

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(Second Semester)

Branch – APPLIED ELECTRONICS

VERILOG

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Which of the following is a superset of Verilog?
(i) Verilog (ii) VHDL
(iii) System Verilog (iv) System VHDL
- 2 UDP stands for
(i) User Datagram Protocol (ii) Usually Datagram Protocol
(iii) User Delay Protocol (iv) User Delay Program
- 3 Turn off delay means, gate output transition to
(i) 1 (ii) 0 (iii) z= (iv) x
- 4 A ----- returns a single value.
(i) Function (ii) Tasks (iii) port (iv) module
- 5 Which type of device FPGA are?
(i) PLD (ii) EPROM (iii) SRAM (iv) SLD

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Write a note on various format with an example.
OR
b Discuss about the logical operators.
- 7 a Explain the function of multiple input gates.
OR
b Elucidate the function of gate delays.
- 8 a Define continuous assignment.
OR
b Write a note on Block statement.
- 9 a What is meant by Module Instantiation?
OR
b Explain the disable statement.
- 10 a What is meant by PLA? And explain it.
OR
b Explain what is meant by technology mapping.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 6 = 30)

- 11 a. Analyze value set and their functions.
OR
b. Discuss about various arithmetic, equality, reduction operators.
- 12 a. Explain the function of MOS and Bidirectional switches.
OR
b. Explain the combinational and sequential UDP and their features.
- 13 a. Illustrate the Net declaration assignment.
OR
b. Explain the conditional and case statement.
- 14 a. Elucidate the sharing tasks and functions.
OR
b. How vectors are read from a text file. Explain it with an example.
- 15 a. Describe the FPGA physical design tools.
OR
b. Discuss about the register transfer logic synthesis.

Z-Z-Z

END

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION MAY 2023
(Second Semester)**

Branch – APPLIED ELECTRONICS

ADVANCED MICRO CONTROLLERS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 When the microcontroller executes some arithmetic operations, then the flag bits of which of the following register are affected?
i) DPTR ii) PSW iii) PC iv) SP
- 2 In MSP430, the size of the status register is _____.
i) 1 byte ii) 2 bytes iii) 1 bit iv) 2 bit
- 3 Which of the following architecture is followed by general-purpose microprocessors?
i) Von Neumann architecture ii) Harvard architecture
iii) None of the mentioned iv) All of the mentioned
- 4 How much time is required for conversion per channel if PIC 16C71 possesses four analog channels, each comprising of 8-bits?
i) 10 μ s ii) 15 μ s iii) 20 μ s iv) 30 μ s
- 5 The 12C bus uses which of the following lines?
i) CLK ii) MISO iii) SDA iv) All of the mentioned

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a. How is the stack top address calculated?
OR
b. Explain the memory organization in 8051.
7. a. Mention the need of software UART in a system.
OR
b. Explain the clock system of MSP430.
8. a. Discuss the GPIO register mapping
OR
b. Explain the need for interrupt control.
9. a. Describe the operation of watchdog timer.
OR
b. Mention the need of pull-up/pull-down resistor in any processor or a controller.

Cont...

10. a. Explain the functions of serial peripheral interface in detail.
OR
b. Describe in detail about 12C bus.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. With a neat block diagram, explain the features of MSP430 microcontroller.
OR
b. Explain the various timer operating modes in MSP430.
- 12 a. Draw the block diagram of DAC 0808 interfaced to MS430 at port P1 and write an MS430 program to generate a sine wave.
OR
b. With a neat sketch, describe how the serial peripheral interface can be implemented in the universal serial communication interface of MSP430.
- 13 a. Explain the operation of inter-integrated circuit bus in detail.
OR
b. With a neat sketch describe how the inter-integrated circuit bus can be implemented universal serial communication interface communication peripherals of MSP430.
- 14 a. Explain in detail about the Timer registers.
OR
b. Briefly explain the ADC module register.
- 15 a. Explain the working of UART with suitable diagram.
OR
b. Draw the block diagram of 12C and explain its functions.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(Second Semester)

