

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

17EE51

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020 Management and Entrepreneurship

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is management? Discuss the various characteristics of management. (07 Marks)
b. Explain the various roles played by the manager. (07 Marks)
c. Discuss whether management is art, science or profession. (06 Marks)

OR

- 2 a. Discuss the hierarchy of plans with examples. (06 Marks)
b. What are the different steps involved in planning? Explain. (08 Marks)
c. What is decision making? Classify the different types of decisions. (06 Marks)

Module-2

- 3 a. What are the various principles of management? (08 Marks)
b. Explain the steps in selection process. (06 Marks)
c. What are the various types of organizations? Explain line organization. (06 Marks)

OR

- 4 a. Distinguish between centralization and decentralization. (04 Marks)
b. Explain Maslow's and Herzberg's theories of motivation. (10 Marks)
c. Write a note on barriers of communication. (06 Marks)

Module-3

- 5 a. Who are entrepreneurs? What are their qualities? Explain any two important qualities. (07 Marks)
b. What are the various stages in the entrepreneurial process? Discuss. (09 Marks)
c. Differentiate between entrepreneur and Intrapreneur. (04 Marks)

OR

- 6 a. Discuss the social responsibilities of business towards different groups. (08 Marks)
b. Write a note on classification of entrepreneurs. (06 Marks)
c. What is Social Audit? List the merits and demerits of internal and external auditing. (06 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-4

- 7 a. Define SSI. What are the general characteristics of SSI? (06 Marks)
b. Discuss the role of SSI in the development of the country. (08 Marks)
c. Explain the various problems faced by SSI. (06 Marks)

OR

- 8 a. Write a note on the activities of SIDBI and KIADB. (08 Marks)
b. List the institutions that provide technical, marketing and training support to small industries. (06 Marks)
c. What are the important functions of NSIC? (06 Marks)

Module-5

- 9 a. Explain the meaning of projects. Classify them. (05 Marks)
b. What are the steps involved in the formulation of project report? Explain. (10 Marks)
c. Write a note on project life cycle. (05 Marks)

OR

- 10 a. Discuss the concept and importance of network analysis. (06 Marks)
b. What are the steps involved in CPM? List its merits and demerits. (08 Marks)
c. What is PERT? Explain. (06 Marks)

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

17EE52

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020 Microcontroller

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Draw the block diagram of 8051 μ C. Explain the working of:
(i) Program counter and data pointer
(ii) Accumulator and register B
(iii) Register bank, stack and stack pointer (10 Marks)
- b. Draw and explain program status word register of 8051 μ C. Calculate the status of carry, auxiliary carry and parity flags after the addition of (i) 55h and 52h (ii) 91h and 92h. What is the hexadecimal sum in each case? (10 Marks)

OR

- 2 a. Explain register indirect addressing mode. State its advantages. (05 Marks)
- b. Explain indexed addressing mode with MOVC and MOVX instructions. (05 Marks)
- c. What is memory address decoding? Explain the steps in interfacing memory chips to μ C. Develop the interfacing circuit to connect 4K \times 8 memory IC using logic gates as decoder. Assume the memory address from 3000 h to 3FFF h. (10 Marks)

Module-2

- 3 a. Define assembler directive. Explain DB and ORG directives. (05 Marks)
- b. Write a program to multiply 35 by 10 using repeated addition. Save the result in R6. Neglect carry. (05 Marks)
- c. Explain the working of MUL AB and DIV AB instructions. (05 Marks)
- d. State the following instructions as valid or invalid. Give reasons:
(i) MOV A, @ R4 (ii) PUSH R0 (iii) MOV R5, R6
(iv) POP 00h (v) MOV P1, #0FFh (05 Marks)

OR

- 4 a. Explain the working of port 0 as input port. State its dual role. (05 Marks)
- b. Calculate the delay for the following program. Assume clock frequency as 11.0592 MHz.

Machine cycle

MOV R3, #255	1
GO: NOP	1
NOP	1
DJNZ R3, GO	2
RET	1

- c. How the following numbers are represented in 8051?
(i) 4 (ii) -4 (iii) 82 (iv) -82 (v) -128 (05 Marks)
- d. Explain the working of overflow flag. After the addition of +45 with +04, what is the status of overflow flag and what is the sum, according to μ C? (05 Marks)

Module-3

- 5 a. State and explain the advantages of using 'C' program for 8051 μ C. (05 Marks)
- b. Write 8051 'C' program to toggle bit D7 of port 0, 60,000 times. (05 Marks)
- c. Explain the differences between sbit, bit and sfr declarations. (05 Marks)
- d. Write 8051 'C' program to convert ASCII digits '9' and '2' to packed BCD and display it on port P2. (05 Marks)

