(2½ Hours)　　　　　　　　　　**[Total Marks : 75**

Note: 1) All questions are compulsory

Q1. (A) Attempt any *two* sub-questions from a), b) and c) in MS-EXCEL (2)
(True or False)
a) PROPER() is used to convert all the letters in a word to upper case.
b) Solver allows you to solve for more than one variable.
c) =FIXED(1234.567,1) gives 1,234.5

(B) Attempt any *two* sub-questions from d), e) and f) in VISUAL BASIC (2)
(Multiple Choice)
d) Visual Basic code is written in _____.
A) Sub procedures　　B)Functions　　C) Form　　　　D) Routines
e) The standard prefix for a check box button is _____.
A) cbt　　　　B)cpt　　　　C) cbu　　　　d)chk

f) _____ is a valid object name for a text box.
A) txtClass　　　　B) 5Class　　C) txt+Class　　　D) @txt

(C) Attempt any *six* sub-questions from g), h), i), j), k), l), m), n), o) in E- (6)
Commerce (True Or False).
g) E-commerce provides the capability of buying and selling of products, services and information on the internet.
h) Web sites that supply different types of online information are content provider.
i) E-tailer is an online store.
j) Authentication ensures that the message was not read by others.
k) Hacking of credit card numbers and passwords is possible in E-commerce.
l) Transaction broker earns money in the form of commission each time a transaction occurs.
m) There is no scope for negotiations in B2C E-Commerce.
n) Digital Cash is the electronic parallel of notes and coins.
o) Payment is done only by Smart Card in E-Commerce.

(D) Attempt any *five* sub-questions from p), q), r), s), t), u), v), w) (5)
in E-Commerce (Multiple Choice)
p) EDI stands for _____.
A) Electronic data Information　　B) Electronic Data Interchange
C) Electronic data Interface　　　D) Electronic data Interference
q) The full form of C2C in E-Commerce is _____.
A)Consumer to Commerce　　B)Commerce to Consumer
C)Consumer to Consumer　　D)Commerce to Commerce

r) Conversion of coded data into readable data is called _____.
A)Firewall　　B)Decryption　　C)Encryption　　　D)Password

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s)   In E-commerce, to authenticate the sender of the message we use____.
A)Digital Signature   B)Privacy Protocol
C)Digital Sending   D)Digital Protocol

t)   It is a convention that all sites that use SSL connection while making a secure connection use _____instead of HTTP.
A)SMTP   B)HTTPS   C)FTP   D)TCP/IP

u)   The most commonly used form of payment in E-Commerce is_____.
A)Credit Card   B)PayPal   C)Petro Card   D)Digital Card

v)   In online stored value systems, cards that have embedded chips that store personal information are called _____.
A)Debit Cards   B)Smart Cards   C)Credit Cards   D)Ideal cards

w)   _____is part of E-Commerce.
A)B2B   B)C2C   C)B2C   D)All of these

Q2. **(A)**   Answer any *one* sub-question from a) and b) in E-Commerce.   (8)
     a)   Explain any four features of E-Commerce.
     b)   Explain B2B and C2C models in E-Commerce.

     (B)   Answer any *one* sub-question from c) and d) in E-Commerce.   (7)
     c)   Discuss the various payment systems used in E-Commerce.
     d)   Explain the following in E-Commerce
         i)Encryption   ii) Decryption iii) Digital Signature

Q3. **(A)**   Answer any *one* sub-question from a) and b) in MS-EXCEL   (8)
     a)   Consider the following worksheet:

◢	A	B	C	D	E
1	Emp. No.	Dept	Salary	Allowance	Bonus
2	S234	Export	25000		
3	H533	Sales	18000		
4	W234	Accounts	23000		
5	K765	HR	35000		
6	Y654	Admin	29000		

Write steps to perform the following:
i) To compute Allowance @ 1% of the Salary for salary up to ₹25,000 otherwise @2% of the salary in Column D.
ii) To find the Bonus @20% of the Salary for Salary above ₹30,000 otherwise @14% of the Salary in Column E.
iii) To find the total bonus of all employees whose salary is below ₹25,000 in cell E8.

     b)   Roll Number and marks are entered in columns A and B as shown in the following worksheet. Write steps to compute Grade and the Award amount in Column C and D respectively using HLOOKUP function. Policy table to be referred for finding Grade and Award amount is given in the range G1:J3.

