SLR-HF-1

Seat No.	

Set P

B. Architecture (Semester - III) (New) (CBCS) Examination: Oct/Nov-2022
BUILDING CONSTRUCTION AND MATERIAL - III

Day & Date: Wednesday, 25-01-2023 Max. Marks: 100
Time: 02:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 Fill in the Blanks. **05**

a) Steps is a combination of _____ & _____.
b) _____ flooring is the earliest but most common flooring.
c) _____ roof-covering is very light, but is highly combustible.
d) The vertical post in queen-post truss are known as queen post truss and horizontal piece known as _____.
e) _____ is the projecting part of the tread beyond the face of the riser.

Q.2 Draw and Label (Any 2) **30**

a) ZALAK STUDIO is conducting dance competition on stage of size 6m x 9m. design a stage with material of your choice. Draw plan, section and construction details to scale.
b) Draw RCC staircase for a residential building height - 3.0m, size of room is 3.5m x 6.5m. Draw key plan, section, elevation, handrail fixing details.
c) Design a roof of godown size 8m x 10m using Queen post truss using G I Sheets. Draw key plan, section and joinery details to a scale.

Q.3 With neat sketches write Short Notes. (Any 5) **25**

a) Explain types of single pitched roof.
b) Define - Step, Tread, Nosing, Scotia, Hand rail.
c) Queen post truss
d) RCC framed structure
e) Waterproofing for flat roofs
f) Thumb rule of Treads and Risers

Q.4 Fill in the Blanks. **05**

a) _____ Tiles are hollow tapered burnt clay tiles.
b) _____ soils are mainly useless for wall building.
c) The crude impure iron which is extracted from iron ore is known as _____.
d) The soil is collected after the depth of _____ cm only.
e) Gauged mortar is also known as _____.

Q.5 Answer in Detail. (Any 2) **20**

a) Describe the various types of common tiles.
b) What are soil types and soil usability? Explain earth techniques
c) Explain market forms of steel in detail with sketches.
d) Angle sections
e) Channel sections
f) T- sections
g) I - sections

Q.6 Write short notes. (Any 3) **15**

a) Preparation of Mortar
b) Define Terra-Cotta tiles. Its advantages and uses.
c) Properties of Cast-Iron and Important Uses.
d) Asphalt flooring.

SLR-HF-2

Seat No.		Set	P

B. Architecture (Semester–III) (New) (CBCS) Examination: Oct/Nov-2022
THEORY OF STRUCTURE – III

Day & Date: Friday, 27-01-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicates full marks.
3) Assume suitable data, if necessary.
4) Q.1 and Q.2 are compulsory. Attempt any four from remaining.

Q.1 Choose the correct option. **08**

1) In a Mohr's circle of Normal stress and shear stress, Vertical radius represents.
a) Maximum shear stress b) Maximum normal stress
c) Principal stress d) Minimum normal stress

2) Shear stress on a beam section is maximum _____.
a) On top surface fibres b) At Neutral axis
c) On bottom surface fibres d) At free edges

3) In fixed beam, slope at supports is _____.
a) Zero b) Maximum
c) Minimum d) Infinity

4) Find the modulus of section of square beam of size 300x300 mm.
a) 4.5×10^6 mm^3 b) 5.2×10^6 mm^3
c) 6.1×10^6 mm^3 d) 6.5×10^6 mm^3

Q.2 Explain importance of soil mechanics in building construction. **06**

Q.3 a) State four advantages of fixed beam over simply supported beam. **04**

b) A symmetrical I section 500mm deep is simply supported at ends having span 5 m and udl 20kN/m over entire span. Size of flanges are 250mm×20mm and web 10mm thick. Calculate the magnitude of maximum bending stress induced. Draw stress distribution diagram. **10**

Q.4 a) Explain Clapeyron's theorem of three Moments. **04**

b) A simply supported beam carries a udl of intensity 2.5kN/m over entire span of 5m. **10**
Cross section of beam is a T-section having the dimensions given below.
Flange: 125mm × 25mm, Web; 175mm × 25mm, overall depth=200mm.
Calculate the maximum shear stress for the section of the beam. Construct shear distribution diagram

