DELHI PUBLIC SCHOOL, BHILAI (C.G.)

Time: 3 hrs. **FIRST TERM EXAMINATION, 2018** **10.09.18**

Class: XI **BUSINESS STUDIES** **M.M.:90**

General Instructions:

1. *Answer to questions carrying 1 mark may be from one word to one sentence.*
2. *Answer to questions carrying 3 marks may be between 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. A person repairs scooters on the road side. How will you describe this activity? (1)
2. A public company with share capital is required to file a document with the Registrar of Companies in case it does not want to make a public issue through prospectus. Name this document. (1)
3. Which form of public sector enterprise is most suitable when national security is concerned? (1)
4. In which type of insurance, insurable interest must exist both at the time of insurance and at the time of loss. (1)
5. Which type of risk means chance of loss with possibility of gain? (1)
6. Gagan runs a garment shop in a mall. Two years back he had taken a loan of Rs.20 lakhs from HDFC Bank for the renovation of his shop. However, due to his poor health for the past one year his earnings have reduced considerably as he is not able to devote sufficient time to the business. He now plans to sell off his shop. (1)
   Identify the limitation of Sole Proprietorship business being discussed above.
7. That an enterprise must behave as a good citizen is an example of its responsibility towards which group? (1)
8. What is Hull Insurance? (1)
9. A factory owner gets his stock of goods insured but he hides the fact that the electricity board has issued him a statutory warning letter to get his factory's wiring changed. Later on, the factory catches fire due to short circuit of wiring.
   a) Identify the Principle of Insurance violated and explain the same. (1+1)
   b) Can he claim compensation for the same? Justify. (1)
10. Mr. Praveen Gupta and Mr. Asif Khan are well known builders in Noida. They enter into a partnership contract to build a NRI residential complex in Greater Noida.
    a) Identify the type of partnership discussed above and explain the same. (1+1)
    b) Name any other type of partnership in this category. (1)
11. LIC of India is the largest insurance company in India. It is headquartered in Mumbai. It was founded in the year 1956 when the Parliament of India passed the Life Insurance of India Act that nationalised the private insurance industry in India. Over the years it has become a pioneer in the insurance sector.
    a) LIC of India is classified as which form of public sector enterprise.
    b) Was it necessary for the Parliament to pass the LIC of India Act for its formation? Explain the form of enterprise. (1+2)
12. What do you mean by auxiliaries to trade? Explain any two auxiliaries to trade. (1+2)
13. You are a manager in CSR department, your work is to check all types of pollution and to protect natural resources. In this respect specify certain steps (min. two) that you will take to protect- environment. Also give the full form of CSR. (2+1)
14. If PB Jewellers, an Indian firm sends gold chains to USA. They are involved in which type of trade. Explain the other types of trade in this category. (1+2)
15. Write short notes on the following: a) RTGS b) NEFT (2+2)
16. Nestle S.A. is a Swiss International Food and Drink company head quartered in Vevey, Switzerland. Nestle has many brands with a wide range of products across a number of markets around the word, including coffee, bottled water, milk shakes and other beverages, breakfast cereals, infant foods, healthcare, nutrition, seasonings, soups, sauces, frozen foods and pet food etc.
    In the context of the above case:
    a) What form of enterprise is Nestle?
    b) State any three features of the form of enterprise identified in part (a) of the question. (1+3)

17. Explain any four clauses of the Memorandum of Association. (4)

18. Roshni Ltd. is a Pune based Indian multinational company engaged in designing, manufacturing and marketing of products related to power generation, transmission and distribution. It has also set up a factory for manufacturing solar lanterns in a remote village as there was no reliable supply of electricity in rural areas.
    a) Identify and explain the type of objective of business being fulfilled by Roshni Ltd.
    b) Highlight two more objectives apart from the ones mentioned in the above case.
    c) Name any two values which the company wants to communicate to the society. (2+1+1)

19. Britannia Industries Ltd. is committed to help secure every child's right to growth and development through good food everyday. The company is working in partnership with Global Alliance for Improved Nutrition (GAIN) and the Nandi Foundation to supply iron fortified Tiger Biscuits to supplement the Mid-Day Meal Program in schools. In keeping with its core essence of 'Swasth Khao Tan Man Jagao', the company constantly strives to find sustainable opportunities to drive home the message of nutrition and good food habits among children at the night age.
    In context of the above case:
    a) Identify and explain the kind of social responsibility being discharged by Britannia Industries Ltd.
    b) Briefly explain any two other kinds of social responsibilities. (2+2)

20. Compare Business, Profession & Employment on the basis of:
    a) Qualification
    b) Reward or Return
    c) Capital Investment
    d) Risk
    e) Transfer of Interest (5)

21. Sparkles Pvt. Ltd. was promoted in the year 2000 by a group of four friends. As business of the company has grown considerably over the years, its management is now planning to convert it into a public company and raise funds in next six months to finance its future expansion plans in retailing.
    In the context of this case:
    a) State any four privileges that the company will have to forgo as a private company after conversion.
    b) State any two values that should not be ignored by the promoters of this company. (4+1)

22. To overcome the difficulties faced by public in public transport system, the government of India started the METRO project in which the government involved private sector participation to get the benefits of efficiency of private sector. The project was a great success as lakhs of people are enjoying the metro service to move from one place to another.
    a) Identify and explain the type of enterprise mentioned in the above para.
    b) Give any three features of the type of enterprise identified in (a). (2+3)

23. Explain the various functions performed by Commercial Banks. (5)

24. Explain Social Responsibility of Business. Why do the enterprises need to adopt pollution control measures? (1+5)

OR

Explain the responsibility of business towards Government or Community. (6)

25. Explain the different Principles of Insurance. (6)

OR

What is Banking? Explain the different types of accounts that can be opened in a Bank. (1+5)

26. What is Business Risk? Explain the different causes off business risk. (1+5)

OR

Explain in brief the different types of Industries. (6)

27. What is a Partnership Deed? Explain in brief the different types of partners. (1+5)

OR

Explain the following terms: (1½×4)
a) Perpetual succession
b) Karta
c) Articles of Association
d) Minimum Subscription

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DELHI PUBLIC SCHOOL, BHILAI (C.G.)

Time: 3 hrs. **FIRST TERM EXAMINATION, 2018** **10.09.18**

Class: XI **CHEMISTRY** **M.M.:70**

General Instructions:

1. ***All questions are compulsory.***
2. ***Question Nos. 1 to 5 are one mark questions.***
3. ***Question Nos. 6 to 10 are two marks questions.***
4. ***Question Nos. 11 to 22 are three marks questions.***
5. ***Question No. 23 is four marks question.***
6. ***Question Nos. 24 to 26 are five marks questions.***

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1. State 'Law of Multiple Proportion'. **(1)**
2. What is the physical significance of ψ & ψ^2? **(1)**
3. What do you understand by isoelectronic species? Name a species that will be isoelectronic with F^-. **(1)**
4. Write the Lewis dot structure of O_3 molecule. **(1)**
5. What is Acid rain? Name one gas responsible for causing acid rain. **(1)**
6. Calculate the wavelength and frequency of a light wave whose period is 2.0×10^{-10}S. **(2)**
7. Give electronic configuration of (a) Cr^{3+} & Fe (Z of Cr = 24 & Z of Fe = 26) **(2)**
8. Calculate the mass of nitric acid in moles per litre in a sample which has a density, 1.41g ml^{-1} and mass percent of nitric acid in it being 69%. [Gram Molar Mass of HNO_3 = 63g] **(2)**
9. What would be the IUPAC name and symbol for the element with atomic number 120? **(2)**

OR

What is the oxidation state and covalency of *Al* in $\left[AlCl\left(H_2O\right)_6\right]^{2+}$?

10. Which out of NH_3 and NF_3 has higher dipole moment and why? **(2)**
11. (a) Define hybridisation. **(3)**
    (b) Draw orbital diagrams to show hybridisation in ethane molecule (C_2H_6) and ethene (C_2H_4) molecule.
12. Dinitrogen and dihydrogen react with each other to produce ammonia according to the chemical equation: **(3)**
    $N_2(g) + H_2(g) \rightarrow 2NH_3(g)$
    (i) Calculate the mass of ammonia produced if 2.00×10^3g dinitrogen reacts with 1.00×10^3g dihydrogen.
    (ii) Which reactant is the limiting reagent?
    (iii) Which reactant would remain unreacted and what would be its mass?
    [Gram At. masses are: N → 14g, H → 1.008g]
13. Calcium carbonate reacts with aqueous HCl according to the equation: **(3)**
    $CaCO_3(s)+2HCl(aq)\rightarrow CaCl_2(aq)+CO_2(g)+H_2O(l).$
    What mass of $CaCO_3$ is required to react completely with 25ml of 0.75MHCl?
    [Gram atomic masses are Ca → 40g, C → 12g, O → 16g & Cl → 35.5g]
14. An ion with mass number 56 contains 3 units of positive charge and 30.4% more neutrons than electrons. Assign the symbol to this ion. **(3)**
15. Indicate the number of unpaired electrons in $(a)\ {}_{15}P$ $(b)\ {}_{14}Si$ (c) ${}_{24}Cr$ **(3)**

OR

How many electrons in an atom have the following quantum numbers:

$(a)\ n=4,\ m_s=-\frac{1}{2}$ $(b)\ n=3,\ l=O$ (c) $n=3,\ m_s=+\frac{1}{2}$

16. A sample of drinking water was found to be contaminated with chloroform ($CHCl_3$). The level of contamination was 15 ppm (by mass). **(3)**
    (i) Express this in percent by mass.
    (ii) Determine the molality of chloroform in the water sample.
17. Determine the molecular formula of an oxide of iron in which the mass percent of iron and oxygen are 69.9 and 30.1 respectively. Given that the molar mass of the oxide is 159.8 g $mole^{-1}$.
    (At.mass: Fe =56, O=16) **(3)**
18. (i) The energy associated with the first orbit in the hydrogen atom is $-2.18\times10^{-18}J$ atom. What is the energy associate with the fifth orbit? **(3)**
    (ii) Calculate the radius of Bohr's fifth orbit for hydrogen atom.
19. (a) On the basis of quantum numbers, justify that the sixth period of the periodic table should have 32 elements. **(3)**
    (b) State Modern Periodic Law.

