



ARKA JAIN University, Jharkhand

1st Semester Final Examination – 2017-18

Subject : Problem Solving & Programming in C
Subject Code : 3006
Time : 3 Hours

Course: MCA
Full Marks : 70
Pass Marks: 28

- Candidates are required to give their answers in their own words as far as practicable.
- Question Paper is divided into **Three Parts –A, B & C**
- **Part-A** is compulsory. It contains **FIFTEEN** questions.
- **Part-B** contains **SIX** questions out of which **FOUR** questions are to be answered.
- **Part-C** contains **SIX** questions out of which **THREE** questions are to be answered.

PART A

Q1. All questions are compulsory

Multiple Choice Questions

(1x10=10)

(a) A name having a few letters, number and special character _ (underscore) is called

- i. Keyword
- ii. Reserved keyword
- iii. Token
- iv. Identifier ✓

(b) The size of a float variable in C is

- i. 8 bytes
- ii. 4 bytes ✓
- iii. 2 bytes
- iv. 1 byte

(c) Maximum value of an unsigned integer is –

- i. 65535 ✓
- ii. 32767
- iii. -32767
- iv. -65535

(d) Consider the following program statements :

```
Switch (input)
{
Case '1' : print f ("one");
Case '3' : print f ("three");
Case '4' : print f ("five");
Default : print ("odd"); break;
}
```

What will be printed when input is '3' ?

- i. Three five odd
- ii. Three ✓
- iii. Three odd
- iv. Five odd

(e) What does the following function print ?


```

Func (int i)
{
    If (i%2)
return 0;
etc
return I;
}

```

```

Main ()
{
Int I;
I = 3;
I = func(i);
I = func(i);
Print f (" %d " , i);
}

```

- i. 3
- ii. 1
- iii. 0
- iv. 2

(f) Which of the following function need a filename?

- i. Foper
- ii. Felose
- iii. Fread ✓
- iv. None of the above

(g) Prior to using a pointer variable

- i. It should be declared
- ii. It should be initialized
- iii. It should be both declared and initialized ✓
- iv. None of the above

(h) What will be the output of the following code

```

Main ()
{
Int x , y;
X = 10; y=15;
X = x++;
Y = ++y;
Print f ( " %d , % \n " , x , y);
}

```

- i. 10,15
- ii. 10,16 ✓
- iii. 11,16
- iv. 11,15

(i) Which of the following function accurates the square of 'x' ?

- i. Sqr(x)
- ii. Pow(2,x)
- iii. Pow(x,2) ✓
- iv. Power(x,2)

- (j) Name the loop that executes at least once
- For
 - If
 - Do-while
 - While ✓

Short answer question

(2x5=10)

- What is the use of a '\0' character
- What is the modulus operator? *printer*
- What is wrong in the following statement?
i. `Scan f("%d", mem);`
- What are reserved words?
- What are the different data types in c ?

PART B

Q2. Answer any four questions

(4x5=20)

- Differentiate between pass by value and pass by reference? ✓
- Differentiate between for loop and while loop. ✓
- Write a program to print the fibonacci series of given number of your choice.
- Discuss any three string handling functions in C
- Define pointer with suitable example. ✓
- Explain the looping statements

PART C

Answer any three questions

(3x10=30)

Q3) Write a program to input a number and print its factorial using recursion.

Q4) Write a program to input 10 numbers and arrange them in ascending order using bubble sort.

Q5) Write a program to input a string and reverse it. ✓

Q6) Write a program to display the following pattern called Floyd's triangle.

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

Q7) Write a program to input numbers in 3x3 matrix and print the sum of the diagonals.

Q8) Write a function `fnpow()` in c to compute x^y where x is float and y is integer. Function will return the result and takes x,y as arguments.