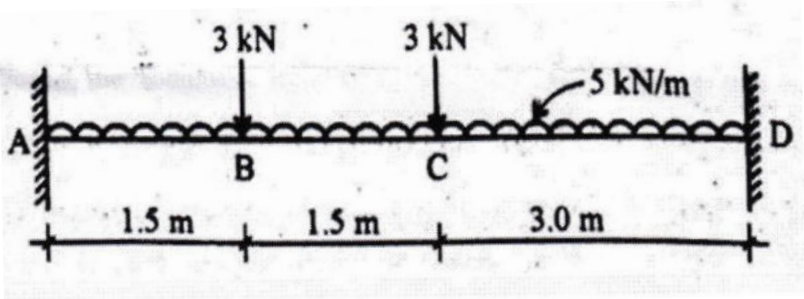
Q.5 Two planes AB and AC which are right angles carry shear stress of intensity 17.5 N/mm ^{2} while these planes also carry a tensile stress of 70 N/mm ^{2} and a compressive stress of 35 N/mm ^{2} respectively. Determine the principal planes and the principal stresses. Also determine the maximum shear stress and planes on which it acts. **14**

Q.6 **a) Write a short note on** **08**

1) Major principal stress
2) Minor principal stress
3) Maximum shear stress
4) Effect of continuity on continuous beam

b) Write down the procedure to find Normal stress, Shear stress and Resultant stress on oblique plane by using Mohr's circle method. **06**

Q.7 Draw SFD and BMD for beam show in fig. **14**



SLR-HF-3

Seat No.	

Set P

B. Architecture (Semester - III) (New) (CBCS) Examination: Oct/Nov-2022
HISTORY OF ARCHITECTURE- II

Day & Date: Monday, 30-01-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat illustrative sketches to support answer wherever necessary.

Q.1 Fill in the blanks. **07**

1) _____ dynasty built the rathas at Mahabalipuram
2) _____ civilization invented the technology of concrete.
3) _____ &____ are regarded as the architects of Hagia Sophia.
4) Combination of South Indian & North Indian temple styles is known as _____.
5) _____ temples are called as stellate temples.
6) _____ & ____ are regarded as the architects of Parthenon, Athens.
7) _____ stone was used for minute carvings in hoysala temple.

Q.2 Explain the terms. (Any Three) **15**

1) Bhumija & Sekhari styles.
2) Rekha Deula, Pidha Deula and Khakhara Deula
3) Tuscan & Composite Orders
4) Megaron

Q.3 Describe in detail about Dravida style Temples with two examples. **15**

OR

Describe in detail about the Kalinga architecture with two examples.

Q.4 Answer the following: (Any 3) **18**

1) Describe and discuss architectural characteristics of the Hoysala Temples.
2) Describe and discuss architecture of Brihadeshwara Temple, Thanjavur.
3) Discuss in detail about the Parthenon & Greek orders.
4) Discuss in about the Roman & Byzantine dome construction technology explaining in detail about various construction techniques, materials, pendentives & squinches.

Q.5 Describe and discuss symbolism, architectural components & characteristics of the Kandariya Mahadev Temple, Khajuraho. **15**

OR

Describe in detail the about the Byzantine architecture. Discuss Hagia Sophia in detail.

SLR-HF-4

Seat No.	

Set P

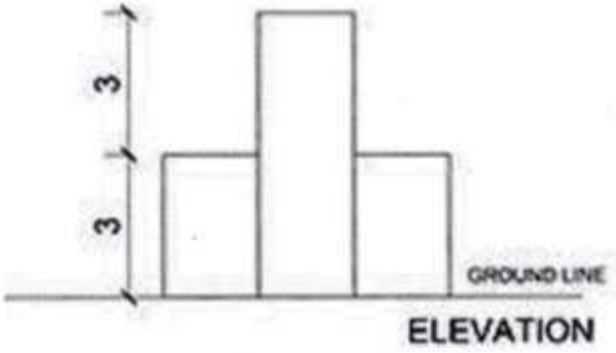
B. Architecture (Semester – III) (New) (CBCS) Examination: Oct/Nov-2022
Architectural Graphics and Drawings – III