20. Which element in the following pair would have a more negative electron gain enthalpy and why? (3)
(a) O or F (b) F or Cl

21. (a) Although both CO_2 and H_2O are triatomic molecules, the shape of H_2O molecule is bent while that of CO_2 is linear. Explain this on the basis of dipole moment. (3)
(b) Draw resonating structures of CO_3^{2-}.

22. (a) On the basis of VSEPR theory explain the structure of (a) PCl_5 (b) SF_4. (3)
(b) Define Hydrogen bond.

23. An ozone layer is present at a height of 25-30km from earth surface which protects us from UV radiation. A hole is the ozone layer is created due to human activity. (4)
Answer the following questions:
(i) Which activity has been causing ozone layer?
(ii) What is the most serious effects of ozone hole?
(iii) What has been done to prevent ozone depletion?
(iv) Give harmful effects of CO_2.

24. (a) State Pauli's Exclusion principle. (5)
(b) Show that the circumference of the Bohr orbit for hydrogen atom is an integral multiple of the de Broglie wavelength associated with the electron moving around the orbit.
(c) Draw shapes (boundary surfaces) of the following orbitals (a) $3dz^2$ & (b) $3d_{x^2-y^2}$.

OR

(a) State Hund's Rule of maximum multiplicity.
(b) If the velocity of the electron in Bohr's first orbit is 2.19×10^6 ms^{-1}, calculate the de Broglie wavelength associated with it.
(c) (i) What shell would be the first to have a g-subshell?
(ii) How many orbitals will be possible in a g-subshell?

25. (a) Explain why cations are smaller and anions are larger in radii than their parent atoms. (5)
(b) Would you expect the second electron gain enthalpy of O as positive, more negative or less negative than the first? Justify your answer.
(c) Which of the following species has the largest and the smallest size? Mg, Mg^{2+}, Al, Al^{3+}.

OR

(a) How would you explain the fact that the first ionization enthalpy of sodium is lower than that of magnesium but its second ionization enthalpy is higher than that of magnesium?

(b) The increasing order of reactivity among group 1 elements is Li < Na < K < Rb < Cs where as that of group 17 is F>Cl>Br>I. Explain.
(c) Show by a chemical reaction with water that Cl_2O_7 is an acidic oxide.

26. (a) Distinguish between a sigma bond and a pi bond. (5)
(b) Compare the relative stabilities of the following species by calculating their bond order: O_2, O_2^+, O_2^-, O_2^{2-}
(c) Use molecular orbital theory to explain why the Be_2 molecule does not exist.

OR

(a) Which hybrid orbitals are used by carbon atoms in the following molecules?
(i) CH_3CH_2OH (ii) $CH_3 - CH = CH_2$
(b) Compare the relative stabilities of the following species by calculating their bond order:
N_2, N_2^+, N_2^-, N_2^{2-}
(c) Why are the axial bonds longer than equatorial bonds in PCl_5?

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

First Terminal Examination,2018

Engineering Graphics

Date : 19-09-2018 **Time : 3.00 Hrs**

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

General Instructions:

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

Q1. Write the following sentence in single stroke capital letters of 10mm letter height, "Delhi Public School Bhilai" (5)

Q2. What is Dimensioning? Explain different types of dimensioning ways or methods with suitable drawing. (5)

Q3. Construct a quadrilateral PQRS with PQ=45mm, QR=55mm, RS=40mm, PS=60mm, PR=70mm. (5)

Q4. To draw a tangent to a circle of radius 35mm from a given point M, 65mm from the centre. (5)

Q5. Draw a given rhombus ABCD, whose each side is 55mm and inscribe a circle in it. (5)

Q6. Draw the involute of a circle whose diameter is 40mm. (9)

OR

Draw a helix of a circle whose diameter is 50mm and the pitch is 38mm.

Q7. Draw the projections of the following points on same XY line, (2×4)

a) B, 20mm above HP and 25mm in front of VP.
b) D, 25mm below HP and 15mm behind VP.
c) E, 15mm above HP and 10mm behind VP.
d) F, in the VP and 20mm above HP.

Q8. A straight line MN of 28mm length has its one end M 10mm from HP and 15mm from the VP. Draw the projections of the line if it is parallel to VP and inclined at 300 to HP. Assume the line to be located in each of the four dihedral angles by turn. (2½×4)

Q9. A regular hexagon ABCDEF of side 30mm is parallel to VP. The two opposite parallel side of hexagon are perpendicular to HP. The center of the plane figure is 40mm above HP and 20mm in front of VP. Draw the front view, top view and side view of the regular hexagon. (8)

Q10. A pentagonal prism having 20mm edges at its base and axis of 70mm length is resting on one of the edges of its base with its axis parallel to VP and inclined at 300 to the HP. (10)

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DELHI PUBLIC SCHOOL, BHILAI (C.G.)

Time: 3 hrs. **FIRST TERM EXAMINATION, 2018** **19.09.18**

Class: XI **ECONOMICS** **M.M:80**

General instructions:

- All the questions are compulsory.
- 1 mark questions should be answered in one sentence or one word.
- 3 marks questions should be answered in about 40 to 50 words.
- 4 marks questions should be answered in about 60 to 70 words.
- 6 marks questions should be answered in about 110 to 120 words.

SECTION – A (STATISTICS)

1. Economics is a study of mankind in the ordinary business of life. This definition of economics is given by- **(1)**
   a) Alfred Marshall b) Adam Smith c) Robbins d) Samuelson
2. A survey in which information is collected from each and every unit of population is known as- **(1)**
   a) Sample survey b) Census survey c) Pilot survey d) Market survey
3. Which of the following situation is the root cause of all economic problem- **(1)**
   a) Investment b) Scarcity c) Under consumption d) over production
4. The main sources of data are- **(1)**
   a) Primary b) Secondary c) Both a &b d) None
5. Define statistics in plural sense. Explain its any two characteristics. **(3)**
6. Discuss the concept of population and sample with suitable example. **(3)**
7. Distinguish between bar diagram and histogram. **(3)**
8. Write the procedure for drawing a histogram when the class interval is unequal. **(3)**
9. Write short note on limitations of secondary data and purposive sampling. **(4)**
10. Differentiate between quantitative and spatial classification. Construct an imaginary table based on spatial classification. **(4)**

OR

Differentiate between exclusive and inclusive series with the help of imaginary example.

11. The algebraic sum of deviation of items from arithmetic mean is always zero. Explain this property with example. **(4)**
12. Define series. Convert the following in exclusive and more than series- **(4)**

Marks less than	5	10	15	20	25
frequency	12	25	35	55	65

13. Define questionnaire. Write the qualities of a good questionnaire. Discuss Enumerator method with merits and demerits. **(1+2+3=6)**

OR

What do you mean by sampling? Discuss systematic sampling with merits and demerits. Use suitable example.

14. Write about graphical presentation of data with two merits & demerits. Draw a frequency polygon for the following data (using histogram) - **(6)**

Daily Pocket money	20-25	25-30	30-35	35-40	40-45
No. of student	4	9	13	9	5

15. Calculate mean using direct and short cut method for the following- **(3+3=6)**

Marks more than	0	2	4	6	8
Frequency	40	35	25	18	10

SECTION – B (MICROECONOMICS)

16. Microeconomics is not concern with - **(1)**
    a) National income b) A consumer c) A firm d) An industry
17. When there is an improvement in technology, keeping other things constant- **(1)**
    a) The production possibilities frontier shifts inward
    b) The production possibilities frontier shifts upward
    c) The production possibilities frontier remains the same
    d) The production possibilities frontier does not change
18. What is a demand function? **(1)**
19. Write the various individual determinants. **(1)**
20. Establish relation between total utility and marginal utility. **(3)**
21. Define indifference curve. Explain reason for convex nature of it with example. **(3)**
22. Explain law of demand with numerical example. Discuss any one reason for the law. **(4)**
23. Discuss consumer equilibrium using indifference curve approach. **(4)**

OR

Discuss consumer equilibrium using utility approach in single commodity case.

24. What is an economic problem? How does it arise? Discuss the choice of technique as a central problem of economy. **(1+2+3=6)**

OR

Why is a PPC concave? Discuss change in PPC with diagram.

25. Explain Normal good, Substitute good and Complementary good with diagram. **(2+2+2=6)**

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DELHI PUBLIC SCHOOL, BHILAI
FIRST TERM EXAMINATION 2018

Date : 19.09.2018 **SUBJECT : COMPUTER SCIENCE** **Time : 03 Hours**
CLASS -XI **Max. Marks : 70**

Instructions:

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

Q.1	(a)	Give two characteristics of second generation computer.	01
	(b)	Distinguish between digital and analog computers.	02
	(c)	Give and explain four characteristics of computers.	02
	(d)	What is a system software? How is it different from application software?	01
	(e)	Distinguish between hardware and software.	02
	(f)	Describe at least four functions of an operation system.	02
Q.2	(a)	Determine the binary equivalent of $(387.56)_{10}$	02
	(b)	Convert $(EB4A)_{16} \rightarrow (\quad)_8$	02
	(c)	Convert $(101010)2 \rightarrow (\quad)_{16} \rightarrow (\quad)_{10}$	02
	(d)	Determine the decimal equivalent of $(101.0110)_2$	02
	(e)	Find the 8bit 2'5 complement of $(-10)_{10}$	02
Q.3	(a)	Briefly explain the two major types of programming languages paradigm.	01
	(b)	State and explain at least four concept of object oriented program.	02
	(c)	Write short note on programming (i) in low level language (ii) in high level language	02
Q.4	(a)	What is the difference between 'a' and "a" in C++	01
	(b)	Which of the following are invalid indetifiers and why? (i) Percent (ii) S-num (iii) 123 (iv) abc Km (v) class (vi) main	02
	(c)	Correct the error if any (i) int 3*5 (ii) l*b = area (iii) l=ab+c*d (iv) area = 3.14* R**R	02
Q.5	(a)	How is structure different from array?	01
	(b)	In how many ways can a variable be declared in C++? Give examples also.	1½
	(c)	What is the difference between 25L and 25?	01
	(d)	Which header file(s) are required to run the following code. void main () { int Last=25; for (int i=9; i <= Last; i++) cout≪i≪":"≪sqrt (i) ≪endl; getch();}	1½
	(e)	What will be the result of the following expression? ++a<=5 (i) if a=5 (ii) if a=4	01
	(f)	Predict the output of the following code. # include < $iostream.h$ > void main () { float num=110; num! = (num= – –num)? cout≪"OK" : cont≪"Not Ok"; }	01
	(g)	Determine the hierarchy of operations and evaluate the following expression. i = 2*3/4+4/4+8-2+5/8	02
	(h)	What do you understand by type conversion? How many types of conversions are there explain with example?	03

Contd...2

(i) Using "?" operator write a program that reads a character from the Keyboard and then display one of the following. 03

(i) If character is a lower case letter, then it will display equivalent upper case.

