## Annual Examination 2014-15

## Time: 3:00 Hrs.

Q. 1 Explain the systems of Accounting.
Q. 2 What do you mean by Bank Reconciliation Statement? Write any two importance of this.
Q. 3 What do you mean by Intangible Assets? Give two example.
Q. 4 Write any three difference between SLM \& WDV methods of depreciation.
Q. 5 Explain any three characteristics of Balance Sheet.
Q. 6 Write any three difference between Single entry system \& double entry system.
Q. 7 Write 3
Q. 7 What do you mean by NPO? Explain any two features of NPO.
Q. 8 What do you mean by bills of exchange? Explain the parties of bills of exchange.
Q. 9 From the following information's calculate opening stock :

| Cash purchase | 70000 | Closing stock | 40000 |
| :--- | ---: | :--- | :--- |
| Credit purchase | 55000 | Salary \& wages | 10000 |
| Total sales | 160000 | Carriage inwards | 4000 |
| Cash sales | 40000 | Sales return | 20000 |
| Royalty | 7000 | Return outwards | 5000 |
| Audit fees | 12000 | Grass profit | $25 \%$ at cost |

Q. 10 On the basis of following information's calculate the amount to be debited to stationery Account in the income \& expenditure a/c for the year ended $31^{\text {st }}$ March 2010.

|  |  |
| :--- | :--- |
| Stock of stationery on 1 ${ }^{\text {st }}$ April 2009 | 3560 |
| Creditors for stationery on 1 ${ }^{\text {st }}$ April 2009 | 6720 |
| Advance amount paid for stationer on 1 ${ }^{\text {st }}$ April 2009 | 1850 |
| Amount paid for stationery during the year | 18200 |
| Stock of stationery on 31 $1^{\text {st }}$ March 2010 | 4310 |
| Creditors for stationery on 31 ${ }^{\text {st }}$ March 2010 | 6290 |
| Advance amount paid for stationer on 31 ${ }^{\text {st }}$ March2010 | 2590 |

Q. 11 Prepare opening entry from following balances and show balance in Bills Receivable and Creditors A/c

| Cash a/c | 42000 | Bills receivable | 25000 |
| :--- | :--- | :--- | ---: |
| Bank overdraft | 15000 | Closing stock | 18000 |
| Debtors | 58000 | Capital | 100000 |
| Creditors | 32000 | Outstanding expenses | 5000 |
| Bills payable | 18000 | Accrued Rent | 7000 |

Q. 12 Pass necessary rectify entries for following errors :-
(i) Goods sold to Kapil` 28000 but debited to Karan a/c` 2000.
(ii) Depreciation charged on machine` 3700 but machine a/c were debited` 700\& depreciation a/c were credited`3000 . Q. 13 Pass necessary Journal entries for following transaction in the Books of Rajat (i) Mohit sold goods to Rajat` 180000 (T.D $10 \%$. C.D. $5 \%, 60 \%$ Cash)
(ii) Rajat sold goods to Narayan `250000. (T.D. 20\%, VAT-10\%) Q. 14 From the following information prepare P.B.D. P.D.D. a/c: Balance in trial Balance : Debtors` 137250, PBD` 12350 , PDD` 4400

Discount Received` 1200, Discount allowed` 1080
Bad debts`6700, creditors` 107250
Adjustment : (i) F.B.D. ${ }^{`} 7250$, (ii) $\mathrm{PBD}-8 \%$, (iii) PDD $-2 \%$.
Q. 15 Mohan Lal keeps incomplete records of his business. From the following information calculate profit or loss of his business during the accounting period.

| Particulars | $1^{\text {st }}$ April 2009 | $31^{\text {st }}$ March 2010 |
| :--- | :---: | :---: |
| Cash in hand | 4500 | 3500 |
| Bank Balance | 8500 | 7500 |
| Furniture | 12000 | 10800 |
| Stock | 21800 | 23000 |
| Creditors | 24000 | 25400 |
| Debtors | 23600 | 24800 |

During the year, he withdrew `500 P.m. for his household needs \& withdrew goods` 3000 for domestic use. During the year he sold his motorbike for ` 10000 \& introduced \({ }^{`} 8000\) into the business.
Q. 16 Prepare a Bank reconciliation statement as on 31-3-2010 from the following information -
(i) Credit balance as per pass book`3450 . (ii) Cheque deposited in to the Bank` 8500 but cheque for only`6850 were credited by Bank till date. (iii) Cheques drawn for` 7450 of which cheques $C$ were cashed by 31-3-2010.
(iv) Bank credited ` 200 for interest \& debited` 120 for Bank charges.
(v) A customer deposited `800 in our Bank account is recorded twice in the Cash Book. (vi) Pass book deposit column total under cast by` 2100
Q. 17 Prepare a Receipts and Payments A/c from the following information

| Particular | Amount | Particular | Amount |
| :--- | ---: | :--- | ---: |
| Opening balance | 13475 | Total subscription received during the year | 51400 |
| Subscription received for next year | 5470 | Subscription outstanding for current year | 6240 |
| Depreciation charged on Assets | 3200 | Salary paid for current year | 13500 |
| Salary paid for previous year | 1200 | Salary out standing for current year | 1440 |
| General expenses paid | 4200 | Total Furniture purchased (40\% on credit) | 15000 |
| Sale of Furniture (Book value ) | 5200 | Profit on sale of furniture | 850 |
| Paid insurance premium | 1820 | Sports Material purchased | 7840 |

Q. 18 From the following information's prepare a machine $\mathrm{a} / \mathrm{c}$ for three years :-
1.01.04 Purchase machine I `300000 1.07.04 Purchase machine II` 200000
1.04.05 Sold half part of II machine `85000 1.01.06 Sold machine I` 248000
1.10.06 Purchase machine III ` 100000

Closing date for each year $31^{\text {st }}$ December. Depreciation changed on machinery @ $10 \%$ per annum on original cost.
Q. 19 A sold goods to the value of`12000 to B. taking a bill at 3 months on \(1^{\text {st }}\) July 2009. A discounted the bill on \(4^{\text {th }}\) August \(2009 @ 5 \%\) P.A. with his banker. On the maturity Date the bill was dishonored \&paid for it` 200 for noting charges. B paid`3200 in cash and accepted a new bill for balance with interest @ \(6 \%\) per annum for two months. This bill was endorsed to C. on the due date of new bill B become in solve. Cpaid` 110 for noting charges. A received $75 \%$ amount in final settlement from B. Make the entries in A's Journal recording the above transactions.
Q. 20 From the following Trial Balance prepare Financial statements for the year ended $31^{\text {st }}$ March 2011.