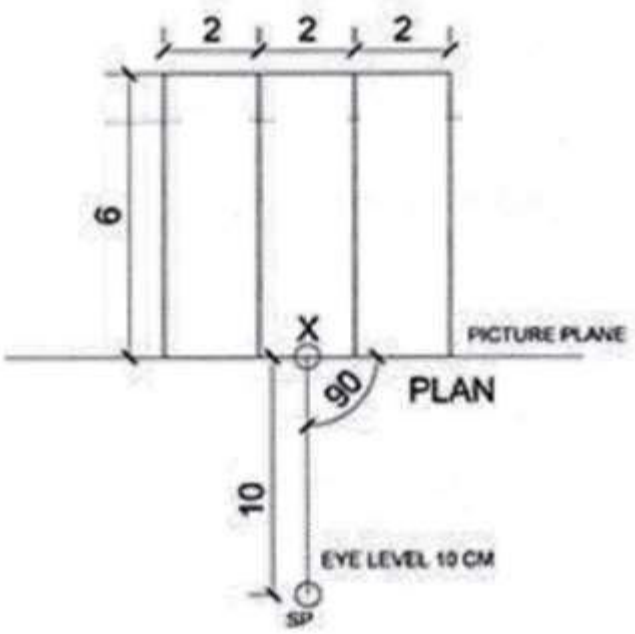
Day & Date: Wednesday, 01-02-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Retain all construction lines.
4) Five marks are reserved for good drafting and neatness.
5) Make suitable assumptions wherever required.

Q.1 Draw one point perspective view for the object given below by observing the following points: **15**

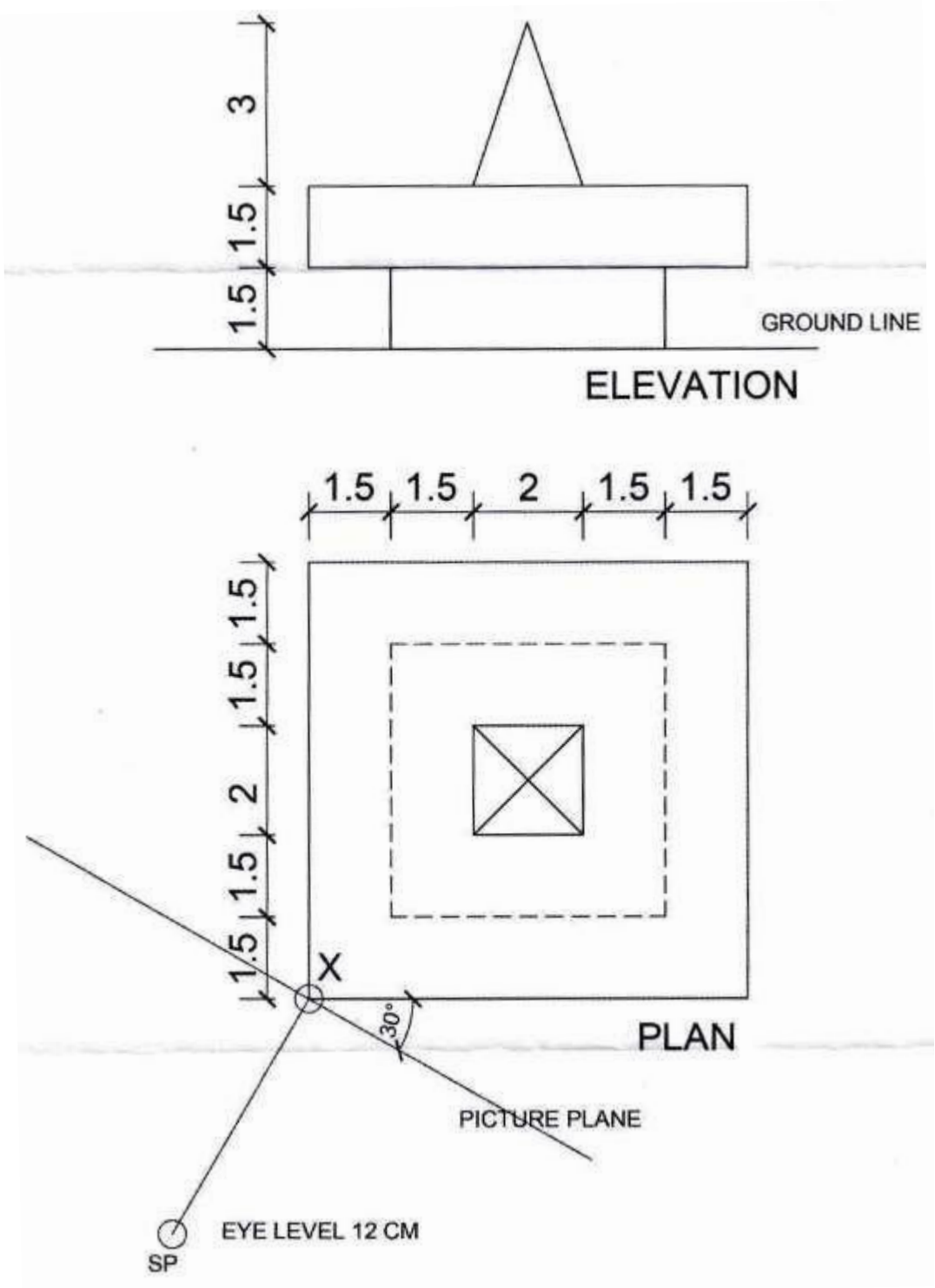
a) A plane makes angle as shown in the figure
b) the picture plane touches the object at point 'X'
c) The station point is 10cms away from 'X'
d) The eye level is 10cms above ground level