OR

- 6 a. Explain the bit status of TMOD register. (05 Marks)
 b. Write an assembly program to generate square wave with ON time = 5 ms and OFF time = 20 ms on all pins of port-1. Use Timer0 in Mode1. Assume crystal frequency = 11.0592 MHz. Calculate the duty cycle. Explain TH0, TL0 and TMOD calculations. (10 Marks)
 c. Explain the characteristics and operations of mode-2 program in 8051 timer. (05 Marks)

Module-4

- 7 a. Explain the bit status of SCON register. With XTAL = 11.0592 MHz, calculate the TH1 value needed for the baud rates; (i) 9600 (ii) 2400. (10 Marks)
 b. A square wave is being generated at pin P1.2. This square wave is to be sent to a receiver connected in serial form to 8051. Write an assembly language program for this. Explain the calculations of TMOD, SCON, TH1 value. Assume Timer0 and Timer1 in Mode2. Assume baud rate = 9600 and XTAL = 11.0592 MHz. (10 Marks)

OR

- 8 a. Compare interrupts versus polling methods, in 8051 interrupts. (05 Marks)
 b. Explain the 6 interrupts in 8051. Also state its ROM location. (05 Marks)
 c. Write an assembly program to get data continuously from port 0 and send it to port P1 while simultaneously creating a square wave of 200 μ s period on P2.1 Use Timer0 to create square wave. Assume XTAL = 11.0592 MHz. Explain IE, TMOD, TH0 calculations. (10 Marks)

Module-5

- 9 a. State advantages of LCD over multi-segment LEDs. Explain the architecture and working of 14 pin LCD. Draw its schematic diagram. (10 Marks)
 b. Explain the interfacing circuit of DAC to 8051 μ C. If $I_{ref} = 2$ mA, calculate the DAC output if all the inputs to DAC are high. (05 Marks)
 c. Calculate V_o of sawtooth wave (with respect to DAC interface) with the following program. Assume $R_F = 5$ K Ω in I/V converter in DAC circuit interfacing. [Refer fig.Q9(c)]

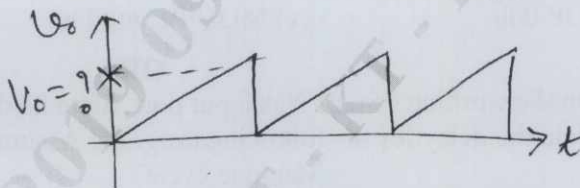


Fig.Q9(c)

```

Program: MOV A, #00h
        MOV P1, A
        GO: INC A
        SJMP GO
  
```

(05 Marks)

OR

- 10 a. Explain the construction and working of stepper motor. Also explain 2- ϕ , 4 step stepping sequence, step angle and steps per revolution. (10 Marks)
 b. Explain the control word format of 8255 IC. What is the control word for all the ports as output ports? (05 Marks)
 c. Explain the principle of opto isolator and its purpose in interfacing to 8051 μ C. (05 Marks)

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

17EE553

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020

Electrical Estimation and Costing

Time: 3 hrs.

Max. Marks: 100

Note: Answer FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define estimating and state its purpose. State the important facts which an estimator should know for preparing an internal wiring estimate. (08 Marks)
- b. Explain the following : (i) Catalogues (ii) Purchase system (iii) Contingencies. (06 Marks)
- c. Mention the different mode of tendering and explain them. (06 Marks)

OR

- 2 a. State the purpose of IE rule and regulations. Explain IE rules 29,30 and 55. (08 Marks)
- b. Write note on the comparative statement. (06 Marks)
- c. Explain (i) Overhead charges (ii) Profit (iii) Payment of bills. (06 Marks)

Module-2

- 3 a. List the general rules guidelines for residential installation. (04 Marks)
- b. Explain the different systems of distribution of energy in a building. (04 Marks)
- c. Draw the electrical circuit and estimate the quantity of material required for the wiring system. Chosen in a house plan shown in Fig. Q3 (c). The height of ceiling as 3.6 m and one plug point (60 W) has to be provided in each room. (12 Marks)

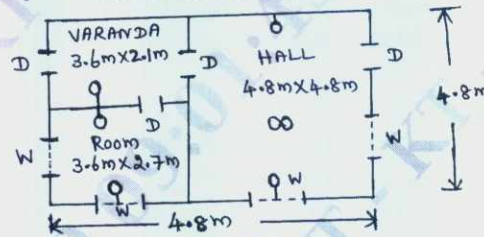


Fig. Q3 (c)

OR

- 4 a. Explain the points on which the choice of wiring system can be made. Why fuse is connected in the phase wire? (08 Marks)
- b. With reference to internal electrification of building, explain how to determine the following: (i) Total load (ii) Rating of main switch and distribution board (iii) Number of circuits. (06 Marks)
- c. Determine the size of conductor (copper) for a 2-core cable required to carry a maximum current of 60 A. Length of the cable used is 60 m and declared supply voltage is 240 V AC. (Current ratings of cables shown in table Q4 (c) may be referred) (06 Marks)