Branch – APPLIED ELECTRONICS

MAJOR ELECTIVE COURSE - I
WEARABLE DEVICES AND ITS APPLICATIONS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Choose the wearable device used in health care -----.
(i) glucose monitors (ii) minuscule drone
(iii) hearing aids (iv) VR headsets
- 2 State the device which is used for counts each step a person takes by detecting the motion of the person's hands or hips -----.
(i) Accelerometer (ii) Gyroscopes
(iii) Pressure sensors (iv) Pedometers
- 3 A KPF sensor is used for measuring -----.
(i) Body temperature (ii) limb movement stretching and bending
(iii) Blood pressure (iv) heart beat rate
- 4 The Electrochemical Gas sensor is used to detect ----- .
(i) temperature (ii) Pressure
(iii) SO₂ (iv) displacement
- 5 A.I stands for-----.
(i) Automotive Intelligence (ii) Artificial Intelligence
(iii) Autonomous Intelligence (iv) Appliances Intelligence

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Describe the types of wearable sensors used for Environment monitoring.
OR
b Explain the motivation for development of wearable devices.
- 7 a State how Accelerometer used wearable inertial sensor works?
OR
b Write a short notes on Invisible sensors.
- 8 a Explain the detection principle of temperature sensor thermistor.
OR
b Discuss about the conductive textile electrodes and its features.

Cont...

- 9 a Determine the role of wearable pulse oximeter.
OR
b Write a note on wearable biochemical sensors.
- 10 a Explain the uses of wearable cameras in safety and security area of applications.
OR
b Analyze the features of MEMS Microphones utilization as wearable devices.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Compare invasive and Non-invasive wearable sensors.
OR
b Explain the application of wearable sensors role in fashion, entertainment and military areas.
- 12 a Describe the operation of the magnetic sensor and Gyroscopic sensor.
OR
b Explain how the physical human activity recognition using wearable sensors is carried out?
- 13 a Describe intermittent and continuous temperature measurement and monitoring process.
OR
b Differentiate between the adhesive/tattoo type temperature sensor and their applications.
- 14 a Explain the operation of Glucotrack TM sensor.
OR
b How MOS type gas sensor can be used as a wearable sensor?
- 15 a State role of camera in smart watch and automatic digital diary in the revolution of wearable devices era.
OR
b Elucidate functions of wearable devices for blind-hearing and touch sensation.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
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MSc DEGREE EXAMINATION MAY 2023
(Second Semester)

Branch – APPLIED ELECTRONICS

CLOUD COMPUTING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Who is the father of Cloud Computing?
(i) Sharon B. Codd (ii) Edgar Frank Codd
(iii) J.C.R. Licklider (iv) Charles Bachman
- 2 When cloud computing is not the best solution for your computing needs?
(i) Limitations (ii) Simplicity
(iii) Scalability (iv) Vendors
- 3 CDN_____
(i) Control Delivery Network (ii) Content Delivery Network
(iii) Content Delay Network (iv) None
- 4 Which one of the following is Cloud Platform by Amazon?
(i) Azure (ii) AWS
(iii) Cloudera (iv) All of the mentioned
- 5 In Which Type of VM, full virtualization can be possible?
(i) Type4 (ii) Type2 (iii) Type3 (iv) Type1

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a. What are the advantages and disadvantages of cloud computing?
OR
b. Discuss the Measures service.
- 7 a. Explain the Limitation.
OR
b. Write short notes on Security.
- 8 a. Explain the platform as a services (PaaS).
OR
b. Illustrate the private cloud.
- 9 a. Explain the Cloud sim simulators.
OR
b. Explain the working platform for cloud sim.
- 10 a. Discuss the crating virtual machine.
OR
b. Explain the virtulaize a physical machine.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a. Highlight the evolution Cloud computing.
OR
b. Explain the (i) Board network access (ii) Rapid elasticity.
- 12 a. Describe the benefits of cloud computing.
OR
b. Discuss the Regularity issues.
- 13 a. Sketch neat diagram of layered cloud architecture.
OR
b. Describe the software as a service(SaaS).
- 14 a. Discuss the cloud simulator.
OR
b. Explain the cloudsim architecture.
- 15 a. Discuss the type of virtualization.
OR
b. Explain the starting and stopping a virtual machine.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(First Semester)