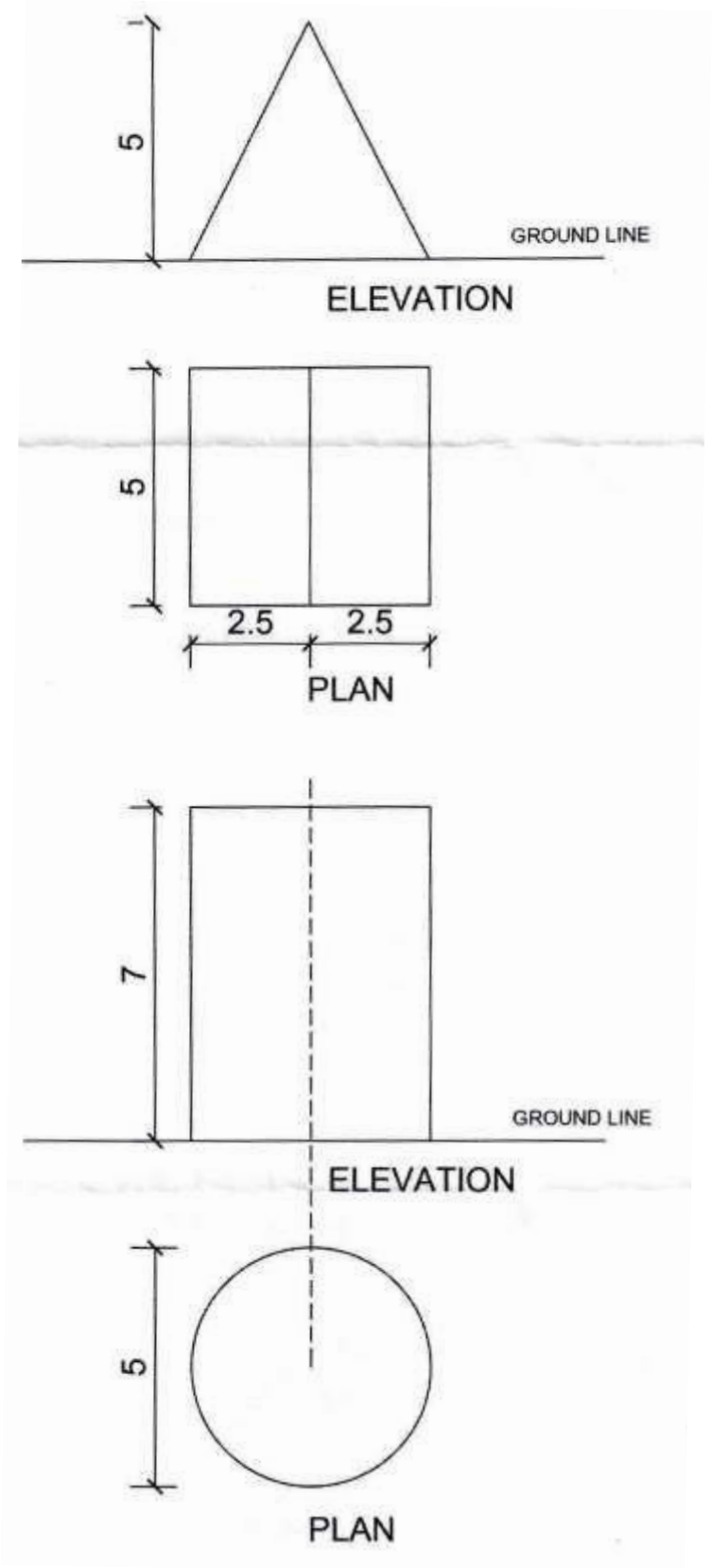


Q.2 Draw two point perspective view for the object given below by observing the following points: **30**

a) A plane makes angle as shown in the figure
b) the picture plane touches the object at point 'X'
c) The station point is 15cms away from 'X'
d) The eye level is 12cms above ground level



Q.3 Draw shade and shadow of the object in plan and elevation considering the source of light is in conventional direction on the vertical and horizontal planes of the object **20**



SLR-HF-5

Seat No.	

Set P

B. Architecture (Semester –III) (New) (CBCS) Examination: Oct/Nov 2022
Building Services - I

Day & Date: Tuesday, 07-02-2023 Max. Marks: 70
Time:02:00 PM To 05:00 PM

Instructions: 1) Q.1 and Q.2 are compulsory. Solve any Four questions from the following.
2) Figures to the right indicate full marks.
3) Assume suitable data, if necessary.
4) Use of Non-programmable calculator is allowed.

Q.1 Fill in the blanks. **07**

a) _____ Pipe of storage tank is used to clean the tank periodically.
b) _____ Pipe is used to carry cold water
c) Depth of water seal for Gully trap _____.
d) Which valve is used to allow the water in one direction only _____
e) Which of the following valve is used to remove the silt in a pipeline _____
f) Generally,_____ trap is used below wash basin.