(ii) If character is a upper case letter then it will display equivalent lower case.

(iii) If characher is not a letter then the message "character is not a letter".

Q.6 (a) What are the modifier available for 'int' data type? Name them and write their sizes in bits. 03

(b) Write the altrnative keyword for the following primary keyword. 02

(i) != (ii) || (iii) Λ= (iv) |=

Q.7 Write program for the following:

(a) To find H.C.F. and L.C.M. of two numbers using if and goto statement. 04

(b) To print the following design. 04

% % % % %
# # # #
% % %
# #
%

(c) To sum the following series 04

$1+\frac{1}{1^2}+\frac{1}{2^3}+\frac{1}{3^4}+$ .....+n terms

(d) To print fibonacci series 0,1,1,2,3,5,8 ...according to user limit (using for loop). 04

(e) To calculate and print roots of quadratic equation. Check all possible conditions. 04

DELHI PUBLIC SCHOOL, BHILAI
FIRST TERM EXAMINATION 2018
SUBJECT : BIOLOGY

Date : 19.09.2018
CLASS -XI

Time : 03 Hours
Max. Marks : 70

GENERAL INSTRUCTIONS:

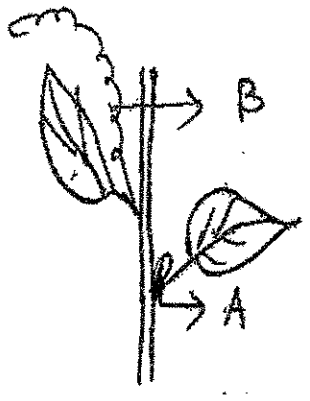
(i) All questions are compulsory and answer serially.
(ii) The question paper consists of four sections A,B, C and D. Section A contains 5 questions of 1 mark each, Section B is of 7 questions of 2 marks each, Section C is of 12 questions of 3 marks each and Section D is of 3 questions of 5 marks each.
(iii) There is no overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and three questions of 5 marks weightage. A student has to attempt only one of the alternatives in such questions.
(iv) Wherever necessary, the diagrams drawn should be neat and properly labelled.

SECTION A

Q.01 What is pulvinus? Give an example of a plant that has pulvinus. 01
Q.02 Why are Plasmodium (malarial parasite) like protozoans called Sporozoans? 01
Q.03 Brijnal and Potato belong to the same genus Solanum, but two different species. What defines them as separate species? 01
Q.04 Name the cells that line the spongocoel in Sycon. 01
Q.05 Two key events take place during S phase in animal cells-DNA replication and duplication of centriole. In which parts of the cell do these events occur? 01

SECTION B

Q.06 Differentiate between Polyps & Medusac. 02
Q.07 How are the gametophytes of pteridophytes different from those of gymnosperms? 02
Q.08 (a) In a few fungi, during sexual reproduction, two haploid hyphae do not immediately result in diploid cell (2n) formation. 02
Name the intervening condition and phase of fungus.
(b) Name two symbiotic associations of fungi.
Q.09 How are animals of Platyhelminthes different from those of Annelida? (Four points) 02
Q.10 02



(a) Name the part shown at (A) and (B) in the diagram.
(b) Is 'B' a modification of stem or leaf? What is the function of 'B'?

OR

Write an account on gemmae of Liverworts.

Q.11 ER divides the intracellular space of the cell into distinct compartments. Name them. What is the major function of SER in animal cells. 02
Q.12 Represent diagrammaticaly a cymose inflorescence. 02

SECTION C

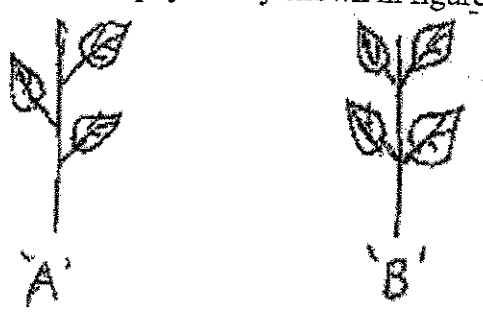
Q.13 (a) Rearrange the following taxonomic categories in a proper sequence from smaller taxon to higher one: Class, Genus, Phylum, Order, Species, Kingdom, Family 03
(b) Name the highest category in the hierarchi al system of classification.
(c) Define taxonomy.
Q.14 (a) While each of the membrane bound organelles in Eukaryotic cells is distinct in terms of structure and function(s). Some of them are considered together as an endomembrane system. Name the cell organelles in the endomembrane system. Why are they called so? 03
(b) This organelle of the endomembrane system has 'cis' face and 'trans' face. Name the organelle and enlist two functions of it.

Q.15 Describe the modification of stems in.
(a) Chrysanthemum (b) Eichhornia (c) Jasmine 03

Q.16 What is heterospory? Briefly comment on its significance. Give two examples of heterosporous plants in pteridophytes. 03

Q.17 (a) Write any four characteristic features of cyclostomata.
(b) Mention the level of organization in
(i) Ctenophora (ii) Porifera 03

Q.18 (a) What is phyllotaxy?
(b) Name the phyllotaxy shown in figure 'A' and 'B'. 03



(c) Why is phyllotaxy in Alstonia described as whorled?

Q.19 What is alternation of generations? Represent it diagrammatically in the life cycle of Bryophytes. 03

OR

Algae show a variety in their modes of sexual reproduction which may be isogamous, anisogamous or oogamous but do not produce any embryo.
(a) What is oogamy? Give an example.
(b) How is anisogamy different from isogamy?
(c) Which among the three is considered the most advanced in evolution?

Q.20 Describe the canal system of sponges. 03

Q.21 Animal x has 2n=4 chromosomes. Draw labeled diagrams of this animal cell to show the following: 03
(a) Anaphase of mitosis (b) Anaphase 1of meiosis

Q.22 (a) Draw a well labeled diagram of Euglena.
(b) Give any two characteristic features of it. 03

Q.23 (a) What is meant by 'contagium vivum fluidum'?
(b) Why are viruses called obligate intracellular parasites? Name a virus that has single stranded RNA as genetic material. 03

Q.24 (a) How are ascospores and conidia both produced by ascomycetes differ from each other?
(b) Mention any four economic uses of Ascomycetes. 03

SECTION D

Q.25 (a) Define cytokinesis
(b) Why can cytokinesis not occur in plant cell the same way as it occurs in animal cell?
(c) How is it accomplished in animal and plant cells? 05

OR

An organism has two pairs of chromosomes (i.e. chromosome number=4). Diagramatically represent the chromosomal arrangement during different phases of Prophase 1 of meiosis. Also write two important features of each phase of Prophase 1.

Q.26 How do the various leaf modifications help plants? 05

OR

Define Aestivation. Explain the different types of aestivation with diagrams. Give one example for each type.

Q.27 (a) Describe the important characteristics of gymnosperms.
(b) Both gymnosperms and angiosperms bear seeds. But, why are they classified separately. 05

OR

(a) Draw a labeled diagram of the basic body plan of chordates.
(b) Mention the four characteristic features which all chordates possess.
(c) Classify chordata till class.

DELHI PUBLIC SCHOOL, BHILAI (C.G.)

FIRST TERMINAL EXAMINATION, 2018

GEOGRAPHY

DATE : 17-09-2018 **Time : 3 Hours**

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

General Instructions–

1. All Questions are compulsory.
2. Map provided must be attached within the answer script.
3. Marks allotted to each question is indicated against it.

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1) What is geography? (1×10=10)
2) What is latitudinal and longitudinal extent of India?
3) What is Naturalised humans?
4) What is the total length of India's coastline?
5) Why do earthquake develop shadow zone?
6) Name the forces suggested by Wegener responsible for the movements of the continent?
7) What is Mass Movement?
8) How Uvala is formed?
9) What is exfoliation?
10) What is a cirque?
11) What are the implications of India having a long coastline? (3×10=30)
12) What is the importance of physical geography?
13) What is the rank of India in the world as far as geographical area is concerned? Why 82°30'E has been selected to calculate I.S.T?.
14) What is the difference between S & P waves?
15) What is the major difference between transform boundary and convergent and divergent plate boundaries?
16) Describe the nature and mode of origin of main rock types. How will you distinguish them?
17) What are rapid and perceptible mass movement? Explain.
18) What relationship is explained by the rock cycle between major types of rocks?
19) What is the significance of weathering?
20) How do glaciers accomplish the work of reducing high mountains into low hills and plains?
21) How do you distinguish between the process of soil formation and soil forming factors? (5×5=25)
    What is the role of climate and biological activity as 2 important factors for soil formation?
22) What were the major post drift discoveries and theories that rejuvenated the study of distribution of oceans and continents?
23) Illustrate direct and indirect sources of information of the interior of the earth.
24) Running water is most important and dominating geomorphic agent in shaping the earth's surface in humid as well as in arid climate. Explain.
25) What do you understand by intrusive forms? Describe various intrusive forms.
26) a) On the outline map of the world, identify the items given as A, B & C. (1×5=5)
    b) On the outline political map of India, locate and label the following items:
        i) Capital of Arunachal Pradesh
        ii) Capital of Mizoram.

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DELHI PUBLIC SCHOOL, BHILAI (C.G.)

DATE :17-09-2018 | **FIRST TERM EXAMINATION, 2018** | **TIME : 3 Hours**

CLASS : XI | **HOME SCIENCE** | **M.M. : 70**

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1 What is retting process? (1)

2 What is the selvedge? (1)

3 Give one example each : a) staple yarn b) filament yarn (1)

4 Define emotional health. (1)

5 Define social identity. (1)

6 'Self' has several dimensions. How is this correct? (1)

7 Name two fibres made of protein. (2)

8 Write four important properties of Nylon. (2)

9 Time is considered as a human resource. Why? (2)

10 What is food guide pyramid? Explain briefly.

11 What do you understand by developing a sense of self and identity? (2)

12 During the period of early childhood we describe them as concrete and overestimation. Explain. . (2)

13 Explain the term 'social comparison' in relation to middle childhood. (2)

14 List different types of communication skills and write briefly about them. (3)

15 Write the importance of finishes given to the fabrics. (3)

16 How is the term communication technologies defined? Mention the technologies which have brought revolution in the communication arena. Justify your answer. (4)

17 What is Rayon made up of? Write two beneficial properties and two drawbacks. (4)

18 What are the characteristics of resources? (4)

19 Compare the terms Anorexia and Bulimia. (4)

20 What is cognitive development? What are these changes observed during adolescence? (4)

21 Explain adolescents under the given heads: 1) abstract 2) contradictions 3) ideal self 4) real self (4)

22 What is non verbal communications? How will you analyse speaker's style? (5)

23 What is SMCRE model? Write briefly about the elements involved in it. (5)

24 Explain the process of management. (5)

25 What are the types of manufactured fibres? (5)

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DELHI PUBLIC SCHOOL, BHILAI

First Term Examination - 2018

Class – XI Subject –Informatics Practices

Dt: 17.09.2018 **Time : 3 Hrs** **MM : 70**

General Instructions :

- All questions are compulsory.
- There are three Sections. Section "A" carries 15 marks, "B" 45 marks and Section "C" 10 marks.
- Take necessary control name wherever it is required.

Section – A

Q1. a. Explain role of "Primary Memory Unit" of a computer system with its sub division. **(2)**

b. Write functions performed by "Control unit" of C.P.U. **(2)**

c. How "Multi User" operating system is different than "Real Time" operating system software? **(2)**

d. What do you understand by "Smart Card Reader" ? **(1)**

Q2.a. Explain following terms - **(1x4=4)**

i. Biometric Sensor **ii.** Control Bus **iii.** BIOS iv. Device Driver

b. Write any two characteristics of a computer. **(1)**

c. Give name of two popular operating system software. **(1)**

d. Write short note on "Types of Utility Software". **(2)**

Section – B

Q3.a.i. What output will be displayed in the given textfields by the following program segment - **(2x3=6)**

```
int x=11;
 switch(x)
      { case 11: txt.setText(" CBSE ");
        case 10: txt.setText(" NCERT");
                 break;
        case 20: txt.setText(" ICSE ");
                 break;
        case 30: txt.setText(" BC");
        default : txt.setText(" CG ");
        }
        txp.setText("End ");
```

ii.
```
String s1="Protocol", s2="Hyper Text" ;
        System.out.println(s1.concat(s2));
        System.out.print(s1+"'\n"+"Cookies\n");
```

iii.
```
int n1=50,n2=20, n3=500;
        if(n1%20>=0 || n2<=200)
        n2++;
        else
        n3--;
        System.out.println("line1 "+n1);
        System.out.println("line 2 "+ --n2);
        System.out.println(" line 3"+ n3);
```

b. Explain the following terms - **(1x4=4)**

i. Keyword ii. Literal iii. Tokens iv. Identifier

Q4.a. Find out syntax error(s) in the given code snippet and rewrite corrected one- **(2x3=6)**

i.
```
int a,b, c=1
switch(c)
{
txt.settext("We got same marks");
System.println(" We did not get same marks");
```

ii.
```
p=10.5, q ;
p=Double.parseDouble(tx1.get( ));
q=m*30+p;
tx2.set(" Value of q is " , q);
```

iii. string a="C++", b="Java";
System.out.print{" First String "+a};
else ;
System.print(" Second string " +b);

b. Mention any four properties of text area control with its usage. **(2)**

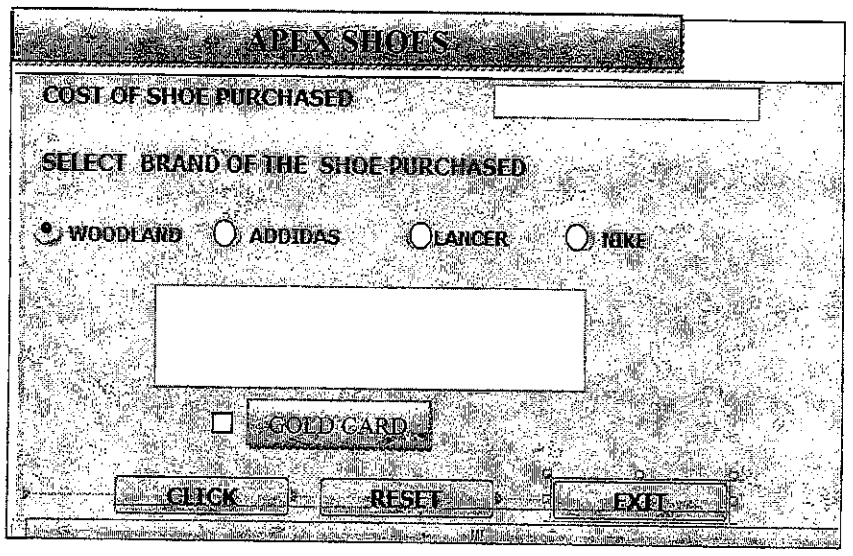
c. What is logical operator used in java? Explain each with suitable example. **(3)**

d. Write any two feature of "Netbeans IDE" . **(1)**

e. Explain the utility of JOptionPane Dialog box with example **(1)**

f. What for parse methods are used in java? Explain with suitable example . **(1)**

Q5.a. Mr Jignesh Desai an owner of "Apex Shoes". He asked his programmer develop the following GUI application in Netbeans for billing system, screenshot is given below : **(4+1+1)**



i) After feeding cost of shoes and selecting brand of shoes, when user click on "CLICK" button then it should calculate and display discount and Net payable amount as follows –

Brand	Discount% (On Cost Price)
WOODLAND	2
ADDIDAS	5.5
LANCER	7.5
NIKE	10.5

For "GOLD CARD" customers 5% additional discount is offered.

Net payable Amount= Cost – discount

Output should be displayed in jTextArea" control.

ii) Also give code for "RESET" and "EXIT" button.

b. Develop a Java Application to calculate "Electricity bill " for an electricity consumer when previous and present meter reading will be given by user. Rate per unit (tariff) as given below . Also give required frame design . **(3)**

Units Consumed	Rate / Unit (in Rs)
0 - 300	5
301 – 500	7
501 – 900	9
& above	11

c. How "Inspector" and "Project" windows are useful in Netbeans. **(2)**

d. Explain following methods used in java with example - **(2x2=4)**

i. setVisible( ) ii. setEnabled( )

e. Explain the feature of java language which states - "Java is case sensitive". (1)

f. Sort out the valid variable name(s) from the given list, also state reason of being invalid - (2)

2no, my number , #sum , nos$

g. What do you understand by "control statements" used in java? Give example. (2)

h. Name one control of Netbeans components(controls) which is not visible on frame. (1)

Section - C

Q6.a) Write four characteristics of "MySQL" RDBMS . (2)

b) What do you understand by "CHAR" and "VARCHAR" data types used in MySQL. Explain with suitable example of each. (2)

c) Create table "SPORTS" as per following Table Instance Chart. (2)

Field Name	Data type	Size
Sports_ID	Integer	5
Sports_Name	Varchar	40
MinAge	Integer	2
Coach_Name	Varchar	20
Fees	Double	6,2
Join_Date	Date	

Q7. Consider the table given below and Give SQL for the following - **(1x4=4)**

PETANIMALS

NAME	OWNER	SPECIES	SEX	BIRTH	DEATH
Claws	Gwen	Cat	M	1994-03-17	null
Fang	Benny	Dog	M	1990-09-23	1999-07-23
Bowser	Diane	Dog	M	1997-09-11	1998-07-29
Chirpy	Gwen	Bird	F	1998-08-23	1999-01-19
Slim	Gwen	Bird	Null	1997-07-22	Null

1. Create a database namely **IPDATABASE.**
2. Display structure of the table PETANIMALS
3. Display all records of the table PETANIMALS
4. Add a new record with given data ('Parrot','Sami',"Bird','F', '1998-10-23','2001-1-25')

DELHI PUBLIC SCHOOL, BHILAI (C.G.)

DATE :17-09-2018 | **FIRST TERM EXAMINATION, 2018** | **Time: 3 Hours**

CLASS : XI | **BIOTECHNOLOGY** | **M.M : 70**

No. of Pages Printed : 1

General Instructions :

i) **Question paper consists of four sections A,B,C and D.**

ii) **Questions 1 to 6 carry one mark each.**

iii) **Questions 7 to 14 carry two marks each.**

iv) **Questions 15 to 25 carry three marks each.**

v) **Questions 26 to 28 carry five marks each.**

SECTION A

1. When did antibiotic revolution start? What was the demand of it? (1)
2. What are the elements that forms the frame work of organic molecules? (1)
3. State any two functions of sclerenchyma cells. (1)
4. When did Louis Pasteur published the report on the formation of lactic acid. (1)
5. Which part of the leaves help in photosynthesis and which part in CO_2 absorption? (1)
6. Interphase of cell division is of particular interest. Why? (1)

SECTION B

7. How are clones produced? Explain. (2)
8. What are stem cells? How do embryonic stem cells differ from adult stem cells? (2)
9. What is the importance of biosensors in Biotechnology? (2)
10. Diagrammatically show the structure of an immunoglobulin molecule. (2)
11. Classify epithelial tissues based on the shape of cells. (2)
12. What are called biodiversity hot spots? Give an example. What causes its destruction? (2)
13. What is the function of motor nerves? Draw a well labeled diagram of a neuron. (2)
14. What cells are used in the production of insulin and Hepatitis B vaccine?
    Write the applications of nano technology. (2)

SECTION C

15. What are the living systems used in biotechnological procedures? (3)
16. Explain structure and contraction of muscles with the help of diagram. (3)
17. Explain prophase I of meiosis with the help of diagram. (3)
18. Plants remain healthy for most of their life. Explain how they remain protected from environmental challenges. (3)
19. Cell communicate with each other to perform any function. Explain the process with diagram. (3)
20. Explain the process of apoptosis. How does it differ from necrosis? (3)
21. How do animals protect themselves from pathogens? (3)
22. Enlist any five points of difference of different muscle tissues. (3)
23. Explain the procedure or technology that can help infertile couples to solve their problems related to their reproductive health. (3)
24. What is genetic recombination? Explain any two in terms of bacteria. (3)
25. State the difference between bone and cartilage. (3)

    (OR)

    Compare chlorenchyma and parenchyma cells.

