No. of Printed Pages : 4
Roll No. .....

120151/94763

5th Sem. / Chem Engg.

Subject : Environmental Education

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

Q.1 Give one example of biotic component.

Q.2 Unit of noise is _____.

Q.3 Solar energy is _____ resource of energy.

Q.4 Define green house effect.

Q.5 Give on effect of water pollution.

Q.6 Write the year in which air act was passed.

Q.7 Give one method of mining.

Q.8 Give one cause of natural pollution.

Q.9 Herbivorous consumer eat only_____.

Q.10 Give an example of harmful gas.

SECTION-B

Note: Very short answer type questions. Attempt any ten questions out of twelve questions. 10x2=20

Q.11 Define food chain.

Q.12 Define environmental education.

Q.13 Define soil pollution.

Q.14 Explain biodegradable solid waste.

Q.15 What is land filling?

Q.16 What are non biodegradable pollutants?

Q.17 What is smog?

Q.18 What is social forestry?

Q.19 What is tidal energy?

Q.20 What is the use of recycling?

Q.21 Define solid waste.

Q.22 What is deforestation?

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. 8x5=40

Q.23 Explain scope and importance of environmental education.

Q.24 Explain biodiversity and sustainable development.

Q.25 Write the significance of food chain.

Q.26 Explain effect of water pollution.

Q.27 Explain methods to control noise pollution.

Q.28 Give sources of air pollution.

Q.29 What are the objectives of water act 1974?

Q.30 What is the importance of non conventional resources of energy.

Q.31 Explain Geothermal energy.

Q.32 Explain advantages of Biogas.

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. 3x10=30

Q.33 Classify different types of pollution . Explain water pollution in detail wish it's causes, effects and control measures.

Q.34 Explain in detail the various methods of solid waste management.

Q.35 Explain the impact of mining on various things in the environment.

Q.36 Write short note on two:

a) Green house effect.

b) Tidal energy.

No. of Printed Pages : 4
Roll No. .....

181052/171052/
121052/31051

5th Sem. / Electronics

Subject : Audio Video System / Consumer Eltx.

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objectives questions. All questions are compulsory (10x1=10)

(Course Outcome/CO)

Q.1 _____ microphone are cheapest microphone. (CO-1)

Q.2 A loudspeaker converts _____ signal into _____. (CO-1)

Q.3 Tweeter is meant for _____. (CO-1)

Q.4 VSB stands for _____. (CO-3)

Q.5 Value for Accept Ratio _____ in PAL System (CO-3)

Q.6 Video Signals are amplitude modulated. (True/False) (CO-3)

Q.7 SECAM stands for _____. (CO-3)

Q.8 DTH stands for _____. (CO-5)

Q.9 CATV stands for _____. (CO-5)

Q.10 LED stands for _____. (CO-6)

SECTION-B

Note: Very Short answer type questions. Attempt any ten parts 10x2=20

Q.11 Define microphone. (CO-1)

Q.12 Give any two characteristics of Loudspeaker system. (CO-1)

Q.13 What is Multi Speaker System? (CO-1)

Q.14 Define Time Expansion. (CO-2)

Q.15 Define Secondary Colour. (CO-3)

Q.16 Tell the interlaced scanning. (CO-3)

Q.17 Define Digital video. (CO-4)

Q.18 Define saturation. (CO-3)

Q.19 What is Video on Demand? (CO-4)

Q.20 Define digital satellite television. (CO-5)

Q.21 Tell the elements of TV communication System. (CO-3)

Q.22 Draw the colour triangle. (CO-3)

SECTION-C

Note: Short answer type questions. Attempt any five questions out of ten. 5x8=40

Q.23 Why cone type speaker is known as direct radiating type speaker. (CO-1)

Q.24 Explain Composite Video Signals. (CO-3)

Q.25 Describe the Digital Audio Process Outline. (CO-2)

Q.26 Explain Scanning and its need. (CO-3)

Q.27 Describe the compression format of video MPEG. (CO-4)