g) Anti-syphonage pipe is fitted to _____.

Q.2 Write a short note: (Any Three) **15**

a) Describe: Grid iron system
b) Solar water heating system
c) Write advantages and disadvantages of
   i) AC pies
   ii) GI pipes
d) Types of pipe joints in plumbing system

Q.3 Describe any four sanitary fittings. **12**

Q.4 Describe components of domestic service connections. **12**

Q.5 Describe any four methods of Surface drainage **12**

Q.6 Describe any four methods of rain water harvesting. **12**

Q.7 Describe any two systems of cold water supply **12**

SLR-HF-6

Seat No.	

Set P

B. Architecture (Semester – III) (New) (CBCS) Examination Oct-Nov-2022
CLIMATOLOGY AND ENVIRONMENT – I

Day & Date: Thursday, 09-02-2022 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Make suitable assumption wherever necessary and mention in your answer book.

Q.1 Fill in the blanks. **07**

a) _____ is defined as integration in time of weather condition.
b) On 21st March and 23rd September area along equator are normal to sun rays and this cause _____ days.
c) Radiation is measured in _____.
d) Temperature of air is measure in _____.
e) An _____ can produce continuous recording of wind velocity and directional changes.
f) _____ is use as microclimate.
g) Thermal balance exists when _____.

