

LITTLE FAIRY PUBLIC SCHOOL
Holiday s' Homework (2024-25)
CLASS-12

Summer Vacations will commence from 21May, 2024 to 30th June, 2024.

The school will reopen from 1st July, 2024 (Monday)

Holiday homework is an attempt to channelize the creative energy; it keeps you connected with the syllabus. Doing it in the right-spirit with enthusiasm will make it a great learning experience

General Instructions:

1. Revise all the work done in the class.
 2. Make sure that your work is neat, presentable, and original and conforms to the guidelines.
 3. Engage yourselves in morning walks, yoga, exercise, meditation with your parents or grandparents.
- Do the given homework as directed by the teachers

ENGLISH

- 1.) You are Secretary of Gymkhana Club, Madurai. Write a notice in not more than 50 words informing the members to attend an extraordinary meeting of the governing body. Include details like date, time, venue etc. Sign as Prabhu / Pratibha.
- 2.) Write a passage on the theme linguistic chauvinism with reference to the chapter "THE LAST LESSON"
- 3.) **WRITING SKILL** 'Then he turned to the blackboard, took a piece of chalk and, bearing on with all his might, wrote as large as he could-Vive La France!' Abraham Lincoln, a former President of America said, "I like to see a man proud of the place in which he lives. I like to see a man so that his place will be proud of him." After reading the lesson and the above quote you begin to reflect on the lost spirit of patriotism amongst the youth in India due to which there is no respect for one's countrymen and no determination amongst the youth to lead the country to a better future. Write an article in about 150-200 words for a national magazine on the need for revival of patriotic spirit amongst the youth in India.
- 4.) **Read the following extracts and answer the questions that follow:**

".....I looked again at her, wan, pale
as a late winter's moon and felt that old
familiar ache, my childhood's fear,
but all I said was, see you soon, Amma,
all I did was smile and smile and smile"

 - (a) Who looked wan and pale? Why?
 - (b) What is the comparison in the stanza?
 - (c) What was the childhood fear that now troubled the poet?
 - (d) Which figure of speech is used in the second line?
 - (e) How does she comfort/ console her mother?
 - (f) What is the significance of the parting words?
 - (g) What kind of pain/ ache does the poetess feel?
- 5.) **Answer the following questions in 30-40 words each:**
 - a. How and why was M. Hamel dressed differently that day?
 - b. Why has the poet brought in the image of the merry children 'spilling out of their homes'?
 - c. Why does the poet look outside? What activities does the poet see outside the car window?
 - d. How does the narrator describe himself? What made him take the subway from Grand Central?
 - e. The narrator got lost once when he ducked into an arched doorway heading for the subway. Where did he come out?
 - f. What strange things did the narrator see when he reached the third level of Grand Central?
- 6.) **Answer the following questions in 120-150 words:**
 - a. What message did the writer convey in "The Last Lesson"?

- b. My Mother at sixty six” is an emotional account of the poet about her old mother. Discuss.
- c. Aging is a natural process; have you ever thought about what our elderly parents expect from us ?
- d. Do you think that the third level was a medium of escape for Charley? Why?
- e. The modern world is full of insecurity, fear, war, worry, tension and stress. What are the ways in which we attempt to overcome them?
- f. Did Sam really go to Galesburg or was it Charley’s figment of imagination?

7.)Imagine you are the poet’s friend. Write a dialogue exchange between yourself and the poet where the latter confides in you about her fears and asks for your advice. What would your advice be to face her fears, to ignore them or something else?

8.) PROJECT FILE :

INSTRUCTIONS FOR MAKING THE PROJECT:

- Select any one of the given topics for your English Project.
- The project must contain at least 20-25 sheets
- Use as many pictures/photographs as you require Use sketch pens for headings and coloured pens for content.
- Use A4 size coloured /designer paper sheets for the project and after compiling everything it should be submitted in spiralbinding/Project file

NOTE: THE PROJECT SHOULD BE HANDWRITTEN

Topic 1 : PLIGHT OF OLD AGED PEOPLE (My Mother At Sixty Six)

1. Index
- 2.Acknowledgement
3. Certificate of Completion
- 4.Objectives
5. About the Poetess (with photos)
- 6.Poetess' Personal Experience - Common Paradox of Human Relationships
- 7.Portrayal of Sensational Separation Between a Mother and a Daughter
8. Plight of Old Aged People: Ugly Truth About Old Age (with photos)
- 9.Reasons Behind the Need of Old Age Homes
- 10.Efforts for Stress-Free and Secured Life of Aged People
11. Visit to an Old Age Home (photos of some aged people living in such homes)
- 12.How to Strike a Balance Between Duties and Responsibilities of Children and Society
- 13.Role of Youth to Improve the Plight of Aged People
- 14.Bibliography or References

TOPIC 2: INDIGO – THE EMANCIPATION OF SHARECROPPERS BY MAHATMA GANDHI

1. Index
2. Acknowledgement
- 3.Certificate of Completion
- 4 Objectives
- 5.About the author
6. What is Indigo Sharecropping? (Brief history)
- 7.Natural Indigo Harvesting and its uses (pictures)
8. Theme of Indigo
9. Role of Rajkumar Shukla
10. Summary of Indigo
- 11.Efforts by Gandhi to put an end to Sharecropping in Champaran
- 12.Gandhi as an effective leader
- 13.Bibliography