Branch – APPLIED ELECTRONICS

AUTOMOTIVE POWER ELECTRONICS/ POWER ELECTRONICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 When an SCR is turned on, the voltage across it is about _____.
(i) 0 V (ii) 0.1 V
(iii) 1.0 V (iv) 10 V
- 2 How many switches are used to build a three-phase cycloconverter?
(i) 10 (ii) 14
(iii) 18 (iv) 24
- 3 A four-quadrant chopper cannot be operated as _____.
(i) Thyristor (ii) Cycloconverter
(iii) One quadrant chopper (iv) Inverter
- 4 A three-phase full converter is supplying a purely resistive load at 220 V dc for 00 firing angle, find the output voltage for 900 firing angle.
(i) 0 V (ii) 30 V
(iii) 60 V (iv) 90 V
- 5 The frame of an induction motor is made of _____.
(i) Silicon steel (ii) Stainless steel
(iii) Cast iron (iv) Aluminum

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a What is opto isolator? Briefly explain its operation.
OR
b Explain the operations of SCR.
- 7 a State and explain the operation of solid state relay.
OR
b Discuss the principle of phase control with necessary diagrams.
- 8 a Describe the operation of voltage commuted chopper.
OR
b Describe the operation of boost regulators with neat diagram.

Cont...

9 a Explain the working principle of half wave controlled converters.

OR

b Describe the various types of PWM techniques.

10 a What is BLDC? Explain its operation.

OR

b State the importance of induction and DC motor controls.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11 a Explain the operation of relaxation oscillator using UJT.

OR

b Explain how speed control of DC shunt motor using thyristors is carried out.

12 a State the differences between single phase and three phase AC switches.

OR

b Discuss in details about single phase cyclo converters.

13 a State and explain the switching mode regulators.

OR

b Show the difference between MOSFET and Transistor based choppers.

14 a State and explain about the operation of three phase fully controlled converter with R-RL load.

OR

b Give the features of three phase and single phase bridge inverters.

15 a Describe how open and close loops are controlled using speed and current sensors.

OR

b Explain the working principle of motor construction and it's applications.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2023
(First Semester)

Branch –APPLIED ELECTRONICS

COMPUTER NETWORKS AND OPERATING SYSTEMS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. The first Network was called as _____.
i) CNNET ii) NSFNET iii) ASAPNET iv) ARPANET
2. Which of the following tasks is not done by data link layer?
i) Framing ii) error control iii) flow control iv) channel coding
3. An endpoint of an inter-process communication flow across a computer network is called as _____.
i) socket ii) pipe iii) port iv) machine
4. What are the types of distributed operating systems?
i) Zone based Operating system ii) Level based Operating system
iii) Network Operating system iv) All of the mentioned
5. What does OS X has?
i) Monolithic kernel with modules ii) microkernel
iii) monolithic kernel iv) hybrid kernel

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Analyze the OSI model.
OR
b. List out the components of Data communication.
- 7 a. Write about the data link control.
OR
b. Explain Bridges.
- 8 a. Discuss about the FTP.
OR
b. Write a note on congestion control.
- 9 a. Elucidate the various services of operating systems.
OR
b. Explain Booting Machine and its operation.
- 10 a. Write the Shell scripts in Linux Programming.
OR
b. List out the threads in Linux.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. Explain what is meant by Protocols in detail.
OR
b. Describe the characteristics of LAN.
- 12 a. Describe HDLC and features.
OR
b. Explain the data link layer protocols and its features.
- 13 a. Illustrate the operation of DNS in detail.
OR
b. What is meant by MIME? And explain it.
- 14 a. Discuss about the process management and its features.
OR
b. What is meant by IPC? And explain it.
- 15 a. What is kernel? Explain it.
OR
b. State the uses of NS2.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(First Semester)