| Debit Balance | Credit Balance |  |  |
| :--- | ---: | :--- | ---: |
| Salaries | 10200 | Sales | 66420 |
| Bills Receivable | 6400 | Capital | 50000 |
| Investments | 40000 | Provision for Bad debts | 2500 |
| Furniture | 12000 | 10\% loan (1.10.2010) | 10000 |
| Opening stock | 4500 | Discount received | 400 |
| Purchase | 30000 | Sundry creditors | 9300 |
| Debtors | 20000 | Bills payable | 5000 |
| Interest on loan | 400 | Outstanding salary | 500 |
| Insurance premium | 900 | Bad debts recovered | 200 |
| Wages | 4600 | Interest on Investment | 2000 |
| Rent | 1520 | Commission received | 7000 |
| Bad debts | 1200 |  |  |
| Carriage out wards | 600 |  |  |
| Cash at Bank | 10000 |  |  |
| Depreciation (Furniture) | 2500 |  |  |
| Accrued Commission | 1000 |  | $\mathbf{1 5 3 3 2 0}$ |
| Advertisement | 7500 |  |  |
|  | $\mathbf{1 5 3 3 2 0}$ |  | Total |

Adjustments :
(i) Closing stock`6000. (ii) Goods costing` 1000 were distributed as free sample \& Goods costing ` 500 were taken by the proprietor for personal use. (iii) A credit sale of` 2000 was not recorded in books
(iv) Maintain provision for Doubtful debts @ $5 \%$.
(v) Prepaid rent` 320.

## OR

The following is the Receipts and Payment Account of a New Sports Club for the year ended $31^{\text {st }}$ December 2009-

| Receipts | Payments | $`$ |  |  |  |  |  |  |
| :--- | ---: | :--- | ---: | :---: | :---: | :---: | :---: | :---: |
| To Cash-in hand | 150 | By Grounds men's fees | 1500 |  |  |  |  |  |
| To Cash in Bank | 2100 | By moving Machine | 1100 |  |  |  |  |  |
| To Subscriptions | 5800 | By Rent | 500 |  |  |  |  |  |
| To Tournament Fund | 1500 | By Salaries to Coaches | 3600 |  |  |  |  |  |
| To Life Membership Fees | 2000 | By Tournament Expenses | 900 |  |  |  |  |  |
| To Entrance Fees | 200 | By Office Expenses | 2400 |  |  |  |  |  |
| To Donations for Pavilion | 3000 | By Sports Equipment purchased | 1200 |  |  |  |  |  |
| To Sales of grass | 100 | By Cash in hand | 350 |  |  |  |  |  |
|  |  | By Cash at Bank | 3300 |  |  |  |  |  |
| Total |  |  |  |  |  | $\mathbf{1 4 8 5 0}$ | Total | $\mathbf{1 4 8 5 0}$ |

Subscriptions due on $31^{\text {st }}$ December, 2008 and on $31^{\text {st }}$ December, 2009 were `900 and` 800 respectively. Subscription received also included subscriptions for $2010{ }^{`} 200$. Sports equipment on hand on $31^{\text {st }}$ December, 2008 was `1100. The Value placed on equipment on hand on \(31^{\text {st }}\) December 2009 was` 1300. The moving machine was purchased on $1^{\text {st }}$ July, 2009 and is to be depreciated @20\% p.a. Office Expenses include `300 for 2008 and` 400 are still due for payment. Tournament receipts and expenses are to be separated from general incomes and expenses. Prepare Income and Expenditure Account and Balance Sheet relating to 2009.

## ORAL

## Annual Examination 2014-15

Time: 3:00 Hrs.
Q. 1 Draw k.map for the following Boolean function -
$\mathrm{F}(\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D})=\Sigma(0), 3,7,8,9,12,13,15)$.
Q. 2 Draw the circuit diagram of the function -
$\mathrm{A}^{\prime} \mathrm{BC}+\mathrm{ABC}^{\prime}+\mathrm{A}^{\prime} \mathrm{B}^{\prime} \mathrm{C}^{\prime}$
Q. 3 Prepare Truth Table for the following Boolean equation $\mathrm{F}(\mathrm{A}, \mathrm{B}, \mathrm{C})=\mathrm{A}^{\prime} \mathrm{B}+\mathrm{BC}+\mathrm{AC}$
Q. 4 Define cardinality and Degree.
Q. 5 What will be the output of the following code form the option I to IV?
\# include <stdlib.h>
\# include <iostream.h>
void main ()
\{ randomize ();
int $\quad \operatorname{Xcore}()=\{25,20,34,56,72,63\}$;
int Myscore ;
Myscore $=$ Score [ +2 random [(2)];
Cont $\ll$ Myscore $\ll$ endl;

```
}
```

(i) 25
(ii) 34
(iii) 20
(iv) None of the above
Q. 6 Find the output of the following program -
\# include $<$ string.h $>$
\# include < stype.h>
void change (char msg [ ], int len)
\{ $\quad$ for (in count -0 ; count $<$ len ; count ++ )
\{ $\quad \operatorname{if}($ islower (Msg [ count ] ))
msg [count] $=$ topper ( msg (count) );
else
$\operatorname{if}($ is upper(msg[count] $)\}$
$\operatorname{msg}$ [count]=tolower[msg(count)];
else
if (isdigit (msg(count)))
$\operatorname{msg}($ count $)=\operatorname{Msg}[$ count $]+1$;
else
msg (count) $=$ ' $*$ ';
void main ()
\{ char message ( $)=$ " 2005 tests ahead";
int size $=$ strlen (message);
count $\ll$ Message $\ll$ endl;
for (int $\mathrm{C}=0 ; \mathrm{R}=$ size $-1 ; \mathrm{C}<=$ size $/ 2 ; \mathrm{C}++, \mathrm{R}--$ )
char $\mathrm{t}=$ message ( C ).
message (C)=Message (R);
message ( R ) $=\mathrm{t}$;
\}
cout $\ll$ Message $\ll$ endl;
\}
Q. 7 What will be the output of the following program :-

```
        # include <lostream.h>
            Void main ()
{ int V1 = 5, V2=10;
        for (int x=1;x<=2;x++)
{ cout <<++VV1<<" / t" << V2 --<<endl.
    cout <<--V2<<"/t"}<<\mathrm{ V1++<<<endl;
}
}
```

Q. 8 Consider the following table STORE. Write SOL command for the following statements :-

| Item No. | Item | Scode | Qty. | Rate | Last Buy |
| :---: | :--- | :---: | :---: | :---: | :---: |
| 2005 | Sharpener classic | 23 | 60 | 8 | 31-Jun-09 |
| 2003 | Ball pen 0.25 | 22 | 50 | 25 | $01-\mathrm{Feb}-10$ |
| 2002 | Gel pen Premium | 21 | 150 | 12 | 24-Feb-10 |
| 2006 | Gel pen Classic | 21 | 250 | 20 | 11-Mar-09 |
| 2001 | Eraser Small | 22 | 220 | 6 | 19-Jan-09 |
| 2004 | Eraser Big | 22 | 110 | 8 | 02-Dec-09 |
| 2009 | Ball pen 0.5 | 21 | 180 | 18 | 03-Nov-09 |