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	A	B	C	D	E	F	G	H	I	J
1	Roll. No.	Marks	Grade	Award		Marks	0	50	70	90
2	231	87				Grade	D	C	B	A
3	112	56				Award	0	150	500	1000
4	234	94								
5	123	55								
6	567	77								
7	345	45								
8	656	69								

(B)   Answer any *one* sub-question from c) and d) in MS-EXCEL   (7)

c)   The following table shows Roll no., Name and marks scored in three subjects by students in an exam.

	A	B	C	D	E	F	G
1	RNO	NAME	ACC	ECO	COMP	AVERAGE	GRADE
2	101	PRIYANK	55	43	61		
3	103	NIKITA	80	65	63		
4	104	SWATI	40	50	45		
5	102	KIRAN	42	54	69		

Write steps to
1) Find the Average marks in Column F.
2) Assign the grade in column G using the following policy:

Average Marks	Grade
70 and above	O
60 to 69.99	A
Below 60	B

d)   Consider the following worksheet.

	A	B	C	D
1	Emp. No.	Hours worked	Grade	Wages
2	Q234	30	I	
3	R567	40	III	
4	E987	28	I	
5	T379	19	II	
6	K237	45	III	

Write the steps to compute the Wages in column D given that the rate per hour is ₹500 ₹400 and ₹200 for Grade I, II and III workers respectively.

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Q4. (A)   Answer any *one* sub-question from a) and b) in MS-EXCEL   (8)
a)   The following data is entered in a worksheet regarding sales (in crores of ₹) during the years 2005, 2010 and 2015.

	A	B	C	D
1	PRODUCT No.	2005	2010	2015
2	111	213	421	340
3	222	158	220	130
4	333	210	270	195
5	444	178	215	170

Write the steps to
i) Find the total sales in each year in the cells B6, C6 and D6.
ii) Create a Column chart for the total Sales in 2005, 2010 and 2015.
iii) Create a Pie chart for the sales in 2010.
iv) Create a Line diagram for the sales in 2005 and 2015.

b)   The following Excel worksheet contains the sale price per unit, units sold and sales value of two products in a year.

	A	B	C	D
1	Product	Price per unit	Units Sold	Sales value
2	A	5000	100	500000
3	B	3000	150	450000
4				950000

For the company to break even, it has to achieve a total sale of ₹1,00,00,000 in a year. Using Solver write the steps to find out the number of units of each of these two products that should be sold in order to meet the desired target sale.

(B)   Answer any *one* sub-question from c) and d) in MS-EXCEL   (7)
c)   The following data has been entered in a worksheet:

	A	B	C	D
1	Emp. No.	Name	Salary	Contribution
2	1123	Manoj Shah	35000	2500
3	1132	Pervin Kolad	42000	3000
4	1143	Javed Akhtar	20500	1500
5	1145	Tony D'Souza	65000	4000
6	1167	Vinod Joshi	15000	1000

Write steps to
i)To display only the rows where the salary is more than 30,000.
ii)To display only the rows where the Contribution is up to 3,000.
iii)To display only the rows where the name contains "i".

d)   Explain the following functions in EXCEL.
1) DATE()   2) COUNTA()   3) SMALL()   4) DAYS360()
5) CORREL()   6) MONTH()   7)YEAR()

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Q5. (A) Answer any *one* sub-question from a) and b) in VISUAL BASIC (8)

a) Write a project in VB to design a suitable form which allows the user to enter the Principal amount and then calculates and displays the Simple Interest using 8.5% rate of interest for 4 years. (SI = P*R*N/100)

b) Write a project in VB to design a suitable form which allows the user to enter Basic Salary and calculate and display the HRA as 13% of Basic Salary for Basic Salary up to ₹25,000 and 20% of Basic Salary otherwise.

Q5. (B) Answer any *one* sub-question from c) and d) in VISUAL BASIC (7)

c) Write a project in VB to design a suitable form which allows the user to enter two numbers and displays the smaller of these two numbers.

d) Write a project in VB to compute and display the sum of the series

$$3 + 7 + 11 + 15 + \cdots + 203$$

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