Shell programs

1. Perform Arithmetic Operations

#/bin/sh

a=1

b=2

sum=` expr $a + $b `

echo $sum

1. #/bin/sh

a=12;b=32

res=`expr $a \\* $b `

echo $res

1. #/bin/sh

x=120

y=17

ans=` expr $x / $y `

echo $ans

1. #/bin/sh

x=120

y=17

sub=` expr $x - $y `

echo $sub

1. #/bin/sh

Name=”James Bond”

Echo $Name

1. #/bin/sh

Num=123

Echo ` expr $Num + 3`

1. #/bin/sh

msg1=Hello

msg2=Welcome!

echo $msg1 $msg2

1. #/bin/sh

var1="HI"

var2="There"

echo $var1 $var2

1. #/bin/sh

Echo ‘”welcome world”’ or `”welcome world”` 🡪 command not found..

1. #/bin/sh

echo $(( 10 +20 +30))

1. #/bin/sh

echo " i have \$100"

echo " i have $100"

echo ' i have $100'

echo printing date and time `date`

echo $?

Find the error in the below program and correct it

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1. #/bin/sh

myname=Vivek

myos =TroubleOS

myno=5

echo "My name is $myname"

echo "My os is $myos"

echo "My number is myno, can you see this number"

13 . #/bin/sh

echo enter ur name

read name

echo "hello $name"   
14 . #/bin/sh

a=0

while [ "$a" -lt 10 ]

do

b="$a"

while [ "$b" -ge 0 ]

do

echo -n "$b "

b=` expr $b - 1 `

done

echo

a=` expr $a + 1 `

done

15 . #/bin/sh

a=0

while [ $a -le 10 ]

do

echo $a

a=`expr $a + 1`

done

16 . Example for infinit loop

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#/bin/sh

a=10

while [ $a -ge 10 ]

do

echo $a

a=`expr $a + 1`

done

16 . #/bin/sh

a=0

while [ $a -le 10 ]

do

if [ $a -eq 5 ]

then

break

fi

echo $a

a=`expr $a + 1`

done

17. for var1 in 1 2 3

do

for var2 in 0 5

do

if [ $var1 -eq 2 -a $var2 -eq 0 ]

then

break 2

else

echo "$var1 $var2"

fi

done

done

18. #/bin/sh

for var1 in 1 2 3

do

echo $var1

done

19. NUMS="1 2 3 4 5 6 7"

for NUM in $NUMS

do

Q=`expr $NUM % 2`

if [ $Q -eq 0 ]

then

echo "Number is an even number!!"

continue

fi

echo "Found odd number"

done

20. #/bin/sh

# Usage of test command

if test $1 -gt 0

then

echo "$1 number is positive"

else

echo "$1 is negative"

fi

21. #/bin/sh

#To print the date ,No of users logged in and the uptime of the server

Date=`date`

echo "Date is $Date"

Users=`who | wc -l`

echo "Logged in Users :$Users"

UP=`date ;uptime`

echo "uptime is $UP"

22. #/bin/sh

echo "select Department"

echo -e "1. Technical \t 2. Developing

echo "Select your choice [1 or 2]

read depart

if test $depart -eq 1

then

echo "You had selected technical as your department"

else

if test $depart -eq 2

then

echo "you have selected developing as your department"

else

echo "No valid Department found"

fi

fi

21. if cat $1

then

echo -e "\n\n File $1, found and successfully echoed "

fi

22. #/bin/sh

if rm $1

then

echo "$1 file deleted"

fi

23. #/bin/sh

if [ $# -eq 0 ]

then

echo "$0 - Then you should supply one integer"

exit 1

fi

24 . #/bin/sh

if [ -z $1 ]

then

course="\*\*\*Exam Date not scheduled\*\*\*"

elif [ -n $1 ]

then

course=$1

fi

case $course in

"Bcom")echo "Exam date for $course is 15th November";;

"Mcom")echo "Exam date for $course is 20th November";;

"BCA")echo " Exam date for $course is 18th November";;

"MCA")echo " Exam date for $course is 22nd November";;

\*)echo "Sorry check your choice $course";;

Esac

25. if test $1 -eq 1 && test $2 == JAN

then

echo "it is equal"

elif test $1 -eq 1 || test $2 == JAN

then

echo "it is not equal"

else

echo "unknown value"

fi

26. #/bin/sh

if [ $1 -eq 1 ] && [ $2 == JAN ]

then

echo "it is equal"

elif [ $1 -eq 1 ] || [ $2 == JAN ]

then

echo "it is not equal"

else

echo "unknown value"

fi

27. for var1 in 0 2 4 6 8

do

echo "$var1"

done

28. #/bin/sh

for var1 in 0 2 4 6 8

do

for var2 in 1 3 5

do

echo "$var1 $var2"

done

done

29. if [ $# -eq 0 ]

then

echo "Error - Number missing form command line argument"

echo "Syntax : $0 number"

echo "Use to print multiplication table for given number"

exit 1

fi

n=$1

for i in 1 2 3 4 5 6 7 8 9 10

do

echo "$n \* $i = ` expr $i \\* $n `"

done

30 . #/bin/sh

for (( i = 0 ; i <= 5; i++ ))

do

echo "Welcome $i times"

done

31. #/bin/sh

if [ $1 -gt 0 ]; then

echo "$1 is positive"

elif [ $1 -lt 0 ]

then

echo "$ is negative"

elif [ $1 -eq 0 ]

then

echo "$1 is zero"

else

echo "oops! $1 is not number ,give number"

fi

32. for (( i = 1; i <= 5; i++ ))      ### Outer for loop ###  
do  
  
    for (( j = 1 ; j <= 5; j++ )) ### Inner for loop ###  
    do  
          echo -n "$i "  
    done  
  
  echo "" #### print the new line ###  
  
done

33. write a script that prints table of any number.

#!/bin/bash

echo “Enter The Number upto which you want to Print Table: ”

read n

i=1

while [ $i -ne 10 ]

do

i=$(expr $i + 1)

table=$(expr $i \\* $n)

echo $table

done

34. find if the number is odd or even

#!/bin/bash

echo "Enter The Number"

read n

num=$(expr $n % 2)

if [ $num -eq 0 ]

then

echo "is a Even Number"

else

echo "is a Odd Number"

fi

35. to find the Factorial

#!/bin/bash

echo "Enter The Number"

read a

fact=1

while [ $a -ne 0 ]

do

fact=$(expr $fact \\* $a)

a=$(expr $a - 1)

done

echo $fact

36. To find the Armstrong number

#!/bin/bash

echo "Enter A Number"

read n

arm=0

temp=$n

while [ $n -ne 0 ]

do

r=$(expr $n % 10)

arm=$(expr $arm + $r \\* $r \\* $r)

n=$(expr $n / 10)

done

echo $arm

if [ $arm -eq $temp ]

then

echo "Armstrong"

else

echo "Not Armstrong"

fi

37. To check whether the number is prime or not

#!/bin/bash

echo “Enter Any Number”

read n

i=1

c=1

while [ $i -le $n ]

do

i=$(expr $i + 1)

r=$(expr $n % $i)

if [ $r -eq 0 ]

then

c=$(expr $c + 1)

fi

done

if [ $c -eq 2 ]

then

echo “Prime”

else

echo “Not Prime”

fi