S.B.Roll No. _____

COMPUTER NETWORKS

6th Exam/ECE/COMP/IT/6061/6202/Dec-2011

Duration: 3 Hrs.   Max. Marks: 75

Section-A

Q1.   Do as directed. Expand the following terms   10x1.5=15
   (i)   VOIP
   (ii)   OSI
   (iii) URL
   (iv)   MAC
   (v)   There are-types of network topologies.
   (vi)   A bridge reads the outermost section of data on data packet to tell where message is going (T/F).
   (vii) There are _____ classes of networks.
   (viii) Physical interface to medium is usually network adapter (T/F)
   (ix)   The amount of resistance to the transmission device is called _____
   (x)   Apple talk network topology is bus (T/F)

Section-B

Q2.   Attempt any five questions   5x6=30
   (i)   Explain network topologies with diagram
   (ii)   Explain difference between circuit and packet switching.
   (iii) Explain NNTP, SMTP, Congestion control.
   (iv)   Explain data link network and transport layer of OSI reference model
   (v)   Explain the difference between IPV4 and IPV6
   (vi)   Explain the difference between OSI v/s TCP/IP

Section-C

Q3.   Attempt any two questions   2x15=30
   (i)   Explain the following
          (a) Repeaters
          (b) NIC's
          (c) Full duplex
          (d) Hubs
          (e) Multiplexers
   (ii)   (a) Explain hauftman codes and cryptography
          (b)Explain wireless MAN, wireless LAN, WiMAX
   (iii) Write short notes on
          (a) Bluetooth technology
          (b) Raid management
          (c) Mirroring
          (d) VOIP and Net to phone telephony
          (e) Firewall

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METROLOGY AND INSTRUMENTATION
6th Exam/Mech./5386/2653/Dec'11

Duration: 3 Hrs.   Max. Marks: 75

Note: Attempt any five questions. Q. No. 1 is compulsory.

Q 1   Fill in the blanks: 15
   i.   Metrology is the science of _____.
   ii.   The difference between the measured value and true value is called _____.
   iii. The measuring instrument, through which the length is measured as a distance between two lines are called _____ measuring instruments.
   iv.   The difference between the value of main scale division and vernier scale division is called _____.
   v.   Sine bar is used to measure _____.
   vi.   Try square consists of blade and _____.
   vii. _____ gauges are used to calibrate the reference gauges.
   viii. CMM means _____.
   ix.   The difference between maximum and minimum limits of a size is called _____.
   x.   _____ vernier is used to measure the thickness of gear tooth.

Q2 a.   What is the difference between precision and accuracy?   5
    b.   Explain working principle, construction and working of a micrometer.   10

Q3 a.   Differentiate between systematic and random errors?   5
    b.   What is Sine bar? How it is used to measure angle?   10

Q4 a.   Write short note on wire gauge?   5
    b.   What do you mean by wringing of slip gauges? What precautions must be taken while using slip gauges?   10

Q 5 a.   Define squareness and parallelism   5
    b.   Explain with neat sketch the construction and working of gear tooth vernier.   10

Q 6 a.   Describe briefly surface plate.   5
    b.   Explain in brief the construction and working of a tool maker's microscope.   10

Q 7 a.   Why hole basis system is preferred?   5
    b.   Discuss any three alignment tests performed on Lathe machine.   10

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QUALITY SURVEYING AND VALUATION
6TH Exam/CIVIL/6951/5180/Dec-2011