12. Ways to eliminate labour

13. Bibliography.

MATHEMATICS

1. If $R = \{(x,y)/ x+2y=8\}$ is a relation on N , write the range of R .
2. Let $A = \{a, b, c\}$ and the relation R be defined on A as follows: $R = \{(a, a), (b, c), (a, b)\}$.
3. Then, write minimum number of ordered pairs to be added in R to make R reflexive and transitive.
4. Write the smallest equivalence relation R on Set $A = \{1, 2, 3\}$.
5. Let N denote the set of all natural numbers and R be the relation on $N \times N$ defined by $(a, b) R (c, d)$ if $ad(b + c) = bc(a + d)$. Show that R is an equivalence relation.
6. Determine whether the relation R defined on the set of all real numbers as $R = \{(a, b) : a, b \in R \text{ and } a - b + 3 \in S, \text{ where } S \text{ is the set of all irrational numbers}\}$, is reflexive, symmetric and transitive.
7. Let $A = \{1, 2, 3, \dots, 9\}$ and R be the relation in $A \times A$ defined by $(a, b) R (c, d)$ if $a+d = b+c$ for $a, b, c, d \in A$. Prove that R is an equivalence relation. Also obtain the equivalence class $[(2, 5)]$.
8. Show that the relation R in the set $A = \{x : x \in Z, 0 \leq x \leq 12\}$ given by $R = \{(a, b) : |a - b| \text{ is divisible by } 4\}$ is an equivalence relation. Find the set of all elements related.
9. Let R be relation defined on the set of natural numbers N as follows. $R = \{(x, y) : x, y \in N, 2x + y = 14\}$. Find the domain and range of the relation R . Also verify whether R is reflexive, symmetric and transitive.
10. If $A = \begin{bmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}$ and $A^{-1} = A^1$, then find the value of α ?
11. Let A be a square matrix of 3×3 and $|\text{adj } A| = 64$. Find $|A^1|$.
12. If A is a square matrix such that $A^2 = I$, find $(A-I)^3 + (A+I)^3 - 7I$.
13. If area of triangle is 35 sq units with vertices $(2, -6)$, $(5, 4)$ and $(k, 4)$. Then find k .
14. Find x , if $\begin{bmatrix} 5 & 3x \\ 2y & z \end{bmatrix} = \begin{bmatrix} 5 & 4 \\ 2y & z \end{bmatrix}^T$
15. For what value of x , is the matrix $A = \begin{bmatrix} 0 & 1 & -2 \\ -1 & 0 & 3 \\ x & -3 & 0 \end{bmatrix}$ a skew-symmetric matrix?
16. If A and B are square matrices of order 3 such that $|A| = -1$ and $|B| = 4$, then what is the value of $|3(AB)|$?
17. Evaluate $\begin{vmatrix} e^{2 \log 5} & e^{5 \log 2} \\ e^{3 \log 2} & e^{2 \log 3} \end{vmatrix}$.
18. For what value of k , the matrix $\begin{bmatrix} 2k-3 & 4 & 5 \\ -4 & 0 & -6 \\ -5 & 6 & -2k+3 \end{bmatrix}$ is skew symmetric?
19. Find the value of $y-x$ from the following equation $2 \begin{bmatrix} x & 5 \\ 7 & y-3 \end{bmatrix} + \begin{bmatrix} 3 & -4 \\ 1 & 2 \end{bmatrix} = \begin{bmatrix} 7 & 6 \\ 15 & 14 \end{bmatrix}$
20. If $A = \begin{bmatrix} 3 & -5 \\ -4 & 2 \end{bmatrix}$ show that $A^2 - 5A - 14I = 0$. Hence find A^{-1}
21. If $A = \begin{bmatrix} 1 & -2 & 0 \\ 2 & 1 & 3 \\ 0 & -2 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 7 & 2 & -6 \\ -2 & 1 & -3 \\ -4 & 2 & 5 \end{bmatrix}$ find AB . Hence solve the system of equations:
 $x - 2y = 10, 2x + y + 3z = 8$ and $-2y + z = 7$
22. Show that if the determinant $\Delta = \begin{vmatrix} 3 & -2 & \sin 3\theta \\ -7 & 8 & \cos 2\theta \\ -11 & 14 & 2 \end{vmatrix} = 0$ then $\sin \theta = 0$ or $\frac{1}{2}$
23. If a, b, c are positive and unequal, show that the following determinant is negative: $A = \begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix}$
24. Find $\begin{bmatrix} -4 & 4 & 4 \\ -7 & 1 & 3 \\ 5 & -3 & -1 \end{bmatrix} \begin{bmatrix} 1 & -1 & 1 \\ 1 & -2 & -2 \\ 2 & 1 & 3 \end{bmatrix}$. Use this to solve the following system of equations: $x - y + z = 4, x - 2y - 2z = 9, 2x + y + 3z = 1$
25. Let $A = \begin{bmatrix} 2 & 3 \\ -1 & 2 \end{bmatrix}$. Then show that $A^2 - 4A + 7I = O$. Using this result calculate A^3 also.

26. To raise money for an orphanage, students of three schools A, B and C organized an exhibition in their locality, where they sold paper bags, scrap-books and pastel sheets made by them using recycled paper, at the rate of Rs. 20, Rs.15 and Rs. 5 per unit respectively. School A sold 25 paper-bags 12 scrap-books and 34 pastel sheets.
27. School B sold 22 paper-bags, 15 scrapbooks and 28 pastel-sheets while school C sold 26 paper-bags, 18 scrap-books and 36 pastel sheets. Using matrices, find the total amount raised by each school. By such exhibition, which values are inculcated in the students?
28. Solve $\frac{2}{x} + \frac{3}{y} + \frac{10}{z} = 4$, $\frac{4}{x} - \frac{6}{y} + \frac{5}{z} = 1$, $\frac{6}{x} + \frac{9}{y} - \frac{20}{z} = 2$ by using matrices.
29. If $A = \begin{bmatrix} 3 & -2 \\ 4 & -2 \end{bmatrix}$, find k such that $A^2 = kA - 2I_2$.
30. Three shopkeepers A, B, C are using polythene, handmade bags (prepared by prisoners), and newspaper's envelope as carry bags. It is found that the shopkeepers A, B, C are using (20,30,40), (30,40,20), (40,20,30) polythene, handmade bags and newspapers envelopes respectively. The shopkeepers A, B, C spent Rs250, Rs.270 & Rs.200 on these carry bags respectively. Find the cost of each carry bags using matrices. Keeping in mind the social & environmental conditions, which shopkeeper is better? Why?
31. In a legislative assembly election, a political party hired a public relation firm to promote its candidate in three ways: telephone, house calls and letters. The numbers of contacts of each type in three cities A, B & C are (500, 1000, 5000), (3000, 1000, 10000) and (2000,1500,4000), respectively. The party paid Rs.3700, Rs.7200, and Rs.4300 in cities A, B & C respectively. Find the costs per contact using matrix method. Keeping in mind the economic condition of the country, which way of promotion is better in your view?
32. A trust fund has Rs.30,000 is to be invested in two different types of bonds. The first bond pays 5% interest per annum which will be given to orphanage and second bond pays 7% interest per annum which will be given to an N.G.O. cancer aid society. Using matrix multiplication, determine how to divide Rs.30,000 among two types of Bonds if the trust fund obtains an annual total interest of Rs.1800. What are the values reflected in this question?
33. Two schools A and B decided to award prizes to their students for three values honesty (x),punctuality (y) and obedience (z). School A decided to award a total of Rs11000 for the three values to 5, 4 and 3 students respectively while school B decided to award Rs10700 for the three values to 4, 3 and 5 students respectively. If all the three prizes together amount to Rs2700, then:
Represent the above situation by a matrix equation and form linear equations using matrix multiplication.
- (i) Is it possible to solve the system of equations so obtained using matrices?
(ii) Which value you prefer to be rewarded most and why?
34. If $A = \begin{bmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}$, then for what value of α is A an identity matrix ?
35. If $f(x) = x^2 - 5x$ and $A = \begin{bmatrix} 1 & 2 \\ -3 & 0 \end{bmatrix}$, find $f(A)$.
36. Show that the matrix $A = \begin{bmatrix} 2 & -3 \\ 3 & 4 \end{bmatrix}$ satisfies the equation $A^2 - 5A + 7I = 0$. Hence find A^{-1} .
37. Find x, y, z if $A = \begin{bmatrix} y & 2y & z \\ x & y & -z \\ x & -y & z \end{bmatrix}$ satisfies $AA^T = I$.
38. If $A = \begin{pmatrix} \cos x & \sin x \\ -\sin x & \cos x \end{pmatrix}$, find x , $0 < x < \frac{\pi}{2}$, when $A + A^T = I$.
39. If $[2x \ 3] \begin{bmatrix} 1 & 2 \\ -3 & 0 \end{bmatrix} \begin{pmatrix} x \\ 8 \end{pmatrix} = 0$, find the value of x.
40. If $A = \begin{bmatrix} 0 & 2 \\ 3 & -4 \end{bmatrix}$ and $kA = \begin{bmatrix} 0 & 3a \\ 2b & 24 \end{bmatrix}$, then find the values of a, b and k.
41. If A and B are matrices of order 3 and $|A| = 5$, $|B| = 3$, then find $|3AB|$.

Mathematics Activities (To be done in practical file)

Activity -1 (a) To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \perp m\}$ is symmetric but neither reflexive nor transitive.

Activity-1 (b) To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \parallel m\}$ is an equivalence relation.

Activity-2 (a) To demonstrate a function which is not one-one but is onto.

