

Section – A

Q1. Answer the following in a word or two :-

[0.5x10=5]

1. _____ refers to a set of programs that governs the operation of a computer system using hardware parts.
2. OS act as an interface between _____ and computer.
3. In _____, a reasonable 'help' included.
4. A _____ is a group of selected cells in a worksheet.
5. Spreadsheet function always starts with _____.
6. _____ function returns the smallest number in a set of values.
7. Formula to calculate sum of all the values in row number 4 from cell E4 to H4 is _____.
8. _____ cell formed by intersecting Row 20 and column D.
9. _____ are the programming instruction to carry out specific task..
10. Logical NOT(!) operator is a _____ operator.

Q2. Choose the correct answer :-

[1x5=5]

1. Find the odd one out:
 - a) $12 > 23$
 - b) $A != B$
 - c) $P \& \& Q$
 - d) $X == Y$
2. $S = S + 23$; can be written as
 - a) $S += 23$;
 - b) $S = +23$;
 - c) $S = 23$;
 - d) ALL
3. String $s = \text{"Cricket "+"Match"};$ $\text{System.out.println}(s);$ What will be the output.
 - a) Cricket
 - b) Cricket + Match
 - c) Cricket Match
 - d) Cricket Match
4. UNIX is a _____ OS
 - a) Multiuser, Multitasking, multithreading
 - b) multiprocessing, Multitasking, multithreading
 - c) Multiuser, multiprocessing, Multitasking
 - d) Multiuser, multiprocessing, Multitasking, multithreading
5. Which one is a absolute Reference.
 - a) E34
 - b) \$E34
 - c) \$E\$34
 - d) \$E\$3\$4

Q3. Define the following:

[1x5=5]

1. Variable
2. user interface
3. Cell reference
4. multi-threading OS
5. Binary operator

Q4. Answer the following in brief:

[2x5=10]

1. Difference between Single user OS and multi-user OS .
2. Differentiate between 'relative referencing' and 'absolute referencing'.
3. Define count function .Write syntax and example.
4. Define Function and structure in spread sheet.
5. Differentiate between Integer Literal and real Literal.

Q5. Answer the following in detail:(Any 3)

[3x5=15]

1. Explain any five functions of an Operating System.
2. Define Relational operator. Explain types of relational operator with example.
3. Define Data type. Explain int, float, char and String Data type with example.
4. Define Identifier. Write identifier forming rules .

SECTION- B

Q6. Write Java statements for the following:

[1x5=5]

1. Declare scanner object.
2. Accept a decimal value from user and store in " price",
3. Accept and store your friends address in a variable "add"
4. Display your name and house name in separate line.
5. $A = \frac{\sqrt{x} + \sqrt{y}}{\sqrt{x+y}}$

Q7. Rewrite the following statements by removing errors, if any. If no error, then mention "NO ERROR": [1x5=5]

1. Float ps=sc.nextfloat();
2. Gen der=next().charat(0);
3. System.out.print("amount="a);
4. double 1stInstallment=23/100*24000;
5. int a=math.sqrt(100)*5;

Q8. Perform Dry Run and give the output:

[2 ½ x4=10]

a) int a=1234,b=10,p; p=a%b; System.out.println(p); a=a/b; p=a%b; System.out.println(p); a=a/b; p=a%b; System.out.println(p); a=a/b;	b) double price,qty,tot,di,discount,amt; price=200.0; qty=10; di=25; tot=price*qty; discount=di/100.0*tot; amt=tot-di; System.out.println("Toatl amont purchased="+tot);} System.out.println("amount to be paid="+amt);
c. char a='H',b='E',c='L',d='O'; System.out.print(a); System.out.print(b); System.out.print(c); System.out.print(c); System.out.print(d);	d. double s,l,b,ar,as; as=81.0; s=Math.sqrt(as); b=Math.sqrt(s); l= b*2; ar=l*b; System.out.println(ar);

Q9. Attempt any FOUR programs. [Code must be written using Blue J with Java]

[5x4=20]

- a) WAP to input Book SerialNo. , Book name and price. Calculate discount as 20% of price. Print Book SerialNo., Book name and amount to be paid with message.
- b) WAP to input roll number, name, marks in 3 subject of a student .Calculate total mark and average mark. Print roll number, name, total mark and average mark with message.
- c) WAP to input area of the base (circle) of the Gas Cylinder. Calculate and print its volume($\pi r^2 h$) with message, where height =radius x 2 .
- d) WAP to input the principal amount taken as loan(p) ,rate(r),number of times interest applied per time period(n) and number of time periods elapsed (t) . Calculate final amount(A) with message.
$$A = P \left(1 + \frac{r}{n} \right)^{nt}$$
- e) WAP to input 3 sides of a scalene triangle m, n, p. Calculate and display its area with message.
(area= $\sqrt{s(s - m)(s - n)(s - p)}$, where $s = \frac{m+n+p}{2}$)

***** All the best *****