SECTION D

26. Explain the structure with diagram and function of the organelle known as the power house of the cell.

    (OR)

    Explain triple fusion in plants with the help of diagram. (5)
27. Write the application of Biotechnology in various industries (any five) (5)
28. Explain vascular tissues with the help of diagram. (5)

    (OR)

    Living cells must maintain their shape. How do they maintain their shape.

    Draw a well labeled diagram of Golgi apparatus.

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DELHI PUBLIC SCHOOL, BHILAI (C.G.)
FIRST TERMINAL EXAMINATION, 2018
MATHEMATICS (041) CLASS: XI

DATE : 17-09-2018 **Time : 3 Hours**

M.M :100

GENERAL INSTRUCTIONS:

a) All questions are compulsory

b) The question paper consists of 29 questions divided into four sections A, B, C and D. Section A comprises 4 questions of 1 mark each, Section B comprises 8 questions of 2 marks each, Section C comprises 11 questions of 4 marks each and Section D comprises 6 questions of 6 marks each.

c) All questions in Section A are to be answered in one word, one sentence or as per the exact requirement of the question.

d) There is no overall choice. However internal choice has been provided in 3 questions of 4 marks each and 3 questions of 6 marks each. You have to attempt only one of the alternative in all such questions.

SECTION A

1 Write the set $\{2,5,10,17,26 \ldots\ldots\}$ in set builder form

2 If $A = \{a, b, c\}, B = \{x, y, z, w\}$. Find how many relations are from A to B

3 Find the value of $2\ sin^2\frac{\pi}{6} + cosec^2\frac{7\pi}{6}$

4 Write the argument of the complex number $-3i$

SECTION B

5 If A,B and C a three sets such that $A \cup B = C$ and $A \cap B = \emptyset$, then show that $A = C - B$

6 Find the domain of the function $\frac{x+7}{x^2-8x+12}$

7 Find the value of $tan\frac{\pi}{8}$

8 Solve the equation for x : $sec^2 2x = 1 - \tan 2x$

9 If $a + ib = \frac{(x+i)^2}{2x^2+1}$, then prove that $a^2 + b^2 = \frac{(x^2+1)^2}{(2x^2+1)^2}$

10 Find the least positive integral value of m for which $\left(\frac{1+i}{1-i}\right)^m = 1$.

11 Solve the inequality for x: $\frac{x}{4} > \frac{5x-2}{3} - \frac{7x-3}{5}$

12 How many different words can be formed with the letters of word 'ORDINATE" so that vowel occupy odd places.

SECTION C

13 Let A and B be two sets, if $A \cap X = B \cap X = \emptyset$and $A \cup X = B \cup X$ for some sets X, then show that A = B(using properties of sets only)

14 Find the domain and range of the function, $f(x) = \sqrt{8 - x^2}$

15 Prove that $\tan 4x = \frac{4\tan x(1-tan^2 x)}{1-6\,tan^2 x+tan^4 x}$

16 Prove that $\sin 10° \sin 30° \sin 50° \sin 70° = \frac{1}{16}$

OR

Solve the equation for x:- $\sec x \cos 5x + 1 = 0$ where $0 < x < \frac{\pi}{2}$

17 In any triangle ABC, prove that $\frac{b^2-c^2}{a^2}\sin 2A + \frac{c^2-a^2}{b^2}\sin 2B + \frac{a^2-b^2}{c^2}\sin 2C = 0$

18 Prove, by principle of mathematical induction, that $n(n+1)(n+5)$ is a multiple of 3

OR

Show that $(2n+7) < (n+3)^2$

19 Find the square root of the complex number $5+12i$

OR

Convert the complex number $\frac{5-i}{2-3i}$ in to polar form.

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

21 How many numbers greater than 50000 can be formed with the digits 0, 2, 3, 5 and 6, no digit being repeated in any number?

22 Find the number of words with or without meaning which can be made using all the letters of the word AGAIN. If these words are written as in a dictionary, what will be the 49^{th} word?

23 How many four letter words each containing 2 vowels and 2 consonants can be formed by the letters of the word 'DAUGHTER'?

SECTION D

24 In a survey of 100 students, the number of students studying various languages were found to be : English only 18, English but not Hindi 23, English and Sanskrit 8, English 26, Sanskrit 48, Sanskrit and Hindi 8 , no language 24. Find :- (i) How many students were studying Hindi (ii) How many students were studying English and Hindi (iii) How many were studying exactly one language.

25 Let R be a relation from N to N defined by $R = \{(a,b): a,b \in N \text{ and } a = b^2\}$. Are the following statements true (i) (a, a) ϵ R for all a ϵ N (ii)(a, b) ϵ R implies that (b, a) ϵ R for all a, b $\in N$ (iii) (a, b) ϵ R and (b, c) ϵ R imply that (a, c) ϵ R ∀ a, , c ϵ N

26 Prove that $cos^4\frac{\pi}{8} + cos^4\frac{3\pi}{8} + cos^4\frac{5\pi}{8} + cos^4\frac{7\pi}{8} = \frac{3}{2}$

OR

Solve the equation for x: $2\sin 2x + 2\sin x + 2\cos x = -1$

27 By principle of mathematical induction, prove that

2+22+222+2222+.....+222…2.(n-digits)= $\frac{2}{81}(10^{n+1} - 9n - 10), \forall$ n ϵ N

OR

Prove by Induction $2.7^n + 3.5^n - 5$ is divisible by 24, for all n ϵ N.

28 (i) If α and β are different complex numbers such that $|\beta| = 1$, then find the value of $\left|\frac{\beta-\alpha}{1-\bar{\alpha}\beta}\right|$

(ii) Find real θ such that $\frac{3+2i\sin\theta}{1-2i\sin\theta}$, is purely real

OR

If $z = 2-3i$, then show that $z^2 - 4z + 13 = 0$, hence find the value of $4z^3 - 3z^2 + 2z + 170$

29 Solve the following system of inequalities graphically: $x + y < 5, 4x + y \geq 4, x + 5y \geq 5$ $x \leq 4, y \leq 3$

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DELHI PUBLIC SCHOOL, BHILAI (C.G.)

FIRST TERM EXAMINATION-2018

Date of Exam: **12.09.2018** | **ENGLISH** | M.M.: **80**

Max. Time: **3 Hrs.** | **Class XI** | No. of printed pages: **3**

General Instructions:

1. The question paper is divided in three sections. All the sections are compulsory
   (a) Section A - Reading Skills (b) Section B - Writing Skills & Grammar (c) Section C - Literature
2. Specific instructions, wherever necessary are given. Follow them strictly.

Section A – Reading Skills (20 marks)

I. **Read the following passage carefully and answer the questions that follow:** **(12 Marks)**

1. Maharana Pratap ruled over Mewar only for 23 years. However, he accomplished so much grandeur during his reign that his glory surpassed the boundaries of countries and time turning him into an immortal personality. He along with his kingdom became immortal because of his valour, sacrifice and patriotism. Mewar had been a leading Rajput kingdom even before Maharana Pratap occupied the throne. Kings of Mewar, with the cooperation of their nobles and subjects, had established such traditions in the kingdom, as augmented their magnificence despite the hurdles of having a smaller area under their command and less population. There did come a few thorny occasions, but soon their flag heaved high in the sky, thanks to the gallantry and brilliance of the people of Mewar.
2. The destiny of Mewar was good in the sense that barring a few kings, most of the rulers were competent and patriotic. This glorious tradition of the kingdom almost continued for 1500 years since its establishment, right from the reign of Bappa Rawal. In fact only 60 years before Maharana Pratap, Rana Sanga drove the kingdom to the pinnacle of fame. His reputation went beyond Rajasthan and reached Delhi. Two generations before him, Rana Kumbha had given a new stature to the kingdom through victories and developmental work. During his reign, literature and art also progressed extraordinarily. Rana himself was inclined towards writing and his works are read with reverence even today. The ambience of his kingdom was conducive to the creation of high quality work of art and literature. These accomplishments were the outcome of a long standing tradition sustained by several generations.
3. The life of the people of Mewar must have been peaceful and prosperous during the long span of time; otherwise such extraordinary accomplishment in these fields would not have been possible. This is reflected in their art and literature as well as their loving nature. They compensate for lack of admirable physique by their firm but pleasant nature. The ambience of Mewar remains lovely thanks to the cheerful and liberal character of its people.
4. One may observe astonishing pieces of workmanship not only in the forts and palaces of Mewar but also in public utility buildings. Ruins of many structures which are still standing tall in their grandeur are testimony to the fact that Mewar was not only the land of the brave but also a seat of art and culture. Amidst aggression and bloodshed, literature and art flourished and creative pursuits of literature and artists did not suffer. Imagine, how glorious the period must have been when the Vijaya Stambha which is the sample of our great ancient architecture even today, was constructed. In the same fort, Kirti Stambha is standing high, reflecting how liberal the then administration was which allowed people from other communities and kingdoms to come and carry out construction work. It is useless to indulge in the debate whether the Vijay Stambha was constructed first or the Kirti Stambha. The fact is that both are standing side by side reveals the proximity between the king and the subjects of Mewar.
5. The cycle of time does not remain the same. Whereas the reign of Rana Sanga was crucial in raising the kingdom to the acme of glory, it also proved to be his nemesis. History took a turn. The fortune of Mewar the land of the brave, started waning. Rana tried to save the day with his acumen which was running against the stream and the glorious traditions for some time.

a) **On the basis of your reading of the passage, answer the following questions by choosing the best of the given choices.** (1 x 4 = 4)

(i) Maharana Pratap became immortal because

(a) he ruled Mewar for 23 years
(b) he added a lot of grandeur to Mewar
(c) of his valour, sacrifice and patriotism
(d) both (b) and (c)

(ii) Difficulties in the way of Mewar were:

(a) lack of cooperation from the nobility
(b) ancient traditions of the kingdom
(c) its small area and small population
(d) the poverty of the subjects

(iii) During thorny occasions:

(a) the pride of Mewar seemed to be lowered
(b) the flag of Mewar was hoisted high
(c) the people of Mewar showed gallantry
(d) most of the rulers heaved a sigh of relief

(iv) Mewar was lucky because:

(a) all of its rulers were competent
(b) most of its people were competent
(c) most of its rulers were competent
(d) only a few of its people were incompetent

b) **Answer the following questions briefly:** (1x6=6)

(i) Who is the earliest King of Mewar mentioned in the passage?
(ii) What was Rana Kumbha's contribution to the glory of Mewar?
(iii) What does the writer find worth admiration in the people of Mewar?
(iv) How could art and literature flourish in Mewar?
(v) What does Kirti Stambha reflect about the administration?
(vi) What does the erection of Vijaya Stambha and Kirti Stambha in the same fort signify?

c) **Find words from the passage which mean the same as each of the following:** (1x2=2)

(i) the character and atmosphere of a place (para 2) (ii) evidence (para 4)

2. **Read the passage given below:** (8)

1. With society changing at a constant speed one thing remains steady our need and desire to learn. Although the classroom is viewed as a traditional setting for learning, it too is changing and evolving at lightning speed. With a growing population, continual techno logical advances and the constant demand for a valuable education, these institutions must continue to provide the materials to meet these changes. Even though it has existed for some time, a growing trend is distance education, as it is quickly becoming an integral part of the learning experience at all levels of higher education. Distance education has traditionally been referred to as correspondence, whereby the student completes the course by mail from another town or city other than that in which the school is located. The student is supplied with the necessary materials — books, tapes or videos and it is upto them to complete assignments by the deadline.

2. The appeal of distance education is that the students are allowed to complete the course at their own pace following their own schedule. The student has the choice of completing a few courses, perhaps out of interest or as a stepping stone for their career. With the growing number of accredited institutions there are numerous opportunities available to students wishing to enrich their lives with a certificate, diploma or degree. The newest trend to hit the distance education scene is the virtual classroom or distance education online. This has opened up a whole new world of opportunities for students.

3. Many schools are now offering distance education courses online with students receiving all course materials and grades as well as handing in assignments, communicating with professors/instructors or chatting with fellow students over the internet. It is also easier for students to access their instructor for clarification about assignment, grades or questions about their courses. From an international perspective, distance education online now gives pupils a chance to easily study at school in other countries. Canadian and international pupils now have the chance to explore each other's education systems without the hassle of acquiring a student visa or incurring expensive travel costs.

4. A few tips to think about before pursuing distance education are, students should be self-disciplined and motivated and should make sure they have the available time during the week to complete the work. Research your institution before enrolling, make sure it's accredited, so you know your certificate, diploma or degree will be recognized upon completion. If you are taking this programme as a requirement for a job, make sure your current or potential place of employment will recognize your certificate upon completion. Ask others who have already taken your course or another programme from the same institution about their experience with the programme or school. Ask yourself what level of involvement you would like from your instructor or other students.

a) On the basis of your understanding of the above passage make notes on it using headings and sub-headings. Use recognizable abbreviations (wherever necessary-minimum four). Also supply an appropriate title to it. (5)

b) Write a summary of the passage in about 80 words. (3)

Section B - Writing Skills & Grammar (30 Marks)

3. International Tobacco Control is an organisation that is working worldwide to spread awareness about the hazards of tobacco use. Create a poster for the organisation highlighting the harmful effects of smoking and tobacco consumption. (4)

OR

Your school, Amity Public School, is organising a 'Rangoli' competition on the occasion of Foundation Day. The Education Officer has consented to be the Chief Guest for the occasion. Draft a notice in about 50 words to be displayed on your school notice board. You are Ritwik/Ritvika, the Cultural Secretary of the school.

4. You are Rahul / Renu of 201, Gautam Enclave, New Delhi. Your colony is plunged in darkness due to frequent, unscheduled breakdowns of the supply of electricity. Write a letter to the editor of "*The Hindustan Times*" drawing the attention of the concerned authorities towards your plight. (6)

OR

As the Head Boy of your school, write a letter to the Principal requesting him to arrange a programme for career counselling for the students of classes XI and XII. Request him to invite experts from several professions to speak to the students to give insight and information.

With the onset of monsoons several mosquitoes borne diseases start spreading. They cause malaria, dengue, chikungunya etc. These diseases can sometimes prove to be fatal. As a concerned student of your school, you have decided to deliver a speech on ways to tackle this issue. Write that speech in about 200 words. (10)

OR

During your visit to the hilly areas of Himachal Pradesh you were moved by the sight of large scale deforestation. You were disturbed by the thought of dangerous consequences of deforestation. Write an article to be published in the school magazine on the harmful consequences of deforestation in not more than 200 words.

6. **The following passage has not been edited. *There is one error in each line. Write the* incorrect word and the correction against the correct blank.** (1 x 4 =4)

	Incorrect	Correct
The Earth himself becomes our enemy	eg. himself	Itself
when an earthquake strike. Every	.....	.....
country an the world is threatened by the	.....	.....
tremendously fury of earthquakes. Their	.....	.....
power exceeds all a forces under man.	.....	.....

7. **Rearrange the following words / phrases into meaningful sentences:** (1x3=3)
   a) old days/ she/ the/ also/ likes/ about/ talk/ to
   b) stores/ she/ to/ at/ shop/ the/ likes/ local
   c) pastries/ delicious/ when/ she/ bakes/ she/ is in/ mood/ the

8. **Change the following sentences from active voice to passive voice:** (1x3=3)
   (a) He wore a blue shirt. (b) I finished the job. (c) We expect good news.

Section C - Literature (30 Marks)

9. **Read the extract given and answer the questions that follow:** (1x3=3)

   1. Now she's been dead nearly as many years
   As that girl lived. And of this circumstance
   There is nothing to say at all.
   Its silence silences.
   a) Who does 'she' refer to?
   b) Explain the sentence 'Its silence silences'.
   c) What does 'circumstance' mean in the extract?

   OR

   And forever, by day and night, I give back life to my own origin,
   And make pure and beautify it;
   (For song, issuing from its birth place, after fulfilment, wandering reck'd or unreck'd, duly with love returns.)
   a) What is the figure of speech used in the first line?
   b) How does the rain benefit the earth? (Mention any two ways)
   c) Explain the last two lines of the extract.

10. **Answer any three of the following questions.** (3 x 3 = 9)
    a) Mention the ways in which the sparrows expressed their sorrow when Khushwant Singh's grandmother died?
    b) List the deeds that led Ray Johnson to describe Akhenaten as 'wacky'.
    c) What were the peculiarities in uncle Khusrove's behavior?
    d) Why did the narrator decide to forget the address?

11. **Answer any one of the following questions in 120 to 150 words.** (6)
    What were the funerary treasures found in Tut's tomb? Why were these treasures buried along with his body?

    OR

    Highlight the tremendous courage and forbearance shown by the two children during the struggle to keep the boat from sinking. What values do you learn from them?

12. **Answer the following question in 120 to 150 words.** (6)
    'The Address' is divided into pre war and post war times. What hardships do you think the girl underwent during these times?

    OR

    Why do the boys Mourad and Aram think that they had not stolen the white horse even though they had kept it with them for a long time? Why did they return it?

13. Khushwant Singh's grandmother was person of strong character. Give at least four instances to show this from the lesson. (6)

    OR

    What was the drastic decision taken by Carter regarding Tut's mummy? How did he justify it? What advances have taken place in Archaeology since Carter's time?

* * * * *

DELHI PUBLIC SCHOOL, BHILAI (C.G.)

DATE : 14-09-2018 | **FIRST TERM EXAMINATION, 2018** | **Time : 3 Hours**

CLASS : XI | **ACCOUNTANCY** | **M.M : 90**

No. of Pages Printed : 2

General Instructions–

1. Marks of each question have been indicated against it.
2. All questions are compulsory.
3. Avoid overwriting and cuttings.
4. Give calculations or working notes wherever required.
5. All points of the questions should be attempted at one place.

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1) Name the process of transferring entries from a journal to their respective accounts in the ledger. (1)

2) Which document evidences that the credit has been granted to the named person for the reason stated therein? (1)

3) What do you understand by the term casting? (1)

4) When is closing stock shown in the trial balance? (1)

5) Is cash memo a source document or an accounting voucher? (1)

6) Which qualitative characteristics of accounting information is reflected when accounting information is clearly presented? (1)

7) Name the category of accounts that are balanced. (1)

8) Give any three limitations of accounting. (3)

9) Briefly discuss the three branches of accounting. (3)

10) Distinguish between cash discount and trade discount. (3)

11) State three reasons when the cash book balance will be higher than the passbook balance. (3)

12) What do you understand by' Subsidiary Books'? Describe two advantages of preparing such books. (3)

13) What do you mean by source documents? Describe two basic purpose of source documents? (3)

14) Following balances appear in the books of Saumya & Sisters' as on 31st March, 2018.
Assets: Cash in hand ₹ 430; Cash at bank ₹ 2,675; Closing Stock ₹ 9,000; Machinery and Equipment's ₹ 6,000.
Liabilities and Capital: Creditors ₹ 5,600 (Roshan Bros'); Capital ₹ 25,000.
Pass opening entry as on 1st April,2018. (3)

15) Give any four points of distinction between accrual and cash basis of accounting. (4)

16) Giving examples, explain each of the following terms: (4)
i) Fixed Assets (ii) Revenue (iii) Current Liability (iv) Contingent liability

17) State whether the balance of the following accounts should be placed in the debit or the credit columns of the trial balance. (4)
i) Plant and Machinery (ii) Discount received (iii) Bank overdraft (iv) Return inward
(v) Sales (vi) Bad debts (vii) Carriage outward (viii) Provision for depreciation on machinery

18) Name the books of original entry where the following transactions will be recorded with the reasons thereof: (4)
i) Provision for doubtful debts created @ 5% on debtors with book debts of ₹ 10,000.
ii) Received from a salesman of goods (worth ₹ 30,000) sold by him after deducting commission of ₹ 1,500.
iii) Purchased furniture on credit from Mr. Ratan Singh for ₹ 15,000 for use in the business.
iv) Defective goods sold to Babita on credit worth ₹ 4,000 were returned by her.