Activity-2 (b) To demonstrate a function which is one-one but not onto.

Activity-3 To find analytically the limit of a function $f(x)$ at $x = c$ and to check the continuity of the function at that point.

Activity-4 To understand the concepts of decreasing and increasing functions.

Activity-5 To understand the concepts of local maxima, local minima and point of inflection.

Activity-6 To construct an open box of maximum volume from a given rectangular sheet by cutting equal squares from each corner.

CHEMISTRY :

- Do all back questions and intext questions of organic chemistry from Ncert book
- Do the investigatory project.

PHYSICS

- Do all back questions of Ncert chapter done in class.

COMPUTER SCIENCE

1. What will be the output of the following statements?
 - a) `list1 = [12,32,65,26,80,10]`
`list1.sort()` `print(list1)`
 - b) `list1 = [12,32,65,26,80,10]`
`sorted(list1)`
`print(list1)`
 - c) `list1 = [1,2,3,4,5,6,7,8,9,10]`
`list1[::-2]`
`list1[:3] + list1[3:]`
 - d) `list1 = [1,2,3,4,5]`
`list1[len(list1)-1]`
2. Consider the following list myList. What will be the elements of myList after each of the following operations?
`myList = [10,20,30,40]`
 - a) `myList.append([50,60])`
 - b) `myList.extend([80,90])`
3. What will be the output of the following code segment?
`myList = [1,2,3,4,5,6,7,8,9,10]`
`for i in range(0,len(myList)):`
`if i%2 == 0:`
`print(myList[i])`
4. What will be the output of the following code segment?
 - a) `myList = [1,2,3,4,5,6,7,8,9,10]`
`del myList[3:]` `print(myList)`
 - b) `myList = [1,2,3,4,5,6,7,8,9,10]`
`del myList[:5]`
`print(myList)`

```
c) myList = [1,2,3,4,5,6,7,8,9,10]
   del myList[::2]
   print(myList)
```

5. Consider the following dictionary stateCapital:

```
stateCapital = {"Assam": "Guwahati", "Bihar": "Patna", "Maharashtra": "Mumbai", "Rajasthan": "Jaipur" }
```

6 Find the output of the following statements:

```
a) print(stateCapital.get("Bihar"))
b) print(stateCapital.keys())
c) print(stateCapital.values())
d) print(stateCapital.items())
e) print(len(stateCapital))
f) print("Maharashtra" in stateCapital)
g) print(stateCapital.get("Assam"))
h) del stateCapital["Assam"]
print(stateCapital)
```

7. What will be the output?

1. >>>t1 = (1, 2, 4, 3)

2. >>>t2 = (1, 2, 3, 4)

3. >>>t1 < t2

a) True b) False c) Error d) None

8. Which of the following statements create a dictionary?

a) d = { }

b) d = {"john":40, "peter":45}

c) d = {40:"john", 45:"peter"}

d) All of the mentioned

9. Read the code shown below carefully and pick out the keys?

```
d = {"john":40, "peter":45}
```

a) "john", 40, 45, and "peter" b) "john" and "peter"

c) 40 and 45

d) d = (40:"john", 45:"peter")

10. What will be the output?

```
d = {"john":40, "peter":45}
```

```
"john" in d
```

a) True

b) False

c) None

d) Error

11. What will be the output?

```
d1 = {"john":40, "peter":45}
```

```
d2 = {"john":466, "peter":45}
```

```
d1 == d2
```

a) True

b) False

c) None

d) Error

12. What will be the output?

```
d1 = {"john":40, "peter":45}
```

```
d2 = {"john":466, "peter":45}
```

```
d1 > d2
```

a) True

b) False

c) Error

d) None

(hint: dictionary does not support relational operator >, <, >=, <=)

13. What is the output?

```
d = {"john":40, "peter":45}
```

```
d["john"]
```

a) 40

b) 45

c) "john"

d) "peter"

14. Suppose d = {"john":40, "peter":45}, to delete the entry for "john" what command do we use

a) d.delete("john":40)

b) d.delete("john")

c) del d["john"]

d) del d("john":40)

- b) {1: 'A', 2: 'B', 3: 'C'}
- c) {1: 'A', 2: 'D', 3: 'C'}
- d) "None" is printed

25. What is the output of the following code?

```
a={1:"A",2:"B",3:"C"}
```

```
a.clear()
```

```
print(a)
```

- a) None
- b) { None:None, None:None, None:None }
- c) {1:None, 2:None, 3:None }
- d) { }

26. What will be the output?

```
numberGames = { }
```

```
numberGames[(1,2,4)] = 8
```

```
numberGames[(4,2,1)] = 10
```

```
numberGames[(1,2)] = 12
```

```
sum = 0
```

```
for k in numberGames:
```

```
    sum += numberGames[k]
```

```
print (len(numberGames) + sum )
```

- a. 30
- b. 24
- c. 33
- d. 12

27. What will be the output?

```
numberGames = { }
```

```
numberGames[(1,2,4)] = 8
```

```
numberGames[(4,2,1)] = 10
```

```
numberGames[(1,2)] = 12
```

```
sum = 0
```

```
for k in numberGames:
```

```
    sum += numberGames[k]
```

```
    print (len(numberGames) + sum )
```

- a. 11, 20, 30
- b. 10, 20 , 24
- c. 11, 21, 33
- d. 10, 21, 12

28. Which of the following is a Python tuple?

- a. [1, 2, 3]
- b. (1, 2, 3)
- c. {1, 2, 3}
- d. { }

29. Suppose t = (1, 2, 4, 3), which of the following is incorrect?

- a. print(t[3])
- b. t[3] = 45
- c. print(max(t))
- d. print(len(t))

30. What will be the output?

```
>>>t=(1,2,4,3)
```

```
>>>t[1:-1]
```

- a. (1, 2)
- b. (1, 2, 4)
- c. (2, 4)
- d. (2, 4, 3)

31. What will be the output?

```
>>>t = (1, 2)
```

```
>>>2 * t
```

- a. (1, 2, 1, 2)
- b. [1, 2, 1, 2]
- c. (1, 1, 2, 2)
- d. [1, 1, 2, 2]

31. Consider the following code and write the answers:

```
def calculate(a, b):
```

```
    return a * b
```

```
    mpy = calculate(x, y) print(mpy)
```

KEYWORD USED TO DEFINE THE FUNCTION	DEF KEYWORD
NAME OF THE FUNCTION	calculate
ACTUAL PARAMETERS / ARGUMENTS	x,y
FORMAL PARAMETERS / PARAMETERS	a,b
IS IT A VOID FUNCTION?	NO
HOW MANY VALUES ARE RETURNED?	only one value in the form of tuple

32. Consider the following code and write the answers:

```
def display(name):
    print("Hello" + name + "How are you?")
    a = display("Samy")
    print(a)
```

NAME OF THE FUNCTION	display
FORMAL PARAMETER	name
ACTUAL PARAMETER	Samy
IS IT A VOID FUNCTION?	YES
WHAT WILL BE THE OUTPUT?	Hello Samy How are you? NONE