Branch – APPLIED ELECTRONICS

MICROCONTROLLER

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 PIC is -----
(i) preferable interrupt controller (ii) peripheral instruction controller
(iii) proper interrupt controller (iv) peripheral interrupt controller
- 2 Choose the following one for embedded system -----
(i) tape recorder (ii) digital camera
(iii) punching machine (iv) watches
- 3 How many timers are in PIC -----
(i) 2 (ii) 3
(iii) 5 (iv) 4
- 4 State the process of PIC performance stopped inbetween the work done by called -----
(i) conversion (ii) acquisition
(iii) interrupt (iv) process
- 5 Find among the below which one is input device -----
(i) keyboard (ii) LCD
(iii) LED (iv) pendrive

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Explain the status register.
OR
b State about the CISC VS RISC.
- 7 a Discuss about the types of variables.
OR
b Produce the control statement.
- 8 a Justify the Timer 1 function.
OR
b Illustrate the TRIS registers.
- 9 a Justify the registers related to interrupts.
OR
b Evaluate the A/D acquisition requirements.
- 10 a Describe the resistive ladder DAC interface.
OR
b Illustrate the LCD interface.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a Assess the program and data memory organization in PIC 16F87XX.
OR
b Criticize the PIC Microcontroller family and Option register.
- 12 a Elucidate PIC 16 C data operations.
OR
b Interpret data types and storage classes.
- 13 a Draw the block diagram of I/O ports and explain.
OR
b Justify the Timer programming operations.
- 14 a Criticize the interrupt programming.
OR
b Recommend selecting the A/D conversion clock and its related register selection.
- 15 a Determine matrix keyboard interface with PIC.
OR
b Predict the RS232 interface with PIC.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(Third Semester)

Branch – APPLIED ELECTRONICS

DISCIPLINE SPECIFIC ELECTIVE – I:
INSTRUMENTATION AND CONTROL SYSTEM

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Name the device which is specially designed for frequency measurement ----
(i) digital frequency meter (ii) digital phase meter
(iii) digital multimeter (iv) DSO
- 2 The displacement measurement transducer is basically a
(i) resistive (ii) capacitive
(iii) inductive (iv) LVDT
- 3 Which traversal of connected branches in the direction of the branch arrows such that no node is traversed more than once?
(i) loop (ii) node
(iii) path (iv) branch
- 4 Which of the following determine the system performance ?
(i) signal flow graph (ii) steady state error
(iii) masons formula (iv) first order system
- 5 Which of the following is representation of transfer function in logarithmic plot which consists two graphs
(i) inverse polar plot (ii) polar plot
(iii) root locus (iv) bode plot

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Analyze the dynamic characteristics of an instruments.
OR
b State the features of Digital capacitance meter.
- 7 a What is Electrical transducer?
OR
b Explain the function of strain gauge.
- 8 a State the Mason's gain formula with suitable example.
OR
b Define the feedback and non-feedback system.

Cont...

- 9 a What is standard test signals?
OR
b Define steady state error.
- 10 a Describe the concept of Routh Hurwitz criterion.
OR
b Explain the principles of PD controller.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Assess the function of DSO.
OR
b Describe the working principle of digital frequency meter.
- 12 a Describe the characteristic features and application of inductive transducer.
OR
b How does the piezo electric transducer works?
- 13 a Define the differential equation and transfer function of an electrical system.
OR
b Compare the open and closed loop systems with an aid of a block diagram.
- 14 a Describe the step input analysis of second order system.
OR
b What are the effect of adding a zero to a system?
- 15 a How does PID controller Work?
OR
b Explain root locus method.

