is incorrect to suppose that corruption is best fought through investigation and punishment. Kejriwal and others believe that a strong Lok Pal is the answer to corruption. Our experience with law enforcement and the judiciary suggests otherwise. Corruption is better addressed through transparency, clear rules for decision making and e-governance. The RTI Act is probably a superior answer to corruption to the proposed Lok Pal.

Limiting the role of government does not limit corruption. Most people associate corruption with government. They believe that if the role of government is restricted, it will limit the scope of corruption. This is astonishingly naïve. Corruption thrives in the corporate sector as well. And some of the biggest opportunities for graft relate to the sale of government land and natural resources to the private sector. A state that mishandles ownership of public assets is also likely to mishandle their transfer to private hands. Privatisation is no answer to corruption. It only creates another avenue for graft.

Corruption has more to do with the economic structure of society than with individuals being good or bad. Kejriwal and company think there is something terribly wrong with the present set of politicians. They dream of remedying this by bringing into politics a new set of superior individuals. Others tell their countrymen to be less greedy and corrupt, exhortations that have failed for centuries. Such solutions miss the crucial point that corruption is a manifestation of an underlying malaise, namely, an iniquitous economic structure.

... 4 ...

"The surest way to corrupt a youth is to instruct him to hold in higher esteem those who think alike than those who think differently", said Friedrich Nietzsche, German philosopher, poet and composer.

In such structure, those at the top will benefit from both legal and illegal corruption. Any answer to corruption must attack the economic structure itself. Addressing inequalities in society may be a more sensible way of tackling corruption than bringing in tough anti-corruption laws or appealing to our values. Yet people who profess revulsion at corruption have no qualms about supporting economic measures that widen inequalities or criticizing measures aimed at reducing these.

Corruption is not just about bad guys who give or take bribes; the greater corruption involves nice guys who are comfortably ensconced in a predatory economic structure. That structure is as old as mankind, it only keeps changing its forms. Anti-graft crusades can slow down the wheels of the economy in the short-run, as decision making in government is paralysed. In the long run, such crusades end up de-legitimising the institutions of democracy and pave the way for dictatorship, which makes corruption even worse.

**Questions :**

- a) On the basis of your reading of the passage, make notes on it using headings and sub-headings. Use recognisable abbreviations wherever necessary (minimum 4). Use a format you consider suitable. Also supply an appropriate title to it. 5
- b) Write a summary of the above passage in about 80 words. 3

**SECTION B (WRITING)**

**30 Marks**

4. You want to sell your car as you are going abroad. Draft a suitable advertisement in not more than 50 words to be published in the classified columns of 'The Hindu'. Give necessary details of the car. You are Swan/Sushil, 21, Ramnagar, New Delhi. 4

**OR**

As the Secretary, SPCA(Society For Prevention of Cruelty to Animals) design a poster in 50 words to be displayed in the city at public places for promoting kindness towards animals.

5. Today's women are ambitious, progressive and modern. They have established themselves overcoming numerous challenges and walk shoulder to shoulder with men in every walk of life. There are enviable achievements to their credit. Yet, they have a long way to go. As Malini/Mohan Shankar staying at B/363, Church Road, Bengaluru, write a letter to the Editor, 'The Hindu', expressing your views on the issue and highlighting the role of women in the 21<sup>st</sup> Century. (120-150 words) 6

**OR**

You are Madan/Meenakshi Parashar, 36, Nehru Marg, Gwalior. Read the advertisement given below and write a letter applying for the job. Also give your detailed resume, which you would send along with your letter of application for the job. (120-150 words)

**WANTED**

Sales Engineers for Bhopal and Mumbai. BE (Mech/Electrical), about 25-30 years of age with 2-5 years of experience in marketing of industrial products. Candidates should have good presentation skills and willingness to travel extensively. Please apply to General Manager, TRY-Air India Limited, B-4, Mahatma Gandhi Road, Indore.

6. You are Vineet/Vandana Nayak. You feel quite concerned to discover the prevalence of child labour in various parts of the country. Write an article for a newspaper in 150-200 words on the topic 'Child labour – a curse'. 10

**OR**

Dance, as shown in some reality shows on TV, seems to be a mix of gymnastics and PT exercises. Actually it is neither. India has a rich tradition of classical and folk dances. Write an article in 150-200 words on the need to have a reality show exclusively based on Indian classical dances. You are Anamika/Anmol Ahuja.

7. In recent times there has been a sudden proliferation of tuition and coaching centres. Are they relevant and useful? Are they a blot on our education system? What are your views? Write them in the form of a speech to be delivered in the morning assembly of your school. (word limit 150-200 words). 10

(OR)

In an Inter-School elocution competition, you have to speak on the topic "How to guard Indian Culture in the mess of global culture today?" As Anoop/Aparna Soni draft your speech in 150-200 words.

**SECTION – C (LITERARY AND LONG READING TEXT)**

**40 marks**

8. **Read the following extract and answer the questions that follow :**

Break O break open till they break the town  
And show the children to green fields, and make their world  
Run azure on gold sands, and let their tongues  
Run naked into books the white and green leaves open  
History theirs whose language is the sun.

- (i) Name the poem and the poet. 1  
(ii) What is meant by 'Break O break'? 1  
(iii) What does the poet want for them? 1  
(iv) Explain 'and let their tongues run naked into books'. 1

(OR)

Fishermen in the cold sea  
would not harm whales  
and the man gathering salt  
would look at his hurt hands

- (i) What does the poet expect of the fishermen and why? 1  
(ii) While gathering salt, What will the man do? 1  
(iii) What does the phrase 'hurt hands' imply? 1  
(v) Pick out the words from the extract which mean. 1  
    a) Damage    b) bring together

9. **Answer any FOUR of the following questions in about 60 – 80 words each. (3×4=12)**

- i) What do the parting words of Kamla Das and her smile signify?  
ii) What is the 'sadness' that the poet refers to in the poem "Keeping Quiet"?  
iii) How did the incident at the YMCA pool affect Douglas?  
iv) Why does Jo insist that her father should tell her the story with a different ending?  
v) What qualities of Mr. Lamb attracted Derry to him?

10. **Answer the following questions in about 120 – 150 words each. (6×2=12)**

- i) Discuss how the story, "The Ratrap" shows that basic human goodness can be brought out by understanding and love.  
ii) What impression do you form about Dr. Sadao as a man and a surgeon on your reading the chapter 'The Enemy'?

11. **Describe the appearance of the stranger when he arrived at the inn. Why was Mrs. Hall scared out of her wits by his appearance? 6**

(OR)

How did Griffin move about in the village of Iping? What were the rumours revolving around his bandages?

12. **Mrs. Hall was a strong woman. However, we see some flaws in her character. In the light of this statement, attempt her character sketch. 6**

(OR)

Who was Mr. Sandy Wadgers? What impressions does he leave on the readers?

## DELHI PUBLIC SCHOOL, BHILAI (C.G.)

DATE : 17-09-2014

## FIRST TERM EXAMINATION, 2014

Time : 3 Hours

CLASS : XII

## MATHEMATICS

M. M : 100

No. of Printed Pages : 2

## General Instructions :

- All questions are compulsory.
- The question paper consists of 26 questions divided into three sections A, B and C. Section A comprises of 6 questions of one mark each, section B comprises of 13 questions of four marks each and section C comprises of seven questions of six marks each.
- All questions in section A are to be answered in one word, one sentence or as per the exact requirement of the question.
- There is no overall choice. However, internal choice has been provided in 4 questions of four marks each and 2 questions of six marks each. You have to attempt only one of the alternatives in all such questions.
- Use of calculators is not permitted. You may ask for logarithmic tables, if required.

Section - A

- State the reason for the relation R on the set {1, 2, 3} given by  $R = \{(1, 2), (2, 1)\}$  not be transitive.
- Evaluate  $\sin\left[\frac{\pi}{3} - \sin^{-1}\left(-\frac{1}{2}\right)\right]$
- If  $A$  is a square matrix of order 3 and  $|4A| = k|A|$ , then write the value of  $k$ .
- Evaluate  $\begin{vmatrix} a+ib & c+id \\ -c+id & a-ib \end{vmatrix}$
- Given  $\int e^x (\tan x + 1) \sec x dx = e^x f(x) + c$ . write  $f(x)$  satisfying the equation.
- Evaluate :  $\int \sec^2(7-x) dx$

Section - B

- Let  $R$  be a relation defined as  $R = \{(x, y) : x$  and  $y$  study in the same class $\}$ . Show that  $R$  is an equivalence relation. If  $x$  is a brilliant student and  $y$  is a slow learner and  $x$  helps  $y$  in this studies. What quality does  $x$  posses?
- Let  $R_1 = R - \{-1\}$  and an operation  $*$  is defined on  $R_1$  by  $a * b = a + b + ab \forall a, b \in R_1$ . Find the identity element and inverse of an element.
- Consider  $f : R_+ \rightarrow [-5, \infty)$  given by  $f(x) = 9x^2 + 6x - 5$ . Show that  $f$  is invertible with the inverse  $f^{-1}$  of  $f$  given by  $f^{-1}(y) = \frac{\sqrt{y+6}-1}{3}$ , where  $R_+$  is the set of all non-negative real numbers.
- Solve for  $x$  :  $2\tan^{-1}(\cos x) = \tan^{-1}(2\operatorname{cosec} x)$

(OR)

$$\text{Prove that: } \tan^{-1}\left(\frac{\sqrt{1+x} - \sqrt{1-x}}{\sqrt{1+x} + \sqrt{1-x}}\right) = \frac{\pi}{4} - \frac{1}{2} \cos^{-1} x, -\frac{1}{\sqrt{2}} \leq x \leq 1.$$

- Express the following matrix as the sum of a symmetric and skew symmetric matrix

and verify your result : 
$$\begin{bmatrix} 3 & -2 & -4 \\ 3 & -2 & -5 \\ -1 & 1 & 2 \end{bmatrix}$$

- Find the value of 'a' for which the function  $f$  defined as

$$f(x) = \begin{cases} a \sin\left\{\frac{\pi}{2}(x+1)\right\}, & x \leq 0 \\ \frac{\tan x - \sin x}{x^3}, & x > 0 \end{cases}, \text{ is continuous at } x = 0.$$

- If  $y = x^{\sin x} + (\sin x)^{\cos x}$ , then find  $\frac{dy}{dx}$ .

(OR)

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

- Prove that  $y = \frac{4 \sin \theta}{2 + \cos \theta} - \theta$  is an increasing function in  $\left[0, \frac{\pi}{2}\right]$ .

::: 2 :::

15. Find the equation of the tangent to the curve  $x = \sin 3t$ ,  $y = \cos 2t$  at  $t = \frac{\pi}{4}$ .  
 (OR)

A ladder 5 m long is leaning against a wall. The bottom of the ladder is pulled along the ground away from the wall at the rate of 2 m / sec. How fast is its height on the wall decreasing when the foot of the ladder is 4 m away from the wall ?

16. Using properties of determinants, solve the following for  $x$  :  $\begin{vmatrix} a+x & a-x & a-x \\ a-x & a+x & a-x \\ a-x & a-x & a+x \end{vmatrix} = 0$

17. Evaluate :  $\int \frac{5x+3}{\sqrt{x^2+4x+10}} dx$  (OR) Evaluate :  $\int \sqrt{\cosecx - 1} dx$

18. Evaluate :  $\int x \sin^{-1} x dx$

19. If  $A = \begin{bmatrix} a & b \\ 0 & 1 \end{bmatrix}$ ,  $a \neq 1$  prove that  $A^n = \begin{bmatrix} a^n & \frac{b(a^n-1)}{a-1} \\ 0 & 1 \end{bmatrix}$ ,  $\forall n \in N$ .

### SECTION - C

20. The management committee of a residential colony decided to award some of its members (say x) for honesty, some (say y) for helping others and some others (say z) for supervising the workers to keep the colony neat and clean. The sum of all the awardees is 12. Three times the sum of awardees for cooperation and supervision added to two times the number of awardees for honesty is 33. If the sum of the number of awardees for honesty and supervision is twice the number of awardees for helping others, using matrix method, find the number of awardees of each category. Apart from these values, namely, honesty, cooperation and supervision, suggest one more value which the management of the colony must include for awards

(OR)

Using elementary transformations, find the inverse of the matrix  $\begin{bmatrix} 1 & 3 & -2 \\ -3 & 0 & -1 \\ 2 & 1 & 0 \end{bmatrix}$ .

21. Using properties of determinants show that :  $\begin{vmatrix} (b+c)^2 & ab & ac \\ ab & (a+c)^2 & bc \\ ac & bc & (a+b)^2 \end{vmatrix} = 2abc(a+b+c)^3$ .

22. Evaluate  $\int_1^3 (3x^2 + 2x) dx$  as the limit of a sum.

OR

Evaluate  $\int_1^3 (e^{2x} - x) dx$  as the limit of a sum.

23. A window is in the form of rectangle surmounted by a semi-circular opening. Total perimeter of the window is 10m. What will be the dimensions of the whole opening to admit maximum light and air ? How having large window help us in saving electricity and conserving environment ?

24. Evaluate :  $\int \frac{dx}{\sin^4 x + \cos^4 x}$ .

25. (i) Using differentials, find the approximate value of  $(82)^{\frac{1}{4}}$  upto 3 places of decimal.

- (ii) Verify Rolle's theorem for the function  $f(x) = \sin 2x$  in  $[0, \frac{\pi}{2}]$

26. (i) Prove that :  $2 \tan^{-1}\left(\frac{1}{2}\right) + \tan^{-1}\left(\frac{1}{7}\right) = \tan^{-1}\left(\frac{31}{17}\right)$ .