33. What is the difference between the following codes? How many values are returned from the function?

<p style="text-align: center;"><u>Program 1</u></p> <pre>def sum(a, b, c): return a + 2, b - 5, c * 3 S = sum(2, 10, 12) print(S)</pre>	<p style="text-align: center;">OUTPUT (4, 5, 36)</p> <p style="text-align: center;">ONLY ONE VALUE IS OBTAINED IN THE FORM OF TUPLE</p>
<p style="text-align: center;"><u>Program 2</u></p> <pre>def sum(a, b, c): return a + 2, b - 5, c * 3 S1, S2, S3 = sum(2, 10, 12) print(S1, S2, S3)</pre>	<p style="text-align: center;">OUTPUT 4 5 36</p> <p style="text-align: center;">THREE DIFFERENT INDEPENDENT ASSIGNED TO 3 DIFFERENT VARIABLES ARE OBTAINED</p>

34. What will be the output? Explain the execution of the program.

<u>PROGRAM 1</u>	PROGRAM 2	PROGRAM 3	PROGRAM 4
<pre>def abc(): print(a) a = 10 print(a) abc() print(a)</pre>	<pre>def abc(): a = 5 print(a) a= 10 print(a) abc() rint(a)</pre>	<pre>def abc(): global a a= 5 print(a) a = 10 print(a) abc() print(a)</pre>	<pre>def abc(): a = a +5 print(a) a = 10 print(a) abc() print(a)</pre>
OUTPUT	OUTPUT	OUTPUT	OUTPUT
10	10	10	10
10	5	5	SYNTAX
10	10	5	ERROR

35. Consider the following function header and identify the correct statement:

```
def abc(a =1, b=2, c)
```

```
def abc(a = 1, b, c = 3)
```

```
def abc(a = 1, b = 2, c = 3) (CORRECT OPTION)
```

```
def abc(a = 1, b, c)
```

36. Find the output of the following code:

```
def call(n1 = 2, n2 = 4):
```

```
    n1 = n1 * n2
```

```
    n2 += 2
```

```
    print(n1, n2)
```

```
    call()
```

```
    call(5, 10)
```

```
    call(10)
```

BIOLOGY

Section-A

Q1. What do the microsporangia develop further into as the anther mature?

Q2. How is an ovule technically referred to?

Q3. What are the mitotic divisions in the functional megaspore nucleus called free nuclear divisions?

Q4. In a flower, the megaspore mother cell of an ovule forms megaspores by mitosis. If one of these megaspores develops into the embryo sac, what will be the ploidy of its (eight) nuclei?

Q5. Name two freshwater angiosperms that show true hydrophily.

Q6. What are the advantages of selecting dioecious plants for carrying out artificial hybridization or breeding experiments?

Q7. Name the hormone that maintains the function of male accessory ducts and glands.

Q8. In which phase of the menstrual cycle is the corpus luteum formed?

Q9. Name any two hormones found in the blood of a pregnant female only.

Q10. What are stem cells in a human embryo?

Q11. When does oogenesis start in a human? Name three hormones and their sources linked with oogenesis. How do they influence the process of oogenesis? Explain.

Q12. What is the old name of RCH programmes? When was it initiated in India?

Q13. Why are spermicidal creams used along with a female barrier like the diaphragm?

- Q 14. What term is given to the method of a ART in which a sperm is directly injected into the ovum?
 Q15. Name the most dangerous among the venereal diseases.
 Q 16. Expand the following.
 ICSI, GIFT, ZIFT, IUT, IUI, IVF
 Q17. (a) Explain the barrier methods of birth control.
 (b) How is GIFT different from ZIFT?
 Q18. Differentiate between Autogamy, Geitonogamy and Xenogamy.

Differentiate between:

Primary follicles and Secondary follicle, Secondary follicle and Tertiary follicle, Follicular phase and Luteal phase, Menarche and Menopause, Morula and Blastocyst, Trophoblast and Inner cell mass, Spermatogenesis and oogenesis.

Section B

- Q1. Solve all the questions of Ncert exercise of chapter 2, 3 and 4 in your fair notebook.
 Q 2. Write 5 questions with answers of case-based studies of chapter 2, 3 & 4 in your fair notebook.
 Q3. Practice all the labeled diagrams of chapter 1, 2 & 3 in your fair notebook.
 Q4. Write the given practicals in your Practical file:
 A. Prepare a temporary mount to observe Pollen germination
 B. Study the plant population density by a quadrat method.
 C. Study the plant population frequency by Quadrant method.
 D. Prepare the temporary mount of onion root tip to study mitosis.
 E. Isolation of DNA from available plant material such as spinach, green pea seed, papaya, etc.

For Spotting.

Study and observation of the following:

- A. Flower adapted to pollinate session by different agencies (wind, insects, birds).
 B. Pollen germination on stigma through a permanent slide or scanning electron microscope.
 C. Identification of stages of gamete development. i.e. T.S. of testis and T.S. of ovary, through permanent slides, from (grasshopper/mice).
 D. Meiosis in onion bud cells or grasshopper. testis through permanent Slides.
 E. TS of blastula through permanent slide (mammalian)
 F. Control pollination emasculation, bagging and tagging.

Section - C

Q5) Prepare Science model on given topic:

Theme: Science & Technology for Society

Sub Themes:

- (i) Health (Biology students)
 (ii) Life (Life style for environment) Biology Students)
 (iii) Agriculture (Biology students)
 (iv) Communication and transportation (CS students)
 (v) Computational Thinking (CS students)

Instructions :

- # Model should be working based on scientific principles.
 # Strictly not advise to use thermocol.

ECONOMICS

MACRO ECONOMICS

- Q1. Define consumption goods.
 Q2. Foreign embassies in India are a part of India's: (Choose the correct alternative)
 (a) Economic Territory (b) Geographical territory
 (c) Both (a) and (b) (d) None of the above
 Q3. Supply of money refers to quantity of money _____ (Choose the correct alternative)
 (a) As on 31st March (b) During any specified period of time
 (c) As on any point of time (d) During a fiscal year

Q4. Demand deposits include _____ (Choose the correct alternative)

- (a) Saving account deposits and fixed deposits
- (b) Saving account deposits and current account deposits
- (c) Current account deposits and fixed deposits
- (d) All types of deposits

Q5. Market Price and factor cost will be equal when there is:

- (a) No direct tax (b) No Indirect tax
- (c) No Subsidy (d) No Indirect tax and No subsidy

Q6. State, giving reasons, whether the following statements are true or false: (3)

- (a) Currency created by the Central Bank is called bank money.
- (b) Higher the Legal Reserve Ratio (LRR), greater would be the money creation in the economy.
- (c) Money supply is a stock variable

Q7. Giving reasons classify the following into stocks and flows:

- (a) Wealth (b) Savings (c) Gross Domestic Product

Q8. Discuss briefly, the circular flow of income in a two sector economy with the help of a suitable diagram.

Q9. How will you treat the following in the calculation of Gross Domestic Product of India?

Give reasons for your answer.

- (a) Profits earned by a branch of foreign bank in India
- (b) Salaries of Indian Employees working in embassy of J

Calculate (a) Net Value added at factor cost and (b) Value of output at market price from the following data.(Rs. in arab)

i. Subsidies	40
ii. Intermediate costs	200
iii. Compensation of employees	400
iv. Depreciation	50
v. Royalty	5
vi. Interest	25
vii. Indirect Taxes	100
viii. Rent	10
ix. Profits	60
x. Net Change in stocks	20
: xii. Corporate Profit Tax	20
xiii. Indirect Taxes	50

Q15. State giving reasons whether the following will be included in national income:

- (i) Growing vegetables in a kitchen garden of the house/services rendered by family members to each other.
- (ii) Production of tobacco products, liquor, etc.
- (iii) Harmful effects of air pollution caused by factories or vehicle

II. PROJECT

Indian

Economy. This project is final CB SE project

The expectations of the project work are that:

learners will complete only ONE project in each academic session

project should be of 3,500-4,000 words (excluding diagrams & graph

hand-written

it will be an independent, self-directed piece of study.