19) Answer the following:
i) Give examples of services on which GST paid cannot be set off and thus is Cost.
ii) In which cases GST paid (Input GST) is Reversed.
iii) Name the goods and services which are exempted from levy of GST. (6)

20) Journalise the following transactions. (6)
i) Paid custom duty ₹ 11,000 by cheque on import of a new machinery.
ii) Goods worth ₹ 2,000 and cash ₹ 5,000 were given away as charity.
iii) Purchased goods of list price 5000 at 10% trade discount and 3% cash discount from Harsh in cash plus CGST & SGST @ 6% each.
iv) Sold goods to Harish for 50000 allowing 10% trade discount & 5% cash discount Plus CGST and SGST @ 6% each half amount received by cheque which was not deposited into bank.
v) A cheque from a customer amounted to ₹ 15,000 deposited in the bank was returned dishonoured.
vi) Received first and final dividend of 60 paise in rupee from the official receiver of Kartik who owed ₹ 10,000.

21) Explain the following concepts with example: (6)
(i) Money measurement concept.
(ii) Going concern concept.
(iii) Principle of consistency.

22) Show the Accounting Equation on the basis of the following transactions: (6)

i) Anil commenced business with cash ₹ 1,50,000; goods ₹ 60,000; machinery ₹ 1,00,000 and furniture ₹ 50,000.

ii) 1/3rd of the above goods sold at a profit of 10% on cost and amount is received in cash.

iii) Depreciation on machinery provided @ 10%.

iv) Cash withdrawn for personal use ₹ 10,000.

v) Purchased goods for ₹ 20,000 from Samar and paid half amount in cash.

vi) Goods sold to Gupta for ₹ 10,000 (costing ₹ 8,000) and received a Bill Receivable for the same amount for three months.

23) Prepare a sales book from the following transaction of Harish Furniture House Bombay: (6)

May 1. Sold goods to Rahim of Agra on credit
150 Chairs @ ₹ 150 each
40 Tables @ ₹ 450 each
Trade Discount 10%
IGST@18%

May 15. Sold to Mohan Furniture House Bombay for cash
10 Almirah @ ₹ 1,500 each
120 Chairs @ ₹ 175 each
Trade Discount @ 15%
CGST & SGST @18% each.

May 25. Sold to Sanjay Furniture House, Chandigarh
9 Dozens chairs @ ₹ 180 per chair
5 Sofa Sets @ ₹ 2,250 each
Less 5% Trade Discount
IGST @ 18%.

May29. Sold on credit to M/s R.K. Machinery Stores, Delhi
2 Old machines @ 1,500 per machine
1 Old typewriter for ₹ 2,200
IGST @ 18%

24) Write up the following transactions in a Cash Book with Bank columns: (8)

March 1 Balance in hand ₹ 15,000; Overdraft at bank ₹ 30,000
March 2 Further capital introduced ₹ 50,000 out of which ₹ 20,000 deposited in the bank.
March 6 Sold goods to Varun and received cheque from him ₹ 25,000.
March 8 Received from Karan on behalf of Kunal ₹ 15,000.
March 10 Interest debited by bank ₹ 3,000.
March 14 Settled Suresh's a/c of ₹ 3,030 by a cheque of ₹ 3,000.
March 20 The cheque of Varun is returned as dishonoured by the bank.
March 23 Cashed a cheque for ₹ 4,500.
March 25 Purchased goods from Manish ₹ 11250 Plus IGST 10%.
March 27 Paid for acceptance of ₹ 3,000 to Pankaj for three months under rebate of ₹ 200.
March 29 Paid telephone bill ₹ 1120 by cheque including SGST and CGST @6% each.
March 30 Drew from bank for Income tax ₹ 4,000.

25) Prepare a Bank Reconciliation Statement of M/s Mohan on 30th June, 2018 with the following particulars : (8)

a) Pass Book showed an overdraft of ₹ 15,000 on 30th June, 2018.
b) A cheque of ₹ 200 was deposited in the bank but not recorded in Cash Book.
c) Cheques of ₹ 17,000 were issued but cheques worth only ₹ 10,000 were presented for payment up to 30th June, 2018.
d) Cheques of ₹ 2,000 were received, recorded in cash book but not sent to bank.
e) Bank paid ₹ 300 fee of chamber of commerce on behalf of Mohan, which was debited in Cash Book.
f) Bank charged interest on overdraft ₹ 800 which was not credited in Cash Book.
g) ₹ 40 for bank charges were recorded two times in cash book & interest on overdraft of ₹ 35 were not at all recorded in Cash Book.
h) Total of credit side of bank column of Cash Book was under-cast by ₹ 1,000.

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DELHI PUBLIC SCHOOL, BHILAI (C.G.)

FIRST TERM EXAMINATION, 2018

PHYSICS

DATE : 14-09-2018 **Time : 3 Hours**

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

General Instructions –

i) All questions are compulsory.

ii) Section A contains 5 questions of 1 mark each, Section B contains 5 questions of 2 marks each, Section C contains 12 questions 3 marks each, Section D contains one value based questions of four marks and Section E contains 3 questions of 5 marks.

iii) There is no overall choice. However, an internal choice has been given in one question of 2 marks, one question of 3 marks and in all the three questions of 5 marks.

iv) Use of calculator is prohibited.

SECTION A

1) Name the physical quantity which has unit, but no dimensional formula. 1

2) Draw position-time graph for two objects having zero relative velocity. 1

3) A cubical block rests on an inclined plane of $\mu = \frac{1}{\sqrt{3}}$. Determine the angle of inclination, when the block just slides down the incline plane. 1

4) A light body and a heavy body have same kinetic energy. Which one will have greater momentum? Justify your answer. 1

5) What are the physical quantities that get conserved in both elastic and inelastic collisions? 1

SECTION B

6) (a) State the principle of homogeneity of dimensions. 2

(b) Check the dimensional consistancy of the equation $F = 6\pi\eta r^2 v$
(where F= force, η = coefficient of viscosity, r = radius, v = speed)

7) The velocity-time relation of a particle starting from rest is given by V= Kt. Where K=2m/s^2. Calculate the distance travelled by the particle in 3 second. 2

8) Define limiting friction. What will happen to limiting friction, if

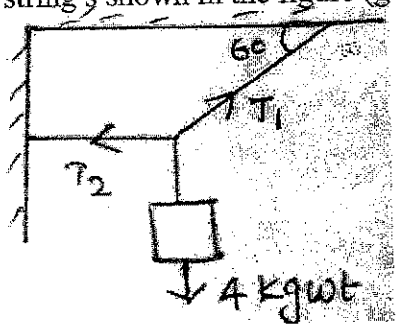
a) area of contact is doubled?

b) weight of the body is doubled? 2

9) Two masses 8 kg and 12 kg are connected at the two ends of the light inextensible string that goes over a frictionless pulley. Find the acceleration of the masses and the tension in the string, when the mases are released (g=10m/s^2) 2

(OR)

Determine the tensions T_1 and T_2 in the string s shown in the figure (g=10m/s^2)



10) a) What do you mean by conservative force? Give one example. 2

b) When conservative force does positive work on a body, will the potential energy of the body increases or decreases? Justify.

SECTION C

11) A large fluid star oscillates in shape under the influence of its own gravitational field. Using dimensional analysis, find the expression for period of oscillation (T), in terms of radius of the star (R), mean density of the fluid (ρ) and universal gravitational constant (G). 3

12) a) Write any two limitations of dimensional analysis.

b) In the equation $y = a\sin(\omega t - kx)$, t *and* x stands for time and distance respectively. Obtain the dimensional formula for ω and k. 1+2=3

13) a) Distinguish between the terms precision and accuracy of a measurement.

b) A physical quantity X is given by $X = \frac{a^2b^3}{c\sqrt{d}}$. If the percentage errors of measurement in a,b,c and d are 4%, 2%, 3% and 1% respectively, then calcualte the percentage error is X. 1+2=3

14) Define centripetal acceleration. Derive an expression for the centripetal acceleration of a body moving with uniform speed V along a circular path of radius r. Give its direction. 3

15) The position of a particle is given by $r = 3.0t\hat{i} + 2.0t^2\hat{j} + 5.0\hat{k}$. Where t is in second and 'r' in metre. (a) Find v(t) and a(t) of the particle. (b) Find the magnitude of v(t) at t =1 s. 3

16) a) Define cross product of two vectors.

b) Determine a unit vector perpendicular to both $\vec{A} = 2\hat{\imath} + \hat{\jmath} + \hat{k}$ and $\vec{B} = \hat{\imath} - \hat{\jmath} + 2\hat{k}$ 1+2=3

17) Two parallel rail tracks run north south. Train A moves north with a speed of 54 km/h and train B moves south with the speed of 90 km/h. What is the

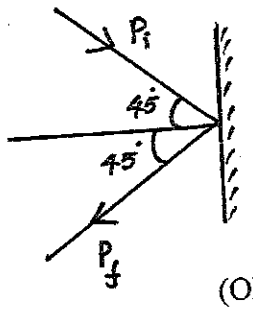
(a) relative velocity of B with respect to A?

(b) relative velocity of ground with respect to B?