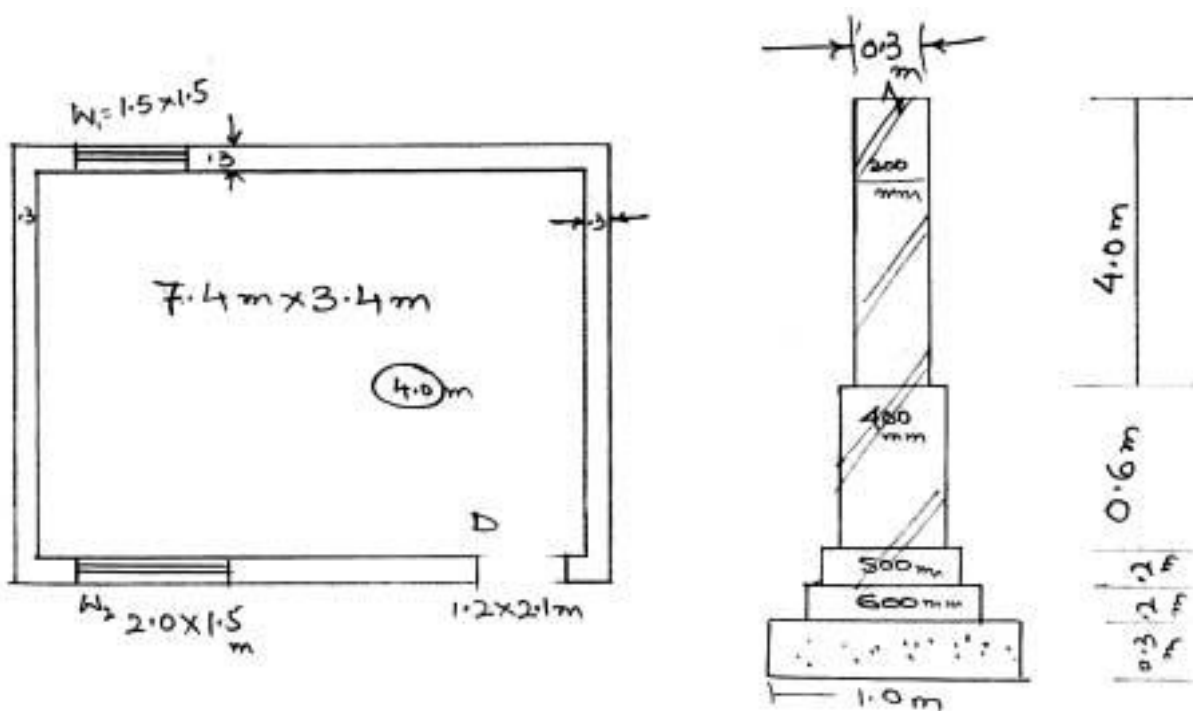Duration: 3 Hrs.   Max. Marks: 75

Note :   Attempt any four questions. Q1. is compulsory

Section-A

Q1.   Calculate the quantities of following items of work from fig.1
  (a) Earth work in excavation in foundations   5
  (b) PCC 1:6:12 as foundations cone   5
  (c) Brick masonry is superstructure   10
  (d) BB work in foundation and plinth   10

Q2.   Write units of measurement and payment of the following items   1.5x10=15
  (i)   Earthwork in cutting   (ii)   RCC slab
  (iii) C. Conc in lintels   (iv)   Plastering
  (v)   Brick flooring   (vi)   Skirting
  (vii) Land clearing   (viii) Tree cutting
  (ix)   Fixing W.C seats   (x)   Bitumen supply

Q3.   Find the quantities of materials regd. For the following   7.5x2=15
  (a) 100 cubic meter c.con 1:3:6
  (b) 100m^3 of brick masonry in 1:4:c mortar

Q4.   Write note on any three   3x5=15
  (a) Salvage valve
  (b) Sinking fund
  (c) Years purchase
  (d) Principles of valuations

Q5.   Work out the capitalized value of property on the basis of 7% net yield for an office building of 500 sq.m built at the cost of 1500 per sq.m on a land area of 800m^2.The land cost is Rs.15000/- per sq.m. Monthly rental from it is Rs.9000/-. Take life of structure as 70 years. Sinking fund is 3 % compound Interest. Other data is

  (a) Repair and maintenance   = 1 month rent

  (b) M.C property taxes   = 15% of annual rent

  (c) Insurance etc   = 10% of annual rent   15

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INTERNET PROGRAMMING USING JAVA
6th Exam/IT/9007/Dec'11

Duration: 3 Hrs.   Max. Marks: 75

Note: Attempt all questions.

Section- A

Q1   Expand the following acronyms: 7.5
   i.   AWT
   ii.   JVM
   iii.   URL
   iv.   API
   v.   GUI

State True or False: 7.5
   i.   One 'if' statement can have more than one 'else' statements.
   ii.   A 'switch' statement is always replaced by a series of if . . . else statements.
   iii.   In procedural programming, whole data is not shared by all functions.
   iv.   In object oriented programming, there is emphasis on procedure rather than data.
   v.   Java Applets are static programs.