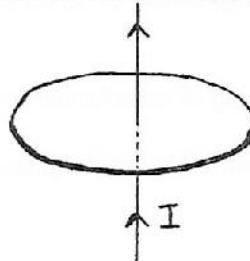
- (ii) Prove that :  $\cos[\tan^{-1}\{\sin(\cot^{-1} x)\}] = \sqrt{\frac{1+x^2}{2+x^2}}$

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**General Instructions:**

- All questions are compulsory.
- There are 26 questions in total. Q. Nos. 1 to 5 are very short answer type questions and carry one mark each.
- Q. Nos. 6 to 10 carry two marks each, Q. Nos. 11 to 22 carry three marks each Q. Nos. 24 to 26 carry five marks each.
- There is no overall choice. However an internal choice has been provided in one question of two marks, one question of three marks and all three questions of five marks each. You have to attempt only one of the given choice in such Questions.
- Q. No. 23 is value based question carries four marks.
- Use of calculator is not permitted.
- You may use the following values:  $\mu_0 = 4\pi \times 10^{-7} TMA^{-1}$ ,  $\frac{1}{4\pi\epsilon_0} = 9 \times 10^9 Nm^2 C^{-2}$

- Define Bohr magneton and write its unit. (1)
- Draw equipotential surfaces of two equal positive point charges placed at a short distance. (1)
- Predict the direction of induced current in given circular loop. (1)



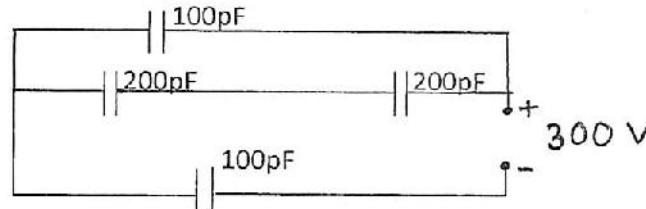
Current (I) decreasing at a steady rate

- Two identical looking iron bars A and B are given. One of which is definitely known to be magnetised, (we don't know which one) how would one ascertain whether or not, both are magnetized. If only one is magnetized, how would one ascertain which one? (Use nothing else but two bars A and B) (1)
- Can electrostatic potential at a point be zero, while electric field at that point is not zero? Justify. (1)
- Derive an expression for the torque on an electric dipole placed in an electric field. (2)
- The resistance of the platinum wire of a platinum resistance thermometer at the ice point is  $5\Omega$  and at steam point is  $5.23\Omega$ . When the thermometer is inserted in a hot bath the resistance of the platinum wire is  $5.795\Omega$ . Calculate the temperature of the bath. (2)
- Derive an expression for mutual inductance of two long coaxial solenoids. (2)
- A wheel with 10 metallic spokes each 0.5m long is rotated with a speed of 120 rpm in a plane normal to the horizontal component of earth's magnetic field  $B_H$  at a place. If  $B_H=0.4G$  at that place. What is the induced emf between axle and the rim of the wheel? (2)
- What is displacement current? Write its formula. (2)

**OR**

What are the electromagnetic waves? Write its two properties.

- State Gauss Law. Derive an expression of electric field due to a thin infinitely long straight uniformly charged conductor with charge density of  $\lambda Cm^{-1}$ . (3)
- Two point charges  $q_A = +3\mu C$  and  $q_B = -3\mu C$  are located 20 cm apart in vacuum (i) find the electric field at the midpoint 'O' of line AB joining the two charges (ii) if a negative test charge of magnitude  $1 \times 10^{-9} C$  is placed at the centre. Find the force experienced by the test charge. (3)
- Obtain the equivalent capacitance of the network in fig. for 300V supply. Determine the charge and voltage across each capacitor. (3)



- Deduce the expression for the capacitance of a parallel plate capacitor when a dielectric slab is inserted between its plates. Assume the slab thickness less than the plate separation. (3)
- Derive the expression for current using concept of drift speed. (3)
- Define mobility of a charge carrier and write its SI unit. What happens to mobility of charge carrier, if applied field is doubled? (3)
- Derive expression for total power consumed when three appliances of power  $P_1$ ,  $P_2$  and  $P_3$  are connected in (i) series (ii) parallel (3)

18. Write 3 differences between Diamagnetic material and paramagnetic material. (3)  
 19. Define the three elements of earth's magnetic field. (3)  
 20. Apply Ampere's law to calculate magnetic field inside a long straight solenoid, carrying current. (3)  
 21. (a) What do you mean by power factor of an a.c circuit? Write expression for it.  
     (b) What is wattless current? (3)

22. Calculate the resonant frequency and Q factor for a series LCR circuit with  $L=2.0\text{H}$ ,  $C=32\mu\text{F}$  and  $R=10\Omega$ . (3)

**OR**

A  $15\mu\text{F}$  capacitor is connected to a  $220\text{V}$ ,  $50\text{Hz}$  source find the capacitive reactance and the current (rms and peak) in the circuit.

23. Many people like to watch CID programme on a T.V channel. In this programme a murder mystery is shown, this mystery solved by a team of people. Each member of the team works with full dedication. They collect information and evidences from all possible sources and then tend to lead to correct conclusion. Sometimes they also use UV rays in the forensic laboratory some people get surprised to know the advantage of UV rays because they are only aware of the fact that UV rays coming from the sun produces harmful effects.  
 (a) What values were displayed by members of CID team?  
 (b) What is the full name of UV rays and what is the use of UV rays? (4)

24. (a) Using phasor diagram, derive an expression for the impedance of series LCR circuit.  
 (b) Explain resonance condition of a series LCR circuit?

**OR**

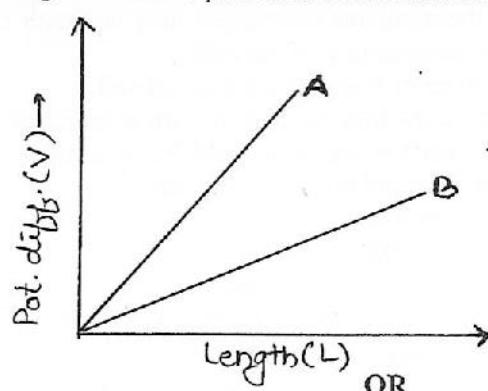
- (a) What is transformer? Explain the principle and working of transformer with diagram.  
 (b) Explain any two losses in transformer.

25. (a) Explain the principle of cyclotron with diagram and show that its frequency is independent of both velocity of particle and radius of orbit.  
 (b) Write two limitations of cyclotron.

**OR**

- (a) With the help of a neat diagram, describe the working principle of a moving coil galvanometer.  
 (b) What is the use of radial magnetic field and soft iron core in a moving coil galvanometer? (3+2=5)

26. (a) State principle of potentiometer.  
 (b) Draw a circuit diagram to measure the internal resistance of a primary cell and write the formula used.  
 (c) The variation of potential difference with length in case of two potentiometers 'A' and 'B' is shown in figure which is preferred to find emf of a cell. Give reason to your answer. (1+2+2=5)



**OR**

- (a) Define emf of a cell and terminal voltage of a cell.  
 (b) Under what condition emf of a cell is equal to its terminal voltage.  
 (c) Draw graph showing variation of emf with external resistance 'R'

--00o--

**DELHI PUBLIC SCHOOL, BHILAI (C.G)**

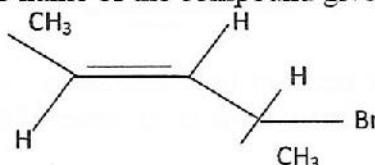
**DATE:24.09.2014 FIRST TERMINAL EXAMINATION – 2014 CLASS:XII CHEMISTRY TIME:3Hrs MM:70**

**Instructions:**

1. All questions are compulsory.
2. Question no.1 to 5 are very short answer questions and carry 1 mark each.
3. Question no. 2 to 10 are short answer questions and carry 2 marks each.
4. Question no. 11 to 22 are also short answer questions and carry 3 marks each.
5. Question no. 23 carry 4 marks.
6. Question no. 24 to 26 carry 5 marks each.
  
1. What are the physical states of dispersed phase and dispersion medium of froth?
2. From the rate of expression of the following reaction, determine the unit of the rate constant.  

$$\text{H}_2\text{O}_2 \text{ (aq)} + 3\text{I}^-(\text{aq}) + 2\text{H}^+(\text{aq}) \rightarrow 2\text{H}_2\text{O(l)} + \text{I}_3^-$$
  

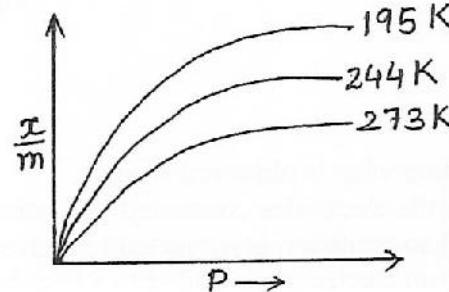
$$\text{rate} = K[\text{H}_2\text{O}_2][\text{I}^-]$$
  
3. How much charge is required for the reduction of 1 mole of  $\text{MnO}_4^-$  to  $\text{Mn}^{+2}$ ?
4. What is the Van't Hoff factor for a compound which undergoes tetramerization in an organic solvent?
5. Write the IUPAC name of the compound given below.



6. (i) Write the type of magnetism observed when the magnetic moments are aligned in parallel and antiparallel directions in unequal numbers.  
(ii) In a crystalline solid anions 'C' are arranged cubic close packing, cations 'A' occupy 50% of tetrahedral voids and cations 'B' occupy 50% of octahedral voids. What is the formula of the solid?
  
7. If  $\text{N}_2$  gas is bubbled through water at 293K, how many millimoles of  $\text{N}_2$  gas would dissolve in 1 litre of water? Assume that  $\text{N}_2$  exerts a partial pressure of 0.987 bar. Given that  $K_H$  for  $\text{N}_2$  at 293K is 76.48 kbar.
  
8. What is reverse osmosis? Mention one large scale use of reverse osmosis.
  
9. Define the following terms: -  
a) Molar conductivity      b) Secondary batteries

10. Consider the adsorption isotherms given below and interpret the variation in the extent of adsorption ( $x/m$ ) when

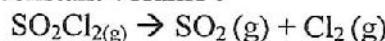
- (i) temperature increases at constant pressure.
- (ii) Pressure increases at constant temperature.



11. A unit cell of NaCl has four formula units. The edge length of the unit cell is 450pm. What is the density of NaCl? (At. Mass Na = 23, Cl = 35.5)
  
12. Account for the following:  
a) Frenkel defects are not found in pure alkali halides.  
b) Silicon doped with Gallium acts like a semi conductor.  
c) KCl turn violet on heating in potassium vapour.
  
13. Two elements A and B form compounds having molecular formulae  $\text{AB}_2$  and  $\text{AB}_4$ . When dissolved in 20.0g of benzene, 1.0g of  $\text{AB}_4$  lowers the freezing point by  $2.3^\circ\text{C}$ , whereas 1.0g of  $\text{AB}_2$  lowers the freezing point by  $1.3^\circ\text{C}$ . The molal depression constant for benzene in 1000g is 5.1. Calculate atomic masses of A and B.

:2:

14. The following data were obtained during the first order thermal decomposition of  $\text{SO}_2\text{Cl}_2$  at a constant volume :



Experiment	Time/ $\text{s}^{-1}$	Total Pressure/atm
1	0	0.4
2	100	0.7

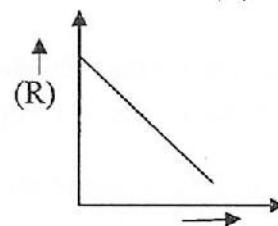
Calculate the rate constant. [Given  $\log 4 = 0.6021$ ,  $\log 2 = 0.3010$ ]

15. Define the following terms:

a) Anisotropy    b) Crystal Lattice    d) Schottky defect

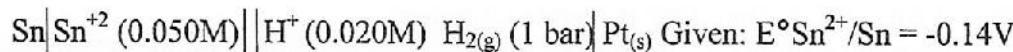
16. A) For a reaction  $\text{R} \rightarrow \text{P}$ , the variation in the concentration ( $\text{R}$ ) Vs time ( $t$ ) plot is given as

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



- B) For the reaction:  $\text{A} \rightarrow \text{B}$  the rate of reaction becomes twenty seven times when the concentration of 'A' is increased three times. What is the order of the reaction?

17. Calculate the e.m.f of the following cell at 298 K



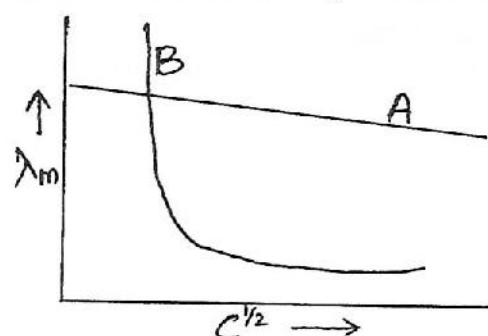
18. A) If a current of 0.5 ampere flows through a metallic wire for 2 hrs, then how many electrons flows through the wire?

B) Define electrochemical equivalent.

(2+1=3)

19. The following curve is obtained when molar conductivity  $\lambda_m$  (y-axis) is plotted against the square root of concentration  $C^{1/2}$  (x-axis) for two electrolytes A and B.

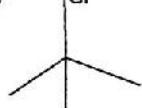
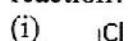
- a) What can you say about the nature of two electrolytes A and B?  
b) How do you account for the increase in  $\lambda_m$  for electrolytes A and B on dilution?



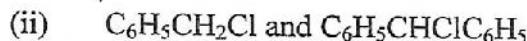
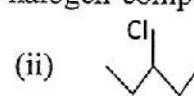
20. State what is observed when

- a) the electrodes connected to a battery are dipped into a sol.  
b) an emulsion is subjected to high speed centrifugation  
c) an electrolyte is added to a freshly prepared precipitate.