(i) To display detail of all the items in the store table in ascending order of Last Buy.
(ii) To display Item No. and Item name of those items from store table whose Rate is more than 15 Rupees.
(iii) To display the detail of those item whose supplies code (Scode) is 22 or Quantity is more than 110 from the table store.
(iv) To display minimum Rate of items for each supplier code individually as per scode from the table store.
Q. 9 Write programs for the following :-
(i) WAP to print an integer array reversely
(ii) WAP to count total no of spaces and digits from a given string.
(i) WAP to check whether a given no is prime or not.
(ii) WAP to take 5 subject marks of a student and prepare the marks sheet of the student use following structure.
struct stud
\{ int marks [5];
char name [10];
int total;
float per;
\};
(iii) WAP to print factorial series like; :-

$$
0,1,2,6,24,120 \ldots \ldots \ldots \ldots
$$

(iv) WAF function to calculate area of a circle.
Q. 10 Explain default argument function with suitable example.
Q. 11 Define :-
(i) Auto
(ii) function adding
(iii) software
(iv) compiler
Q. 12 Rewrite the following codes often removing all error. Underline each correction :-
? include <iosteam.h>
(i)

Void main [ ]
\{ integer $\quad \mathrm{a}=1 ; \mathrm{b}=2 ; \mathrm{c}=\mathrm{a}+\mathrm{b}$;
cout $\ll \mathrm{a} \gg \mathrm{b}, \mathrm{c}$;
getch( );
\}
(ii)
\# include <iostream.h>
\# include < conio.h>
Void MAIN( )
$\{\quad$ int $\quad a\}=[1,2,3,4,7,8$,$] ;$
for ( $\mathrm{i}=0 ; \mathrm{i}<6 ; \mathrm{i}++$ )
count $\ll \mathrm{a}[\mathrm{i}] 1$
$a=a+3-5$
$\mathrm{c}=\mathrm{a}-7$
\};
(iii)
\# include < iostream, h>
\# include < conio.h>
Void main c)
\{ $\quad$ int $\mathrm{I}=1$;
char a $\{\{=$ "My Name is Ram";
int $\mathrm{l}=$ strless (a);
strcpy (c, a);
\}
(iv) void main ()
$\{\quad$ int $\quad a=37$
$\mathrm{b} a * \mathrm{c}$;
cout >>a,b,;
\}
Q. 13 Explain :- (i) NAND gate
(ii) NOR gate
Q. 14 Draw the circuit diagram for the following (Using NOR gate) :-

## Annual Examination 2014-15

Time: 3:00 Hrs.
M. M. 100

General Instruction :Section A Reading 20
Section - C Literature 30

Section B Writing \& Grammar 30<br>SECITON - D LISTENING SKILL \& SPEAKING SKILL 20<br>SECTION - A Reading<br>Unseen Passage

A. 1 Read the following passages carefully and answer the questions that follow :

1. The story goes something like this: God was in one of his generous and indulgent moods. Deeply satisfied with his creation. He decided to answer all prayers.
2. The wish list was as huge as it was varied. So, there was an unexpected feast for the hungry beggar, a family of five daughters was blessed with a much prayed for son, rains for a drought stricken farmer, success in exams for one, a pot of gold for another and more .
3. Even as God was busy granting wishes and making dreams come true, the angel by his side drew the Almighty's attention to the fervent prayer of the tiny woman patiently awaiting an audience.
4. God said that he had heard her plea and had already granted her wish. But, argued the angel, "It was so unfair. Why did the Almighty not bless her, of all people, with a bonny, healthy child? Surely her cup of woes was already full. She did not deserve this, so why Lord, why?
5. God smiled mysteriously and explained. "Because she has what the others don't - patience, courage, the grit to fight against all odds and most of all, boundless love and understanding. She is a special woman and only a woman like her can love and care for the very 'special' child I have given her".
6. Truly God could not be everywhere, so he created a mother. But it takes a very special mother to care for a very special child, and sometimes not just a child but many children.
7. The Four Steps School for special children is perhaps an endorsement of the Almighty's firm faith in the grit and never-say-die spirit of a special mother.
8. Brainchild of Jayanti Dalmia, herself a mother of a special child, the school endeavours to enable the disabled, empower physically and mentally challenged children and help them find their place under the sun.
9. A unit of Dalmia Sewa Trust, Four Steps is a research, training and rehabilitation centre for children with special needs. As the name suggests, the school takes the child step by step through the four crucial stages of his growing years. And one of these includes nurturing the innate abilities and latent talent of these physically challenged yet gifted children. And what better way to hone their talents than at a workshop at the school.
10. The workshop helps to train students in various arts on the basis of their level of dependence and enhancing skills with an eye towards a future vocation. The participants include students from Four Steps and various integrated and special schools like Vasant Valley, Air Force Golden Jubilee, Tamanna, Muskan and Sahan Institute.
11. Students at the workshop are divided into three training segments, independent, partially dependent and dependent. Totally independent students are engaged in high calibre activities that include GK, photography, clay modeling etc. Partially dependent students get to work on art, craft, games, music an dance, while those who are completely dependent and require constant supervision participate in play therapy, fun games, block and leaf printing etc.
12. At the end of the workshop the participants will head for an outstation trip to enable them to be more independent emotionally and self-confident.
13. Powered by a group of dedicated youngsters including Principal Himanshu Das, the school is a hub of activity where special children come for an enriching experience. "It is the most fulfilling and satisfying experience of one's life to see a child grapple with and overcome his disability to stand on his own," say Das.
14. An emotion echoed by Jayanti Dalmia, who says that the workshop is one way to "help us grasp a student' individual aptitude and train him or her accordingly. This is a small attempt to enable them to lead a bright and fulfilling life." It takes a very special mother to care for a very special child, and sometime not just a child but many children.
Q. 1 (I) On the basis of your reading of the passage, answer the following questions briefly.
(a) For what reason did the angel argue with God?
(b) What did God explain to the angel?
(c) How does the unit of Dalmia Sewa Trust help 'special' children?
(d) How does the workshop divide the students in the three segments? What kind of activities are they engaged in?
(e) How does it become a satisfying experience for the Principal Himanshu Das?
(II) On the basis of your reading of the passage, answer the following questions by choosing the correct option.
$1 \times 6=6$
(i) What did God decide when he was in a generous and indulgent mood?
(a) He granted the wish of the special woman
(b) He argued with the angel
(c) He decided to answer all prayers
(d) All of these
(ii) What is the meaning of the term 'special child' in the passage?
(a) Gifted child
(b) Child of a special mother
(c) Retarded child
(d) Disabled or challenged child
(iii) Which word in para 13 is a synonym of 'tackle'?
(a) Grapple
(b) Hub
(c) Experience
(d) Overcome
(iv) Which word in para 11 is a synonym of 'potential'?
(a) Independent
(b) Calibre
(c) Constant
(d) Dependent
(v) Which word in para9 means the same as 'Inborn or natural'?
(a) Latent
(b) Crucial
(c) Innate
(d) Talent
(vi) Which word in para 7 is a synonym of 'approval'?
(a) Faith
(b) Special
(c) Grit
(d) Endorsement
A. 2 Read the following passage carefully and answer the questions that follow :-

It has been said that everyone lives by selling something. In the light of this statement, teachers live by selling knowledge, philosophers by selling wisdom and priests by selling spiritual comfort. Though it may be possible to measure the value of material goods in terms of money, it is extremely difficult to estimate the true value of the services which people perform for us. There are times when we would willingly give everything we possess to save our lives, yet we might grudge paying a surgeon a high fee for offering us precisely this service. The conditions of society are such that skills have to be paid for in the same way that goods are paid for at a shop. Everyone has something to sell.

Tramps seem to be the only exception to this general rule. Beggars almost sell themselves as human beings, to arouse the pity of passers-by. But real tramps are not beggars. They have nothing to sell and require nothing from others. In seeking independence, they do not sacrifice their human dignity. A tramp may ask you for money, but he will never ask you to feel sorry for him.

He has deliberately chosen to lead the life he leads and is fully aware of the consequences. He may never be sure where the next meal is coming from, but he is free from the thousands of anxieties which afflict other people. His few material possessions make it possible for him to move from place to place with ease. By having to sleep in the open, he gets far closer to the world of nature than most of us ever do. He may hunt, beg or steal occasionally to keep himself alive; he may even, in times of real need, do a little work; but be will never sacrifice his freedom. We often speak with contempt for tramps and put them in the same class as beggars, but how many of us can honestly say that we have not felt a little envious of their simple way of life and their freedom from care?
Q. 2 (i) On the basis of your reading of the above passage make notes on it, using headings and sub-headings. Use recognizable abbreviations wherever necessary (minimum4). Supply an appropriate title to it.
(ii) Write a summary of the above passage in about 80-100 words.

## Section B Writing \& Grammar

Q. 3 You are Students Union Advisor of Zenith Public School, New Delhi. Write an election notice inviting nominations for the post of President, Secretary and Treasurer of the Students Club. Give all necessary details.

## OR

Draft an attractive poster for 'SAVE TREES, SAVE EARTH’ Campaign.
Q. 4 You are greatly disturbed by loudspeakers blaring at high volume, particularly during festival times, use of loudspeakers is made without caring for the peace of local residents. Write a letter to Editor of 'The Hindustan Times'. About this, your are Sanjay / Saniya.

You are Suresh. You bought a scooter manufactured by Plazar Company from Pluto Automobiles Ltd., Industrial Area, Chandigarh. After 3 months its started giving problems. Write a letter to company asking them to either replace the scooter or give money back.
Q. 5 Write an article in 150-200 on the topic 'The Problem of Unemployment in India'.

## OR

You are Ameena / Aman of V. K. International School, New Delhi. Recently your school organized a Cultural Week. Write a Report in about 150-200 words for your school magazine.
Q. 6 The following passage has not been edited :-

Cricket in South Asia are a festive game. It carry not merely this baggage of competition, but was also a cultural event that invoke images of religious
 festivals. It are now become a substitute for war. No country now lost a game because the other side had better, a country loses
 only because its cricketers are under patriotic.
Q. 7 Rearrange the words to make meaningful sentence :-
(i) and sat in / hired / his boat / we / ì. 200/- / for / a boatman
(ii) began to row / two boatmen/ there were / on our boat / it / and they
Q. 8 Read the conversation given below and complete the following passage by filling in the blank. 4

Customer : Can I have a small bottle of tomato sauce?
Shopkeeper: Sorry, I have only big bottles.
Customer : When will it be available?
Shopkeeper : I can give it to you tomorrow.
Customer : Thank you, then I will get it tomorrow.
The customer asked the (a). The shopkeeper said (b) tomato sauce. The customer wanted to know (c). The shopkeeper said that (d).

## Section C (Literature)

Q. 9 Read the extract and Answer the Questions :- ..... 3
They talked of love and preached of loveBut didn't act so lovingly,was that the day!
(i) 'They' in the above lines refers to

$\qquad$(ii) About which day is the poet talking about?(iii) ------------ is the word similar to 'preached'.
Q. 10 Answer any three of the Questions given below: ..... 9
(i) What kind of a teacher and a human being is Crocker Harris, according to Taplow?
(ii) Who was the wisest man? What advice did he give?
(iii) Why does Nani Palkhivala call the Earth 'The Ailing Planet'?
(iv) What was the narrator's grandmother's daily routine? How did she keep herself busy?
Q. 11 Answer the following Question in 120-150 words :- ..... 6
Why was Andrew Manson torn between two desires? What were the desires and how did he resolve this dilemma?
OR
Describe King Tut and his family.
Q. 12 The Canterville Ghost had 'a brilliant and uninterrupted career of three hundred years'. Explain. ..... 6
Q. 13 Bring out the significance of the funeral ceremony of Sir Simon, the Canterville Ghost. ..... 6
SECITON - D LISTENING SKILL \& SPEAKING SKILL ..... 20
Q. 23 Solve the following system of in equations graphically :
$12 x+12 y \leq 840, \quad 3 x+6 y \leq 300$
$8 x+4 y \leq 480, \quad x \geq 0, y \geq 0$
Q. 24 If the coefficient of $a^{r-1}, a^{r}$ and $a^{r+1}$ in the expansion of $(1+a)^{n}$ are in A.P. prove that $n^{2}-n(4 r+1)+4 r^{2}-2=0$.
Q. 25 If $S_{1}, S_{2}, S_{3}$ are the sum of first $\eta$ natural numbers, their squares and their cubes, respectively, Show that $9 S_{2}^{2}=S_{3}\left(1+8 S_{1}\right)$.

## OR

If a,b,c are in GP and the equations $a x^{2}+2 b x+c=0$ and $d x^{2}+2 e x+f=0$ have a common root, then show that $\frac{d}{a}, \frac{e}{b}, \frac{f}{c}$ are in A.P.
Q. 26 (i) Evaluate $\lim _{x \rightarrow 0} \frac{\tan x+4 \tan 2 x-3 \tan 3 x}{x^{2} \tan x}$.
(ii) Differentiate $x \sin x$ from the first principle......

Roll No.
Code. No. 11/Mathematics/NLCS/46

## Annual Examination 2014-15

Time: 3:00 Hrs.
M. M. 100

General Instruction :-
(i) All questions are compulsory.
(ii) The question paper consists of 26 questions divided into three Sections A, B \& C. Section - A comprises of 6 questions of 1 Mark each. Section - B comprises of 13 questions of 4 Marks each and Section - C comprises of 7 questions of 6 Marks each.
(iii) Use of calculator is not permitted.

## Section - A

Q. 1 If $A=\{1,3,5,7,11,13,15,17\}, B=\{2,4,6 \ldots . .18\}$ and N is the universal set, then find $A^{\prime} \cup(A \cup B) \cap B^{\prime}$.
Q. 2 If $A M$ and $G M$ of roots of a quadratic equation are 8 and 5 respectively, then obtain the quadratic equation.
Q. 3 Find the eccentricity of the hyperbola whose latusrectum is 8 and conjugate axis is equal to half of the distance between the foci.
Q. 4 Write the negation of the following statement "All

## Mathematicians are men".

Q. 5 Write the contra positive of the following statement 'if a triangle is equilateral, then it is isosceles'.
Q. 66 boys and 6 girls sit in a row randomly find the probability that all 6 girls sit together.

## Section - B

Q. 7 (i) Let $U$ be the set of all boys and girls in a school, $G$ be the set of all girls in the school, $B$ be the set of all boys in the school and $S$ be the set of all students in the school who take swimming, some but not all students in the school take swimming draw a venn diagram showing one
of the possible interrelationship among sets $\cup, G, B$ and $S$ why swimming is important for a student.
(ii) Let $n(U)=700, n(A)=200, n(B)=300$ and $n(A \cap B)$ $=100$ FIND $n\left(A^{\prime} \cap B^{\prime}\right)$.
Q. 8 If $\tan (\alpha+\theta)=\mathrm{n} \tan (\alpha-\theta)$ then show that $(\mathrm{n}+1) \sin 2 \theta=(\mathrm{n}-1) \sin 2 \alpha$.
Q. 9 Prove that : $\tan 4 \theta=\frac{4 \tan \theta\left(1-\tan ^{2} \theta\right)}{1-6 \tan ^{2} \theta+\tan ^{4} \theta}$.
Q. 10 Solve the quadratic equation: $2 x^{2}-(3+7 i) x+(9 i-3)=0$.

## OR

If $\arg (z-1)=\arg (z+3 i)$ then find $x-1: y$.
Q. 11 Prove that : $\cos 2 \theta \cos \frac{\theta}{2}-\cos 3 \theta \cos \frac{9 \theta}{2}=\sin 5 \theta \sin \frac{5 \theta}{2}$.
Q. 12 Solve the in equality $\frac{2 x-3}{4}+9 \geq 3+\frac{4 x}{3}$ and show the graph of the solution on number line.
Q. 13 (i) If $n+2_{c_{8}}: n-2_{p_{4}}=57: 16$ then find the value of $n$.
(ii) Find the number of combinations of 4 letters taken from the word "EXAMINATION".
Q. 14 Find perpendicular distance from the origin of the line joining the points $(\cos \theta, \sin \theta) \&(\cos \phi, \sin \phi)$.
Q. 15 Find the equation of the circle which passes through the centre of the circle $x^{2}+y^{2}+8 x+10 y-7=0 \&$ is concentric with circle $2 x^{2}+2 y^{2}-8 x-12 y-9=0$
Q. 16 Find the equation of the set of the point $P$ the sum of whose distance from $A(4,0,0)$ and $B(-4,0,0)$ is equal to 10.
Q. 17 A card is drawn from a deck of 52 cards find the probability of getting a king or a heart or a red card.
Q. 18 Mean and standard deviations of 100 observations were found to be 40 to 10 respectively. If at the time of calculation two observations were wrongly taken as 30 and 70 in place of 3 and 27 respectively then find the correct standard deviation.
Q. 19 Find the mean deviation about median for the following data :

| Class | $16-20$ | $21-$ | $26-$ | $31-$ | $36-$ | 41 | $46-$ | $51-$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interval |  | 25 | 30 | 35 | 40 | 45 | 50 | 55 |
| $f$ | 5 | 6 | 12 | 14 | 26 | 12 | 16 | 09 |

## Section - C

Q. 20 (i) Find the range of $f(x)=1+3 \cos 2 x, x \in r$,
(ii) Find the domain and range of the function
$f(x)=\frac{1}{\sqrt{x-5}}$.
Q. 21 Prove that : $4 \sin A \sin (60-A) \sin (60+A)=\sin 3 A$

Hence deduce that $\sin 20^{\circ} \sin 40^{\circ} \sin 60^{\circ} \sin 80^{\circ}=\frac{3}{16}$.
Q. 22 By using principle of Mathematical Induction. Prove that $n(n+1)(2 n+1)$ is divisible by 6 for all $n \in N$.

OR
Prove the following by the principle of Mathematical Induction for all $n \in N$
$\frac{1}{1.4}+\frac{1}{4.7}+\frac{1}{7.10}+\ldots \ldots \ldots+\frac{1}{(3 n-2)(3 n+1)}=\frac{n}{(3 n+1)}$.
Code. No. 11/Physical Education/NLCS/60

## Annual Examination 2014-15

Time: 3:00 Hrs.
M. M. 70
General Instruction:-
All questions are compulsory. Answer to questions carrying 1 mark should not exceed 30 words each. Answer to questions carrying 2 marks should not exceed 40-60 words each. Answer to questions carrying 3 marks should not exceed 60-80 words each. Answer to questions carrying 5 marks should not exceed 100-125 words each.

## PART - A

Q. 1 Explain the meaning of health.

1
Q. 2 List down any four components of positive life style. 1
Q. 3 In which year and by when SAI established? 1
Q. 4 Give the aim of Physical Education. 1
Q. 5 How narcotics increase the performance? 1
Q. 6 What do you mean by WADA? 1
Q. 7 What is abrasion? 1
$\begin{array}{ll}\text { Q. } 8 \text { What are the types of somato classified by Ernest } \\ & \text { Kretschmer? }\end{array}$
Q. 9 What do you understand by health indicator? 2
Q. 10 Explain Chacha Nehru Sports Award. 2
Q. 11 Discuss about All India Council of Sports. 2
Q. 12 Discuss about Indian Olympic Association (IOA). 2
Q. 13 Discuss the ways to prevent diabetes. 2
Q. 14 Mention the tips for preventing Sports injuries. 3
Q. 15 Define test, measurement and BMI. 3
Q. 16 List down the Sports Awards in India and explain Dronacharaya Award.
Q. 17 Discuss the prevention and management of hypertension.
Q. 18 Discuss the adolescence needs, problems and management steps.5
Q. 19 What do you mean by limbering down? Explain the importance of limbering.
Q. 20 What do you mean by skeleton system? Explain the function and classification of bones.
Q. 21 What is biomechanics? Explain the importance of biomechanics in Physical Education and Sports.

## PART - B

Q. 22 Write about any two important tournament with their venues of your major games.
Q. 23 Explain the importance of proper sports gear of your major game.
Q. 24 Write about any six terminologies of our major game. 3
Q. 25 What are the common sports injuries of your game? Suggest preventive measures.
Q. 26 Explain about SGRI and its organizational set-up.
Q. 27 Write the history of your game. Illustrate a field / court / table of your major game with specific reference to measurement and specification.

[^0]Q. 20 Construct index number of price from the data given below by applying :-
(i) Laspeyre's Method (ii) Paasche's Method
(iii) Fisher's Method

|  | Base year |  | Current Year |  |
| :---: | :---: | :---: | :---: | :---: |
| Commodity | Price | Quantity | Price | Quantity |
| A | 2 | 40 | 3 | 20 |
| B | 1.5 | 30 | 2.5 | 40 |
| C | 1 | 50 | 1.5 | 30 |
| D | 2.5 | 20 | 2 | 80 |

Q. 21 Calculate coefficient of correlation between price and quantity demanded.

| Price (ì) | 5 | 10 | 15 | 20 | 25 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Demand (kg.) | 40 | 35 | 30 | 25 | 20 |

Q. 22 Find out Inter quartile range, quartile deviation and coefficient of quartile deviation from the following data. 6

| Age | $0-$ | $20-$ | $40-$ | $60-$ | $80-$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 20 | 40 | 60 | 80 | 100 |
| No. of Persons | 4 | 10 | 16 | 20 | 15 |

Q. 23 Keeping in view your locality, describe any four strategies of sustainable development.
Q. 24 Compare the demographic indicators of India with China and Pakistan.
Q. 25 (i) Green Revolution experienced the success in two phases. Comment.
(ii) How were the industries classified according to the Industrial Policy Resolution 1956?
$3+3=6$

ORAL
** ALL THE BEST **

Code. No. 11/Economics/nlcs/70

## Annual Examination 2014-15

Time: 3:00 Hrs.
M. M. 100

General instructions:
(i) All the questions are compulsory.
(ii) Marks for questions are indicated against each question.
(iii) Questions carrying 1 Mark are MCQ or very short answer type questions.
(iv) Questions carrying 3 Marks are short answer type. Answer should not normally exceed 60 words each.
(v) Questions carrying 4 Marks should be answer in not more 70 words.
(vi) Questions carrying 5 Marks should be answer not more 80-90 words.
(vii)Questions carrying 6 Marks should be answer not more than 100 words.
Q. 1 Statistical data are used for knowing about the progress in the -

1
(a) techniques of production
(b) volume of production
(c) imports and exports
(d) All of these
Q. 2 ----------- is used when the researcher has access to all the members.
(a) Telephonic interview
(b) Personal interview
(c) Indirect oral investigation
(d) None of these
Q. 3 In a frequency distribution, the class may be 1
(a) singular or plural
(b) subjective or objective
(c) individual or discrete
(d) inclusive or exclusive
Q. 4 Which among the following is the cause of agricultural stagnation during the British colonial rule?
(a) Systems of land settlement (b) Limited public sector
(c) Mass illiteracy
(d) All of these
Q. 5 At present, India, is having its $\qquad$ five year plan. 1
(a) Eleventh
(b) Tenth
(c) Twelfth
(d) None of these
Q. 6 The Government and policy makers use statistical data to formulate suitable policies of economic development.

Illustrate with two examples.
Q. 7 'Today nearly every decision in business is made with the aid of statistical data and statistical methods'. Discuss 3
Q. 8 Present the following information in the form of a pie diagram.

3

| Sector | Primary | Secondary | Transport |  <br> Insurance | Community <br> and social <br> service |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Share in <br> $\%$ | $\mathbf{1 8 . 2}$ | $\mathbf{2 3}$ | $\mathbf{2 7 . 8}$ | $\mathbf{1 7 . 5}$ | $\mathbf{1 3 . 5}$ |

Q. 9 Construct a frequency polygon with histogram for the following data.

3

| Class Interval | $0-$ | $10-$ | $20-$ | $30-$ | $40-$ | $50-$ | $60-$ | $70-$ | $80-$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| Frequency | 4 | 6 | 7 | 14 | 16 | 14 | 8 | 6 | 5 |

Q. 10 Deepak argues that in the era of privatization, there is no need for Government intervention in education \& health sectors. How ever, his friend Raju argues that education \& health care services create social benefit and therefore there is a need for Government intervention in education \& health sectors. Decide with reasons. Who is right? 3
Q. 11 Bring out the differences between human capital and human development?
Q. 12 Enlist some problems faced by farmers during the initial year of organic farming.
Q. 13 You reside in a village. If you are asked to advice the village panchayat, what kinds of activities would you suggest for the improvement of your village which would also generate employment?
Q. 14 What problem are being faced by the power sector in India?
Q. 15 Following are the marks obtained by 100 students in Economics. Calculate the average marks by using Assume mean method (Take 35 as assume mean).

4

| Marks | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of Students | 5 | 10 | 25 | 30 | 20 | 10 |

Q. 16 Calculate median of the following frequency distribution. 4

| C.I. | $10-20$ | $20-40$ | $40-70$ | $70-120$ | $120-200$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| F. | 4 | 10 | 26 | 8 | 2 |

Q. 17 Calculate mean deviation and its coefficient using median.

4

| Marks | 5 | 10 | 15 | 20 | 25 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| No. of Students | 2 | 3 | 4 | 5 | 6 |

Q. 18 Justify why is it necessary to synchronize traffic lights or use public transport instead of private transport and develop solar panels for household consumption.
Q. 19 Write a critical note on situation of farmers in your state.

Roll No. $\qquad$ Code. No. 11/Biology/NLCS/18
Annual Examination 2014-15
Time: 3:00 Hrs.
M. M. 70

General Instructions:
(i) All questions are compulsory.
(ii) The question paper consists of four sections $A, B, C$ and $D$. Section-A is Q. No. 1 to 5 contains 5 questions of 1 mark each. Section-B is Q. No. 6 to 10 of 5 questions of 2 marks each. Section-C is Q. No. 11 to 22 of 12 questions of 3 marks each.
Q. No. 23 is a value based Question and carry 4 marks .
Section-D is Q. No. 24 to 26 of 3 questions of 5 marks each. (iii) Wherever necessary, the diagrams drawn should be neat and properly labelled.

## Section - A

Q. 1 What are mycoplasmas?
Q. 2 Name the title of the book published by Linnaeus?
Q. 3 Which is the chief pigment found in algae Rhodophyceae?
Q. 4 What is pith and where is it found?
Q. 5 What is the function of microbodies and where are they found?

## Section - B

Q. 6 Explain the structure of a Malpighian body using its well labeled diagram.
Q. 7 Define an active site and also mention its function.
Q. 8 What is a flagellum. Draw its well labeled diagram?
Q. 9 Comment about vision in cockroach. Also explain the structure of its eye.
Q. 10 What are pneumatophores and why are they important?

## Section - C

Q. 11 What are botanical gardens? Write their importance in context to study of classification. Also write the names of any two botanical gardens in the world.
Q. 12 Why are Deuteromycetes called fungi 'imperfecti' comment about their reproduction and mycelium type. Also give two examples of Deuteromycetes.
Q. 13 Explain the structure of a monocot seed and also explain various parts present in it.
Q. 14 Explain -
(a) Tight junction
(b) Adhering junctions
(c) Gap junctions
Q. 15 When and how does RubisCO act as an oxygenase? Explain.
Q. 16 What do understand by respiratory quotient, describe it?
Q. 17 Describe the role of secretions form Alpha and Beta cells of Islets of Langerhans. Name the secretions.
Q. 18 Explain counter current Mechanism.
Q. 19 Explain the structure of human Eye by the help of a diagram.
Q. 20 How does ABA act antagonistically to auxins and gibberellins? Also describe any one of its functions in detail.
Q. 21 Describe the following terms.
(i) Apocarpous
(ii) Polydelphous
(iii) Parietal placentation
Q. 22 Give all details of Golgi apparatus along with its function.
Q. 23 (i) A person sleeping in a closed room with a lamp burning is found dead in the morning. Explain the reason behind this.
(ii) Explain a chronic disorder which occurs due to cigarette smoking.

## Section - D

Q. 24 Discuss the repeating pattern of contraction and relaxation of the heart.

## OR

Discuss structure and function of Thyroid Gland. Describe the disorders associated with it.

## OPEN TEXT BASED QUESTIONS

Q. 25 What do you understand by 'Quantifying Evidences of sensitivity'. Explain it by any two evidences in detail.
Q. 26 What is meant by Environmental sanitation? How is it responsible for health of society and economic escalations. Explain by giving examples.

[^1]
# Code. No. 11/Chemistry/NLCs/45 <br> <br> Annual Examination 2014-15 <br> <br> Annual Examination 2014-15 <br> Time: 3:00 Hrs. <br> M. M. 70 

General Instructions:-
Attempt all questions
(i) Question No. 1 to 5 carry One Mark each,
(ii) Question No. 6 to 10 carry Two Marks each,
(iii) Question. No. 11 to 22 carry Three Marks each
(iv) Question No. 23 Value Based carry Four Marks.
(v) Question No. 24 to 26 carry Five Marks each.

## SECTION - A

Q. 1 What is common in the following species -
$\mathrm{N}^{3-}, \mathrm{O}^{2-}, \mathrm{F}^{-}, \mathrm{N}^{\mathrm{a}}, \mathrm{Mg}^{2+}, \mathrm{Al}^{3+}$
Q. 2 Give the eg. Of one T-shaped molecule show its structure.
Q. 3 Define normal boiling point and standard boiling point. Write their values for water.
Q. 4 Define common ion effect.
Q. 5 Define green fuel.
SECTION - B
Q. 6 How much time would it take to distribute one Av. No. wheat grains. If $10^{10}$ grains are distributed each sec.?
Q. 7 What is Born - Haber cycle?
Q. 8 Derive a formula for Ionsisation constant of weak acid?
Q. 9 Suggest a list of the substances where carbon can exhibit oxidation states from -4 to +4 and Nitrogen from -3 to +5 .
Q. 10 Describe the shapes of $\mathrm{BF}_{3}$ and $\mathrm{BH}_{4}^{-}$. Assign the hybridization of boron in these species.

## SECTION - C

Q. 1150.0 kg . of $\mathrm{N}_{2}(\mathrm{~g})$ and 10.0 kg . of $\mathrm{H}_{2}(\mathrm{~g})$ are mixed to produce $\mathrm{NH}_{3}(\mathrm{~g})$. Calculate the $\mathrm{NH}_{3}(\mathrm{~g})$ formed. Identify the limiting recegent in the production of $\mathrm{NH}_{3}$ in this situation.
Q. 12 Explain the line spectrum of Hydrogen.
Q. 13 What do you meant by - (i) Transuronium Elements (ii) Lanthanoid contraction (iii) Shielding effect
Q. 14 Write a short note on all the Bond parameters.
Q. 15 Explain the physical significance of vander waals parameters.
Q. 16 The combustion of benzene (1mole) takes place at 298 k and 1 atm after combustion, $\mathrm{CO}_{2}(\mathrm{~g}) \& \mathrm{H}_{2} \mathrm{O}(\ell)$ are produced and 3267.0 KJ of heat is librated, calculate the standard enthalpy of formation $\Delta \mathrm{Fh}$ of benzene. Standard Enthalpy of formation of $\mathrm{CO}_{2}(\mathrm{~g})$ and $\mathrm{H}_{2} \mathrm{O}(\ell)$ are $393.5 \mathrm{KJ} \mathrm{mol}^{-1} \&-285.83 \mathrm{KJ} \mathrm{mol}^{-1}$.
Q. 17 Write a note on - (i) Buffer solution (ii) Solubilility product (iii) lonic product
Q. 18 Balance the following Reactions by half reaction method $\mathrm{AS}_{2} \mathrm{~S}_{3}+\mathrm{NO}_{3}^{-}+\mathrm{H}^{+} \rightarrow \mathrm{ASO}_{4}^{3-}+\mathrm{S}(\mathrm{s})+\mathrm{NO}$.
Q. 19 Classify Hydrides \& Explain them.
Q. 20 Give three point which allows diagonal relationship between beryllium \& Aluminum.
Q. 21 Write short notes on silicates \& zeolites.
Q. 22 What is the relationship between the members of following pairs of structure? Are they structural \& geometrical isomers or resonance contributions.
(i)


(ii)


(iii)


Q. 23 A compound $X$ when reat with chlorine in the presence of light forms gammaxane but when treated with chlorine in dark. It forms anther compound $Y$. Identified X \&Y.

## SECTION - D

Q. 24 The wavelength range of the visible spectrum extends from violet ( 400 nm ) to red ( 750 nm ) Express these wavelength in frequencies $\left(\mathrm{H}_{3}\right) .\left(1 \mathrm{~nm}=10^{-9} \mathrm{~m}\right)$

OR
Calculate (a) wave number \& (b) frequency of yellow radiation having wavelength $5800 \mathrm{~A}^{\circ}$.
Q. 25 Write the names of methods for $\mathrm{N}_{2}$ estimation. Explain any one of them.

## OR

Write a brief note on 3-D representation of organic molecule.
Q. 26 Write a brief note on environmental pollution including chemical reactions.

## OR

Explain the formation of photochemical smog \& its effects.
Q. 25 (i) What do you understand by degree of freedom find out degree of freedom for mono atomic, diatomic, tri atomic and poly atomic gases.
(ii) Define efficiency of carnot heat engine and explain why heat enging can not be possible.

OR
(i) Discuss energy distribution of black body radiation spectrum. Explain Wein's displacement law of radiation and Stefan's law of heat radiation.
(ii) State Newton's law of cooling. Deduce the relation
-
$\log _{e}\left(T-T_{0}\right)=-k t+C$ and $T-T_{0}=c e^{-k t}$ and plot the graph in both case.
Here $T=$ temperature of body, $T_{0}=$ temperature of environment
Q. 26 Define types of collision with example. Find Final velocity of two bodies moving with initial velocities $U_{1} \& U_{2}$ where $U_{1}>U_{2}$. Here collision is perfectly Elastic collition.

OR
(v) State and prove Bernouli's Theorem for ideal liquid.
(vi) Define venture meter and find its expression.

[^2]Code. No. 11/Physics/nLcs/45

## Annual Examination 2014-15

Time: 3:00 Hrs.
General instruction:
Question 1 to 5 carrying one mark each, 6 to 10 carrying two marks each, Question 11 to 22 carrying three marks each, and question 23 carrying four marks Question 24 to 26 carrying five marks each.

## SECTION - A

Q. 1 Define Hook's Law?
Q. 2 Two bodies at different temperature $T_{1}$ and $T_{2}$ if brought in thermal contact do not necessarily settle to the mean temperature $\left(\mathrm{T}_{1}+\mathrm{T}_{2}\right) / 2$
Q. 3 Define Boyle's law in terms of density.
Q. 4 What are isochronous vibrations?
Q. 5 Name the wave which do not required material medium to propagate?