Topics According to roll no.

Topics.

Roll no.

1. Government budget	1,3
2. Balance of payment	2,4,6
3. National income .	5,7,9
4. Money and banking	8,10,12
5. Determination of income and employment	11,13,15
6. Foreign exchange	14,16,18
7. Indian economy on the eve of independence	17,19,21
8. Indian economy in 1950- 1990	20,22,24
9. Liberalisation privatisation and globalisation	23,25,27
10. Human capital formation	26,28,30
11. Rural development	29,31,33
12. Employment growth. informalisation and other issue	32,34,36
13. Environment and sustainable development	35,37,39
14. Comparative development experience of India and its neighbouring countries.	38,40

Business Studies

1. Do given case studies in separate notebook

Chapter 1

Mr. X, the director of a company many times get involved in activities like procurement of raw material, production and dispatch of goods, employee discipline etc.

- Name the level of management Mr. X belongs to.
- Do you think he must be involved in such activities? Give reason.
- Give two important functions, Mr. X must perform?

Q2. Management of Global Ltd. fulfills all its objectives and the organization is able to work effectively and efficiently. It is using environment friendly methods of production and disposes off the waste material by either recycling it or using the same for landfill in such a manner that aquatic life is not disturbed. It also provides employment opportunities to the disadvantaged sections of the society.

- Identify the objective of management which the company is fulfilling by doing such activities.
- State any other 2 objectives which they should fulfill?
- Which two values is the company achieving by their activities?

Q3. In ABC Ltd., the purchase department purchased 20 tonnes of raw material for production department. Although only 15 tones was needed by production department. Due to this, goods were overproduced and were not accepted by sales department. As a result, some goods remained unsold. Which aspect of management is lacking among various departments. Give any 2 importance of the above asked element.

Q4. The marketing manager of Alpha Ltd. fixed the target for all his sales executives and gave them all the possible authorities to achieve it. They were asked to submit to him their performance report at the end of the month. All of them did the same. On the receipt of report, the expected and actual results of sales executives were compared, on this basis future course of action was decided. The sales Executive also wrote in their report what the expectations of the customers from the company were. Majority them had written that they wanted the co. to cooperate in the construction of Dharmsala going on in the city. The marketing manager placed this demand before the Board of Directors. This was happily accepted.

- Identify the functions of management described in above paragraph by quoting relevant lines.
- Which 2 values are given to society?
- Which objective is being highlighted here?

Q5. Three groups of employees of Ganga Ltd. are working at different posts. The first group is responsible for survival and growth of organization. This group continuously keeps a watch over the business environment. With a view of coping with the changes going on in the business environment this group immediately discusses the change to be brought about in company's plan. The second group is to explain the policies by superiors to the employees and developing the feeling of cooperation among

all the departments. The Third group is responsible for maintaining quality and safety standards and minimizing wastage.

(a) Identify the levels of management described in above paragraph by quoting relevant lines.

Q6. Grey Ltd. is facing a lot of problems these days. The Co's margin is declining day by day. The Production manager is blaming marketing department whereas marketing is blaming production department for not maintaining the quality. Finance department is blaming the both.

(a) What aspect of management do you think is lacking in the above situation.

(b) Give the importance of that concept.

Q7. Rahul is planning to launch a new line of products in 2 years time. However at present he has reduced its prices by 10% to retain its existing customers. What are the 2 main objectives he is focusing at? Give reason.

Q8. After every three months, Mr. Ramakant offers new schemes to its distributors. He tries to bring in changes keeping in mind the needs of a customer and offers from his competitors. This gives him an edge over his competitors. Identify the characteristic of management in above situation? Explain it briefly. [Hint: Dynamic].

Q9. Toys & toys Ltd. received a new order of 10,000 toys to be delivered in 15 days, failing which the tract will be null and void. To complete this, Mr. Pankaj, production manager planned to outsource the production and deliver the order on time. The outsourcing of production results in increase in cost by 30%. Do you think the production manager performed his duties effectively and efficiently? Give reasons.

Q10. Gemini Circus is organizing shows internationally for the last thirty years. Their shows have been successful across the globe. Of late, their shows are not as popular as they were in the past. After analyzing, they are thinking of bringing necessary changes in their shows to gain popularity.

(a) Identify which characteristics of management is reflected in above situation? Give reasons.

(b) Which function of management is indicated here?

Q11. Ford Motors aims to produce and sell 1,50,000 cars in 2014. To achieve this target the production department strives for timely production and sales department takes all possible steps to sell them. Due to combined efforts of all the departments, company can achieve its target.

(a) Which importance of management is highlighted here? Explain any two other significances of management.

(b) Which other aspect of management helps in achieving goal in Ford Motors.

Chapter 3

Question No. 1 to 6 are based on the given text. Read the text carefully and answer the questions:

Mohan works in a bulb manufacturing company. Each bulb that is manufactured is of standard size and quality. Further, if there is any unrequited type of bulb manufactured then its production is stopped. Last month when the company came to know that 10-watt bulbs were no more liked by customers, their production was stopped. He works in the purchasing department. His job is to purchase the filaments required to make bulbs. This time when he purchases the filament he gets the instruction from the seller that some special care needs to be taken in the first hour of fixing the filaments inside the bulb. Mohan knows this information should be given immediately to the production department before the assembling process starts. However, he finds that his company's policies only allow him to give the message to his immediate boss who will further pass this message to his boss. The passing of this message will continue until it reaches the desired person in the production department.

1. The principle of management discussed in the above para is given by ____.

- Henry Fayol
- None of these
- Sun Tzu
- F.W. Taylor

2. Which management function is discussed in the above para?

- a. Controlling
- b. Organising
- c. Staffing
- d. Planning

3. Which technique of management is followed here?

- a. None of these
- b. Method study
- c. Fatigue study
- d. Standardization and simplification

4. Name the principle of management followed here by the company?

- a. Scalar chain
- b. Departmentalization
- c. None of these
- d. Division of Work

5. Which option is now available to Mohan since the company is not allowing him to interact with the concerned worker in the production department?

- a. All of these
- b. Organization
- c. Authority and Responsibility
- d. Gang-plank

6. Which principle of management is followed by the company by creating a separate department?

- a. Departmentalization
- b. Scalar Chain
- c. Method study
- d. Division of work

7. Principles of management equip the managers to foresee the cause and effect relationships of their decisions and actions so that the wastages associated with a trial and error approach can be overcome. Identify the point of significance of principles of management highlighted here.

- a. Scientific decisions
- b. Fulfilling social responsibility
- c. Optimum utilisation of resources
- d. Meeting environment

8. The violation of which principle of management results in the disorderly flow of information?

- a. Authority and Responsibility
- b. Stability of employees
- c. Scalar Chain
- d. Unity of Command

9. In which year Taylor became an engineer from a worker?

- a. 1903
- b. 1878
- c. 1901
- d. 1884

10. Assertion (A): One of the major contributions of FW Taylor is the 'Piece Rate System'.

Reason (R): He has also published various books and research papers on Industrial

Organisation and Management.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

11. Assertion (A): Unity of Command means One unit on one Plan.

Reason (R): The Principle of Unity of Command reduces the chances of ego clashes among superiors and leads to more effective working.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

12. State True or False:

i. Fayol is known as the father of scientific management.