Q.28 Explain Digital Terrestrial Television (DTT). (CO-5)

Q.29 How is DTH pictures Superior to CATV and Why? (CO-5)

Q.30 Compare LCD and LED Television. (CO-6)

Q.31 Describe the process of time compression in Digital Audio. (CO-2)

Q.32 Explain RGB Representation of Video Signal. (CO-4)

SECTION-D

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.33 Explain working principle of LCD Television with the help of Diagram. (CO-6)

Q.34 What is CCTV and How does it work explain? (CO-5)

Q.35 Explain block diagram of PAL receiver System. (CO-3)

Q.36 Explain with diagram Optical Sound Recording System. (CO-1)

(**Note:** Course outcome/CO is for office use only)

No. of Printed Pages : 4
Roll No. .....

121053/31053

5tH Sem. / ECE

Subject :Microwaves & Radar Engg.

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

Q.1 VSAT Stands for.....

Q.2 Expand TEM.....

Q.3 Expand Radar.....

Q.4 Frequency of S Band is.....

Q.5 Write the applications of CW radar

Q.6 Expand TWT.

Q.7 The range of Troposphere is.....

Q.8 Radiation pattern of microwave anteena is Ominidirectional (T/F)

Q.9 Define Pregee.

Q.10 Draw an H plane TEE

SECTION-B

Note: Very short answer type questions. Attempt any ten questions out of twelve questions. 10x2=20

Q.11 Define Doppler Effect.

Q.12 Define ORBIT.

Q.13 Write importance of Transponder.

Q.14 Define Cut-off Wave Length.

Q.15 Define Transit Time.

Q.16 Define Maximum unambiguous Range.

Q.17 List any two application of HORN Anteena

Q.18 Write Function of Duplexer

Q.19 List any two application of Microwave.

Q.20 Define Directional Coupler.

Q.21 Define Slotted Section.

Q.22 Define TEM mode.

SECTION-C

Note: Short answer type questions. Attempt any five questions out of ten. 5x8=40

Q.23 Write Constructional Feature of Magic Tee.

Q.24 Write Concept of Thermonic Emission.

Q.25 Draw Schematic of GUNN DIODE & Briefly Explain its function.

Q.26 Write main Rader Range Equation by Defining name of each parameter.

Q.27 Differentiate between Active & Passive satellite.

Q.28 What are the different type of BENDS? Explain

Q.29 Why TEM mode are not possible in Wave Guide.

Q.30 What are the Features of VSAT.

Q.31 Classify Microwave basic of its frequency Bands.

Q.32 What are different application of Multi cavity klyston.

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. 3x10=30

Q.33 What is microwave? Explain Application of microwave.

Q.34 Draw and explain the block Diagram of MTI radar

Q.35 Draw & Explain the construction, working of Magnetron.

Q.36 Write Shot Note on

A. Draw microwave Communication link

B. Draw Schematic of dish anteena & Explain how it improve signal strength.

No. of Printed Pages : 4
Roll No. .....

180954A/170954A

5th Sem. / Electrical Engg.

Subject : Instrumentation

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objectives questions. All questions are compulsory (10x1=10)

(Course Outcome/CO)

Q.1 LVDT stands for _____. (CO-4)

Q.2 _____ is an example of passive transducer. (CO-2)

Q.3 Potentiometer is used to measure _____. (CO-4)

Q.4 Bourdon tube are made up of _____.(CO-4)

Q.5 Define measurement. (CO-1)

Q.6 Electromagnetic flow meter is independent of liquid density? (True/False) (CO-1)

Q.7 PH value varies form _____ to _____? (CO-4)

Q.8 Pyrometers are used for measuring _____. (CO-4)

Q.9 Load cell converts force into an _____.(CO-2)

Q.10 Bellows are used to measure _____.(CO-4)

SECTION-B

Note: Very Short answer type questions. Attempt any ten parts 10x2=20

Q.11 What is the importance of measurement? (CO-1)