Size of cable		Current rating in Amps		Approximate Ampere-meter per volt drop
No. and dia of wire	Area in mm ²	2 Core cable	3 or 4 core cable	
19 / 1.12	19.35	62	50	1050
19 / 1.32	25.80	74	59	1475
19 / 1.626	38.70	97	78	2200

Table Q4 (c)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-3

- 5 a. State the important considerations regarding motor installation wiring. (06 Marks)
- b. Explain the determination of input power, size of conduit, distribution board, main switch, starter size of the cable and rating of the fuse. (08 Marks)
- c. Prepare an estimation of materials for providing OH service connection to a single storied building with 240 V, 1 ϕ , 50 Hz AC supply. The building has a light and fan load of 5 kW. The supply is to be given from an OH line 20 m away from the building. (assume missing data). (06 Marks)

OR

- 6 a. What do you understand by service line? Write down the various methods of installing service lines. (04 Marks)
- b. With simple sketches, explain any two methods of installation of OH service lines based on the prevailing conditions of the building. (06 Marks)
- c. A 10 HP, 415 V, 3 ϕ , 50 Hz induction motor is to be installed in a workshop the plan of which is shown in Fig. Q6 (c). Show the single line diagram and estimate the quantity of material required. (10 Marks)

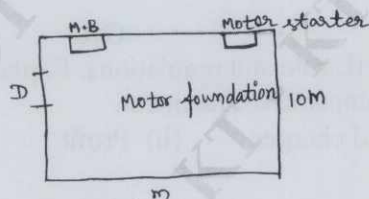


Fig. Q6 (c)

Module-4

- 7 a. List out the various points to be considered at the time of erection of over head lines. (06 Marks)
- b. Explain the following : (i) Cross arms (ii) Guys and stays (iii) Lightning arrestor. (06 Marks)
- c. Explain the necessity of earthing of transmission line supports and also show with a neat sketch how earthing of a line support is done using pipe earthing. (08 Marks)

OR

- 8 a. Explain what is meant by repairing and jointing of overhead ACSR transmission conductors. How repairing or jointing is done? (06 Marks)
- b. Explain the functions of the following in relevance to OH transmission and distribution : (i) Phase plates (ii) Beads of jumpers. (06 Marks)
- c. A pole for an overhead 11 KV, 3 ϕ , 50 Hz line is required to be earthed and a stay is to be provided make a neat sketch, how it should be done. Prepare a list of materials required. (08 Marks)

Module-5

- 9 a. Describe briefly the equipment that must be available in a substation. (05 Marks)
- b. Write short notes on substation auxiliary supply. (05 Marks)
- c. Prepare a list of material required for the installation of a 400 KVA indoor type 11/0.433 KV transformer. (10 Marks)

OR

- 10 a. Explain the functions of the following in a substation : (i) Isolators (ii) Earthing switch (iii) Batteries. (06 Marks)
- b. Draw the single line diagram for 132/33 KV substation with main and transfer bus having 2 \times 40 MVA transformers. Prepare an estimation of materials required, with their complete specification. (08 Marks)
- c. Explain the purposes of substation earthing system. (06 Marks)

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

17EC/TE/EI/BM/ML/ES51

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020 Management and Entrepreneurship Development

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define Management. Differentiate between Administration and Management. (10 Marks)
b. Briefly explain, whether Management in a Science or Art. (10 Marks)

OR

- 2 a. Explain the importance of Planning. (10 Marks)
b. Explain the hierarchy of Plans. (10 Marks)

Module-2

- 3 a. Briefly explain the principles of Organisation. (10 Marks)
b. Briefly explain the techniques of selection. (10 Marks)

OR

- 4 a. Briefly explain the Maslow's hierarchy of needs. (10 Marks)
b. Differentiate between Autocratic, Participative and Free – Rein leadership style. (10 Marks)

Module-3

- 5 a. What is the meaning of social responsibility of business? Explain social responsibility of business towards different group. (10 Marks)
b. Define the term "Entrepreneur". Explain the functions of an Entrepreneur. (10 Marks)

OR

- 6 a. Explain the various barriers of Entrepreneurship. (10 Marks)
b. Explain development cycle of Entrepreneur. (10 Marks)

Module-4

- 7 a. Define "Small Scale Industry" and state the characteristics of a SSI. (10 Marks)
b. Explain the functions of WTO. (10 Marks)

OR

- 8 a. Explain the objectives of KSFC. (10 Marks)
b. Explain the objectives of TECSOK. (10 Marks)

Module-5

- 9 a. Define Project. State and explain the classification of Projects. (10 Marks)
b. Explain the criteria's for selecting a Project. (10 Marks)

OR

- 10 a. Explain importance of Network Analysis. (10 Marks)
b. Explain briefly advantages and disadvantages of PERT and CPM. (10 Marks)

* * * * *

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.