## SECTION - B

Q. 6 If a drop of water falls on a very hot iron, it does not evaporate for a long time. Why?
Q. 7 If displacement of a body $x=(200 \pm 5) \mathrm{m}$ and time taken by it $\mathrm{t}=(20 \pm 0.2) \mathrm{sec}$. Then find the percentage error in the calculation of velocity?
Q. 8 A body is projected so that it has maximum horizontal range $R$. What is the maximum height reached during the flight?
Q. 9 When is the exchange of energy maximum during an elastic collision?
Q. 10 A constant force on a body of mass 3 kg change its speed form $2 \mathrm{~m} / \mathrm{s}$ to $3.5 \mathrm{~m} / \mathrm{s}$ in 25 sec . The direction of the motion of the body remains unchanged. What is the magnitude and direction of the force?
Q. 11 Define centre of mass. Find centre of mass of three particle system of equal mass, when they are arrange in non-linearly?
Q. 12 Define acceleration due to gravity. Find effective acceleration due to gravity at depth d from surface of earth.
Q. 13 A structural steel rod has a radius of 10 mm and a length of 1 m A 100 km force stretches it along its length. Calculate (a) stress (b) elongation and (c)strain on the rod. Young's modulus of structural steel is $2 \times 10^{11} \mathrm{~N} / \mathrm{m}^{2}$ ?
Q. 14 State Torricell's theorem and find its expression.
Q. 15 Derive mayor formula for ideal gas.
Q. 16 Find specific heat capacity of water.
Q. 17 Explain why an air bubble in water rises from bottom to top and grows in size.
Q. 18 Show that in case of close organ pipe only odd harmonics formed?
Q. 19 Why simple harmonic motion of a pendulum is called simple harmonic. Derive an expression for time period of simple pendulum?
Q. 20 To find out total energy of a particle in simple harmonic motion. Show graphically the variation of kinetic energy and potential energy with time of a particle in S.H.M.?
Q. 21 State second law of thermodynamics and write an example also?
Q. 22 A refrigerator is to maintain eatables kept inside at $9^{\circ} \mathrm{C}$. If room temperature is $36^{\circ} \mathrm{C}$ calculate the coefficient of performance?
Q. 23 A poor man was going through a seashore during the noon time. He was very tired. Unaware of the gravitational force he decided to take some rest and he laid down under the thin shadow of coconut tree. Soon he went into the sleep. Suddenly there was as storm and the wind started blowing at the rate of 100km/hour. Many coconuts got detached from the branches of the tree. Old man was badly hurt. In the evening, Ravi and his friends while playing reached there and found a man badly hurt. Ravi took him to his house and gave him first aid and some food to eat. Old man thanked Ravi and went away.
(i) What value do you see in the behavior of Ravi for old man?
(ii) What is gravitational force?
(iii) How can the high speed of wind be exploited for useful purposes?
Q. 24 State Doppler's effect in sound. Obtain an expression for apparent frequency.
(i) When source movable (ii) When source stationary
(iii) When source and observe both movable.

OR
(i) What are beats? How are they produce show that beats frequency is equal to $n_{1}-n_{2}$.
(ii) Identify the type of wave motion :
(a) Wave produced by a motorboat sailing in water.
(b) Ultrasonic waves in air produced by a vibrating quartz crystal.
Q. 28 Explain the various functions of promoter.

## OR

Explain the concept of business commencement and explain the document required for it.

ORAL $\rightarrow$

Code. No. 11/Business Studies/NLCS/70 Annual Examination 2014-15
Time: 3:00 Hrs. ..... M. M. 100
General Instruction :-
Question No. 1 to 10 carry One Mark each. Question No. 11 to 15 carry Three Marks each. Question No. 16 to 19 carry Four Marks each. Question No. 20 to 24 carry Five Marks each. Question No. 25 to 28 carry Six Marks each.
Q. 1 Which certificate is necessary to prove that goods are produced in the home country itself? ..... 1
Q. 2 What does TIPS deal with? ..... 1
Q. 3 Who are Itinerants? ..... 1
Q. 4 Name the Institution which was set up in 1955 to promotethe growth of SSI?1
Q. 5 In terms of tax benefits, which of the two preference shareof debentures will be preferred by the organization?1
Q. 6 What is the Relation between Ethics and moral values? ..... 1
Q. 7 Give any two Reasons supporting social responsibility?1
Q. 8 Name the electronic currency that exists only incyberspace.1
Q. 9 At what time the interest must be present in case of lifeInsurance?1
Q. 10 Name the organization formed by passing a special Act. ..... 1
Q. 11 What is the base for differentiating the economic and non-economic activities?3
Q. 12 A company got its certificate of Incorporation on $24^{\text {th }}$ August 2010 and on the certificate the date is written as $22^{\text {nd }}$ August 2010. Company allots some shares on $23^{\text {rd }}$ August. Is the allotment valid or not?
Q. 13 State any three situations where in Government Company is the most suitable form of Public Sector organization. 3
Q. 14 Why are banks called debtors as well as creditors? 3
Q. 15 What preferential rights are enjoyed by preference share holders? Explain.

3
Q. 16 "Like an individual, business enterprise should also be loyal citizen of the state". Discuss.
Q. 17 Explain the resources required for successful implementation of e-business.
Q. 18 Do you think that small scale business can survive in a competitive market? Give reasons to support your answer.
Q. 19 Shivam Garments Plans to enter in foreign trade. State the factors, which they must consider that will help them to make the choice of mode of entry in to International Business.
Q. 20 According to partnership Act, 1932, it is not compulsory for a partnership firm to get itself registered, then why do partners prefer to get the firm registered?
Q. 21 Explain the differences between private sector and Public Sector on the basis of following points -
(i) Capital
(ii) Accountable
(iii) Formation
(iv) Performance evaluation
(v) Management
Q. 22 Explain the following terms (Any Two) :-
(i) NEFT (National Electronic Fund Transfer)
(ii) Pay order
(iii) RTGS (Real Time Gross Settlement)
Q. 23 A company required funds to meet its working capital state the sources available along with their features. (Any Two)

$$
21 / 2+21 / 2=5
$$

Q. 24 What is invisible trade? Discuss salient aspects of India's trade in services.

5
Q. 25 Name the retail organization where same type of commodities are sold at uniform prices located all over the country. What are features of such organizations? 6

OR
"Whole seller is a handle in distribution chain". Do you agree?
Q. 26 Name any three special financial institutions and state their objectives.
$2+2+2=6$
OR
As a source of finance, retained profit is better than other sources. Do you agree with this view? Give reasons to support your answer.
Q. 27 "Zara men Pvt. Ltd." Has received on order for export of readymade shirts. What steps must be followed by the company to meet the export order?

OR
Briefly explain following :-
$2+2+2=6$
(i) WTO
(ii) IMF
(iii) Word Bank


[^0]:    ** ALL THE BEST **

[^1]:    **ALL THE BEST **

[^2]:    ** ALL THE BEST **