Q.2 Write a short note with neat sketches: (Any Three) **15**

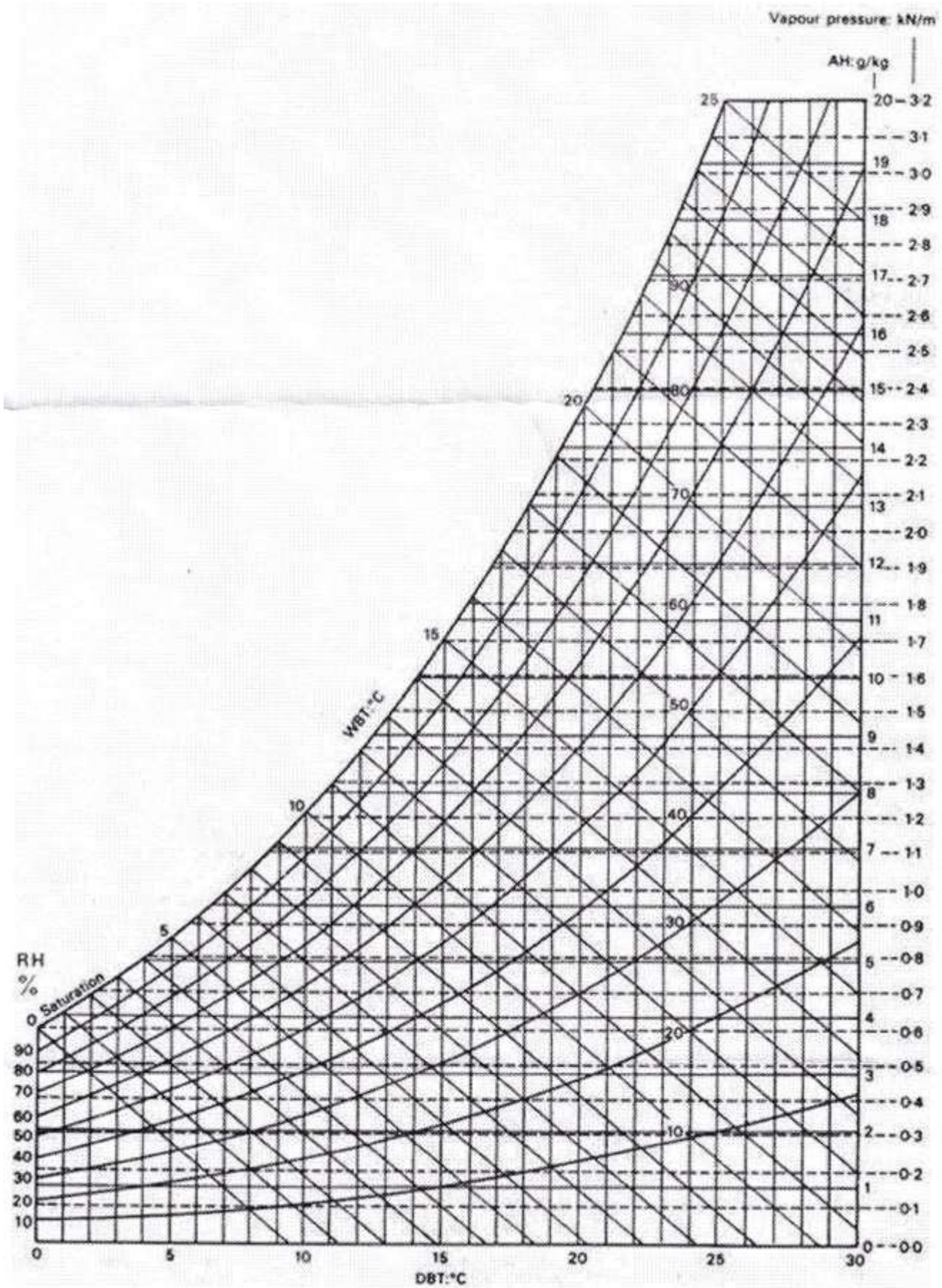
a) Tilt of earth axis
b) Sea breeze and Land Breeze.
c) Trade winds
d) Urban climate
e) Graphic representation

Q.3 a) Find AH VP and RH by using psychrometric chart when WBT is 25°C and DBT is25°C. **06**
b) Write in brief the factor effects Macro Climate. **06**

Q.4 a) Explain in detail Element of Climate. **06**
b) Heat exchange of the building **06**

Q.5 Write in detail about Composite or monsoon climate **12**

Q.6 a) Explain in brief Periodic heat flow. **06**
b) Explain in brief Thermal balance of the body. **06**


Vapour pressure: kN/m
AH: g/kg
WBT: °C
RH %
Saturation
DBT: °C
0
5
10
15
20
25
30
90
80
70
60
50
40
30
20
10
3·2
3·1
3·0
2·9
2·8
2·7
2·6
2·5
2·4
2·3
2·2
2·1
2·0
1·9
1·8
1·7
1·6
1·5
1·4
1·3
1·2
1·1
1·0
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1
0·0

SLR-HF-9

Seat No.	

Set P

B. Architecture (Semester - III) (Old) (CBCS) Examination: Oct/Nov-2022
THEORY OF STRUCTURE - III

Day & Date: Friday, 27-01-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) Question No. 1 and Q.2 are compulsory. Attempt any four from remaining.
2) Figures to the right indicate full marks.
3) Assume suitable data, if necessary.