ARKA JAIN University, Jharkhand

1st Semester Final Examination – 2017-18

Subject: DIGITAL LOGIC
Subject Code: 3007
Time: 3 Hours

Course: MCA
Full Marks: 70
Pass Marks: 28

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- **Part-A** is compulsory. It contains **TEN** questions.
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PART A

Q1. All questions are compulsory:-

(10x1=10)

- a) Which number system has a base of 16?
- i) Decimal ii) Octal iii) Hexadecimal iv) None
- b) How many bits are required to store one BCD digit?
- i) 1 ii) 2 iii) 3 iv) 4
- c) Which of these sets of logic gates are designated as universal gates?
- i) NOR, NAND. ii) XOR, NOR, NAND. iii) OR, NOT, AND. iv) NOR, NAND, XNOR.
- d) A Binary number system has how many digits
- i) 1 ii) 2 iii) 3 iv) 4
- e) If a Hexadecimal number needs to convert to binary. For each hexadecimal digit, there will be how many bits
- i) 1 ii) 2 iii) 3 iv) 4
- f) A digital circuit that can store on bit is a
- i) XOR gate ii) flip-flop iii) gate iv) register
- g) 1 Kilo bits are equal to
- i) 1000 ii) 1024 iii) 1012 iv) 100
- h) A Nibble is equal to _____ bit(s)
- i) 1 ii) 2 iii) 3 iv) 4
- i) In Boolean algebra $A.A$ is equal to
- i) 1 ii) A^2 iii) $2A$ iv) A

j). In Boolean algebra OR is represented by

- i) + ii) - iii) / iv) x

Define the Following Terms

(5 X 2=10)

k) Latches l) NOR gate m) Combinational Gate n) Sequential Gate o) SOP

PART B

Q2. Answer any four questions:

(4x5=20)

- i) What do you mean by RAM? Define its types.
ii) What is Full Adder? Design circuit diagram and truth Table.
iii) Design AND & OR gate using NAND Gate.
iv) Reduce the expression $(XY)' + X' + XY$
v) Design NOT and OR Gate using NOR Gate.

PART C

Answer any three questions:

(3x10=30)

- Q3. What do you mean by Encoder? Define its types. Design Circuit Diagram with truth table.
Q4. What do you mean by Decoder? Define its types. Design Circuit Diagram with truth table.
Q5. What is register? What do you mean by shift registers? Explain types of shift registers with diagram.
Q6. Simplify the following equation using K-Map
 $F(A,B,C,D) = \sum(0,1,3,4,6,7,9,11,13,14)$



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1st Semester Final Examination – 2017-18

Subject: WEB TECHNOLOGY
Subject Code: 3008
Time: 3 Hours

Course: MCA
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PART A

Q1. All questions are compulsory:-

(10x1=10)

A] Multiple Choice Questions

- Correct HTML tag for the largest heading is
 - .<head>
 - .<h6>
 - . <heading>
 - .<h1>
- The attribute of <form> tag
 - .Method
 - Action
 - . Both (a)&(b)
 - . None of these
- The tag used to create a new list item and also include a hyperlink is
 - .
 - .<DL>
 - . <DD>
 - .
- What is the correct HTML for adding a background color?
 - .<background>yellow<Background>
 - .<body color = "yellow">
 - .<body bg color = "yellow">
 - .<body bg ="yellow">
- Main container for <TR>, <TD> and <TH> is
 - .<TABLE>
 - .<GROUP>
 - .<DATA>
 - . All of these
- Which element is used in the <HEAD> section on an HTML / XHTML page, if we want to use an external style sheet file to decorate the page ?
 - .<src>
 - .<link>
 - .<style>
 - .<css>
- How will you make all paragraph elements 'RED' in color ?
 - . p.all {color: red;} c). all.p {color: #998877;}
 - . p.all {color: #990000;} d). p {color: red;}
- Which HTML tag is used to define an internal style sheet?
 - .<script>
 - .<css>
 - . <style>
 - . None of these

ix). `<script language="javascript">`

```
function x()
{
document.write(2+5+"8");
}
</script>
```

- a) 258 c) 7
b) Error d) 78

x). In PHP language variables name starts with _____

- a). ! (Exclamation) c). * (Asterisk)
b). & (Ampersand) d). \$ (Dollar)

B] All questions are compulsory

(5x2=10)

- i) What are the various styles in CSS?
- ii) Differentiate Static web pages and Dynamic web pages
- iii) Write the HTML code for creating multi-line text box with necessary parameters.
- iv) Why MySQL is used?
- v) What is the difference between echo, print, printf statements in php ?