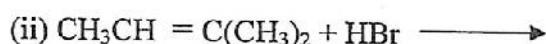
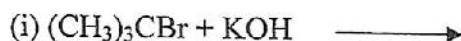
21. A) In the following pairs of halogen compounds, which compound undergoes faster  $\text{SN}^1$  reaction?



and



B) Complete the following reactions



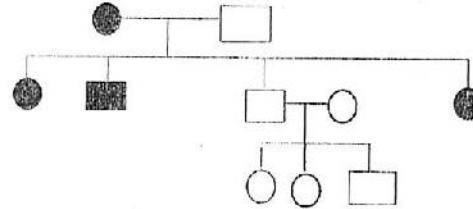
22. A) Differentiate between multimolecular and macro molecular colloids.  
B) What do you understand by activity and selectivity of a catalyst? (1+2=3)
23. Vijay, a farmer has a lot of land. He notice some infection on the leaves of his crops. He called his friend Ravi, who advised to use DDT. However, Vijay preferred to use dry powder of neem leaves as an insecticide.  
a) What is the IUPAC name of DDT?  
b) Mention the reason why Vijay prefer using Neem Powder,  
c) Write values associated with above decision.  
d) Do you think we should ban DDT in India? Give reason.
24. A) Mixing of acetone with chloroform ( $\text{CHCl}_3$ ) takes place with reduction in volume.  
Explain the type of deviation shown in this case.  
B) Heptane and octane form an ideal solution. At 373K, the vapour pressures of the two liquid components are 105.2 kPa and 46.8 kPa respectively. What will be the vapour pressure of a mixture of 26 g of heptane and 35 g of Octane. (2+3=5)  
Or  
A) Equimolar solution of common salt and sugar are not isotonic. Why?  
B) Define molal depression constant.  
C) Find the molarity of a 15% solution of  $\text{H}_2\text{SO}_4$  (density = 1.02g/cc) (2+1+2=5)
25. A) The reactions of high molecularity are rare. Why?  
B) Reactions of what order will show the rate to be independent of concentration?  
C) Half life and three fourth life of a first order reaction are  $t_1$  and  $t_2$  respectively. What is the relation between them? (2+1+2=5)  
Or  
A) The rate of a reaction almost doubles with every  $10^\circ$  rise in temperature? Why?  
B) A hydrogenation reaction is carried out at 500K. If the same reaction is carried out in the presence of a catalyst at the same rate, temperature required is 400K. Calculate the activation energy of the reaction if the catalyst lowers the activation barrier by  $20\text{KJmol}^{-1}$ . (2+3=5)
26. (A) Convert tert-Butyl bromide to isobutylbromide  
(B) Account for the following –  
(i) Grignard reagents should be prepared under anhydrous conditions.  
(ii) dipole moment of chlorobenzene is lower than that of cyclohexyl chloride.  
(C) Arrange the following in order of increasing boiling points: -  
1-chloro propane , isopropyl chloride, 1-chlorotetane, 1 – bromobutane (2+2+1=5)  
Or  
A) Haloarenes are less reactive than Haloalkanes towards nucleophilic substitution reaction. Why?  
B) Compound ‘A’ with molecular formula  $\text{C}_4\text{H}_9\text{Br}$  is treated with aq.KOH solution. The rate of this reaction depends upon the concentration of compound ‘A’ only. When another optically active isomer of ‘B’ of this compound was treated with aq.KOH solution, the rate of reaction was found to be dependent on concentration of compound and KOH both.  
(i) Write down the structural formula of both ‘A’ and ‘B’.  
(ii) Out of these two compounds which one will be converted to product with inverted configuration. Write the mechanism of this reaction. (2+3=5)

General Instructions:-

- All Questions are compulsory and answer serially.
- The Question paper consist of five Sections A, B, C, D and E. Section A contains 5 questions of 1 mark each. Section B is of 5 questions of 2 marks each. Section C is of 12 questions of 3 marks each, Section D has a value based question of 4 marks, whereas Section E is of 3 questions of 5 marks each.
- There is no overall choice. However an internal choice has been provided in one question of two marks, one question of 3 marks and all the three questions of 5 marks weightage. A student has to attempt only one of the alternatives in such questions.
- Wherever necessary, the diagrams drawn should be neat and properly labelled.

Section-A

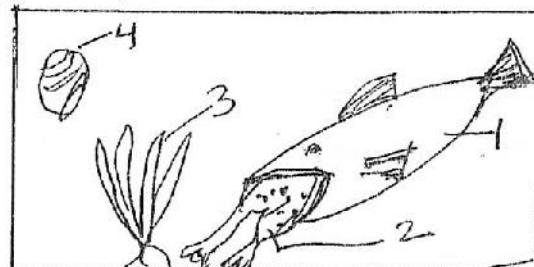
- If F. Griffith's experiment, how did the non-virulent strain of Streptococcus pneumoniae become virulent. (1)
- After a successful in-vitro fertilization, the fertilised egg begins to divide. Where is this egg transferred before it reaches the 8-cell stage and what is this technique named? (1)
- Bacteria that convert milk into curd play two other beneficial roles. What are they? (1)
- In the following pedigree chart, state if the trait is autosomal dominant, autosomal recessive or sex linked. Give a reason for your answer. (1)



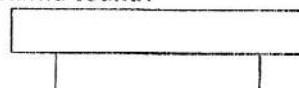
- State any one reason to explain why RNA viruses mutate and evolve faster than other viruses. (1)

Section-B

- In the picture provided, what is relationship between (1) and (2) with respect to population interaction and between (3) and (4) with respect to trophic levels. (2)



- In the pyramid of biomass drawn below, name the two crops: (i) one which is supported and (ii) one which supports. In which ecosystem is such a pyramid found? (2)



- Sex determination is based on particular chromosomes in both birds and humans. State two points of difference between their mechanisms of sex determination. (2)
- Draw a typical monocot embryo parts. State the function of any two parts. (2)

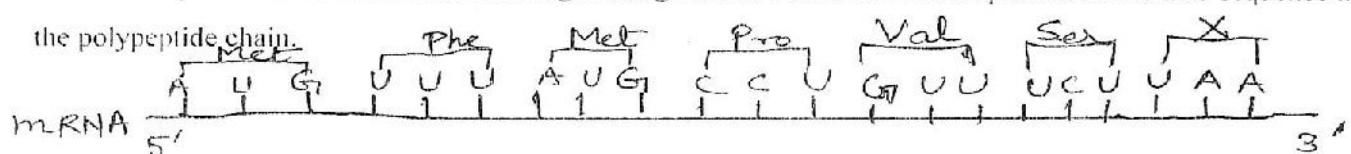
OR

Even though each pollen grain has two male gametes, why are at least 10 pollen grains and not 5 pollen grains required to fertilise 10 ovules present in a particular carpel?

- Which one out of the eurythermal or stenothermal species is likely to survive increased global temperatures? (2)  
Give one reason for your answer.

Section-C

- Read the sequence of the nucleotides in the given segment of mRNA and the respective amino acid sequence in the polypeptide chain. (3)





### Section-D

A child suffering from Thalassemia is born to a normal couple. But the mother is being blamed by the family for delivering a sick baby. (4)

- (a) Explain the genetic basis of such diseases, when it is not found in parents.
- (b) Differentiate between the two forms of thalassemia.
- (c) Could they have avoided the birth of such children? Explain.
- (d) How can you make these children feel at ease?

### Section-E

4. When and where are primary oocytes formed in a human female? Trace the development of these oocytes till ovulation (in menstrual cycle). How do gonadotropins influence this developmental process? (5)

OR

- (a) Explain the events taking place at the time of fertilization of an ovum in a human female.
- (b) Trace the development of the zygote upon its implantation in the uterus.
- (c) Name and draw a labelled sectional view of the embryonic stage that gets implanted.

5. Explain the causes, inheritance pattern and symptoms of any two Mendelian genetic disorders. (5)

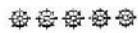
OR

- (a) In a pond there are 200 frogs, 40 more were born in a year. Calculate the birth rate of the population.
- (b) Draw and explain a logistic curve for a population of density ( $N$ ) at time ( $t$ ) whose intrinsic rate of increase is ( $r$ ) and carrying capacity is ( $k$ )

6. (a) Describe in sequence the process of megasporogenesis in angiosperms. (5)  
(b) Draw the seven celled structure formed and label all the different cells.

OR

- (a) What is semiconservative DNA replication.
- (b) How was it experimentally proved and by whom?



**General Instructions:**

- Question paper consists of four sections: A, B, C and D.
- Questions 1 to 6 carry one mark each.
- Questions 7 to 14 carries two marks.
- Questions 15 to 25 carries three marks.
- Questions 26 to 28 carries five marks.

**SECTION-A**

- |                                                                                    |   |
|------------------------------------------------------------------------------------|---|
| 1. Name the vector used in the first cloning experiment involving mammalian cells. | 1 |
| 2. How is air used in fermenter sterilized?                                        | 1 |
| 3. State the use of microcarrier beads in animal culture technique.                | 1 |
| 4. What are artificial seeds?                                                      | 1 |
| 5. Why forced aeration is done in a fermenter?                                     | 1 |
| 6. What is lyophilisation?                                                         | 1 |

**SECTION-B**

- |                                                                                                                                                                              |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 7. How can unnecessary pollination be eliminated and resorted back?                                                                                                          | 2 |
| 8. Why is Pichia pastoris extensively used in industrial fermentation?                                                                                                       | 2 |
| 9. How can GM plants tolerate abiotic stress?                                                                                                                                | 2 |
| 10. What is cryopreservation and why cryopreservants are added in an animal culture.                                                                                         | 2 |
| 11. Calculate the generation time of a bacterial population in which number of bacteria increases for $10^7$ / ml to $10^{10}$ /ml during three hours of exponential growth. | 2 |
| 12. What is the importance of pH while culturing animal cell culture? How is pH maintained in a culture medium?                                                              | 2 |
| 13. What are the main drawbacks of bacterial PHB? Name an alternate method to produce PHB.                                                                                   | 2 |
| 14. Why are CO <sub>2</sub> incubators required for animal cell culture?                                                                                                     | 2 |

**SECTION-C**

- |                                                                                                                                                      |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 15. Explain defense mechanism in bacteria.                                                                                                           | 3 |
| 16. Distinguish between (a) YAC Vs BAC (b) Genomic library Vs DNS library                                                                            | 3 |
| 17. What is insertional inactivation? Explain it based on lac Z gene.                                                                                | 3 |
| 18. How can amino acid be substituted in expressed protein making them more stable or functionally better?                                           | 3 |
| 19. What is metagenomics? State any two advantage of metagenomics.                                                                                   | 3 |
| 20. With the help of flow sheet diagram explain the isolation of streptomycin microbial production.                                                  | 3 |
| 21. Explain the production and mode of action of tPA.                                                                                                | 3 |
| 22. What are the two phages that have been extensively modified for the development of cloning vectors? Write any four features of these vectors.    | 3 |
| 23. Explain different types of microbial culture with the help of diagram. Why continuous culture is not suitable for the production of metabolites. | 3 |
| 24. State the importance of ligases and alkaline phosphatases in rDNA technology.                                                                    | 3 |
| 25. What is golden rice? How is it different from normal rice?                                                                                       | 3 |

**SECTION-D**

- |                                                                                                                                           |   |
|-------------------------------------------------------------------------------------------------------------------------------------------|---|
| 26. Why is agrobacterium known as natural engineer of plants? Explain vector mediated gene transfer in plants.                            | 5 |
| 27. How can early detection of many infectious diseases like hepatitis and AIDS be done. Explain the production with the help of diagram. | 5 |

OR

- |                                                                                                                                                             |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| (a) Explain the method to reverse the acute rejection of transplanted organs.                                                                               |   |
| (b) What are ES Cells? How are ES cells produced?                                                                                                           |   |
| 28. Name and explain with the help of diagram the technique to identify and locate a specific sequence of DNA in a heterogenous population of DNA molecule. | 5 |

2&2&2&

**DELHI PUBLIC SCHOOL, BHILAI (C.G)**

**DATE:26.09.2014  
CLASS:XII**

**FIRST TERMINAL EXAMINATION – 2014  
COMPUTER SCIENCE**

**TIME:3Hrs  
MM:70**

**General Instructions:**

- (i) All questions are compulsory.
- (ii) Programming Language: C++

1. (a) What is the benefit of using default parameters/arguments in a function? Give a suitable example to illustrate it using a C++ code. (2)  
(b) Observe the following C++ code and write the name(s) of the header file(s), which will be essential to run it in a C++ compiler: (2)

```
void main ( )  
{  
    int A;  
  
    A= random (10);  
    cout << setw (3) << A;  
    getch( );  
}
```

- (c) Find the syntax error (S), if any in the following program:

```
include <iostream>  
void mani()  
{  
    int R; W = 90;  
    while W > 60  
    {  
        R=W-50;  
        switch (W)  
        {  
            20:cout << "lower"<< endl;  
            30: cout << "Middle"<<endl;  
            20: cout << "Higher"<< endl;  
        }  
    }  
}
```

- (d) Give the output of the following program segment:(Assume appropriate header files are included) (2)

```
void main ( )  
{  
    char *n="InTrANeT";  
    for(int x=0;x<strlen(n); x++)  
        if (islower (n[x]))  
            n[x] = toupper(n[x]);  
        else  
            if (isupper(n[x]))  
                if (x%2 == 0)  
                    n[x] = tolower(n[x]);  
                else  
                    n[x]=n[x-1];  
    cout << n;  
}
```

- (e) How is integer 024 different from integer 24? Explain. (2)

2. (a) What do you understand by Polymorphism? Explain with examples. (2)  
(b) What is the difference between Object Oriented Programming and procedure programming. (any two points) (2)  
(c) What is abstract class? (1)  
(d) What are getters and setters functions? (2)  
(e) How does class enforce data hiding and data abstraction? (2)  
(f) Write one advantage and one disadvantage of incline function. (2)

:2:

3. (a) Identify the errors in the following code fragment and rewrite the corrected code and underline each correction. (2)

Class X

```
{  
    Int x;  
    static int ctr;  
public:  
    void init (void)  
    {  
        x = ctr = 0;  
    }  
    static void prn ( )  
    {  
        Cout << ctr << " " << x;  
    }  
};
```

- (b) Define a class TRAIN in C++ with the following description: (4)

- \* Train Number of type integer
- \* Destination of type string
- \* Distance of type float
- \* Fuel of type float

A member function CAL FUEL( ) to calculate the value of Fuel as per the following criteria:

Distance	Fuel
<=1500	250
>1500 and <=3000	1000
>3000	2500

Public members :

- A function FEEDINFO( ) to read values of data members and call function CALFUEL( ) to calculate the quantity of Fuel.
- A function SHOW INFO ( ) to view the content of all data members.

- (c) Distinguish between the following two statements. (2)

- (i) time T 1 (10, 12, 15);
- (ii) time T2 = time (10,12, 15);

- (d) What is copy constructor? Give one example. (1)

- (e) Give one example of Temporary instance. (1)

4. (a) What is containership? How does it differ from Inheritance? (2)

(b) Explain the concept of virtual base class with C++ code. (2)

(c) What is the difference between HAS-A relation and HOLDS – A relation in inheritance? (2)

(d) Consider the following C++ declaration and answer the questions given below: (4)

```
class A  
{  
    void any ( )  
protected : int a,b:  
            void proc ( );  
  
public: A( )  
        void get1( )  
        void put1( );  
};  
class B: protected A  
{  
    int c,d;  
protected: int e,f;  
    void get 2 ( );  
public:  
    B( );  
    void put 2 ( );  
  
public:  
    B ( );  
    void put 2 ( );  
};  
class C: private B
```

```
{ int P;
```

```
protected: int q;  
void get3( );  
public :  
    void put3( );  
};
```

- (i) Name all the member functions which are accessible by the objects of class C.
- (ii) How many bytes does an object belonging to class C requires?
- (iii) Which class constructor will be called first at the time of declaration of an object of class C?
- (iv) Name all the protected data members of class B.