Q.12 Define Hygrometer. (CO-2)

Q.13 Define humidity. (CO-4)

Q.14 What are the two applications of capacitive transducer? (CO-4)

Q.15 What do you mean by inverse transducer? (CO-2)

Q.16 Define Active transducer. (CO-2)

Q.17 Write any two applications of LVDT. (CO-4)

Q.18 What is stroboscope? (CO-4)

Q.19 Define Pneumatic load cell. (CO-4)

Q.20 Define pressure. (CO-5)

Q.21 Define pyrometery. (CO-5)

Q.22 Define Relative humidity. (CO-5)

SECTION-C

Note: Short answer type questions. Attempt any five questions out of ten. 5x8=40

Q.23 Explain two methods of displacement measurement. (CO-4)

Q.24 Write short note on Display devices. (CO-5)

Q.25 Describe the signal conditioning? (CO-1)

Q.26 What is thermistor? Write its two applications. (CO-5)

Q.27 Write two advantages and disadvantages of the piezoelectric transducer? (CO-2)

Q.28 Draw the block diagram of measurement system. (CO-1)

Q.29 State and explain principle of electromagnetic flow meter? (CO-4)

Q.30 Why PH measurement is required? (CO-5)

Q.31 Explain digital method of measurement of torque. (CO-3)

Q.32 Discuss the measurement of pressure by using a Bourdon tube. (CO-4)

SECTION-D

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.33 Explain the construction, principle and working of LVDT? List the advantages and disadvantages of LVDT? (CO-3)

Q.34 What are the different ways according to which transducers can be classified? List some factors that determine the choice of transducer. (CO-2)

Q.35 Write short note on
(i) Thermocouple (ii) Thermopile (CO-4)

Q.36 Describe the load measurement by using elastic transducer and electrical strain gauge. (CO-5)

(**Note:** Course outcome/CO is for office use only)

No. of Printed Pages : 4
Roll No. .....

181054/171054
/121054/031054B

5th Sem. / Eltx.

Subject : Optical Fiber Communication

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

(Course Outcome/CO)

Q.1 Modal dispersion is reduced by _____. (CO-3)

Q.2 Principal of light emission in LED _____.(CO-2)

Q.3 ILD is _____ source of light. (CO-6)

Q.4 Bit rate give the _____. (CO-4)

Q.5 Material absorption losses are caused due to _____. (CO-3)

Q.6 Insertion loss is at lowest level in misalignment. (CO-1)

Q.7 LASER stand for _____. (CO-5)

Q.8 The colour _____ has the longest wavelength. (CO-1)

Q.9 An optical signal becomes _____ as it travel in fiber. (CO-1)

Q.10 A photodiode is used in reverse bias because the reverse current is _____ as compared to photodiode. (CO-6)

SECTION-B

Note: Very Short answer type questions. Attempt any ten parts 10x2=20

Q.11 Define a basic communication system. (CO-1)

Q.12 Define dispersion in fiber optics. (CO-1)

Q.13 What are limitations of fiber optic communication? (CO-1)

Q.14 What are characteristics of photodetector? (CO-6)

Q.15 What does acronym LASER Beam. (CO-6)

Q.16 Write two application of optical fiber communication. (CO-2)

Q.17 What is total internal reflection of fiber optical communication. (CO-3)

Q.18 What are the applications of fiber optics? (CO-1)

Q.19 What is numerical aperture? (CO-2)

Q.20 Explain reflection, and total internal reflection. (CO-1)

Q.21 Define the optical attenuation. (CO-3)

Q.22 Define the acceptance angle. (CO-2)

SECTION-C

Note: Short answer type questions. Attempt any five questions out of ten. 5x8=40

Q.23 Explain in brief about the bending losses. (CO-3)

Q.24 What are different modes of propagation that are used in fiber optics. (CO-1)

Q.25 What is a Raman amplifier? (CO-6)

Q.26 Explain the losses in fiber optical. (CO-3)