PART B

Q2. Answer any four

(4x5=20)

- i) What is HTML? Explain principles of web designing.
- ii) Write a HTML code using TABLE tag and create following structure:

A	B	C
D	E	F
H	I	J
		K

- iii) Explain the concept of CSS and its uses with an example
- iv) Write a java script to calculate Factorial of the given number
- v) What is CSS padding?
- vi) What are the advantages of PHP?

PART C

(3x10=30)

Answer any Three

Q3. Write notes on HTML and Scripting Languages with example.

Q4. Design a HTML form for a railway reservation system.

Q5. Write a JavaScript to display a welcome message using alert whenever a button of a html form is pressed.

Q6. What is meant by the Magic Constant in PHP ? Define. Write a PHP program using Constructor and Destructor showing use of magic constant.

Q7. a) Write a program creating MySQL Database using PHP

b) Write a program creating table inside MySQL database using PHP

Q8. Write a program for a PHP file containing PHP code, CSS code, Java Script code.



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1st Semester Final Examination – 2017-18

Subject: Professional Communication

Subject Code: 1008

Time: 3 Hours

Course: MCA

Full Marks: 70

Pass Marks: 28

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PART A

Q1. All questions are compulsory:-

I) Answer all the multiple choice questions

(10x1=10)

- Communication is a _____
 - one way process
 - two way process.
 - three way process.
 - four way process
- The main objective of communication is
 - Information and persuasion.
 - Skill and personality development.
 - control and management.
 - need
- _____ channel of communication called the grapevine.
 - formal.
 - Informal.
 - horizontal .
 - vertical.
- Written communication includes
 - reports & forms.
 - interviews.
 - film.
 - speaking.
- Pictures, slides, films fall under
 - body languages.
 - audio-visual communication.
 - reporting.
 - visual communication.
- Gestures is an example for
 - body language.
 - grammar.
 - speeches .
 - written.
- On the _____ it is possible to get immediate feedback
 - letter .
 - telephone.
 - e-mail .
 - fax.
- Appropriate salutation for an application is _____
 - My Dear Sir.
 - Sir.
 - Dear Sir.
 - Sir Mr. X.
- The information the receiver gets is called _____
 - message.
 - output.
 - input.
 - source.
- _____ may be less important for small business
 - letter-writing.
 - telephone.
 - e-mail.
 - fax.

II) Answer all the questions

(5x2=10)

- i) Define Communication.
- ii) Explain the importance of feedback in communication.
- iii) Write a short note on "Listening".
- iv) Write any 2 functions of communication.
- v) What is a business report?

PART B

Q2. Answer any four questions

(4x5=20)

- i) What do you understand by non-verbal communication? Explain.
- ii) Write a short note on Group Discussion.
- iii) What are the objectives of communication in an organization?
- iv) Draw the model of communication and explain its process.
- v) What is a business report? What are the functions and types of business reports?
- vi) What are the ways to overcome communication barriers?

PART C

Answer any three questions

(3x10=30)

Q3. What are the various communication barriers? Explain.

Q4. What are the principles of effective oral communication?

Q5. Assume that you are the HR head of your company "ABC Ltd". Write a letter of appreciation to an Employee of your organization for his/her contribution in achieving excellence and growth of your Company.

Q6. What are the tips for a successful personal interview? Explain with examples.

Q7. Assume that you are applying for a job in an IT company for the role of a software programmer or a Website designer. Prepare a resume for yourself mentioning all the relevant information.

Q8. What are the 7 "Cs" of communication? Explain.