5. (a) What are the differences between the functioning of ios::ate and ios::app file modes? (2)  
(b) Give a binary file "PHONE.TXT", containing records of the following structure type:

```
class Phonelist  
{
```

```
    char name [30];  
    char add [30]  
    char areacode[5];  
    char phoneno[15];  
public:  
    void Register ( );  
    void Show( );  
    int Checkcode (char AC[ ])  
{  
    return strcmp (areacode, AC);  
}
```

Write a function TRANSFER ( ) in C++, that would copy all those records which are having area code as "BHILAI" from "PHONE.TXT" to "PHONENEW.TXT". (3)

(c) Write C++ function to count the words "He" and "She" present in a text file "STORY.TXT". (2)

6. (a) Find the output of the following code;

```
# include <iostream.h>  
void main ( )  
{  
    int A[ ] = {10,15,20,25,30};  
    int * P=A;  
    while (*P<30)  
    {  
        if (*P %3 != 0)  
            *P = *P+2  
        else  
            *P = *P + 1;  
        P ++;  
    }  
    for (int j = 0; j <= 4 ; j++)  
    {  
        cout << A [ j ] << '#';  
        if (j % 3 == 0) cout << endl;  
    }  
    cout << A [4] * 3 << endl;  
}
```

(b) Distinguish between the following statements (2)

- (i) int \* ptr = new int (5);
- (ii) int \* ptr = new int [5];

(c) Give the output of the following program: (2)

```
# include <iostream.h>  
void main ( )  
{  
    int a = 32, * ptr = & a;  
    char ch = 'B', & cho = ch;  
    cho += a; * ptr += ch;  
    cout << a << ' ' < ch << '\n';  
}
```

(d) What is this pointer? Explain with suitable example. (2)

7. (a) Define the following terms:

- (i) Degree
- (ii) Cardinality
- (iii) Attribute
- (iv) Tuple

- (b) How primary key is different from Candidate Key? (2)  
 (c) Differentiate between SQL commands drop table and drop view. (2)  
 (d) Consider the following table EMPLOYEE and SALGRADE and answer by writing SQL commands. (9)

TABLE EMPLOYEE

ECODE	NAME	POST	GRADE	DOJ
101	Vedika	GM	S2	23- March -2003
102	Sourabh	ED	S1	12 -Feb -2010
103	Apurva	EC	S3	24 -June- 2009
104	Abdul	LDC	S4	11 -Aug -2006
105	Ravi	CL	S5	29- Dec- 2004

TABLE SALGRADE

GRADE	SALARY	HRA
S1	56,000	18,000
S2	32,000	12,000
S3	24,000	8,000
S4	20,000	6,000
S5	16,000	5,000

- (i) To display details of all employee in descending order of DOJ
- (ii) To add new record with the following:  
106, 'Pragya', 'GM', 'S2 ', '2014-08-01'
- (iii) To remove the details of the employee 'Ravi '
- (iv) To convert all names in capital letter.
- (v) To display the number of rows stored in a table EMPLOYEE
- (vi) To display field name, type, size of table SALGRADE.
- (vii) To display ECODE,NAME,SALARY and HRA of grade 'S1 '
- (viii) To display today's date.
- (ix) To find the Highest and lowest salary stored in SALGRADE table.

-x-x-

**DELHI PUBLIC SCHOOL, BHILAI (C.G)**

**DATE:26.09.2014  
CLASS:XII**

**FIRST TERMINAL EXAMINATION – 2014  
ENGINEERING GRAPHICS**

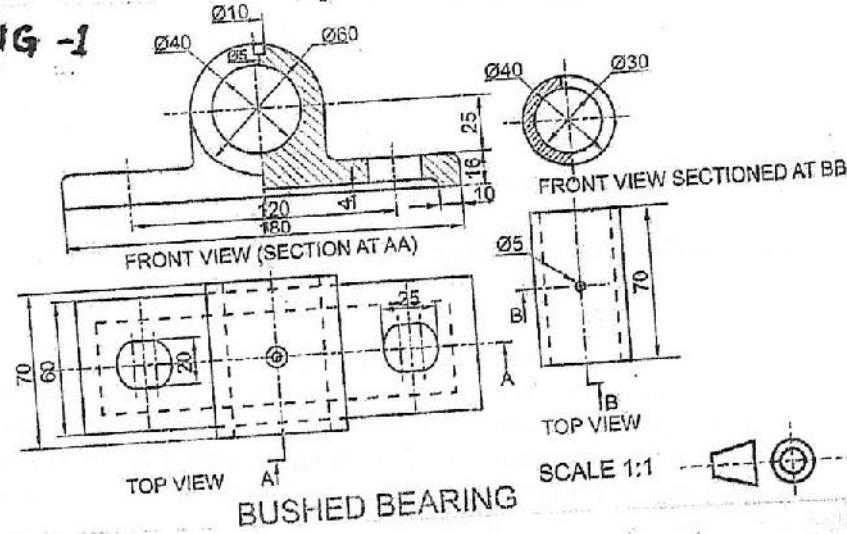
**TIME:3Hrs  
MM:70**

**General Instructions:**

1. Attempt all the questions.
2. Use both sides of the drawing sheet, if necessary.
3. All dimensions are in millimeters.
4. Missing and mismatching dimensions, if any may be suitably assumed.
5. Follow the SP:46 2003 revised codes.
6. In no view of question 1 are hidden edges or hidden lines required.
7. In question 4 hidden edges or lines are to be shown in views without section.
8. Number your answer according to questions.

1. a) Construct an Isometric scale of 90mm long. (4)  
b) Draw an Isometric projection to Isometric scale, of a frustum of an equilateral triangular pyramid, kept in the inverted position (base edge = 30 mm top edge = 50 mm and axial height = 45 mm) with the triangular end of 30 mm side, resting on the H.P and one of the base edges of triangular base is parallel to the V.P is nearer to the observer. Give all dimensions. Draw the axis and indicate the direction of viewing. (7)  
c) A cylinder of diameter 50 mm and height 55 mm is placed centrally on the top end of a hexagonal prism having a pair of base edges parallel to the V.P keeping common axis vertical. Draw the isometric projection to isometric scale, of the solids placed together. Show the vertical common axis and the direction of viewing. Give all the dimensions. (13)
2. a) Draw to scale 1:1 the front view and side view of a hexagonal headed bolt of diameter = 30 mm, keeping the axis parallel to H.P and V.P. Two opposite sides of the hexagonal head are parallel to V.P. Take the standard dimensions. Give all the dimensions properly. (8)  
Or  
Draw to scale 1:1 the standard profile of a British Standard whitworth (B.S.W) thread. The pitch of the thread taken as 40 mm. Give standard dimensions.
- b) Sketch free hand, the top view and front view of a snap head rivet of a diameter 30mm, keeping the axis vertical. Give all the standard dimensions. (6)  
Or  
Sketch free hand, the top view and front view of a stud with collar of size M-20. Keep the axis vertical. Give all the standard dimensions.
3. Answer the following multiple choice questions: (5)
  - a) Angle between the flanks of a Metric thread profile is:  
(i)  $55^\circ$       (ii)  $60^\circ$       (iii)  $90^\circ$       (iv)  $45^\circ$
  - b) The three isometric axis are inclined to each other at:  
(i)  $60^\circ$       (ii)  $30^\circ$       (iii)  $120^\circ$       (iv)  $90^\circ$
  - c) Section (hatching) lines are generally inclined with base at an angle of:  
(i)  $60^\circ$       (ii)  $90^\circ$       (iii)  $30^\circ$       (iv)  $45^\circ$
  - d) Which among the following represents a permanent fastener:  
(i) Nut      (ii) stud      (iii) rivet      (iv) screw
  - e) The isometric view of a sphere is always  
(i) Ellipse      (ii) circle      (iii) parabola      (iv) semi-circle
4. Fig.1 shows the details of the parts of a BUSH BEARING. Assemble these parts properly and draw the following views to scale 1:1 (13)
  - a) Front view, right half in section. (8)
  - b) Top view (6)  
Print heading, scale used and projection symbol. (Give 10 important dimensions)  
Or  
Fig.2 shows the assembly of an OPEN BEARING. Disassemble the base and the bush and draw the following views to scale 1:1 keep the same positions of the bush with respect to H.P and V.P.
    - a) Front view of the base(body) showing right half in section, and its top view. (11)
    - b) Front view of the bush and full section side view as seen from the left side. (10)  
Print titles of both and scale used. Draw the projection symbol, give 8 important dimensions.(6)

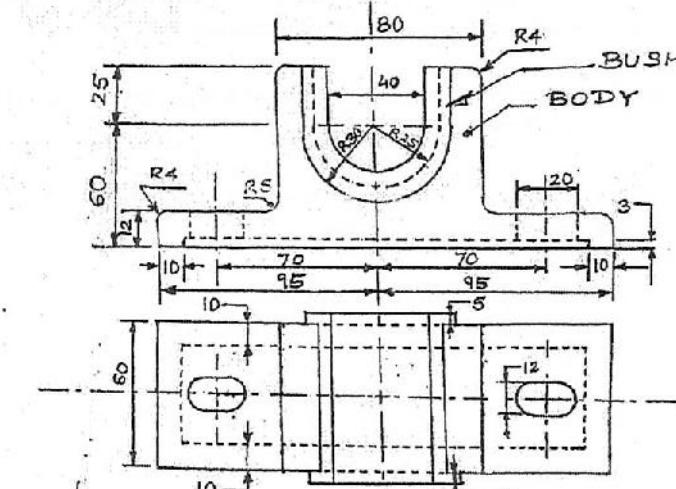
4. FIG -1



BUSHED BEARING

OR

FIG 2 OPEN BEARING



NOTE: FIGURE NOT TO SCALE. USE DIMENSIONS GIVEN FOR SOLUTIONS.

**DELHI PUBLIC SCHOOL, BHILAI (C.G.)**  
**FIRST TERM EXAMINATION – 2014**

**CLASS: XII**

**ECONOMICS**

**TIME: 3 HRS.**

**M.M: 100**

**Date of Exam: 26.09.2014**

**GENERAL INSTRUCTIONS:-**

1. All questions in both the sections are compulsory
2. Marks for questions are indicated against each.
3. 1 mark questions are required to be answered in one sentence each.
4. 3 marks questions are required to be answered in 60 words each.
5. 4 marks questions are required to be answered in 80 words each.
6. 6 marks questions are required to be answered in 120 words each.
7. As far as possible, attempt the questions in order.

**SECTION-A (MICRO ECONOMICS)**

1. Define PPC. 1
2. When is the demand of a commodity said to be inelastic? 1
3. How is total utility derived from marginal utility? 1
4. Express total cost in terms of fixed cost and variable cost. 1
5. Explain the central problem “choice of products”. 3

**OR**

- Why is marginal opportunity cost increases in case of PPF?
6. Define utility. Explain briefly the law of diminishing marginal utility. 3
  7. Explain the behavior of total cost as output increases. 3
  8. Define a budget line. When can it shift to the right? 3
  9. Explain the relationship between price elasticity of demand and marginal revenue with the help of a diagram. 3
  10. Explain any three factors that affect elasticity of demand. 3
  11. A consumer spends Rs. 250 on a good when its price is Rs. 5 per unit. When the price rises to Rs. 6 per unit, he spends Rs. 240. Calculate price elasticity by percentage method. 4

**OR**

- Why is there inverse relation between the price of a commodity and its quantity demanded?
12. ‘Indifference curve is convex to origin due to diminishing marginal rate of substitution’. Explain with the help of schedule. 4
  13. What is meant by return to a factor? What leads to increasing returns to a factor? 4
  14. Complete the following table- 4

Price	Output	Total revenue	Marginal revenue
-	1	-	5
4	-	8	-
-	3	-	1
2	-	8	-

15. What change will take place in marginal revenue when-
  - a) Total revenue increases at an increasing rate?
  - b) Total revenue increases at a diminishing rate?
16. Which of the following statement are true or false? Give reasons. 6
  - a) An economy always produces on but not inside the PPC
  - b) Massive unemployment shift the PPC to the left
  - c) An economy cannot operate on any point outside the PPC
17. Explain with the help of diagrams the effect of the following changes on the demand of a commodity. 6
  - I. A fall in the price of complementary good
  - II. A rise in the income of its buyer
18. Draw a diagram with the help of imaginary schedule and discuss the shapes of AFC, AVC and AC curves. 6

**OR**

Given that AFC at 4 units of output is Rs.5. Find TVC, TFC, AVC, AFC, SAC and SMC from the following table:

Output	1	2	3	4	5	6
TC	50	65	75	95	130	185

### **SECTION-B (MACRO ECONOMICS)**

1. Define money.	1
2. Give two examples of macroeconomics.	1
3. When will NDPmp be less than NDPfc?	1
4. Name the primary functions of money.	1
5. If the NDPfc is Rs.1000 crore and NFIA is (-5) crore, how much will be national income.	1
6. Distinguish between National income and private income.	3
7. Explain the controller of credit function of a central bank.	3

**OR**

Explain the "lender of last resort" function of central bank.

8. Explain a) marginal requirement                    b) CRR	3
9. Describe the four major sectors in an economy according to macroeconomic point view.	4

**OR**

Explain circular flow of income under three sector economies.

10. An economy has only two firms A and B. Find out value added by firm A and B. Also find GDPmp 4  
(In lakh)

I. Export by firm A	20
II. Import by firm A	50
III. Sales to household by firm A	90
IV. Sale to firm B by firm A	40
V. Sales to firm A by firm B	30
VI. Sales to household by firm B	60

11. Will the following be included in domestic factor income of India? Give reason for your answers. 6  
a) Scholarships given by govt. of India  
b) Profit earned by a resident of India from his company in Singapore  
c) Salaries received by Indians working in American Embassy in India.

12. From the following data, calculate GNP mp by Income method and Expenditure method 6  
(In crore)

I. Mixed income of self employed	400
II. Compensation of employees	500
III. Private final consumption expenditure	900
IV. Net factor income from abroad	-20
V. Net indirect tax	100
VI. Consumption of fixed capital	120
VII. Net domestic capital formation	280
VIII. Net export	-30
IX. Profit	350
X. Rent	100
XI. Interest	150
XII. Govt. final consumption expenditure	450

13. Explain the process of money creation by commercial banks with the help of numerical example. 6

**OR**

What is meant by money supply? Write about its component.

\* \* \* \* \*

**DELHI PUBLIC SCHOOL RISALI SECTOR BHILAI****FIRST TERM EXAMINATION 2014**

TIME: 3 Hours

Subject- Accountancy  
CLASS-XII

M.M: 80

**General Instruction:**

- (i) This question paper contains two parts A and B.  
(ii) All parts of the questions should be attempted at one place

**PART A****(ACCOUNTING FOR PARTNERSHIP FIRMS)**

1. State the nature of Revaluation Account. (1)
2. Can a retiring partner or Legal Representatives of a Deceased Partner claim a share in the subsequent profits of the firm? (1)
3. Write one distinction between Firms Debt and Private Debt of a partner. (1)
4. Apart from Location and Profitability, list any two other factors affecting 'Goodwill of a firm'. (1)
5. Medha and Manchika are partners sharing profits in the ratio of 3:1. They admit Mahima as a partner. Medha surrender  $\frac{1}{3}$ rd of her share and Manchika  $\frac{1}{4}$ th of her share in favour of Mahima. What will be the new profit sharing ratio? (1)
6. Aditya, Adivya and Abhilash are partners sharing profits and losses in the ratio of 3:2:1. After the final accounts have been prepared, it was discovered that interest on drawings @ 5%p.a. had not been taken into consideration. The drawings of the partners were: Aditya Rs.30,000; Adivya Rs. 25,200; Abhilash Rs.24,000. Give the necessary adjusting journal entry. (3)
7. Mansi, Mahima and Mayank are partners sharing profits in the ratio 3:2:1, Mayank retired on 1<sup>st</sup> September, 2014 and on the day of Mayank's retirement Goodwill is valued at Rs. 60,000. Mansi and Mahima decided to take Mayank's share in 1:3.  
In order to arrange funds to make payment to Mayank the firm took a loan from PNB @ 18% p.a. and full payment was made to Mayank.  
You are required to:
  - i) Calculate new profit sharing ratio.
  - ii) Pass Journal entry for the treatment of goodwill.
  - iii) Identify the value involved in taking loan from the bank. (3)
8. Aishwarya and Ananya contribute '20,000 and Rs. 12,000 respectively by way of capital on which they agree to allow interest at 6% p.a. Their respective share of profit is 3:2 and the profit for the year is Rs. 1600 before allowing interest on capitals. Prepare the necessary account to allocate interest on capitals. When partnership deed is silent in treating interest as a charge or appropriation. (3)
9. Sanjana and Sanchet are partners with capital of Rs. 5,00,000 and Rs.4,00,000 respectively, on which they are entitled to interest at 10% p.a. They divide profit in the ratio of 2:1. They take Suyash into partnership with  $\frac{1}{4}$ th share of profit and guaranteed that his share of profits will not be less than Rs.2,00,000. Suyash brought Rs. 3,00,000 as his capital. Any excess profits received by Suyash over his  $\frac{1}{4}$ th share will be borne by Sanjana and Sanchet in the ratio of 4:1. Profits at the end of the year before allowing interest on capitals amounted to Rs. 7,20,000. Distribute the profits. (4)
10. Harsh and Harshita were partners in a firm sharing profits in the ratio of 3:1. They admitted Ipshita as a new partner on 1-03-2014 for  $\frac{1}{3}$ rd share. It was decided that Harsh, Harshita and Ipshita will share future profits equally. Ipshita brought Rs. 50,000 in cash and machinery worth Rs. 70,000 for her share of profit as premium for goodwill. Showing your calculations clearly. Pass necessary journal entries in the books of the firm. (4)

P.T.O.

11. Pass the necessary journal entries for the following transactions on the dissolution of the firm of Richa and Riya after the various assets and outside liabilities have been transferred to realization accounts.

- i) A debtor whose debt of Rs. 9,000 was written off in the books paid Rs. 7,500 in full settlement.
- ii) Riya took over all investments at 13,300.
- iii) Realisation expenses Rs.3,400 were paid by Richa for which she was allowed Rs. 3,000.
- iv) Riya's loan Rs. 500/- was paid by a cheque of the same amount. (4)

12. Jasleen, Jaishree and Jagdev are partners in a firm sharing profits and losses in the ratio of 4:2:1. Their Balance Sheet as at 31<sup>st</sup> March 2014 stood as follows

Liabilities	Rs.	Assets	Rs.
Creditors	40,000	Sundry Assets	7,20,000
Contingency Reserve	1,30,000		
Profit and Loss A/c	50,000		
Capital Accounts:			
Jasleen	2,00,000		
Jaishree	2,00,000		
Jagdev	1,00,000		
	5,00,000		
	7,20,000		
			7,20,000

From 1<sup>st</sup> April 2014, the partners decided to change their profit sharing ratio to 5:3:2. For this purpose goodwill was valued at Rs. 1, 00,000. The partners do not want to record the goodwill and also do not want to distribute the reserves and profits. You are required to record the change by passing a single journal entry. Also prepare the revised balance sheet. (6)

13. Given below is the Balance Sheet of Akshita and Anubhutee who are partners in a firm sharing profits in the ratio of 3:2:

Liabilities	Rs.	Assets	Rs.
Creditors	1,50,000	Sundry Assets	7,00,000
Contingency Reserve	50,000		
Capital Accounts:			
Akshita	3,00,000		
Anubhutee	2,00,000		
	5,00,000		
	7,00,000		
			7,00,000

On that date Aprajeeta is admitted as a partner for 1/5<sup>th</sup> share on the following terms:

- a) She acquires her share of profit from Akshita and Anubhutee in the ratio of 3:1.
- b) Goodwill is valued at 2 years' purchase of the average profits of the last 4 years, which were Rs.1,00,000; Rs.2,50,000; Rs.80,000 (loss) and Rs.1,30,000 respectively. Aprajeeta does not bring her share of goodwill in cash.
- c) Aprajeeta brings in capital in proportion to her share of profit in the firm. Pass necessary journal entries. (6)

14. Ashna, Atin and Ankit were carrying on business with the following assets with effect from 1<sup>st</sup> April, 2014: Furniture Rs. 1,80,000; Machine Rs. 7,20,000; Cash Rs. 1,00,000; Debtors Rs. 2,00,000. Their profit sharing ratio was 5: 3 : 2. Capital is also shared in the same ratio. Atin died on 30<sup>th</sup> September 2014. His son claimed his father's interest in the firm.

The following was the settlement:

- i) Allow his capital to his credit on the date of death.
  - ii) Give 5% p.a. interest on his capital.
  - iii) He had been drawing @ Rs. 6,000 per month which he withdrew at the beginning of each month. He will be allowed to retain these drawings as a part of his share of profit.
  - iv) Interest @ 6% p.a. is charged on his drawings.
  - v) They had joint life policy of Rs. 1,00,000 for which the premium had been paid out of profit and loss A/c of the firm.
  - vi) Goodwill was evaluated twice the average profits, average profit being Rs. 2,10,000.
- Prepare Atin's personal account. (6)

15. The Balance Sheet of Nidhi, Neelakshi and Tarini who are partners in a firm sharing profits according to their capitals as on 31st March, 2014 was as under: (8)

<i>Liabilities</i>	<i>Rs.</i>	<i>Assets</i>	<i>Rs.</i>
Creditors	35,000	Buildings	1,00,000
Workmen Compensation Fund	10,000	Machinery	60,000
Capital A/c		Goodwill	28,000
Nidhi	80,000	Debtors	20,000
Neelakshi	40,000	<i>Less: Prov. Bad Debts</i>	(1,000)
Tarini	40,000	Bank	14,000
General Reserve	16,000		
	2,21,000		2,21,000

On that date, Neelakshi decided to retire from the firm and was paid for his share in the firm subject to the following:

- (i) Building to be appreciated by 20%.
- (ii) Provision for Bad Debts to be increased to 15% on Debtors.
- (iii) Machinery to be depreciated by 10%. Liability for workmen compensation is only Rs. 2,000.
- (iv) Goodwill of the firm is valued at Rs. 60,000 and the retiring partner's share is adjusted through the capital accounts of remaining partners.
- (v) The capital of the new firm is fixed at Rs. 1, 80,000.

Prepare Revaluation Account, Capital Accounts and Balance Sheet after retirement of Neelakshi.

16. Sankalp, Sagar and Shreya sharing profits in the ratio of 3 : 2 : 1 agreed upon the dissolution of their partnership on 31st December 2013, on which date their Balance Sheet was as under:

<i>Liabilities</i>	<i>Rs.</i>	<i>Assets</i>	<i>Rs.</i>
Capital Accounts:			
Sankalp	40,000	Machinery	40,500
Sagar	20,000	Stock	7,550
Mrs. Sankalp's Loan	10,000	Investments	20,830
Creditors	18,500	Debtors	9,300
		<i>Less: Provision for DD.</i>	(600)
Investment Fluctuations Fund	6,000	Cash at Bank	5,420
		Shreya's Capital Alc	11,500
	94,500		94,500

The investments were taken over by Sankalp for Rs. 17,500. Sankalp also agreed to discharge his wife's loan. Sagar took over stock at Rs. 7,000 and debtors amounting to Rs. 5,000 at Rs. 4,000. Machinery realised Rs. 55,000. The remaining debtors realised 50% of their book value. The expenses of realisation amounted to Rs. 600. It is found that an investment not recorded in the books is worth Rs. 3,000. The same is taken over by one of the creditors at this value. Show the necessary ledger accounts on completion of the dissolution of the firm. (8)

#### PART-B (FINANCIAL STATEMENTS ANALYSIS)

17. What will be the impact of 'Cash paid to Trade payables' on a current ratio of 8:1? State with reason.(1)
18. A Mutual Fund Company receives a dividend of Rs. 20 Lakhs on its investments in another company's share. Where will it appear in a Cash Flow Statement? Give reason? (1)
19. Working Capital of Veena Ltd. Is Rs.30,000. Its current ratio is 2.5:1. Calculate the value of Current assets. (1)
20. Show Major Head and Sub-head under which the following items are disclosed in the balance sheet of company  
 i) Loan repayable on demand      ii) Interest Accrued on Investments  
 iii) Government and Trust Securities. (3)
21. From the following information, calculate any two of the following ratios:  
 i) Gross Profit Ratio; ii) Working Capital Turnover Ratio; iii) Proprietary Ratio.  
 Information: Paid-up Capital Rs. 8,00,000; Current Assets Rs. 5,00,000; Credit Sales Rs. 3,00,000;  
 Cash Sales 75% of credit Sales; 9% Debentures Rs. 3,40,000; Current Liabilities Rs. 2,90,000; and  
 Cost of Revenue from Operations, Rs. 6,80,000. (4)

21. From the following information prepare Comparative Statement of Profit and Loss of Priyal Ltd. (4)

Particulars	31 <sup>st</sup> March , 2014 (Rs.)	31 <sup>st</sup> March, 2013 (Rs.)
Revenue From Operations	8,00,000	6,00,000
Cost of Materials Consumed	4,80,000	4,20,000
Employees benefit Expenses	1,00,000	40,000
Income Tax	50%	50%

23. From the following Balance Sheets of Aditya Kumar Ltd. Prepare the Cash Flow Statement:

Particulars	Note No.	31.03.2014 Rs.	31.03.2013 Rs.
<b>I. EQUITY AND LIABILITIES</b>			
<b>1. Shareholder's Funds</b>			
a) Share Capital	1	6,30,000	5,60,000
b) Reserves and Surplus: Balance of Statement of Profit & Loss		3,08,000	1,82,000
<b>2. Current Liabilities</b>			
a) Trade Payables (Sundry Creditors)		2,80,000	1,82,000
b) Other Current Liabilities		14,000	28,000
<b>Total</b>		<u>12,32,000</u>	<u>9,52,000</u>
<b>II. ASSETS</b>			
<b>1. Non-Current Assets</b>			
Fixed Assets: Plant and Machinery		3,92,000	2,80,000
<b>2. Current Assets</b>			
a) Inventories (Stock)		98,000	1,40,000
b) Trade Receivables (Debtors)		6,30,000	4,20,000
c) Other Current Assets		28,000	42,000
d) Cash and Cash Equivalents		84,000	70,000
<b>Total</b>		<u>12,32,000</u>	<u>9,52,000</u>

#### Notes to Accounts

Particulars	31/3/2013	31/3/2014
1. Share Capital		
Equity Share Capital	3,60,000	4,30,000
Preference Share Capital	2,00,000	2,00,000
	<u>5,60,000</u>	<u>6,30,000</u>

#### Additional Information:

- i. An old machinery having book value of Rs. 42,000 was sold for Rs. 56,000
- ii. Dividend paid Rs. 56,000.
- iii. Depreciation provided on machinery during the year Rs. 28,000.

\* \* \* \*

**DELHI PUBLIC SCHOOL, BHILAI (C.G)**

**DATE:24.09.2014  
CLASS:XII**

**FIRST TERMINAL EXAMINATION – 2014  
BUSINESS STUDIES**

**TIME:3Hrs  
MM:80**

**General Instructions:**

1. Answers to questions carrying 1 mark may be from one word to one sentence.
2. Answer to questions carrying 3 marks may be from 50 to 75 words.
3. Answer to questions carrying 4-5 marks may be about 150 words.
4. Answer to questions carrying 6 marks may be about 200 words.
5. Attempt all parts of a question together.

1. Name the process of designing and maintaining an environment in which individuals working together in groups efficiently accomplish selected aims. (1)
2. Define planning. (1)
3. State an example of impact of legal environment on advertisement. (1)
4. Which kind of a relationship is shown by organisational structure? (1)
5. The workers of a factory are unable to work on new machines and always demand for help of supervisors. The supervisor is overburdened with their frequent call. Suggest the remedy. (1)
6. Mr.Dutta, a manager in a chemical company, has given complete freedom to his subordinates. He avoids the use of power and depends largely upon the group to establish its own goals and work out its own problems. Which style of leadership is he following? (1)
7. Why is it said that the supervisor is a link between management and the operative employees. (1)
8. "The understanding of 'Business Environment' enables the firm to identify opportunities." What is meant by 'opportunities' here? (1)
9. Under what circumstances would functional structure prove to be an appropriate choice? (3)
10. "Delegation of authority is based on the elementary principle of division work." Explain. (3)
11. What do you mean by fatigue study? State any four causes of fatigue. (1+2=3)
12. "Management does not have some features of a profession." Explain those features. (3)
13. In order to ensure unity of command, Jayesh, the factory manger of M/s Jain Kids Toys Pvt. Ltd, a toy manufacturing company, appointed just one foreman for entire production, planning, implementing and control of a workman. However the foreman was not competent enough to effectively supervise both planning and executing functions. It reduced the quality of work and efficiency of workmen.
  - (i) Name and explain in brief the technique of scientific management violated in the given case. (1+1=2)
  - (ii) This technique is an extension to one of the Fayol's principles. Identify the principle. (1)
14. Distinguish between unity of command and unity of Direction. (4)
15. State any four components of social environment. (4)
16. A company is manufacturing garments. The manager wants to increase profits by –
  - (a) Purchasing new high speed machines, or
  - (b) Increasing the sale price, or
  - (c) Using waste material in manufacturing stuffed toys. He decided that 'using waste material' to increase the profit is the best solution for him.

:2:

- (i) Identify the concept of management involved.  
(ii) Mention the steps of the identified concept involved in the above process.  
(iii) To complete the process of the concept identified in (i) what further steps does the manager have to take? (4)

17. "Controlling helps in achieving objectives of the organisation and improving employees' morale." Explain this statement in brief. (4)

18. The directors of Aashay Motors Ltd. assured their employees that inspite of recession, no workers will be retrenched from the job.  
(i) Name and explain the type of incentive offered to the employees.  
(ii) State any two values exhibited by the directors of the company. (2+2=4)

19. "Controlling is preceded and succeeded by planning." Explain whether you agree with the statement? (4)

20. Naresh a worker is given a target of assembling two computers per day. Due to his habit of doing things differently, an idea struck him which would not only reduce the assembling time of computers but also reduce the cost of production of the computers. His supervisor instead of appreciating him, ordered him to complete the work as per the methods and techniques decided earlier as nothing could be changed at that stage.  
(i) The above para describes one of the limitations of planning function of management. Name and explain that limitation.  
(ii) State any two values which were ignored by the supervisor. (3+2=5)

21. How does informal organisation support the formal organisation? (5)

22. Explain the process of staffing in an organisation. (5)

23. Explain how management 'increases efficiency,' 'creates dynamic organisation' and 'helps in development of society'. (6)

Or

Nadeem is working as 'Plant Superintendent' in TISCO Ltd. Name the managerial level at which he is working. State any five functions he will perform as 'Plant Superintendent' in this company. (1+5=6)

24. Ken industries want to hire staff for its chemical division. The directors are looking for competent people. The personnel department has been given special duty for it.

- (i) Name and explain the meaning of the concept related to above process.  
(ii) The personnel department of Ken Industries has listed out the following methods for the same. Identify the sources  
(a) Jain consultants can be asked to look out for suitable personnel on behalf of the company.  
(b) Participate in placement programme organized by different colleges and universities.  
(c) Consider voluntary applications received earlier from various job seekers.  
(d) Using [www.naukri.com](http://www.naukri.com) to search for prospective candidates. (2+4=6)

Or

Why are selection tests conducted? Identify the selection test highlighted in each case given below –

- (i) This test measures the ability of an applicant to learn new skills.  
(ii) This test aims to identify areas in which candidate has special liking.  
(iii) This test is conducted to determine actual skills possessed by the candidate.  
(iv) This test aims to determine whether prospective employee has the ability to adjust in the organisation.  
(v) This test aims to measure the IQ level of the applicant. (1+5=6)

25. Rishabh and Suyash are friends working in Parle Ltd. as production and sales manager respectively. In an interdepartmental meeting Suyash informed Rishabh about a change in the marketing policy of the company.

- (i) Identify and explain the type of communication used in the above example.  
(ii) Name and explain any two networks of the type of communication identified in part (i). (2+4=6)

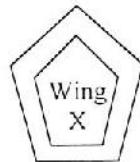
Or

There are some barriers in communication which are concerned with the state of mind of both the sender and the receiver. Explain such barriers. (6)

**General Instructions:**

- All questions are compulsory.
- Programming Language Java, NetBeans, IDE & MySQL.
- Answer the questions after carefully reading the text/

1. (a) Expand the following terms: FLOSS, PHP, CDAC, FSF 2  
 (b) Differentiate between a Hub and a Switch. 1  
 (c) Acme Education has set up its new branch at Jaipur for its office and web based activities. It has 4 wings of buildings as shown below: 3



Centre to centre distance between various blocks:

Wing X to Wing Z 50 M
Wing Z to Wing Y 70 M
Wing Y to Wing X 125 M
Wing Y to Wing U 80 M
Wing X to Wing U 175 M
Wing Z to Wing U 90 M

Number of computers
Wing X – 50
Wing Z – 30
Wing Y – 150
Wing U – 15

- (i) Suggest the placement of Repeater and switch with justification.  
 (ii) Suggest the most suitable place to house the service.  
 (iii) Suggest the most suitable cable layout and Topology between various wings.
- (d) Name any two preventive measures of network security. 2  
 (e) What do you mean by communication channel? Name any two. 2
2. (a) If the variable num1 is equal to 5 and the variable num2 is equal to 10, then how would you evaluate the logical expression? 1  
 $((num1!=5)|(num2==10))&&!(num1==5)$
- (b) Write the names of swing API classes used to create following types of components: 2  
 (i) Label (ii) Dialog (iii) Button (iv) Text Field
- (c) How would you determine whether 7<sup>th</sup> item of a list namely Mylist is selected or not? 1
- (d) Find the output of the following code fragment. 2
- ```

  (i) int S = 14;
      if(S<20)
          system.out.print ("under");
      else
          system.out.print ("over");
          system.out.print ("the limit");
  (ii) for (int i= 1; i<4; i++)
      {
          jTextArea1. setText (jTextArea1.getText ()+" "+Integer to string (i+i));
  
```
- (e) While working in NetBeans, Neha deleted a child control on her form. What will happen to container control and its other child controls? 1
- (f) What is the significance of default clause in a switch statement? 1
3. (a) Naman wants to list the names of all the tables in his database namely Result. What command (s) should be write at MYSQL prompt to get this result? 1
- (b) Divyanshi has created a table student that has 10 columns and 5 test records. After testing she added 3 more columns, 14 more rows but deleted the 5 test records. What is the degree and cardinality of the table row? 1
- (c) Given the statement as follows:  
`CREATE TABLE EMP (Emp_id int not null, orderno int not null, Emp_rank int, Primary Key (Emp_id), Foreignkey (Emp_rank) References Persons (Emp_rank))`  
 Identify the number and types of constraints in the Table Emp. 2
- (d) Write a code in javanetbeans to allow the user to enter a text in the jTextField and displays the following output. (Assuming that user enters the Text as "Hello" the output should be  
 H  
 He  
 Hel  
 Hell  
 Hell0
- Use substring () method for doing this task.
- (e) Study the following code and answer the questions that follows: 3
- ```

double no, Rno;
no = Double.parseDouble(jTextField1.getText ());
Rno = math.round (no*1000)/1000.0;
jTextField2.setText (Double.toString (Rno));
  
```
- (i) How many objects have been declared in the above code?  
 (ii) Name any one native class of java used in the above code.  
 (iii) How many variable have been declared? Name them.
4. (a) What will be the content of jTextField1 and jTextField1 after the execution of the following statement? 2  
 (i) jTextField1.setText("Go\ Green\n India");  
 (ii) String Message = "All the Best";  
 $jTextField1.setText ((Message.Length ()-6)+ " ");$
- (b) Rewrite the following code using while loop. 2  
`int last=Integer.parseInt(jTextField1.getText());`

```
for (int C=1; C<=last; C++)
jTextArea1.setText (Integer.toString(C));
(c) Write java code to make jButton1 disabled. . .
(d) Write code in java in which user is allowed to enter only first name in jTextField1. Any attempt to
enter second name should be discarded by giving a suitable message. (The first name and the second
name are separated by providing a space) .
(e) Rewrite the following fragment using switch statement. .
if(Ch=='E')
East++;
if(Ch=='W')
West++;
if(Ch=='N')
North++;
if(Ch=='S')
South++;
else
unknown++;
(f) Give a string object namely marks having value as '75' stored in it. What will be the result of following
code?
jOptionPane.showMessageDialog (Null, ""+((Marks.Length ( )+ Integer. ParsInt (marks)));
(g) Read the following case study and answer the questions that follows:
Mr. Das is working as Chief Information Officer in AMT Construction Company. In the month of
January, he received a letter from the management that store all the employees information in e-form.
The following interface has been designed for the said purpose.
```

Employee Data

- □ X

**Employee Data Entry Form**

Name	<input type="text"/>
Father's Name	<input type="text"/>
Mother's Name	<input type="text"/>
Address	<input type="text"/>
Gender	
<input type="radio"/> Male <input checked="" type="radio"/> Female	
<div style="border: 1px solid black; padding: 10px;"> <b>Educational Qualification</b>   <input type="checkbox"/> Intermediate           <input type="checkbox"/> Graduate           <input type="checkbox"/> Post Graduate       </div>	
<input type="button" value="Clear"/> <input type="button" value="Submit"/> <input type="button" value="Close"/>	

- (i) Write a code snippet on Action event of clear button to clear text boxes. Set default choice in radio buttons to female and clear all check boxes. 1

(ii) Write code in submit button, if the checkbox for Post graduate is checked then check box for Graduate and Intermediate gets checked automatically. Similarly if Graduate is checked then the check box for intermediate is checked automatically. 2

(iii) Write code in the submit button to convert all details of employee in uppercase. 2

5. (a) What is non equi join? Give example also. 2

(b) For the following series of statements, determine which will become permanent? 2

(i) SELECT                   (ii) SAVE POINT S1                   (iii) INSERT  
(iv) COMMIT WORK           (v) INSERT                           (vi) SAVE POINT S2  
(vii) DELETE               (viii) ROLLBACK WORK TO SAVE POINT S1  
(ix) DELETE               (x) SAVEPOINT S3                   (xi) DELETE  
(xii) ROLLBACK WORK TO SAVEPOINTS3                   (xiii) COMMIT WORK

(c) On the basis of the table given below, write SQL statements for the questions that follows:

Table: MOV LIB

SNO	TITLE	TYPE	RATING	STARS	QTY	PRICE
1	Gone with the wind	Drama	G	Gable	4	39.95
2	Friday the 13 <sup>th</sup>	Horror	P	Jason	2	69.95
3	Top Gun	Drama	PG	Cruise	7	49.95
4	Splash	Comedy	PG13	Hanks	3	29.95
5	Independence Day	Drama	R	Tumer	3	19.95
6	Risky Business	Comedy	R	Cruise	2	44.95
7	Cocoon	Sufi	PG	Aneche	2	31.95
8	Crocodile Dundee	Comedy	PG13	Harns	2	69.95
9	100 Dalmatians	Comedy	G		3	59.95
10	Tousie	comedy	PG	Haffman	1	29.95

- (i) Find the total value of movie cassettes available in the library. 1

(ii) Display a list of movies with price over 20 and sort the result in decreasing order of price. 1

(iii) Count the no. of movies with rating is not 'G'. 1

(iv) Display a report listing movie number, current value and replacement value for each movie. Calculate the replacement value as Qty\*price\*1.15. 1

(v) Give the output:  
SELECT AVG (PRICE) FROM MOV\_LIB WHERE PRICE <30;  
SELECT MAX (PRNCE) FROM MOV\_LIB WHERE PRICE >30;  
SELECT SUM (PRICE\*QTY) FROM MOV\_LIB WHERE QTY<4;  
SELECT COUNT (DISTINCT TYPE) FROM MOV\_LIB 2

6. (a) Write MYSQL command to create Table Product including the constraints. 2

Table: Product

PID	Decimal	4	Primary Key
PNAME	varchar	20	Not Null
PCOMPANY	varchar	20	
Prince	Decimal	8	Unique
Dofpurchase	Date		

(b) Consider the given tables:

Table-ITEM

Item_Code	Item_Name	Price
111	Refrigerator	90000
222	TV	75000
333	Computer	42000
444	Washing Machine	27000

Table: Brand

Item_Code	Brand_Name
111	LG
222	Sony
333	HCL
444	IFB

Write SQL queries for the following:

- (i) To display ItemCode, ItemName and corresponding Brand\_Name of those items whose Price is in between 20000 to 40000. 2  
(ii) To display Item\_Code, Prince and Brand Name of those which have ItemName as TV. 2  
(iii) To increase the Price of all item by 10%. 2

(c) What is the purpose of alter Table Command? How is it different from Update Command? Give suitable example also.