- a. True
- b. False

ii. Functional foremanship propounded by Taylor is based on principle of division of work.

- a. True
- b. False

13. Fill in the blanks:

- a. ____ study seeks to eliminate wasteful and unnecessary movements so that it takes less time to complete a job efficiently.
- b. The objective of ____ suggested by Taylor is to increase the efficiency of workers by selecting standard tools and equipment and maintaining standard working conditions.

14. Match the following:

- (a) Taylor's principles are concerned with (i) Function of managers
- (b) Taylor laid great emphasis on (ii) Management efficiency
- (c) Fayol's principles are concerned with (iii) Worker's efficiency
- (d) Fayol laid great emphasis on (iv) Standardisation of work

15. Ajay kumar is a sales manager in a Soap company. He is given the responsibility of meeting a sales target of 1500 detergents in a month. To achieve this target, Ajay kumar needs 30 sales executives. However, he has just 18 executives under him and he is not given the authority to employ 12 more executives. Ajay Kumar is able to sell only 900 Soap only. The General Manager of the company blames Ajay kumar for not achieving the target results. Do you think Ajay kumar can be blamed for this?

16. Which principle suggests that the interests of an organisation should take priority over the interests of any one individual employee?

Ramesh had recently completed his graduation from a well-known institute in Kolkata. He was too much interested in Graphic Designing and Printing therefore he pursued a side course along with his graduation. Now, he set up a Printing Industry Ramesh Printers Ltd in a rural area where a printing facility was not available. Its main business was to print visiting cards and advertisement banners. One negative factor that is affecting this industry to some extent is that the preferences of customers are changing. They are shifting from Traditional Marketing to Digital Marketing as most of the businesses have become online. It has also been noticed that in Printing Industry only those companies are making

huge profits that have adopted modern technology. Recently, the government has made such changes in tax policy that will have a positive impact on the Printing Industry. The Managing Director of Ramesh Printing Ltd. made a thorough study of the business environment and accordingly, he made necessary changes in the working of their business.

1. One of the major step taken was to start a website to take orders online. Identify the dimension of Business Environment highlighted here?

- a. Economic Environment
- b. Legal Environment
- c. Political Environment
- d. Technological Environment

2. He made necessary changes in the working of their business to meet the current circumstances. Which importance of business environment scanning has been discussed here?

- a. Tapping and Assembling Resources
- b. Growth and expansion
- c. Adaption to changes
- d. Getting first mover advantage

3. One negative factor that is affecting this industry to some extent is that the preferences of customers are changing. Which dimension of Business Environment is highlighted here?

- a. Economic Environment
- b. Legal Environment
- c. Political Environment
- d. Social Environment

4. Recently, the government has made such changes in tax policy that will have a positive impact on the Printing Industry. Dimension of Business Environment is referred to here?

- a. Legal Environment
- b. Economic Environment
- c. Political Environment
- d. Technological Environment

5. It has also been noticed that in Printing Industry only those companies are making huge profits that have adopted modern technology. Identify the dimension of Business Environment highlighted here?

- a. Technological Environment
- b. Legal Environment
- c. Economic Environment
- d. Political Environment

6. Which value is highlighted here in this case?

- a. Rural Development
- b. Sympathy towards others
- c. Gender Equality
- d. Saving Environment

7. Advance understanding of business environment will help in:

- a. Developing new principles of management
- b. Nothing
- c. Privatisation
- d. Planning and Policy Formulation

8. _____ is concerned with the withdrawal of state from an industry or sector, partially or fully.

- a. Liberalisation
- b. Modernisation
- c. Privatisation
- d. Globalisation

9. According to a recent survey, 90% students have shifted 4G and 5G phones from 2G and 3G phones. It is an example of _____ environment.

- a. social
- b. economic
- c. political
- d. technological

10. Assertion (A): Social Environment has a great impact on business in the long run.

Reason (R): Increase in the sale of sweets during festivals is due to the change in Social Environment.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

11. Assertion (A): Specific Forces affect the business enterprises only indirectly.

Reason (R): Suppliers, Investors, and Customers are examples of Specific Forces.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is not the correct explanation of A.
- c. A is true but R is false.

d.A is false but R is true.

12. State True or False:

i. Disinvestment means investment in different sectors.

a. True

b.False

ii. After the Introduction of N.E.P companies become market-oriented.

a. True

b.False

13. Fill in the blanks:

a. The environment is a ____ phenomenon that is relatively easier to understand in parts but difficult to grasp in its totality.

b. Colour television has wiped out the market for black and white television. It is an example of ____

15. Which policy of Indian Government has moved India towards globalisation?

16. One of the strong objections against the increasing number of automobiles is that it has resulted in the rising level of pollution. Further, due to heavy cost of import of fuel, prices of petroleum products are increasing alarmingly. The Government of India has proposed the automobile industry to produce fuel-efficient vehicles. Which dimension of business environment is being referred to in the given situation?

17. As a result of the decision by Britain to exit to European Union the new trade agreements will come into force from the EU as it accounts for 35 - 40% of auto component exports from India. Tata Motors-owned Britain's largest carmaker Jaguar Land Rover (JLR) has been in Britain for three decades and makes 4,75,000 cars a year in the country of which most of them are exported inside the European Union and beyond. JLR estimates that their annual profit could be cut by one billion pounds (\$1.47 billion) by the year 2020.

In the context of the above case:

a. Explain why are all the elements of the business environment considered to be closely interrelated?

b. Name any two related dimensions of the business environment.

18. List some important factors that influence the working of a business enterprises?

19. Recently the Government of India has announced the repealing of various outdated statutory legislations. Identify the dimension of business environment and explain it briefly.

20. What is meant by Business environment? State any three points of its importance.

Prepare the project work on the topic allotted-

Project A : MARKETING MANAGEMENT

Project B :BUSINESS ENVIRONMENT

Project C :- STOCK EXCHANGE

Project D :- PRINCIPLES OF MANAGEMENT

Guidelines to be followed:-

Project A: MARKETING MANAGEMENT

(A.) On the basis of the work done by the students the project report should include the following:

1. Why have they selected this product/service?

2. Find out '5' competitive brands that exist in the market.

3. What permission and licenses would be required to make the product?

4. What are your competitors Unique Selling Proposition [U.S.P.]?

5. Does your product have any range give details?

6. What is the name of your product?
 7. Enlist its features.
 8. Draw the 'Label' of your product.
 9. Draw a logo for your product.
 10. Draft a tag line.
 11. What is the selling price of your competitor's product?
 - (i) Selling price to consumer
 - (ii) Selling price to retailer
 - (iii) Selling price to wholesaler
 - What is the profit margin in percentage to the
 - a. Manufacturer.
 - b. Wholesaler.
 - c. Retailer.
 12. How will your product be packed?
 13. Which channel of distribution are you going to use? Give reasons for selection?
 14. Decisions related to warehousing, state reasons.
 15. What is going to be your selling price?
 - (i) To consumer (ii) To retailer (iii) To wholesaler
 16. List 5 ways of promoting your product.
 17. Any schemes for
 - (i) The wholesaler (ii) The retailer (iii) The consumer
 18. What is going to be your 'U.S.P'?
 19. What means of transport you will use and why?
 20. Draft a social message for your label.
 21. What cost effective techniques will you follow for your product.
 22. What cost effective techniques will you follow for your promotion plan.
- At this stage the students will realize the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing.