(c) Velocity of a monkey running on the roof of the train 'A' against its motion (with a speed of 18 km/h with respect to the train A) as observed by the man standing on the ground? 3

18) a) Define Impulse. Write its SI unit.

b) A ball moving with a momentum of 5 kgm/s strikes against a wall at an angle of 45° and is reflected at the same angle. Calculate the change in momentum. $[|P_i|)=|P_f|]$



(OR)

a) State the law of conservation of linear momentum.

b) A bomb at rest explodes into three fragments of equal masses. Two fragments flyoff at right angles to each other with velocities 9 m/s and 12 m/s respectively. Calculate the speed of the thrid fragment. 1+2=3

19) A body tied to one end of a string is made to revolve in a vertical circle. Derive the expression for velocity of the body and tension in the string at any point. Hence obtain the condition for "looping the loop". 3

20) State the law of conservation of energy. Show that the total mechanical energy of a body falling freely under gravity is conserved. Show it graphically. 3

21) a) Define power. Prove that $P = \vec{F}.\vec{V}$, where the symbols have their usual meanings.

b) A body is initially at rest. It undegoes one dimensional motion with constant acceleration. How is the power (P) related to time 't'? 2+1=3

22) a) State Work-Energy Theorem. Prove it for a variable force.

b) While catching a cricket ball of mass 0.2 kg moving with the speed of 20 m/s, the player draws his hand backward through 20 cm. Find the workdone in catching the ball. 2+1=3

SECTION D

23) Kavitha and her family was shifting to another city. Her mother asked for her help and pack the showpieces and crockery items carefully in paper and then in cardboard. Kavitha asked the reason for doing so. Mother answered her question so that Kavitha understood the reason for packing fragile items in paper or straw.

a) What values of Kavitha and her mother do you appreciate ? (one value for each).

b) What is the basic principle behind, packing fragile items in paper or straw? Explain. 2+2=4

SECTION E

24) a) A projectile is fired with a velocity 'u' making an angle θ with the horizontal. Show that its trajectory is a parabola.

b) A body is projected such that the kinetic energy at the the top is $3/4^{th}$ of its initial kinetic energy. What is the initial angle of projection with horizontal?

(OR)

a) Two vectors $\vec{A}$ *and* $\vec{B}$ are inclined to each other at an angle θ. Derive an expression for magnitude and diection of their resultant.

b) A motor boat is racing towards north at 25 km/h and the water current in that region is 10 km/h in the direction of 60° east of south. Find the magnitude of the resultant velocity of the boat. 3+2=5

25) a) What do you mean by banking of curved road? Derive an expression for the maximum speed with which the vehicle can negotiate a banked curve.

b) A cyclist speeding at 18 km/h on a level road takes a sharp circular turn of radius 3 m without reducing the speed and without bending towards the centre of the ciruclar path. The coefficient of fiction between the tyres and road is 0.1 Will the cyclist slip while taking the turn? ($g=10\ m/s^2$)

(OR)

(a) Define angle of friction and angle of repose. Obtain their relation with coefficient of static friction. Write the relation between angle of friction and angle of repose.

(b) A man of 65 kg stands stationary with respect to a horizontal conveyor belt that is acclerating with $1m/s^2$. What is the net force acting on the man? If the coefficient of static friction between man's shoes and the belt is 0.2, up to what acceleration of the belt can the man continue to be sationary relative to the belt? 3+2=5

26) a) What do you mean by elastic potential energy?

b) Derive an expression for the potential energy of an elastic spring with necessary figure.

c) Draw a graph showing the variation of potential energy and kinetic energy of a block attached to a spring, which obey's Hooke's law.

(OR)

(a) What do you mean by elastic collision?

(b) Prove that in an elastic one dimensional collision between two bodies, the relative velocity of approach before collision is equal to the relative velocity of separation after collision.

(c) Show that when two bodies of equal masses collide elastically in one dimension, their velocities get exchanged after collision. 1+3+1=5

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DELHI PUBLIC SCHOOL, BHILAI (C.G.)

Date: 04.09.2018 | **First Term Examination, 2018** | **Time: 50 Min.**

Class: XI | **General Knowledge** | **M.M. : 50**

Name : _____ **Roll. No.**_____ **Class/Sec.**_____

Invigilator's Sign. _____

General Instructions :

- **All the questions are compulsory.**
- **Each question carries one mark.**
- **Write the correct answer in the box given against the question.**

1) Who was elected as the president of the constituent assembly on 11December 1946?
   a) Dr.Rajendraprasad b) Dr. B R Ambedkar
   c) Dr. Sachhidananda Sinha d) A K S Ayyar
2) Former Prime Minister Atal Bihari Vajpayee received 'Bharat Ratna' in the year
   a) 2014 b) 2015 c) 2016 d) 2018
3) 'Pattachitra' is traditional painting belongs to -
   a) Maharashtra b) Kerala c) Uttar Pradesh d) Odisha
4) The first nuclear reactor in India is -
   a) Dhurva b) Harsha c) Apsara d) Vipula
5) The new Prime Minister of Pakistan, Cricketer Imran Khan leads which of the political party,
   a) PML b) PTI c) MQM d) PPP
6) Armed Forces Flag day is observed on
   a) December 7 b) December 25 c) December 31 d) December 18
7) Jai Ram Thakur, is the chief minister of the state of,
   a) Hariyana b) Himachal Pradesh
   c) Uttarakhand d) Rajasthan
8) 'Prithvi' is –
   a) Figher Plan b) Pilotless Target Aircraft
   c) Surface to surface Missile d) Unmanned Air Vehicle
9) National Defence Academy is situated at
   a) Khadakvasla b) New Delhi c) Wellington d) Dehradun
10) Azad Hind Express runs between –
   a) Howra -Pune b) Durg – Allahabad
   c) Nagpur -New Delhi d) Raigarh-H.Nizamuddin
11) First speaker of Loksabha was –
   a) G.V.Malvankar b) Sachindra Ray
   c) S. Mukherjee d) Manohar Joshi
12) Which of the following states became the first to ratify GST Bill?
   a) Bihar b) Asom c) Kerala d) Chhattisgarh
13) The chairman of the GST council is
   a) RBI Governor b) Prime Minister c) Finance Minister d) President of India
14) A gold mining place Kolar is situated in -
   a) Madhya Pradesh b) Maharashtra
   c) Andhra Pradesh d) Karnataka
15) The is the supreme commander of all the three wings of our armed forces-
   a) President b) Vice-President c) Defence Minister d) Prime Minister
16) Money Bills can only be introduced in the
   a) Lok Sabha b) Rajya Sabha
   c) Joint Session of both Houses d) The President
17) Who officiates the oath post & secrecy to the newly elected President of India?
   a) The Prime Minister b) Chief Justice of India
   c) Speaker of Lok Sabha d) Vice President
18) Cobalt -60 is used for
   a) Checking Blood Group b) X-ray of alimentary canal
   c) X-ray of brain d) Treatment of cancer
19) The main component of bones and teeth is -
   a) Calcium Carbonate b) Calcium Phosphate
   c) Calcium Sulphate d) Calcium Nitrate
20) Which of the following is responsible for the spread of dengue?
   a) Anopheles mosquito b) Cuiex mosquito
   c) Aedes mosquito d) Marsh mosquito
21) Which of the following glands secrete tears?
   a) Lachrymal b) Pituitary c) Thyroid d) Pancreas
22) Total volume of blood in a normal adult human being is
   a) 3-4 litres b) 5-6 litres c) 8-10 litres d) 10-12 litres
23) Potato is the modified form (outgrowth) of
   a) root b) leaf c) flower d) stem

P.T.O.

24) The vegetation of the Thar desert consists of
a) Xerophytes b) Hydrophytes c) Mesophytes d) Thallophytes

25) Which of the following creatures has no blood but respires -
a) Cockroach b) Earthworm c) Fish d) Hydra

26) Which one of the following is the smallest district of C.G. State?
a) Bijapur b) Dantewada c) Korba d) Kavardha

27)) In which of the following districts are Chitrakot waterfall situated?
a) Bastar b) Sarguja c) Bilaspur d) Durg

28) ICC World Cup 2019 will be jointly hosted by
a) Australia and New Zealand b) South Africa
c) Srilanka d) England

29) The main constitutes of bronze are –
a) Nickel & Chromium b) Lead & Tin
c) Copper & Zinc d) Copper & Tin

30) The chief constituent of LPG is
a) hydrogen b) methane c) ethane d) Propen

31) Plaster of Paris is made from –
a) bauxite b) cysteine c) glycine d) gypsum

32) The chemical which is used to purify water is
a) Borax b) Sodium benzoate
c) Potassium permanganate d) Sodium Hydroxide

33) The chemical name of a major constituent of Bio gas is
a) hydrogen b) methane c) ethane d) Propen

34) Which of the following is the hardest substance?
a) Copper b) Diamond c) Iron d) Silicon

35) Which of the following laws does not relate to gases?
a) Boyle's law b) Charles's law c) Gay-Lussacs law d) Ohm's Law

36) When ice melts in a beaker of water, the level of water in the beaker will –
a) increase b) decrease
c) remain same d) first increase then decrease

37) A submarine works on the principle of
a) Newton b) Archimedes c) Boyle d) Pascal

38) Velocity of sound is minimum in
a) Air b) Water c) Steel d) Vacuum

39) Unit of energy used in atomic physics-
a) joule b) electron volt c) erg d) kwh

40) The colours in a rainbow are due to
a) Interference b) Reflection c) Diffraction d) Dispersion

41) A rocket works on the principle of conservation of
a) Mass b) Energy
c) Linear momentum d) Angular momentum

42) How do we better know the South Indian actor, Shivaji Rao Gaikwad?
a) Rajnikanth b) Nagarjun c) Dhanush d) Chiranjeevi

43) A SONAR which detects the presence of an underwater debris of a sunken ship uses –
a) Sound waves b) Radio waves c) Infrared waves d) Ultrasonic waves

44) The total energy radiated from a black body is equal to the fourth power of its absolute temperature is –
a) Coulomb's law b) Pascal's law
c) Hooke's law d) Stefan's law

45) Which of the following mirrors is used as rear view mirror?
a) convex mirror b) concave mirror
c) plane mirror d) paraboloidal mirrer

46) Manometer is used to measure
a) Earth quakes b) Rainfall c) Ocean depth d) Gas pressure

47) Philately is the study of
a) Coins b) Numbers c) Stamps d) Space

48) 'Samaveda' chiefly contains :
a) early Aryan culture b) methods of vedic yagnas
c) collection of hymns to God d) Origin of Hindu Gods

49) The first lady Prime Minister of the world was –
a) Smt. Sirimavo Bandaranaike b) Mrs. Margaret Thatcher
c) Smt. Indira Gandhi d) Mrs. Golda Meir

50) Which game is associated with the Durand Cup?
a) Hockey b) Football c) Badminton d) Golf

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