7. (i) What is the purpose of TITLE element in HTML? 1  
(ii) In Image tag which attribute is used to specify the URL of image to be displayed? 1  
(iii) Define the term Front End and Back End with the help of suitable example. 2  
(iv) Write two important features of e-learning. 1

2 & 2 & 2

**DELHI PUBLIC SCHOOL, BHILAI (C.G.)**  
**FIRST TERM EXAMINATION, 2014**      **Time : 3 Hours**  
**DATE : 17-09-2014**      **HOME SCIENCE**      **M.M : 70**  
**CLASS : XII**

**Note : All questions are compulsory. Marks for each question are indicated against it.**

- |                                                                                                                            |   |
|----------------------------------------------------------------------------------------------------------------------------|---|
| 1) What is the role of FSSAI?                                                                                              | 1 |
| 2) Why is it unhygienic to cough and sneeze on food and handle it with boils on hands.                                     | 1 |
| 3) What do you understand by NSC?                                                                                          | 1 |
| 4) Where can you complaint, when advertisement does not match with the quality of the product?                             | 1 |
| 5) What is true bias?                                                                                                      | 1 |
| 6) What is a placket?                                                                                                      | 1 |
| 7) What are the clinical symptoms seen in the patient suffering from Jaundice?                                             | 2 |
| 8) Indicate the Calcium and Iron requirement of a pregnant and a lactating mother.<br>Give two reasons for the difference. | 2 |
| 9) Name the adulterants used to adulterate following foods and write their hazards.<br>a) Mustard Oil b) Besan             | 2 |
| 10) Differentiate between Current and Recurring deposit accounts.                                                          | 2 |
| 11) Differentiate between unfair trade practice and Restrictive trade practice.                                            | 2 |
| 12) Write any two desirable and two undesirable qualities of Nylon fabric.                                                 | 2 |
| 13) What is analogous colour scheme?                                                                                       | 2 |
| 14) State physical and physiological factors which influence Meal Planning.                                                | 3 |
| 15) What is the role of Lines in an apparel?                                                                               | 3 |
| 16) What is PFA? When is food considered adulterated?                                                                      | 4 |
| 17) What are the rights of consumer?                                                                                       | 4 |
| 18) What are the requisites of a good label?                                                                               | 4 |
| 19) How can rhythm be created in an apparel?                                                                               | 4 |
| 20) Explain the Redressal Machinery under Consumer Protection Act.                                                         | 4 |
| 21) What are the problems faced by consumer?                                                                               | 4 |
| 22) What is diet modification?                                                                                             | 5 |
| 23) Classify income with suitable examples.                                                                                | 5 |
| 24) What is design? Classify and explain.                                                                                  | 5 |
| 25) How will you check good workmanship in your readymade school uniform?                                                  | 5 |

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**DELHI PUBLIC SCHOOL, BHILAI (C.G.)**

**DATE : 17-09-2014 FIRST TERMINAL EXAMINATION, 2014 TIME : 3 Hours**

**CLASS : XII**

**GEOGRAPHY**

**M.M : 70**

**No. of Pages Printed : 3**

**General Instructions :**

- i) All questions are compulsory.
- ii) Marks of each question are indicated against it.
- iii) Maps provided should be attached within the answer-script.

**SECTION A**

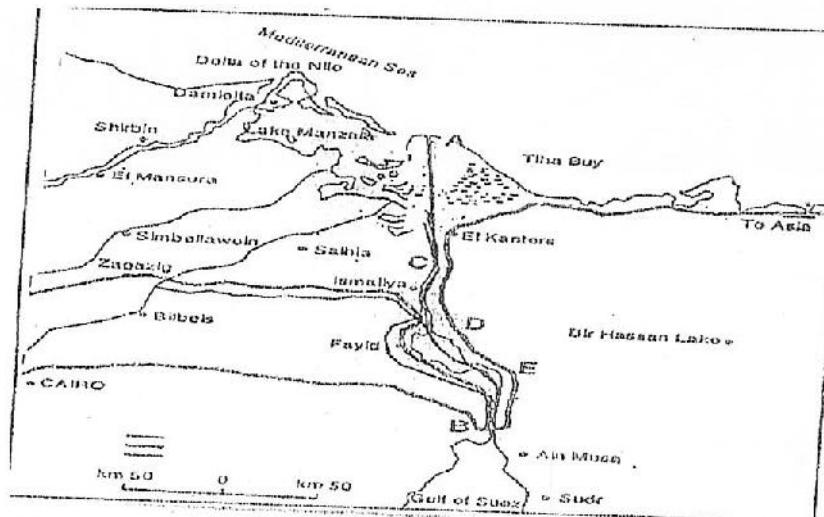
**Q.1) Answer the following questions : (1×10=10)**

1. What is Vellankali?
2. What is the rank of India in H.D.I.?
3. What is open sky policy?
4. What is orient express?
5. What is the stretch of National Waterway No.1?
6. What is conurbation?
7. What is Golden Quadrilateral?
8. Name the year and place where first T.V. service was launched?
9. What is suburbanization?
10. What is Big Inch?
11. Name families of modern Indian languages. Who is marginal worker? (3×10=30)
12. Study the data given below and answer the following questions : (1+2=3)

**World Imports & Exports (U.S. \$ million)**

Export	1955	1965	1975	1985	1995	2000
	95000	190,000	877000	1954000	5162000	10393000
Import	99000	199,000	912000	2075000	5292000	10753000

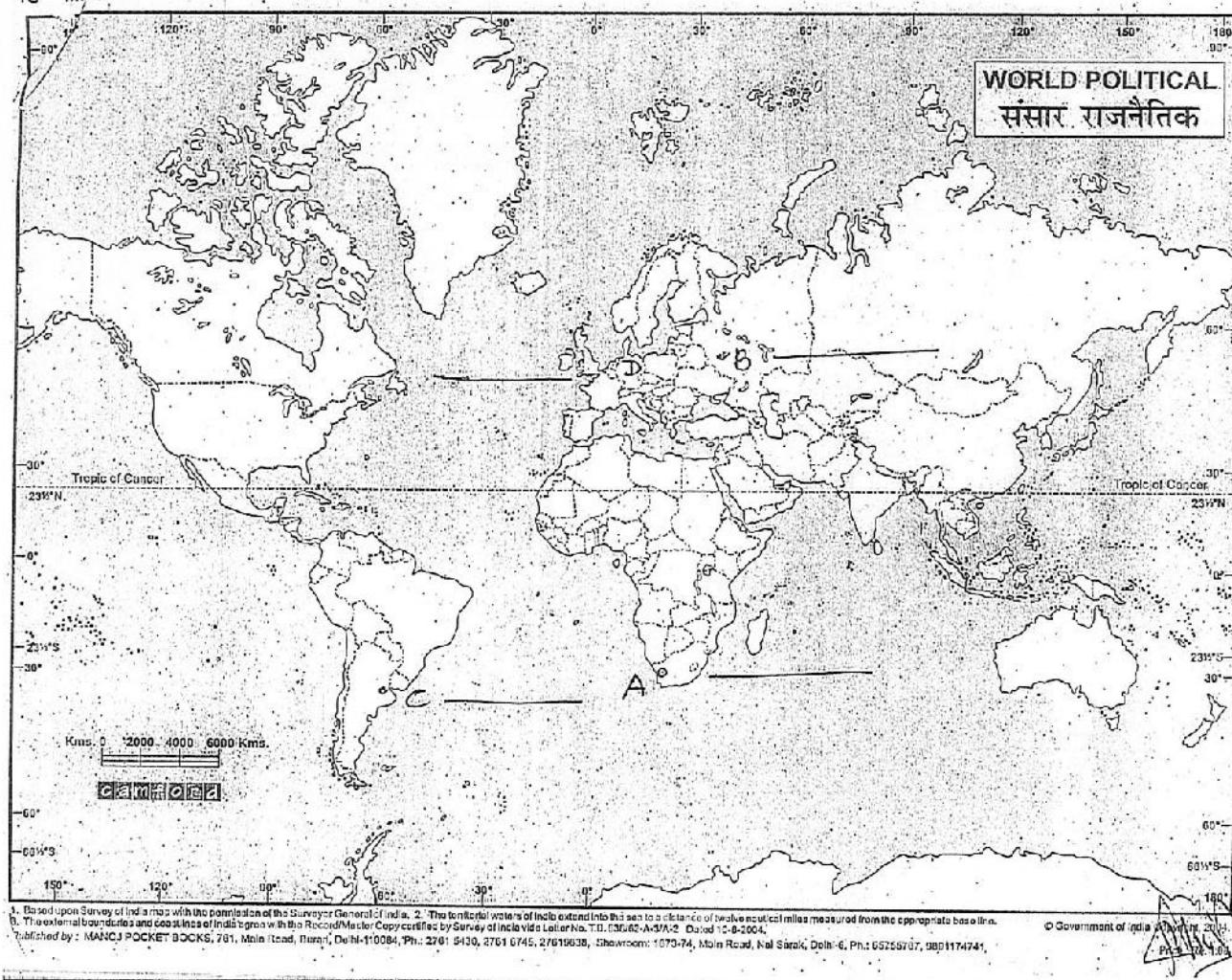
- i) What was the total amount of trade in 2005?
- ii) What has been the growth of total trade in 2005 over year 1955?
13. Discuss the human indicators as chosen by India for calculating H.D.I. (3×10=30)
14. Mention recent school of thoughts.
15. Name different types of cities.
16. Study the map given below and answer the following questions :



- i) Name the ports located at A and B.
- ii) Which 2 seas are connected by this canal?
- iii) Name the 3 lakes located on this canal at C,D & E.

::: 2 :::

17. What are different types of population pyramid?
18. Define pollution and pollutant. Which is the most polluted stretches of R. Ganga ?
19. Narrate any 3 advantages of road transport and 3 disadvantages of pipeline transport.
20. Write short note on Kandla Port.
21. Write a note on watershed development programme of Jhabua district in M.P. (5×5=25)
22. Discuss the trend of population growth.
23. What are different pillars of human development? Differentiate between growth and development.
24. Name different types of rural settlements. Name major factors of migrations.
25. Define trade. Discuss the history of international trade.
26. i) In the given political outline map of the world the following 4 features are shown. Identify them : (4×½=2)
  - a) A major seaport b) A major airport c) A mega city d) The country having largest population in Europe.
26. ii) In the given political outline map of the world the following 4 features are shown. Identify them. (3×1=3)
  - a) The state having lowest density of population
  - b) The software technology park located in Jammu and Kashmir State.
  - c) Major seaport located in Kerala State.



**DELHI PUBLIC SCHOOL, BHILAI (C.G.)**

**DATE : 17-09-2014**

**FIRST TERMINAL EXAMINATION, 2014**

**Time: 3 Hours**

**CLASS - XII**

**PHYSICAL EDUCATION**

**M.M.: 70**

**General Instructions:**

- All questions are compulsory.
- Question nos. 1-5 carrying 1 mark each.
- Question nos. 6-12 carrying 2 marks each.
- Question nos. 13-19 carrying 3 marks each.
- Question nos. 20 - 25 carrying 5 marks each.

- |                                                                                                                  |   |
|------------------------------------------------------------------------------------------------------------------|---|
| 1) What do you mean by environment?                                                                              | 1 |
| 2) What do you mean by adventure sports?                                                                         | 1 |
| 3) What do you mean by nutritive components of diet?                                                             | 1 |
| 4) What do you understand by seeding?                                                                            | 1 |
| 5) What is flat foot?                                                                                            | 1 |
| 6) Enlist the essential elements of Positive Sports Environment.                                                 | 2 |
| 7) How can you use water properly? Explain in brief.                                                             | 2 |
| 8) Enlist the forms of vitamin B and explain any one of them in brief.                                           | 2 |
| 9) Briefly mention the disadvantages of league tournament.                                                       | 2 |
| 10) Distinguish between Intramural and extramural programmes.                                                    | 2 |
| 11) Explain the correct posture of sitting.                                                                      | 2 |
| 12) Mention the corrective exercises related to knock knees and bow legs.                                        | 2 |
| 13) Discuss the concept of women's participation in sports.                                                      | 3 |
| 14) Discuss the material requirement and safety measure for camping.                                             | 3 |
| 15) What do you mean by vitamin? Explain about the fat soluble and water soluble vitamins.                       | 3 |
| 16) Explain the cyclic method of league tournament with an example.                                              | 3 |
| 17) Discuss the objectives of planning in sports.                                                                | 3 |
| 18) Discuss any three advantages of correct posture.                                                             | 3 |
| 19) Draw a fixture of 21 teams on knockout basis.                                                                | 3 |
| 20) Comment on the role of spectators and media in creating a positive sports environment.                       | 5 |
| 21) What do you mean by leadership? Discuss the process of creating or making leaders through physical education | 5 |
| 22) "Vitamins are essential for our metabolic process". What happens if we devoid our diet of vitamins?          | 5 |
| 23) What do you mean by specific sports programmes ? Explain about health runs and run for unity in detail.      | 5 |

**(OR)**

What is a league tournament? Write the procedure of fixture in league tournament. Draw a fixture of six teams using staircase method.

- |                                                                                                    |   |
|----------------------------------------------------------------------------------------------------|---|
| 24) Enlist the committees for organizing sports events and explain any eight committees in detail. | 5 |
| 25) Explain any five common postural deformity.                                                    | 5 |

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**DELHI PUBLIC SCHOOL, BHILAI**  
**FIRST TERM EXAMINATION**  
**GENERAL KNOWLEDGE**

TIME: 1 Hr. 30 Mins.  
 Name of the student: \_\_\_\_\_  
 Invigilator's Signature: \_\_\_\_\_

CLASS- XII  
 Class/Sec.: \_\_\_\_\_ MM: 100  
 Roll No.: \_\_\_\_\_

**INSTRUCTIONS:**

- All questions are compulsory
- Write the correct option in the box provided.
- Each question carries 1 mark.

1. The Chief Minister of Bihar belongs to which political party?	a) RJD b) JDU c) LJP d) None of these	<input type="checkbox"/>
2. Who is the present chief minister of Gujarat?	a) Anandi Ben b) Amit Shah c) Narendra Modi d) None of these	<input type="checkbox"/>
3. Which academy promotes and develops literature in all 22 languages of India?	a) Sahitya Academy b) Sangeet Natak Academy c) Lalit Kala Academy d) None of these	<input type="checkbox"/>
4. What is Prithvi?	a) Missile b) Pilotless Target Aircraft c) Fighter Plane d) None of these	<input type="checkbox"/>
5. What is the full form of TRS?	a) Telugu Rashtra Samiti b) Telangana Rashtra Samiti c) Telugu Rajya Samiti d) None of these	<input type="checkbox"/>
6. What is the capital of Iran?	a) Jakarta b) Baghdad c) Tehran d) None of these	<input type="checkbox"/>
7. Who is the speaker of the present Lok Sabha?	a) Mira Kumar b) Sumitra Mahajan c) Sushma Swaraj d) None of these	<input type="checkbox"/>
8. The language spoken in Goa is-	a) Malayam b) Gujarati c) Konkani d) None of these	<input type="checkbox"/>
9. Which one is the classical dance of Kerala?	a) Kathakali b) Kuchipudi c) Odissi d) None of these	<input type="checkbox"/>
10. Which one was the first country in the world to sponsor family planning programs to control population?	a) China b) Nepal c) India d) None of these	<input type="checkbox"/>
11. What is the maximum nominated strength of the Lok Sabha?	a) 02 b) 14 c) 12 d) None of these	<input type="checkbox"/>
12. 'Jai Hind' is a famous slogan. Who has given it?	a) Iqbal b) S.C.Bose c) Bhagat Singh d) None of these	<input type="checkbox"/>
13. Dialysis is used for the treatment of?	a) Kidney failure b) Heart attack c) Liver Failure d) None of these	<input type="checkbox"/>
14. The region of a stem from which a leaf springs is?	a) Axil b) Node c) Bud d) None of these	<input type="checkbox"/>
15. The chemical Sodium Benzoate is used to preserve what?	a) Fodder b) Food Grains c) Monuments d) None of these	<input type="checkbox"/>
16. Which one is the deepest lake in the world?	a) Caspian b) Baikal c) Huron d) None of these	<input type="checkbox"/>
17. Which one of the following is a primary colour?	a) Purple b) Yellow c) Red d) None of these	<input type="checkbox"/>
18. Which one is the common refrigerant used in a domestic refrigerator?	a) Neon b) Freon/Ammonia c) Chlorine d) None of these	<input type="checkbox"/>
19. Philately is the study of?	a) Coins b) Numbers c) Stamps d) None of these	<input type="checkbox"/>
20. Who was the first Indian to be awarded the Oscar?	a) Satyajit Ray b) Mehoob Khan c) Rohini Hattangadi d) None of these	<input type="checkbox"/>

- 21. Which of these awards was designed by Savitribai Khanolkar?**  
 a) Param Vir Chakra    b) Jnanpith Award    c) Bharat Ratna    d) Miss India Crown
- 22. Which religion is Ulema related to?**  
 a) Taoism    b) Jainism    c) Islam    d) None of these
- 23. In Chacha Chaudhary's comics, Sabu is an alien from which planet?**  
 a) Mars    b) Jupiter    c) Saturn    d) None of these
- 24. In an 'ektara', what is the resonator usually made of?**  
 a) Pumpkin    b) Watermelon    c) Bamboo    d) Coconut
- 25. What is the first month of the Hindu calendar?**  
 a) Chaitra    b) Falgun    c) Kartik    d) None of these
- 26. By what common name are Muslim immigrants from India referred to in Pakistan?**  
 a) Moplahs    b) Khidmatgars    c) Mohajirs    d) None of these
- 27. After whose name did Akbar name his son?**  
 a) a Hindu god    b) a Khalifa    c) a Chisti saint    d) None of these
- 28. The flag of which country bears the AK-47?**  
 a) Pakistan    b) Israel    c) Mozambique    d) None of these
- 29. 'Demos' and 'Kratia' are the words of which language?**  
 a) Roman    b) Latin    c) Greek    d) None of these
- 30. Which one is the General Purpose Vehicle developed during World War II?**  
 a) Truck    b) Jeep    c) Helicopter    d) None of these
- 31. What does 'S' stand for in 'BRICS'?**  
 a) Switzerland    b) South Africa    c) South Korea    d) None of these
- 32. Which title is usually held by the eldest son of the British monarch?**  
 a) Prince of Wales    b) Archduke    c) Grand Prince    d) None of these
- 33. Name the bird that roars like a lion, hisses like a snake and kicks like a mule.**  
 a) Peacock    b) Ostrich    c) Owl    d) None of these
- 34. Which fictional character lives at 26, Labrador Road?**  
 a) Nancy Drew    b) Sherlock Holmes    c) Mycroft    d) None of these
- 35. What does the U.S.A. not do during the March Past at the Olympics that all other countries do?**  
 a) Marching in a group    b) Raising their flag  
 c) Dipping their flag    d) None of these
- 36. Which South American country has different designs on the two sides of its flag?**  
 a) Cameroon    b) Paraguay    c) Brazil    d) None of these
- 37. Yaksh and Yakshini guard which building in India?**  
 a) Stock Exchange, Bombay    b) Rashtrapati Bhawan    c) The RBI    d) None of these
- 38. Who scored the first own goal in FIFA World Cup 2014?**  
 a) A German    b) A Brazilian    c) An Argentine    d) None of these
- 39. How many loaves of bread are there in a 'Baker's Dozen'?**  
 a) 11    b) 12    c) 13    d) 6
- 40. Who has recently been given the Jnanpith award for work in Sanskrit?**  
 (a) Guru Dayal Singh    (b) Satyavrat Shastri  
 (c) Kedarnath Singh    (d) None of these
- 41. Which of these sanctuaries is in Assam?**  
 (a) Kaziranga Sanctuary    (b) Kaziranga Sanctuary  
 (c) Dandeli Wildlife Sanctuary    (d) None of these
- 42. What is the original name of Gulzar?**  
 (a) Sampooran Singh Kalra    (b) Ashok Chopra  
 (c) Anand Sharma    (d) None of these
- 43. When was MNREGA introduced?**  
 (a) 2003    (b) 2004    (c) 2005    (d) None of these
- 44. The movie "Chak de India" is based on whose life?**  
 (a) M.R.Negi    (b) Pargat Singh    (c) Bhaskaran    (d) None of these
- 45. Which is India's highest civilian honour?**  
 (a) Padma Shree    (b) Padma Bhushan    (c) Padma Vibhushan    (d) None of these
- 46. Which state is the home of Jim Corbett National Park?**  
 (a) Gujarat    (b) Madhya Pradesh    (c) Goa    (d) None of these
- 47. Which was the first Indian state created on the basis of language?**  
 (a) Jharkhand    (b) Odisha    (c) Kerala    (d) None of these
- 48. Who is the Lieutenant Governor of Delhi?**  
 (a) N.D.Tiwari    (b) Margaret Alwa    (c) Najeeb Jung    (d) None of these

**49. Which tradition of the Republic Day Parade was discontinued in 2009 owing to security concerns?**

- (a) Air Parade of Bombers (b) Mock drill of Tanks  
(c) Elephants (d) None of these

**50. What was the name given first to New Delhi's Ceremonial Road, "Rajpath", by Edwin Lutyens?**

- (a) Victoria Avenue (b) King's Way (c) Rajpath (d) None of these

**51. When did Goa become an integral part of India?**

- (a) 1951 (b) 1961 (c) 1971 (d) None of these

**52. In which of the following cities is the Victoria Memorial situated?**

- (a) Delhi (b) Bombay (c) Kolkata (d) None of these

**53. In which battle was Napoleon finally defeated?**

- (a) Battle of Stalingrad (b) Battle of Britain (c) Battle of Waterloo (d) None of these

**54. Christian Dior, Papa Meilland, Queen Elizabeth, Oklahoma- What are these names of?**

- (a) Lilies (b) Sunflowers (c) Roses (d) None of these

**55. Who was the first woman to scale the Mount Everest?**

- (a) Junko Tabei (b) Bachendri Pal (c) Valentina Tereskova (d) None of these

**56. Which stroke is the fastest in swimming?**

- (a) Freestyle (b) Backstroke (c) Breaststroke (d) None of these

**57. Who introduced railways in India?**

- (a) Dalhousie (b) Cornwallis (c) Mountbatten (d) None of these

**58. Which company produces the brand "Aquafina"?**

- (a) Tata (b) Reliance (c) IRCTC (d) None of these

**59. What is the name of the bat prepared by the IITians of Mumbai?**

- (a) Falcon Blade (b) Panther Blade (c) Tiger Blade (d) None of these

**60. Who is famous as "Metro- Man" of Delhi?**

- (a) Sridharan (b) Srinivasan (c) Sanmukham (d) None of these

**61. Name the district of Chhattisgarh with maximum population.**

- (a) Raipur (b) Kavardha (c) Jashpur (d) None of these

**62. How many districts are there in Chhattisgarh?**

- (a) 27 (b) 28 (c) 29 (d) None of these

**63. What is Chhattisgarh's rank in the country according to population?**

- (a) 14th (b) 10th (c) 16th (d) None of these

**64. Associated Cement Company Limited is located in-**

- (a) Jamul (b) Baikunthpur (c) Alkatra (d) None of these

**65. Chitrakoot waterfall is in the district-**

- (a) Bastar (b) Dantewada (c) Jaspur (d) None of these

**66. Which of the following places is called the "Prayag" of Chhattisgarh?**

- (a) Dongargarh (b) Ratanpur (c) Rajim (d) None of these

**67. Name the first newspaper of CG.**

- (a) Mahakaushal (b) Chhattisgarh Mitra (c) Hari Bhumi (d) None of these

**68. Which one of the following is the old name of Bastar?**

- (a) Heerapur (b) Dandakaranya (c) Rampur (d) None of these

**69. Dongargarh is famous for which Devi-temple?**

- (a) Bamleshwari Temple (b) Kali Temple (c) Bhawani Temple (d) None of these

**70. Raipur is located on -**

- (a) Arpa (b) Shivnath (c) Mahanadi (d) None of these

**71. How many seats are there in CG Vidhan Sabha?**

- (a) 70 (b) 80 (c) 90 (d) None of these

**72. From the point of view of literacy, Chhattisgarh ranks..... in the country-**

- (a) 7<sup>th</sup> (b) 12<sup>th</sup> (c) 20<sup>th</sup> (d) None of these

**73. Name the hottest place in CG-**

- (a) Champa (b) Bilaspur (c) Korba (d) None of these

**74. Indravati National Park is situated in -**

- (a) Raigarh (b) Jaspur (c) Dantewara (d) None of these

**75. Who was the first C.M. of undivided Madhya Pradesh?**

- (a) Motilal Vora (b) Vidya Charan Shukla  
(c) Pt. Ravi Shankar Shukla (d) None of these

- 76. The first Asian Games were held at-**
- (a) New Delhi      (b) Beijing      (c) Tokyo      (d) None of these
- 77. Santosh Trophy is associated with-**
- (a) Carom      (b) Golf      (c) Football      (d) None of these
- 78. The Chepauk stadium is located in which city?**
- (a) Kolkata      (b) Chennai      (c) Jaipur      (d) None of these
- 79. The next Olympics will be held at-**
- (a) Madrid      (b) Lisbon      (c) Rio de Janeiro      (d) None of these
- 80. Deepika Kumari is associated with which sport?**
- (a) Athletics      (b) Archery      (c) Chess      (d) None of these
- 81. In IPL matches, the player who takes the maximum number of wickets wins-**
- (a) Purple cap      (b) Red cap      (c) Yellow cap      (d) None of these
- 82. Bausch and Lomb championships are related to which sport?**
- (a) Shooting      (b) Outdoor Tennis      (c) Badminton      (d) None of these
- 83. The term "googly" is associated with-**
- (a) Basketball      (b) Badminton      (c) Cricket      (d) None of these
- 84. Which sport did Deepika Padukone's father play?**
- (a) Chess      (b) Billiards      (c) Badminton      (d) None of these
- 85. "Arjuna Award" is given to the person related to-**
- (a) Sports      (b) Science      (c) Literature      (d) None of these
- 86. Who became the first Sikh president of India?**
- (a) Manmohan Singh      (b) Jail Singh      (c) Prakash Singh Badal      (d) None of these
- 87. Boko Haram is a terrorist organization of which country?**
- (a) Nigeria      (b) Algeria      (c) Somalia      (d) None of these
- 88. What is the capital of Bhutan?**
- (a) Thimpu      (b) Kuala Lumpur      (c) Silvassa      (d) None of these
- 89. What is the full form of BJD?**
- (a) Biju Janta Dal      (b) Bhartiya Janta Dal      (c) Bihar Janta Dal      (d) None of these
- 90. Who is the Defense Minister of India?**
- (a) Sushma Swaraj      (b) Sushil Kumar Shinde      (c) Arun Jaitley      (d) None of these
- 91. What is the name of the Cycle Yojana by C.G. Govt. for school girls?**
- (a) Ladli      (b) Kanya      (c) Saraswati      (d) None of these
- 92. Who is the deputy Speaker of the present Lok Sabha?**
- (a) Sumitra Mahajan      (b) P A Sangma      (c) M. Thambiduari      (d) None of these
- 93. When do we observe International Women's Day?**
- (a) 8 January      (b) 8 March      (c) 8 August      (d) None of these
- 94. Which of the following sports made its Olympic debut at the London Olympics, 2012?**
- (a) Women's Boxing      (b) Women's Football      (c) Women's Wrestling      (d) None of these
- 95. Which country is going to host the next FIFA World Cup?**
- (a) Qatar      (b) Russia      (c) Germany      (d) None of these
- 96. Which one is the only district in India that shares its boundary with 5 states?**
- (a) Kanpur      (b) Mirzapur      (c) Sonbhadra      (d) None of these
- 97. Who is the Union HRD Minister of India?**
- (a) Dr. Harshwardhan      (b) Rajiv Pratap Rudy      (c) Pallam Raju      (d) None of these
- 98. Where is the headquarters of SAARC located?**
- (a) Kathmandu      (b) Dhaka      (c) New Delhi      (d) None of these
- 99. Who is the Prime Minister of Britain?**
- (a) David Brown      (b) David Cameron      (c) Benjamin Disraeli      (d) None of these
- 100. Name the political party led by Imran Khan.**
- (a) Tahrik-e-Insaf      (b) PPP      (c) Jamat-e-Ulema      (d) None of these

## DELHI PUBLIC SCHOOL, BHILAI (C.G.)

DATE : 19-09-2014

FIRST TERMINAL EXAMINATION, 2014

Time : 1½ Hours

CLASS : XII

COMPUTER STUDIES

M.M : 30

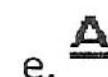
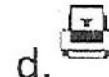
**Note :****All the questions are compulsory.****Note: Q1 to Q5 contains 2 marks each.**

(10)

1. What is a Spreadsheet Software?
2. What do you mean by term cell pointer and current cell?
3. What is a cell and how is it referred?
4. What is a default alignment of number, text and formula in a spreadsheet?
5. Define function in spreadsheet.
6. Sudha Arora uses spreadsheet to record information about the result of her pupils in an examination. Part of the spreadsheet as shown below:

	A	B	C	D	E
1					
2	s.no	Name	Marks out of 40	Percentage	Pass or Fail
3	1	Mohan	32	80	Pass
4	2	Rahul	20		
5	3	Saba	15		
6	4	Kunwar	34		
7	5	Juhi	40		
8	6				
9		Average			
10					

- i) Draw the Spreadsheet data table shown above. (1)
- ii) Which formula has been entered to cell D3? (1)
- iii) Which Spreadsheet function would save time when entering the other formula in column D? (1)
- iv) The Pass marks are 50%. Explain how the data in cell E3 has been produced by the computer. (2)
7. Explain the use of following functions with example. (10)
  - a. Sum()
  - b. Max()
  - c. AVG()
  - d. SQRT()
  - e. POWER()
8. Name the icons shown below. (5)



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