A.PRODUCT B. PLACE C. PRICE D. PROMOTION

Project B: BUSINESS ENVIRONMENT

1. Changes witnessed over the last few years on mode of packaging and its economic impact. It may include the following changes:
 - a) The changes in transportation of fruits and vegetables such as cardboard crates being used in place of wooden crates, etc. Reasons for the above changes.
 - b) Milk being supplied in glass bottles, later in plastic bags and now in tetra pack and through vending machines.
 - c) Plastic furniture [doors and stools] gaining preference over wooden furniture.
 - d) The origin of cardboard and the various stages of changes and growth.
 - e) Brown paper bags packing to recycled paper bags to plastic bags and cloth bags.
 - f) Re use of packaging [bottles, jars and tins] to attract customers for their products.
 - g) The concept of pyramid packaging for milk.
 - h) Cost being borne by the consumer/manufacturer.
 - i) Packaging used as means of advertisements.
2. The reasons behind changes in the following:

Coca – Cola and Fanta in the seventies to Thums up and Campa Cola in the eighties to Pepsi and Coke in nineties.

The teacher may guide the students to the times when India sold Coca Cola and Fanta were being manufactured in India by the foreign companies.

The students may be asked to enquire about

 - a. Reasons of stopping the manufacturing of the above mentioned drinks in India THEN.
 - b. The introduction of Thums up and Campa cola range.
 - c. Re entry of Coke and introduction of Pepsi in the Indian market.
 - d. Factors responsible for the change.
 - e. Other linkages with the above.
 - f. Leading brands and the company having the highest market share.

- g. Different local brands venturing in the Indian market.
- h. The rating of the above brands in the market.
- i. The survival and reasons of failure in competition with the international brands.
- j. Other observations made by the students
3. Changing role of the women in the past 25 years relating to joint families, nuclear families, women as a bread earner of the family, changes in the requirement trend of mixers, washing machines, micro wave and standard of living.
4. The changes in the pattern of import and export of different Products.
5. The trend in the changing interest rates and their effect on savings.
6. A study on child labour laws, its implementation and consequences.
7. The state of 'anti plastic campaign,' the law, its effects and implementation.
8. The laws of mining /setting up of industries, rules and regulations, licences required for running that business.
9. Social factors affecting acceptance and rejection of an identified product. (Dish washer, Atta maker, etc)
10. What has the effect been on the types of goods and services? The students can take examples like:
 - a. Washing machines, micro waves, mixers and grinder.
 - b. Need for crèche, day care centre for young and old.
 - c. Ready to eat food, eating food outside, and tiffin centres.
11. Change in the man-machine ratio with technological advances resulting in change of cost structure.
12. Effect of changes in technological environment on the behaviour of employee.

Project C :- STOCK EXCHANGE

Project D: PRINCIPLES OF MANAGEMENT : The students are required to visit any one of the following:

1. A departmental store.
2. An Industrial unit.
3. A fast food outlet.
4. Any other organisation approved by the teacher.

They are required to observe the application of the general Principles of management advocated by Fayol. Fayol's principles are:

1. Division of work
2. Unity of command.
3. Unity of direction.
4. Scalar chain
5. Espirit de corps
6. Fair remuneration to all
7. . Order
8. Equity
9. Discipline
10. Subordination of individual interest to general interest.
11. Initiative.
12. Centralisation and decentralisation.
13. Stability of tenure. OR

They may enquire into the application of scientific management techniques by F.W. Taylor in the unit visited.

Scientific techniques of management.

1. Functional foremanship. 2. Standardization and simplification of work. 3. Method study. 4. Motion Study. 5. Time Study. 6. Fatigue Study 7. Differential piece rate plan.

(B.) PRESENTATION AND SUBMISSION OF PROJECT REPORT OF PROJECT A ,B AND C

The following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 pages.
2. The project should be handwritten.
3. The project should be presented in a neat folder.

4. The project report should be developed in the following sequence) The cover page should include the title of the Project, student information, school and year.
- c) List of contents.
- d) Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
- e) Introduction.
- f) Topic with suitable heading.
- g) Planning and activities done during the project, if any.
- h) Observations and findings of the visit.
- i) Conclusions (summarised suggestions or findings, future scope of study).
- j) Photographs (if any).
- k) Appendix.
- l) Teacher's observation.
- m) Signature of the teacher.

Instructions:

1. The work has to be done on A4 size interleaf sheets.
2. It should be written in neat handwriting.
3. The file should not be spiraled.
4. The project should be hand written and no print-outs to be used for content writing

ACCOUNTANCY

Do in separate note book

Accounting for Partnership Firm:

Chapter 1. Fundamentals of partnership firm.

Theory aspects of the chapter. Meaning and contentment of partnership deed.

Assumptions of partnership deed Rights and duties of partners in a firm.

Minimum and Maximum limit of numbers of partners in a partnership firm.

Numerical

Do question no. 1 to 7 (page no. 1.93)

Question no. 24 to 27 (page no. 1.97)

Question no. 28 to 36 (page no. 1.98)

Question no. 37 to 45 (page no. 1.100)

Question no. 52, 54, 58,59, (page no. 1.102)

Do all unsolved question of past adjustment and guarantee of minimum profit to a partner.

Chapter 2

Nature and valuation of Goodwill. Theory aspects:

What is goodwill

Nature and methods of valuation of goodwill

Factors affecting goodwill

Need for valuation of goodwill As 26 of ICAI.

Numerical aspect. Do all the unsolved question (page no. 2.31)

INFORMATICS PRACTICES

DO FOLLOWING QUESTIONS IN NOTE BOOK...

Networking

1. What is the use of Repeater in a network?
2. State two advantages of networking computers instead of having standalone computers.
3. Write one advantage each of star and bus topology used in networking.
4. Mr. Chandervardhan is not able to identify the Domain Name in the given URL. Identify and write it for him.<http://www.cbsenic.in/aboutus.htm>
5. Name any two most popularly used search engines.

6. Given below two addresses

(i) 59.177.134.72

(ii) http://www.ccc.nic.in/welcome.htm

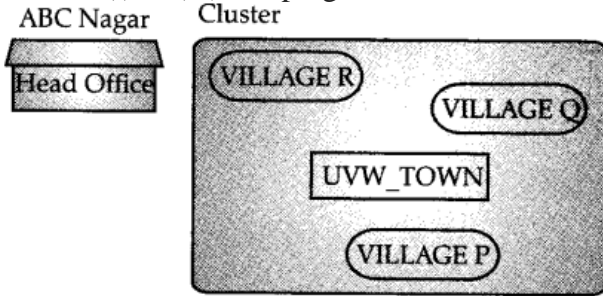
Identify which one of the above is an IP address and which one is a URL?

7. Mr. Taufiq Ahmad wants to prevent unauthorised access to/from his company's local area network. Write the name of system (software/hardware), which he should install.

8. What is a protocol? Which protocol is used to copy a file from/to a remotely located server?

9. india Skills Hub is a skill development community which has an aim to promote the standard of skills in the society. It is planning to set up its training centres in multiple towns and villages Pan India with its head offices in the nearest cities. They have created a model of their network with a city ABC Nagar, a town (UVW town) and 3 villages.

As a network consultant, you have to suggest the best network related solutions for their issues/ problems raised in (i) to (iv), keeping in mind the distances between various locations and other given parameters.