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1st Semester Final Examination – 2017-18

Subject : Human Resource Management
Subject Code : 1007
Time : 3 Hours

Course: MCA
Full Marks : 70
Pass Marks: 28

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PART A

Q.1) All questions are compulsory

I] **MULTIPLE CHOICE QUESTIONS. CHOOSE THE CORRECT OPTIONS** (10x1=10)

- Performance Appraisal serve as a building blocks of :
 - Recruitment
 - Career Planning
 - Selecting
 - Job Analysis
- Evaluation by Boss, Peers, Subordinates, Customers is known as :
 - Critical Incident method
 - Self Appraisal
 - BARS
 - 360 degree Appraisal
- A process by which participants provide their ideas on a stated problem during a freewheeling group discussion is called:
 - Case study
 - Business game
 - In basket
 - Brainstorming
- Replacement charts :
 - Show likely terminations
 - indicate current performance & promotability of employees
 - display strength & weaknesses of employees
 - show future HR needs for each job.
- Study of a firm's past employment needs over a period of years to predict future manpower needs is called :
 - Trend Analysis
 - Skill inventories
 - Replacement charts
 - Expert forecast
- Job specification tells us about the :
 - Contents of the job
 - qualities & qualifications of the person
 - Work environment
 - None of the above
- Minimum how many members are required for Registration of a Trade Union under the Trade Unions Act 1926:
 - 10
 - 6
 - 20
 - 7
- Which of the following Workers' Participation machinery has been provided under the Industrial Disputes Act 1947:
 - Works committee
 - Joint Management Council
 - Shop & Joint Council
 - Quality circles
- A technique that requires the trainee to assume different identities to learn how others feel under different circumstances is called:
 - Brainstorming
 - Coaching
 - case study
 - Role playing
- MBO has been propounded by :
 - F.W.Taylor
 - Peter Drucker
 - A H Maslow
 - H. Fayol

II] VERY SHORT QUESTIONS. ANSWER ALL FIVE QUESTIONS

(5x2=10)

- i) Name the process where the Union Representative and Management Representative sort out their differences and demands to reach a settlement.
- ii) Who are the parties to Industrial Relations?
- iii) Name any four components of employee compensation/ salary
- iv) Expand the abbreviation BARS used in Performance Appraisal.
- v) What is the basic difference between Performance Appraisal and Job evaluation?

PART B

(4x5=20)

Q.2) ANSWER ANY FOUR

- i) What are the problems faced by the Trade Unions in India ?
- ii) What are Primary and Secondary Strikes?
- iii) Write Short notes on 360 degree Appraisal.
- iv) Write short notes on the various sources of Recruitment.
- v) Differentiate between Job description and Job Specification.
- vi) Write short Notes on Works Committee.

PART C

(3x10=30)

ANSWER ANY THREE

Q.3) Explain the various methods of training.

Q.4) What do you understand by Human Resource Management. Discuss the various functions of Human Resource Management.

Q.5) What do you understand by the term Collective Bargaining? Discuss the prerequisite for the success of Collective Bargaining.

Q.6) Discuss the various types of primary strikes.

Q.7) What do you understand by the term Industrial Relations? Discuss the prerequisites of smooth Industrial Relations.

Q.8) "Workers' Participation in Management in India has not been a resounding success". Do you agree? Give reasons.



ARKA JAIN University, Jharkhand

1st Semester Examination - 2017-18

Subject : Web Technologies
Time : 1 Hours

Course: MCA

SET - A

Answer any one question

1. Write HTML Code to design Registration Form

REGISTRATION FORM

Enter First Name	
Enter Last Name	

About you

Enter Hobbies:

<input type="text"/>	Games
<input type="text"/>	Music
<input type="text"/>	Reading

Enter Gender :

- Male
- Female

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2. Write a JavaScript program to show an entered letter is vowel or consonant using nested if...else.
3. Write a Program in php to do the following activities:
- Create a database in MySQL Database.
 - Create a table student with the following structure:
Roll No, First Name, Last Name, Class, Date of birth, date of admission
 - Insert 10 records of student.

Multiple Choice Question

(5 x 1 marks = 5)

- 'Economics is the science which studies human behavior as a relationship between unlimited ends and scarce means which have alternative uses'. This definition is given by:
 - Robbins
 - Adam Smith
 - Marshall
 - Pigou
- Elasticity of demand is perfectly elastic when: