R-17

Code: 7G16D

III B.Tech. II Semester Supplementary Examinations January 2022
Object Oriented Programming Concepts
(Common to EEE & ECE)

Max. Marks: 70   Time: 3 Hours
Answer *any five* full questions by choosing one question from each unit (5x14 = 70 Marks)
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			Marks	CO	Blooms Level

UNIT–I

			Marks	CO	Blooms Level
1.	a)	Explain the roles of agents, community and messages amongst agents in OOP paradigm.	7M	CO1	L2
	b)	Explain the principles of Object Oriented Programming.	7M	CO1	L2

OR

2.	a)	What is an object? How is it different from an ordinary variable and a class? Explain with an example.	7M	CO1	L1
	b)	What is parameterized Constructor? Give one example.	7M	CO1	L1

UNIT–II

3.	a)	What is Overloading? Explain Constructor overloading with an example.	7M	CO2	L1
	b)	What are pure virtual functions? How are they different from normal functions?	7M	CO2	L1

OR

4.	a)	With an example, explain the syntax for passing arguments to base class constructors in multiple inheritance.	7M	CO2	L3
	b)	Describes the various approaches by which we can detect the end of file condition.	7M	CO2	L5

UNIT–III

5.	a)	What are the two control structures used in java for making decisions? Explain with an example program.	7M	CO3	L1
	b)	Explain in detail the most significant features of JAVA programming	7M	CO3	L2

OR

6.	a)	How to implement precedence rules and associativity in java language? Give an example.	7M	CO3	L1
	b)	What is the role and responsibility of JVM in program execution?	7M	CO3	L1

UNIT–IV

7.	a)	What is an exception? How are exceptions handled in Java programming? Explain with suitable program.	7M	CO4	L1
	b)	Design an interface called Shape with methods draw() and getArea(). Further design two classes called Circle and Rectangle that implements Shape to compute area of respective shapes. Use appropriate getter and setter methods. Write a java program for the same.	7M	CO4	L4

OR

8.	a)	What is meant by re-throwing exception? Discuss a suitable scenario for this	7M	CO4	L1
	b)	What are the benefits of inheritance? Explain the various forms of inheritance with suitable code segments.	7M	CO4	L1

UNIT–V

9.	a)	Write a program to implement Producer Consumer Problem by using MultiThreading	7M	CO4	L3
	b)	Illustrate different types of Streams in Java.	7M	CO4	L2

OR

10.	a)	Write an applet to display the mouse cursor position in that applet window.	7M	CO4	L3
	b)	How to achieve synchronization among threads? Write suitable code.	7M	CO4	L1

END

III B.Tech. II Semester Supplementary Examinations January 2022
Power System Operation and Control
(Electrical and Electronics Engineering)

Max. Marks: 70   Time: 3 Hours
Answer *any five* full questions by choosing one question from each unit (5x14 = 70 Marks)
****

	Marks	CO	Blooms Level

UNIT–I

1. a) Incremental fuel costs in rupees per MWh for a plant consisting of two units are:

   $dC1/dPG1 = 0.2P_{G1} + 40.0$

   $dC2/dPG2 = 0.25P_{G2} + 30.0$

   The minimum and maximum loads on each unit are to be 20 MW and 125 MW respectively. Determine the incremental fuel cost and the allocation of load between units for minimum cost when the loads is 175 MW. Assume both units are operating.   8M   III

   b) Develop the coordination equation with losses?   6M   VI

OR

2. a) A system consisting of two plants connected by a tie line and load is located at plant-2. When 100MW is transmitted from plant-1, a loss of 10MW takes place on the tie line. Determine the generation schedule at both the plants and the power received by load when of the system is 25Rs/MWh and IFC are given by

   $dc_1/dp_1=0.03P1+17$ Rs/MWh,

   $dc_2/dp_2=0.06P2+19$ Rs/MWh.   10M   III

   b) Write the condition for optimality when transmission losses are considered.   4M   I

UNIT–II

3. a) Write the exact co-ordination equation for economic dispatch problem   4M   I

   b) Derive the expression for the participation factor.   6M   I

   c) Discuss the practical constraints on unit commitment problem.   4M   II

OR

4. Describe the hydro thermal economic load scheduling. Derive the necessary equations? 14M IV

UNIT–III

5. a) Obtain the modelling of 1st order turbine with transfer function 8M II

 b). Give the block diagram representation of Steam Turbines and explain each part. 6M III

OR

6. a) Derive the generator load model and represent it by a block diagram. 8M II

 b) Write the various characteristics of Excitation systems and draw its block Diagram. 6M II

UNIT–IV

7. a) Two synchronous generators are operating in parallel. Their capacities are 200 MW and 400 MW. The droop characteristics of their governors are 4%o and 5% from no load to full load. Assuming that generators are operating at 50 Hz at full load. How a load of 450 MW would be shared between them. What will be system frequency at this load? 12M III

 b) What is the necessity of keeping frequency constant? 2M I

OR

8. a) Develop the state variable model of a two area system and state the advantages of the model. 10M VI

 b) Explain the dynamic interaction between P-f and Q-v loops 4M V

UNIT–V

9. Derive the relation between reactive power flow and the voltage of bus. 4M II

 Explain clearly what you mean by compensation of lines and discuss briefly different methods of compensation. 10M V

OR

10. a) Explain different devices used to achieve voltage control in transmission and distribution systems. 10M V

 b) What are the advantages and disadvantages of different types of compensation? 4M II

END

III B.Tech. II Semester Supplementary Examinations January 2022
Power System Analysis
(Electrical and Electronics Engineering)

Max. Marks: 70

Time: 3 Hours

Answer *any five* full questions by choosing one question from each unit (5x14 = 70 Marks)

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| | Marks | CO | Blooms Level |

UNIT–I

1. Compute the bus impedance matrix for the system shown in figure below by adding element by element. Take bus(2) as reference bus.

14M

OR

2. Explain the modifications necessary in the Z_{BUS} when a mutually coupled element is removed or its impedance is changed.

14M

UNIT–II

3. Explain the step by step computational procedure for the Newton-Raphson method of load flow studies.

14M

OR

4. Describe the procedure to compute the power flow analysis using fast decoupled method.

14M

UNIT–III

5. A balanced 200V, 3 phase supply feeds balanced resistive load as shown in the following figure. If the resistance R_{bc} is disconnected. Determine I_a, I_b and I_c and symmetrical components of I_a, I_b and I_c.

5M

OR

6. Derive the expression for fault current when the power network is subjected to line to ground fault.

14M

UNIT–IV

7. a) Differentiate between Steady state, Transient state and Dynamic Stability of power system.

7M

b) Discuss the various methods for improving steady state stability.

7M

OR

8. Obtain the power angle cure from fundamentals and describe its application to determine power system stability.

14M

UNIT–V

9. Derive the expression for Swing equation to determine transient stability of power system.

14M

OR

10. Describe the significance of power system stability using equal area criterion during sudden loss of load and loss of line conditions.

14M

END

R-17

Code: 7G263

III B.Tech. II Semester Supplementary Examinations January 2022
Switch Gear and Protection
(Electrical and Electronics Engineering)

Max. Marks: 70   Time: 3 Hours
Answer *any five* full questions by choosing one question from each unit (5x14 = 70 Marks)
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			Marks	CO	Blooms Level
		UNIT–I			
1.	a)	State the requirement of a circuit breaker and explain the basic action of circuit breaker.	7M		I & II
	b)	Explain the process of arc extinction in vaccum.	7M		I & II
		OR			
2.	a)	State the classification of circuit breaker based on different factors.	7M		I
	b)	What are the advantages and disadvantages of SF_6 breaker?	7M		I
		UNIT–II			
3.	a)	State the advantages, disadvantages and applications of electromagnetic relays.	7M		I
	b)	What is I.D.M.T. characteristics of a relay?	7M		I
		OR			
4.	a)	Explain the operation of basic trip circuit.	7M		I & II
	b)	What is universal relay torque equation? What is its use?	7M		I & II
		UNIT–III			
5.	a)	What are the various types of faults which can occur in a generator? Explain in brief.	7M		I & II
	b)	Explain the operation of unrestricted earth fault protection scheme.	7M		I & II
		OR			
6.	a)	State the problems encountered in a simple differential protection of transformers.	7M		I & III
	b)	A three phase transformer of 220/11,000 line volts is connected in star / delta. The protective transformers on 220V side have a current ratio of 600/5. What should be C.T. ratio on 11,000 v side?	7M		I & III
		UNIT–IV			
7.	a)	Explain time graded protection for radial feeders.	7M		I & II
	b)	List different types of faults in transmission lines.	7M		I & II
		OR			
8.	a)	Explain with a neat sketch construction and working of differential pilot wire protection.	7M		II
	b)	Explain various abnormalities occurring in the bus bar.	7M		II
		UNIT–V			
9.	a)	What are the advantages of resistive earthing?	7M		I
	b)	State the methods adopted for non-effectively grounded systems.	7M		I
		OR			
10.	a)	What are the harmful effects of lightning strokes on substation equipment's?	7M		I
	b)	What do you mean by coefficient of earthing?	7M		I

END

III B.Tech. II Semester Supplementary Examinations January 2022
Utilization of Electrical Energy
(Electrical and Electronics Engineering)

Max. Marks: 70   Time: 3 Hours
Answer *any five full* questions by choosing one question from each unit (5x14 = 70 Marks)
****

		Marks	CO	Blooms Level

UNIT–I

1. a) What is meant by Load equalization? Explain how this is achieved in electrical Industry? — 7M CO1 L3

   b) State and explain the different factors that affect the selection of a motor for industrial applications? — 7M CO1 L3

OR

2. A DC series motor rated at 220 Volt, takes a current of 20A when running at 1000 rpm. The armature and field resistances are 0.15 Ohm and 0.2 ohm respectively. A resistance of 20 Ohms is connected across the armature terminals of the motor. Determine a) the speed of the motor if the load torque remains constant and the magnetic circuit is assumed unsaturated b) the no load speed of the motor c) the starting torque expressed in terms of torque corresponding to 20A (Without armature shunted) If an external resistance of 5 Ohm is connected in series with the field winding? — 14M CO1 L4

UNIT–II

3. a) Explain the principle of Higher frequency Induction heating? — 7M CO2 L3

   b) A slab of material 2 Cm thick and 150 Sq.cm in area, having relative permittivity 4 and p.f of 0.04 is to be heated using dielectric heating. The power required is 200 Watts and a frequency of 30 MHZ. Determine the voltage required and the current that will flow through the material. If the voltage were to be limited to 600V, What should be the frequency for the same power requirement? — 7M CO2 L3

OR

4. a) What is dielectric heating? How is different from Induction heating? — 7M CO2 L3

   b) Explain the comparison between AC and DC welding? — 7M CO2 L4

UNIT–III

5. Explain the following terms i) Solid Angle ii) Luminous flux iii) Lumen iv) Candle power v) Luminous intensity — 14M CO3 L3

OR

6. a) Describe the laws of illumination and its limitations in actual practice? — 7M CO3 L3

   b) Explain the construction, working of Mercury Vapour lamp? — 7M CO3 L3

UNIT–IV

7. a) Define tractive effort? Derive the necessary expressions for tractive effort of traction system? — 7M CO4 L3

   b) Explain the term specific energy consumption and discuss the factors which affect the specific energy consumption of train operating at a given schedule speed? — 7M CO4 L4

OR

8. a) For a trapezoidal speed-time curve of an electric train, derive expression for maximum speed and distance between stops? — 7M CO4 L3

   b) The distance between two stations is 1 Km and the schedule speed is 30 Kmph. Station stopping time 20 Sec. Assume braking retardation 3 Kmphps and maximum speed 1.25 times the average speed. Determine the acceleration required to run the service if the speed-time curve is approximated by a trapezoidal curve? — 7M CO4 L4

UNIT–V

9. Briefly explain various types of Electric vehicles? — 14M CO5 L3

OR

10. a) Explain the impact of modern drive trains on energy supplies? — 7M CO5 L4

    b) Explain the principle and working of Hybrid vehicles? — 7M CO5 L4

END

H.T. No:-

Date: 17-02-2022   *Duration: 120Min.*   *Max.Marks:70*

Choose the correct Answer.   *100 X 1 = 100 Marks*

R17 EFCE Supplementary

Directions (1-5) In each of the following questions, out of the given alternatives, choose the one which best expresses meaning of the given word .

1. Abandon
   a) abscond   b) discontinue   c) neglect   d) condense
2. Lethargy
   a) Laxity   b) Impassivity   c) Serenity   d) Listlessness
3. Diligent
   a) Intelligent   b) Energetic   c) Modest   d) industrious
4. False
   a) defective   b) untrue   c) incorrect   d) inaccurate
5. Mystique
   a) Fame   b) Reputation   c) Admirable Quality   d) Popularity

Direction (6-10) In each of the following questions, choose the word opposite in meaning to the given word.

6. Start
   a) close   b) shut   c) end   d) finish
7. Lend
   a) hire   b) pawn   c) cheat   d) borrow
8. Magnify
   a) Induce   b) Diminish   c) Destroy   d) Shrink
9. Vanquish
   a) Surrender   b) Debase   c) Destroy   d) Ruin
10. Malicious
    a) Boastful   b) Indifferent   c) Kind   d) Generous

Directions (11-15) In each of the following questions, and Idiomatic expression is given followed by alternatives, choose the one which best expresses the meaning of the given idiom.

11. To cross swords
    a) to fight   b) to defend   c) to kill   d) to rob
12. To talk one's head off
    a) To talk loudly   b) To talk in whispers
    c) To talk to oneself   d) To talk excessively
13. To throw down the glove
    a) To resort to wrong tactics   b) To give a challenge
    c) To accept defeat   d) To reject the prize
14. To smell a rat
    a) to detect bad smell   b) to misunderstand
    c) to suspect a trick or deceit   d) to see hidden meaning
15. To play fast and loose
    a) To beguile others   b) To be winning some times and losing at other times
    c) To play with someone's feelings   d) To play tricks

Directions (16-20): In each of the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentences

16. One who forcibly seizes control of a bus or an aircraft
    a) pirate   b) swindler   c) hijacker   d) pilferer
17. Large scale departure of people
    a) Migration   b) Emigration   c) Immigration   d) Exodus
18. One who always runs away from danger
    a) Escapist   b) Timid   c) Coward   d) Shirker
19. The short remaining end of cigarette
    a) stump   b) stub   c) rag   d) scrap
20. One who loves mankind
    a) Anthropologist b) Philanthropist   c) Seismologist   d) Optometrist

Directions (21-25) (Analogy) Select the lettered pair that has the same relationship as the original pair of words.

21. Bog:-----slumber::sleep
    a) dream   b) foray   c) marsh   d) night
22. *-----:horse::board:train*
    a) stable   b) shoe   c) ride   d) mount
23. *Poetry:rhyme::philosophy:---------*
    a) imagery   b) music   c) bi-law   d) theory
24. *Marshal:prisoner::principal:------*
    a) teacher   b) president   c) doctrine   d) student
25. *Diamond:baseball::court:------*
    a) poker   b) jury   c) grass   d) squash

Directions (26-30) In each of the following questions, a word has been written in four different ways out of which only one is correctly spelt. Find the correctly spelt word.

26. a) Business   b) Busness   c) Businies   d)Buseneis
27. a) Accomodation b) AccomodItion   c) Acommodation   d) Accommodation
28. a)Comissioon   b) Commission   c) Comiesson   d) Comession
29. a) Guerila   b) Goriella   c) Gorilla   d) Goerilla
30. a) comitment   b) comitment   c) commitment   d) comitmant

Directions (31-35) In each question below are given two sentences numbered I and II. In these sentences, two homonyms are given in italics, which may be either mis-spelt or inappropriate in the context of the sentences. Read both sentences carefully and decide on their correctness on the basis of Italicized

31. I. It is a *knaughty* problem
    II. Suresh is a naughty boy
    a) if only sentence I is correct
    b) if only sentence II is correct
    c) if both sentences I and II correct
    d) if I as well as II are incorrect, but both could be made correct by interchanging the italicized words

32. I.A painter is *an Artiste*
    II.Raj Kapoor is a skilled *Artist*.
    a) if only sentence I is correct
    b) if only sentence II is correct

c) if both sentences I and II correct

d) if I as well as II are incorrect, but both could be made correct by interchanging the italicized words

33. I. I think this electric *meter* is faulty.

II. I require two *meters* of cloth for   this purpose.

a) if only sentence I is correct

b) if only sentence II is correct

c) if both sentences I and II correct

d) if I as well as II are incorrect, but both could be made correct by interchanging the italicized words

34. I. his manners are *urban* .

II.people of *urbane* area are civil in manners.

a) if only sentence I is correct

b) if only sentence II is correct

c) if both sentences I and II correct

d) if I as well as II are incorrect, but both could be made correct by interchanging the italicized words

35. *I.painting is done on canvass.*

II.He was canvassing for votes.

a) if only sentence I is correct

b) if only sentence II is correct

c) if both sentences I and II correct

d) if I as well as II are incorrect, but both could be made correct by interchanging the italicized words

Directions: (36-40) In each of the following questions, a sentence has been given in Active / Passive voice. Out of the four alternatives suggested select the one which best expresses the same sentence in passive/ Active voice.

36. Darjeeling grows tea.

a) Tea grows in Darjeeling   b) Tea is grown in Darjeeling

c) Let the tea be grown in Darjeeling   d) Tea is grown in Darjeeling

37. It is time to ring the bell

a) it is time to the bells rings   b) it is being time to ring the bell

c) it is the time for the bell to ring   d) it is time for the bell to be rung

38. He will write a letter next week

a) A letter would be written by you

b) A letter will be written by him next week

c)A letter is written by him

d)A letter was written by him next week

39. They know him

a) He is known by them   b) He is known to them

c) He is known to them   d) He was known by them

40. My uncle promised me a present.

a) A present was promised by my uncle to me

b) I was promised a present by my uncle

c) I had been promised a present by my uncle

d) I was promised by my uncle a present

(Directions 41-50): Choose the most appropriate word in the context of the passage, from the given alternatives.

Life is an ___ (41) series of challenges and opportunities to be seized. You have to plan for exercising the right career choices and ____ (42) the right opportunities. Planned ___ (43) rather than a hasty decision is _____ (44) as far as your career is concerned. You need to _____ (45) what occupational groups, _____ (46) and types of organizations seem _____ (47) to you. An individual today has many more degrees of freedom in determining his or her future. Few of us _____ (48) this or take full ____ (49) of this freedom. Most of us let the future be _____ (50) by what is going to happen rather by personal life goals and plans for the future.

41	a) enticing	b) exciting	c) encharming	d) enhancing
42	a) catching	b) offsetting	c) grabbing	d) conceiving
43	a) delay	b) hindrance	c) wait	d) procrastination
44	a) desirable	b) deciphered	c) inevitable	d) acceptable
45	a) check	b) classify	c) divide	d) analyze
46	a) specifications	b) limitations	c) qualifications	d) identification
47	a) worthy	b) needful	c) suitable	d) necessary
48	a) reprimand	b) realize	c) recognize	d) remember
49	a) advantage	b) enjoyment	c) privileges	d) compensation
50	a) determined	b) swayed	c) deprived	d) led

Direction (51-55): In the questions given below, some of the sentences have errors and some have none. Find out which part of a sentence has an error. If there is no mistake, the answer is 'No error'.

51. He took to (a)/ reading Times (b) / for better knowledge of facts. (c) / No error (d)
52. I am not wealthy,(a)/so I cannot afford (b)/to buy a expensive car(c) no error(d)
53. Both the civilians (a)/ and army men (b) / joined the first world war. (c) / No error (d)
54. A person I met (a) / in the theatre (b) / was the playwright himself. (c) / No error (d)
55. To perform this experiment, (a) / drop little sugar (b) / into a glass of water. (c) / No error (d)

Directions (56-60) pick out the most effective word from the given words to fill in the blanks to make the sentence meaningfully complete.

56 *The conference was successful, your style of presentation was…… everyone liked*
a) valuable   b) difficult   c) conductive   d) wonderful

57 *He has ……….. people visiting him at his house because he fears it will cause discomfort to neighbors.*
a) curtailed   b) requested   c) stopped   d) warned

58 *He is too ------ to be deceived easily*
a) strong   b) modern   c) kind   d) intelligent

59 *Successful people are genuinely very efficient in ----- their task .*
a) making   b) attaining   c) accomplishing   d) achieving

60 *You must ----------- your career with all seriousness.*
a) direct   b) pursue   c) complete   d) manage

Directions (61-65):: in each question, a part of sentence is printed in italics. Bellow each sentence, some phrases are given which can substitute the italicized part of the sentence. Find out the phrase which can correctly substitute that part of the sentence. If sentence is correct as if is, the answer is' No correction is required" or No improvement.

61   *The police broke away the meeting as it turned violent.*
     a) Broke up   b) Broke off   c) broke through   d) No improvement

62   *They are working for the upliftment of their village.*

     a) uplift of   b) uplifting of   c) uplifting   d) No improvement

63   *My mother asked me when would I have a glass of milk .*

     a) I will   b) I would   c) I shall   d) No improvement

64   *The teacher asked,"why you are late?"*
     a) why you were late   b) why late you are
     c) why are you late   d) No correction required

65   *The train left before we reached the station.*
     a) had left   b) would have left   c) has had left   d) No improvement

Directions (66-70) : Rearrange these parts so as to form a complete meaningful sentence and then choose the correct combination.

66   *(1) We*
      (p) agreed with
      (Q) the manner in which you said it
      ® but we objected to
      (s) what you said
      a) PQRS   b) PSRQ   c) RPQS   d) SQPR

67   *Why do people*
     (P) despite a desire
     (Q) to quit and despite
     ® continue smoking
     (S) the known health hazards?
     a) PQSR   b) RPQS   c) QSPR   d) SRPQ

68   *The man*
     (P) is generally the one
     (Q) Who can work very hard
     ® when he must work
     (S) who can play most heartily when he has the chance of playing
     a) PSQR   b) QRPS   c) QRSP   d) SPQR

69   *(1)If you are serious about*
            (P)vocabulary building not a hobby
            (Q)you will have to make
            ® an absorbing interest ,
            (S)increasing your vocabulary)
            (6) or even an obsession .
     a) PQSR   b) PRQS   c) RQPS   d) SQPR

70   (1)Every body
         (P) attracts every other
         (Q) whether big or small,
         Ibody with the force
         (S) in the universe
         (6) of gravitation

a) PRSQ   b) QPRS   c) RSPQ   d) SQPR

Directions (71-75): in each sentence below ,there are two blank spaces . Below each sentence some pairs of words are given which are numbered ,(a),(b),(c) ,and (d) .pick out the most appropriate pair to fill in the blank I same order ,make the sentence meaningfully complete

71   *I am not ………to sell you my house unless you offer a more ……price.*
      a) conform, true b) conform, true c) ready, correct d) having, actual

72   *Education is …….to the economic and social fabric of the nation, but ……that few political parties have made it an election issue .*
      a) eminent, barring   b) concomitant , instead of
      c) basic, despite   d) rudimentary, besides

73   *Since we ……read every book , we …….only the famous ones .*
      a) have , sold   b) should , buy   c) must, ignore .   d) cannot , select

74   *How many of the books published each year in India make a ……contribution towards improving men's …..with each other ?*
      a) sensational, reservations   b) referential, behavior
      c) significant , relationship   d) incorporated ,obligation

75   *He usually ……but today he appears rather …….*
      a) strict ,unwell   b) tense , restless c) quiet, calm   d) calm, disturbed

Directions (76-80) Rearrange the given sentences A,B,C,D ,and E in the proper sequence so as to form a meaningful paragraph and then answer the questions given below them.

      (A) She decided to go to school and meet the principal.
      (B) Suddenly she realized that she had no money with her.
      (C) By the time she reached there, he had left the office.
      (D) Therefore, she decided to go to the office of Ravi's father and get the money.
      (E) Sudha wanted her son Ravi to get admission in a convent school.

76   *Which of the following should be the first sentence?*
      a) A   b) B   c) E   d) D

77   *Which of the following should be the second sentence?*
      a) A   b) B   c) C   d) D

78   *Which of the following should be the third sentence?*
      a) A   b) B   c) C   d) E

79   *Which of the following should be the fourth sentence?*
      a) A   b)B   c) C   d)D

80   *Which of the following should be the last sentence?*
      a) A   b) B   c) C   d) D

Directions (81-85) Find the suitable word pair for the following.

81 *Body and ………*
a) Fruit   b) Soul   c) Mind   d) Juice

82 *Cause and ……….*
a) Big   b) Small   c) Smart   d) Effect

83 *Sweet and ………*
a) Bitter   b) Tasty   c) Yummy   d) Sour

84 *Past and ……….*
a) Tomorrow   b) Future   c) Yesterday   d) None

85 *Moon and ……*
a) Stars   b) Earth   c) Galaxy   d) Mars

Directions(86-90):Choose the nearest confusing word for the following words

86 *Advice:*
a) Adverse   b) Advocate   c) Advise   d) Admire

87 *Coarse :*
a) Curse   b) Course   c) Purse   d) Nurse

88 *Affect*
a) Effort   b) Effect   c) Efficient   d) Eminent

89 *Lose :*
a) Lust   b) Loose   c) Lost   d) Lamp

90 Yoke :
a) Yank   b) Bulk   c) Yolk   d) Milk

Directions (91-100): Read the following passage carefully and answer the questions given below it.

The Supreme Court Judgement which abolishes punishment for attempted suicide will prove to be a milestone in India's judicial history. This is so because the judgement will benefit tens of thousands of miserable souls who are prosecuted for failing to kill themselves. Around 50,000 suicides are reported in India every year. Considering that three suicide bids take place for every successful one, we can safely assume that the failed suicides amount to 1, 50,000 a year in India.

These 1,50,000 individuals could be sentenced to one year in jail under Section 309 of the Indian penal Code Which the Supreme Court Judgement has effected as being unconstitutional. Quite rightly, the judgment said that Section punishment for a troubled individual whose deep unhappiness had caused him to try and end his life. Yet, time and again,, the Indian police had launched these prosecutions. The Supreme Court Judgment has overturned a 1987 decision by a division bench which had upheld the constitution Validity of the Indian law against Suicide. The judgment had ruled that the right to life implied in the Indian Constitution does not include the right to die..

91 Which judgement of the supreme Court will be a milestone in India's Judicial History?
a) The one abolishing Suicide
b) The one abetting suicide
c) The one doing away with punishment for attempted suicide
d) The one condoning suicide

92   Why is the judgement hailed as a milestone?
      a) because it will bring relief all around
      b) because it will lessen the work of the police
      c) because it is very balanced
      d) because it will bring relief to all those being punished for attempting suicide

93   What punishment according to the passage was envisaged for unsuccessful suicide attempts, under the Indian law ?
      a) a fine of thousand rupees   b) death sentence
      c) one year in jail   d) extreme torture

94.   The judgement has termed Section 309 as cruel and irrational because
      a) it takes away the right to life   b) it doubles the punishment of a tortured soul
      c) it is very lenient   d) it provides for false accusations

95.   What has the Indian police done time and again?
      a) it has attempted to punish those guilty of trying to end their life
      b) it has punished those who have committed suicide
      c) it has imposed hardships on citizens
      d) it has violated the Constitution

96.   The Supreme Court judgement
      a) has come up with the decision on its own
      b) has reversed an earlier judgement dealing with suicide
      c) is a continuation of the 1987 decision
      d) is a unique one

97.   In 1987, a division bench had
      a) rejected the Indian law against suicide
      b) changed the Indian law against suicide
      c) supported the Indian law against Suicide
      d) given a new meaning to the suicide law

98.   The 1987 judgement had reasoned that
      a) a man was free to die
      b) the constitution did not provide for Suicide
      c) right to die in Indian Constitution was upheld
      d) the right to life in Indian Constitution had no implication of right to die

99.   The word 'effaced' in the passage means
      a) included   b) deleted   c) devised   d) dismissed

100   The word 'validity' in the passage means
      a) soundness   b) remainder   c) invocation   d) legality

Code: 7G262

R-17

III B.Tech. II Semester Supplementary Examinations January 2022
Microprocessors and Microcontrollers
(Electrical and Electronics Engineering)

Max. Marks: 70   Time: 3 Hours
Answer *any five full questions* by choosing one question from each unit (5x14 = 70 Marks)
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			Marks	CO	Blooms Level

UNIT–I

1.		Explain in detail about internal hardware architecture of 8086 micro processor with a neat diagram	14M	CO1	L2

OR

2.	a)	Explain various Addressing modes of 8086 microprocessor.	8M	CO1	L2
	b)	Write an 8086 ALP to find the sum of numbers in the array of 10 elements.	6M	CO1	L4

UNIT–II

3.	a)	Describe the interrupts of 8086 and its types with service routine	7M	CO2	L1
	b)	Explain the architecture of 8255PPI its mode of operations	7M	CO2	L2

OR

4.	a)	Discuss about I/O mapped I/O and memory mapped I/O	7M	CO2	L4
	b)	Explain in detail about 8259 PIC architecture	7M	CO2	L2

UNIT–III

5.	a)	Discuss about 8251 USART architecture with neat sketch	7M	CO3	L4
	b)	Explain the different data transfer schemes in detail.	7M	CO3	L2

OR

6.	a)	Discuss about TTL to RS232C and RS232C to TTL conversion	7M	CO3	L4
	b)	Explain about necessity of communication interfaces and 8251 interfacing	7M	CO3	L2

UNIT–IV

7.	a)	Draw the pin Diagram of 8051 and describe the pins	7M	CO4	L1
	b)	Discuss the various type of addressing modes with suitable example in 8051 micro controller	7M	CO4	L4

OR

8.	a)	Write an 8051 assembly language program to multiply the given number 48H and 30H	7M	CO4	L4
	b)	Explain about Timers and serial communication features of 8051.	7M	CO4	L2

UNIT–V

9.		Draw the diagram of ARM architecture and explain the function of each block along with different features in it.	14M	CO5	L2

OR

10.	a)	Explain the Pin functions of Arduino with a neat block diagram	7M	CO5	L2
	b)	Explain about PWM and ADC in Arduino	7M	CO5	L2

END