Shortest distances between various locations :

VILLAGE P TO UVW_TOWN	1.5 KM
VILLAGE Q TO UVW_TOWN	2.0 KM
VILLAGE R TO UVW_TOWN	1.0 KM
VILLAGE P TO VILLAGE Q	2.5 KM
VILLAGE P TO VILLAGE R	4.0 KM
VILLAGE Q TO VILLAGE R	2.3 KM
ABC Nagar Head Office to Cluster	28 KM

Number of computers installed at various locations are as follow :

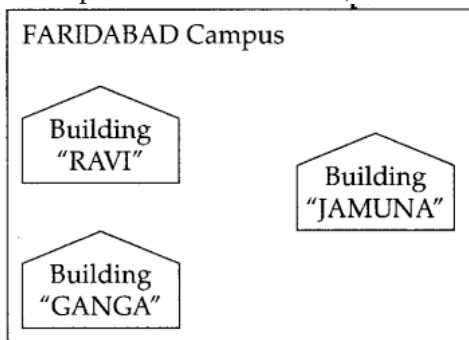
UVW_TOWN	150
VILLAGE P	10
VILLAGE Q	15
VILLAGE R	20
ABC Nagar Head Office	5

Note:

- In Villagers, there are community centers, in which one room has been given as training enterer to this organization to install computers.
- The organization has got financial support from the government and top Multinational Organizations.

1. Suggest the most appropriate location of the SERVER in the Cluster (out of the 4 locations), to get the best and effective connectivity. Justify your answer.
2. Suggest the best wired medium and draw the cable layout (location to location) to efficiently connect various locations within the Cluster.
3. Which hardware device will you suggest to connect all the computers within each location of
4. Which service/protocol will be most helpful to conduct live interactions of Expersts from Head Office and people at all locations of Cluster?

10. Granuda Consultants are setting up a secured network for their office campus at Faridabad for their day to day office and web based activities. They are planning to have connectivity between 3 building and the head office situated in Kolkata. Answer the questions (i) to (iv) after going through the building positions in the campus and other details, which are given below:



Distances between various buildings:

Building "RAVI" to Building "JAMUNA"	120 m
Building "RAVI" to Building "GANGA"	50 m
Building "GANGA" to Building "JAMUNA"	65 m
Faridabad Campus to Head Office	1460 km

Number of Computers:

Building "RAVI"	25
Building "JAMUNA"	150
Building "GANGA"	51
Head Office	10

1. Suggest the most suitable place (i.e., block) to house the server of this organization. Also give a reason to justify your suggested location.
2. Suggest a cable layout of connections between the buildings inside the campus.
3. Suggest the placement of the following devices with justification:
 - o Repeater
 - o Switch

Series

Q1. Consider the series1

- A 100
- B 200
- C 300
- D 400
- E 500

Write the command to create above Series and then double the value in series and store in another series named Series2

Q2 State whether True or False

- a. A series object is size mutable.
- b. A Dataframe object is value mutable

Q3 Consider a given Series ,

Series1:

200 700
201 700
202 700
203 700
204 700

Write a program in Python Pandas to create the series and display it.

Q4 Consider the following Series object, s

IP 95
Physics 89
Chemistry 92
Math 95

- i. Write the Python syntax which will display only IP.
- ii. Write the Python syntax to increase marks of all subjects by 10.

Q5 What will be the output produced by the following programming statements 1 & 2?

```
import pandas as pd  
S1=pd.Series(data=[31,41,51])  
print(S1>40) -->Statement1  
print(S1[S1>40]) -->Statement2
```

Q6 Given two series S1 and S2

S1		S2	
A	39	A	10
B	41	B	10
C	42	D	10
D	44	F	10

Find the output for following python pandas statements?

- a. S1[:2]*100
- b. S1 * S2
- c. S2[:, -1]*10

Q7 Given the following Series

S1 and S2:

S1		S2	
A	10	A	5
B	20	B	4
C	30	C	6
D	40	D	8

Write the command to find the multiplication of series S1 and S2

Q8 Consider the following Series object, “company” and its profit in Crores

TCS 350
Reliance 200
L&T 800
Wipro 150

- i. Write the command which will display the name of the company having profit>250.
- ii. Write the command to name the series as Profit.

Q9 What will be the output of the following code?

```
import pandas as pd  
import numpy as np  
s = pd.Series(np.arange(10,50,10))  
print(s)  
print (s.ndim)
```

```
print(s.shape)
```

Q10 Write the output of the following code fragment.

```
import pandas as pd
import numpy as np
val1=np.arange(5.25,50,10.25)
ser1=pd.Series(val1,index=['a','b','a','a','b'])
print(ser1)
print(ser1['a'])
print(ser1['b'])
```

POLITICAL SCIENCE

DO FOLLOWING QUESTIONS IN NOTE BOOK...

- Q.1 Write a short note on Planning Commission of India.
- Q.2 What were the main differences between first five year plan and second five year plan?
- Q.3 What do you mean by Green Revolution what were the merits and demerits of Green Revolution?
- Q.4 What were the key controversy on the independence related with economy?
- Q.5 What is left and right in Indian politics?
- Q.6 What do you mean by decentralization planning?
- Q.7 What do you mean by white revolution? Write a short note on it.
- Q.8 Write a short note on Election Commission of India.
- Q.9 What problem were faced by Election Commission before conducting first general election in India.
- 1. Prepare a project file in 25 to 30 pages on A4 pages on following topic according to your roll number
 - Roll no-1 to 5- Role of Sardar Patel in Unification of India
 - Roll no-6 to 10- Disintegration of USSR
 - Roll no-11 to 15- Globalization
 - Roll no-16 to 20- United Nations Organisation
 - Roll no-21-25-3- Partition Of India
 - Roll no-26 onwards- Five years Plans and Green Revolution

HISTORY

DO FOLLOWING QUESTIONS IN NOTE BOOK...

- 1. Learn The Following Chapters Thoroughly and write 20 questions with answers in home workbook from the following chapters:
 - a) Bricks, Beads and Bones
 - b) Kings, Farmers and Towns
 - c) Kinship, Caste and Class
- 2. Fill maps of the following and paste them in your notebook
 - 1. Five Harappan Sites
 - 2. Five places related to Mahajanapada
 - 3. Major Buddhist sites
- 3. Describe the drainage system of the Harappan cities.
- 4. Who was Cunningham ? Mention any one source he collected from Harappan towns.
- 5. Why is Harappan Script Considered As An Enigmatic Script?
- 6. Give features of the Harappan settlements.
- 7. Explain the sources used by historians to reconstruct the history of the Mauryan Empire.
- 8. State features of Mahajanapadas.
- 8. Explain the main features of the Mauryan administration.
- 9. Distinguish between Patriliney and Matriliney.
- 10. Mention occupations of Brahmanas according to the Dharmashastras.
- 11. Describe how were the Kinship Relations with reference to the Mahabharata.

Prepare a project file in 25 to 30 pages on A3 pages on following topic according to your roll number
Roll no-1 to 5- Mohenjodaro
Roll no-6 to 10- Mahabharat
Roll no-11 to 15- Stupas
Roll no-16 to 20- Through the eye of traveller
Roll no-21-25- Vijaynagara Empire
Roll no-26-29- Constitution of India
Roll no 30 to 33 Revolt of 1857

PHYSICAL EDUCATION

1. Make a project
 - A. On Basketball/Football/kabaddi/Kho-Kho./Foot ball/ Cricket .etc
 - B Write about any two life style diseases like obesity, asthma, Hypertension , diabetes
 - C. SAI - KHELO INDIA PROGRAM
- 2.. Bring practical file of physical education as shown in the image given here.