Z-Z-Z

END

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a. Discuss about IoT Enabling technology.
OR
b. Describe the IoT Architecture.
- 12 a. Analyze the Zigbee Architecture.
OR
b. Discuss about the Layer Protocol Optimization.
- 13 a. Illustrate the operation of SoCs.
OR
b. Describe the working of Sensors and Actuators.
- 14 a. Discuss about the operating systems for IoT applications.
OR
b. Explain the Four main components of IoT Systems.
- 15 a. Discuss about the Data types in IoT.
OR
b. Explain about the Clustering.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(Fourth Semester)

Branch – APPLIED ELECTRONICS

AUTOMOTIVE ELECTRONICS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Which of the following is not a part of the transmission system?
(i) Clutch (ii) Wheels
(iii) Gear Box (iv) Axles
- 2 In battery ignition system, the primary voltage decreases when engine speed ____
(i) decreases (ii) increases
(iii) increases then decreases (iv) decreases then increases
- 3 Which of the following is the port fuel injection system?
(i) L-MPFI (ii) D-MPFI
(iii) GDI (iv) TBI
- 4 What detects the fault in the anti-lock brake system?
(i) Pump (ii) Valves
(iii) Sensors (iv) ECU
- 5 KWP 2000 is compatible with ____
(i) K-Line (ii) CAN
(iii) both (i) and (ii) (iv) LIN

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Discuss about the evolution of Automotive systems.
OR
b Evaluate about the working of brakes.
- 7 a State the requirements of a starting system.
OR
b Illustrate the working of plug leads.
- 8 a Prepare an overview of programmed ignition.
OR
b State the advantages of fuel injection.

Cont...

- 9 a Explain about the anti-lock brakes.
OR
b Justify the importance of central locking.
- 10 a State CAN protocol.
OR
b Discuss about the Wi-fi protocol.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Construct a 4 – stroke cycle with neat diagrams.
OR
b Elucidate the working of steering system.
- 12 a Classify the types of Ignition systems in detail.
OR
b Enumerate the points on Ignition coil cores.
- 13 a Design the electronics section of carburetion.
OR
b Create the system overview of fuel injection.
- 14 a Interpret about the ABS components used and write a brief note.
OR
b Evaluate the working of electric windows.
- 15 a Compare CAN and LIN protocols.
OR
b Justify which protocol is best in KWP 2000 and J1850.

Z-Z-Z

END

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2023
(Fourth Semester)
Branch – APPLIED ELECTRONICS
DISCIPLINE SPECIFIC ELECTIVE –II
DIGITAL IMAGE PROCESSING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 ----- is the first step in image processing.
(i) Image Restoration (ii) Wavelets and Multi-resolution Processing
(iii) Compression (iv) Image Acquisition
- 2 ----- is an analogue filter design which produces the best output response with no ripple in the pass band or the stop band.
(i) Butterworth (ii) Gaussian
(iii) Adaptive (iv) Inverse
- 3 ----- adds pixels to the boundaries of objects in an image.
(i) Morphology (ii) erosion
(iii) dilation (iv) edge linking
- 4 ----- is used to Identify and store the directions from each pixel to its neighbor pixel on each contour.
(i) Subband coding (ii) Chain Coding
(iii) pattern (iv) wavelets
- 5 Mally accepted as an international standard in 1992 was -----.
(i) pdf (ii) doc
(iii) JPEG (iv) pixel

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a State the orgin of digital image processing.
OR
b Illustrate the color models in digital image processing.
- 7 a Explain the Histogram in image processing.
OR
b Evaluate the frequency domain.
- 8 a Justify the noise models.
OR
b Solve the Morphological Dilation and Erosion process in digital image processing.

Cont...

- 9 a Analyze the shape number.
OR
b Describe the Texture.
- 10 a Solve the bit-plane coding.
OR
b Evaluate Image Compression Standards.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Interpret Image sensing and acquisition.
OR
b Elucidate image transformation.
- 12 a Criticize the Gray level transformation.
OR
b Compare the Smoothing and sharpening Spatial Filter.
- 13 a Differentiate optimum notch filtering and inverse filtering.
OR
b Justify edge linking and boundary detection.
- 14 a Assess the Fourier descriptors and regional descriptors.
OR
b Develop the recognition based on matching.
- 15 a Elucidate subband coding.
OR
b Enumerate lossy compression.

Z-Z-Z

END