Section- B

Q2   Attempt any five questions.   5x6
   i.   What is multithreading? How does it improve the performance of java?
   ii.   Why do we need import statement?
   iii.   List eight basic data types used in java with example.
   iv.   What is a constructor? What are its characteristics?
   v.   Discuss major difference between interface and class.
   vi.   Explain common types of exceptions that might occur in java. Give examples.
   vii.   Discuss the steps involved in developing and running a local applet.

Section- C

Q3   Attempt any three questions.   3x10
   i.   What are command line arguments? Explain with example.
   ii.   What is object-oriented programming? How is it different from procedure oriented programming?
   iii.   What is an applet? What are its various types?
   iv.   Differentiate between
      a.   Inheritance and polymorphism
      b.   Objects and classes
   v.   Write short note on
      a.   JDBC
      b.   JIT

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WIRELESS COMMUNICATION
6th Exam/COMP/0762/Dec-2011

Duration: 3 Hrs.   Max. Marks: 75

Section-A

Q1. (a) Fill in the blanks   1.5x5=7.5
    (i) _____ is a group of cells.
    (ii) _____ are caused by mobility of terminals
    (iii) _____ has a very high spectral efficiency.
    (iv) _____ phones use SIM cards.
    (v) Shadowing has _____ effects.

(b)   Expand the following   1.5x5=7.5
    (i)   SINR
    (ii) QPSK
    (iii) FEC
    (iv) FHSS
    (v)   UMTS

Section-B

Q2.   Attempt any five questions   6x5=30
    (i)   Write a short note on HSCSD?
    (ii) Why are so many base stations required?
    (iii) Write a short note on fadding?
    (iv) Write a short note on PSK?
    (v)   Explain Wi-Fi.
    (vi) What do you mean by WLL?

Section-C

Q3.   Attempt any three questions   10x3=30
    (i)   What do you mean by fadding? What are its different types, Explain it?
    (ii) Write down the advantages and disadvantages of FDMA scheme?
    (iii) Write down the advantages of wireless communications?
    (iv) Explain GSM technology? What are its features?

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AIRCRAFT STRUCTURE
4th Exam/Aero/4943/1318/Dec'11

Duration: 3 Hrs.   Max.Marks:75

Note: Attempt any Five questions. Question No.1 is compulsory.
          All questions carry equal marks.

Q. 1.   State True or False.   15
  i.   The wing spar basically carries bending loads.
  ii.   The purpose of spring and servo tabs to assist the pilot in moving the control surfaces
  iii. To check the frayed cables, run the bare hand on it.
  iv.   Butt line is the length measurement left or right and parallel to the vertical center line.
  v.   Lock washers are used where structure is exposed to airflow.
  vi.   Case in glues are available in powder form.
  vii. AN 430 AD round head rivet and material is AI alloy.
  viii. The tensile strength of machine sewing thread is 24 Ibs.
  ix.   Spongy brake pedal is the indication of air trapped in the system.
  x.   Natural rubber seals are compatible with mineral base fluid.

Q2 a)   What do you under stand by seasoning of wood? Explain the procedure of kiln drying the wood.
                                                                                                      10
   b)   Explain the non acceptable wood defects and diseases.   05

Q3 a)   What are the various constructions used in the aircraft fuselage. Explain anyone in detail.   10
   b)   Describe in brief about wing station.   05

Q4   Write short notes on:-   5x3
   1.   Dope.   2. Rejuvinator   3. Rib lacing cord

Q5 a)   Name different types of washers used on aircraft. Explain in detail.   10
   b)   Write short note on Nose rib/false rib.   5

Q6 a)   Explain in detail about the special bolts used on aircraft.   10
   b)   Write a brief note on butt rib / compression rib.   5

Q7   Write a short note on:-   15
   1.   Fuselage station
   2.   Flap station
   3.   Aileron station

Q8 a)   What are the various methods of fabric testing Explain in detail.   08
   b)   Write in brief about doped in patch.   07