Q.27 What is optical fiber technology and why it is preferred in transmitter. (CO-6)

Q.28 What do you mean by the mode coupling? How it is useful in optical transmission. Explain. (CO-3)

Q.29 Describe the working of light from LED with suitable diagram. (CO-1)

Q.30 Why the optical fiber cable is preferred over coaxial cable/ copper cable and what are its limitations. (CO-2)

Q.31 Explain the electromagnetic model theory of optical fiber communication. (CO-1)

Q.32 What is the fundamental difference between SBS and SRS. (CO-5)

SECTION-D

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.33 What are the different types of attenuation losses in optical fiber? Explain the material absorption losses in detail. (CO-1)

Q.34 Explain construction and working principle of avalanche photodiode (APD) with neat diagram. (CO-1)

Q.35 What do you mean by acceptance angle related to the optical fiber commutation. What is the necessary condition for achieving the total internal. Explain in detail. (CO-1)

Q.36 Explain construction and working principle of laser diode with neat diagram. (CO-1)

(**Note:** Course outcome/CO is for office use only)

No. of Printed Pages : 4
Roll No. .....

181055/171055/125952

5th Sem. / ECE

Subject : MicroControllers / Microcontrollers & Applications

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

(Course Outcome/CO)

Q.1 In 8051, program counter register has _____ bits. (CO-1)

Q.2 RET instruction is used to return from the end of a subroutine. (T/F) (CO-2)

Q.3 A CALL is an unconditional call instruction. (T/F) (CO-2)

Q.4 8051 has _____ counters of _____ bits each. (CO-1)

Q.5 8051 has _____ input/output ports. (CO-1)

Q.6 Internal RAM of 8051 is of ____ bytes. (CO-2)

Q.7 A PIC has _____ bit program counter. (CO-5)

Q.8 In PIC microcontroller INTCON stands for. (CO-5)

Q.9 RISC stands for _____. (CO-1)

Q.10 8051 is a _____ bit microcontroller. (CO-1)

SECTION-B

Note: Very Short answer type questions. Attempt any ten questions out of twelve questions. 10x2=20

Q.11 Define Opcode. (CO-3)

Q.12 Write the function of ALE. (CO-1)

Q.13 What is use of timer in 8051? (CO-2)

Q.14 Write about the Harward architecture. (CO-1)

Q.15 What is the function of Compiler? (CO-3)

Q.16 Write the full form of LCD. (CO-4)

Q.17 Write full form of PSW. (CO-1)

Q.18 What is CISC? (CO-1)

Q.19 What is difference between Microprocessor and Microcontroller? (CO-1)

Q.20 In which addressing mode, the source and destination is a register? (CO-2)

Q.21 Which software is used to convert source code into hex code? (CO-3)

Q.22 Which directive is used to assign a numeric value in place of symbol? (CO-4)

SECTION-C

Note: Short answer type questions. Attempt any five questions out of ten. 5x8=40

Q.23 Explain Push and Pop instructions with example. (CO-2)

Q.24 Explain the different interrupts available in 8051? (CO-2)

Q.25 Explain the interfacing of LCD with microcontroller 8051. (CO-4)

Q.26 What are various SFR's of 8051? Give their details. (CO-2)

Q.27 What are important features of 8051? (CO-1)

Q.28 Write a short note on RISC instruction set. (CO-1)

Q.29 Explain the various modes of timer of 8051? (CO-2)

Q.30 Write a short note on pipelining for instruction execution. (CO-2)

Q.31 Explain the basic features of a PIC microcontroller. (CO-5)

Q.32 What do you mean by assembler directive? Explain any 3 directives with example. (CO-3)

SECTION-D

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.33 Explain the block diagram of 8051 microcontroller. (CO-1)

Q.34 Explain various addressing modes of 8051 microcontroller. (CO-2)

Q.35 Explain various interrupts available in 8051. (CO-2)

Q.36 Explain how you will interface a keyboard with microcontroller. (CO-4)

(**Note:** Course outcome/CO is for office use only)