Q.1 Choose the correct option. **08**

1) The equation of simple bending is given by _____.
a) $M/I = R/E = Y/\sigma$ b) $M/\sigma = M/I = R/E$
c) $M/I = \sigma/Y = E/R$ d) $M/I = R/E = Y/\sigma$

2) Ratio of max shear stress to average shear stress for rectangle is _____.
a) 4/3 b) 3/2
c) 7/8 d) 8/7

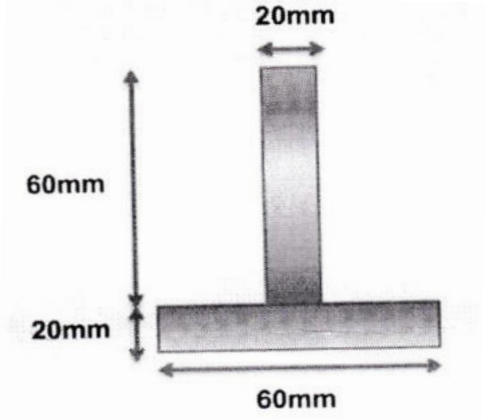
3) Shear stress is _____ stress.
a) Bending b) Normal
c) Proof d) Tangential

4) Two beam of equal cross sectional area are subjected to equal bending moment, one is rectangular other is circular in cross section, then _____.
a) Both beams will be equally strong
b) Circular section will be stronger
c) Rectangular section will be stronger
d) Strength is dependent on loading

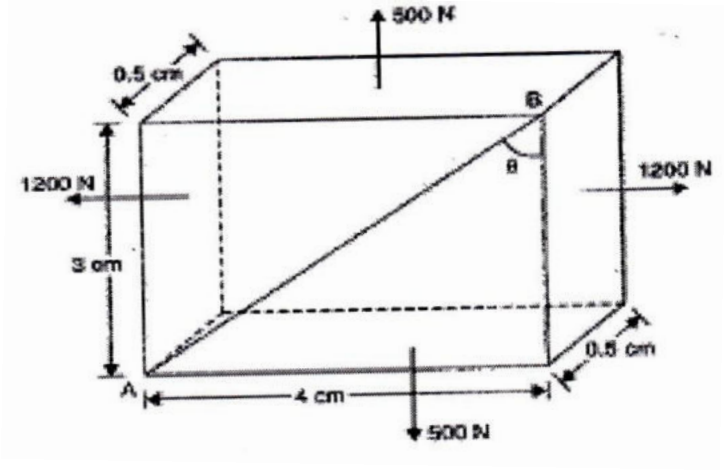
Q.2 Write the importance of soil mechanics in building construction. **06**

Q.3 **a)** Write fixed end moments of fixed beam for different loading conditions. **04**
b) A beam of I section of is simply supported over span of 4m. Find the uniformly distributed load the beam can carry if bending stress is not to exceed 100 N/mm^2 **10**

Q.4 **a)** Explain any one method of analysis of Continuous Beam. **04**
b) A beam of inverted T section is subjected to shearing force 12 KN. Find ratio of maximum shear stress to Average shear stress. **10**



Q.5 A block is subjected to fores as shown in figure. Find Normal stress and shear stress along diagonal AB **14**

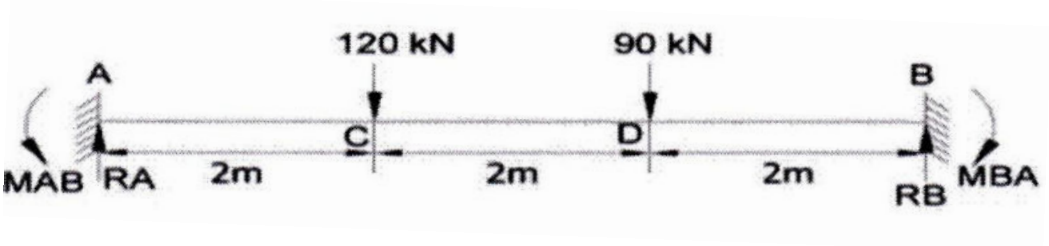


Q.6 **a)** **Write a short note on** **08**

1) Major principal stress
2) Minor principal stress
3) Maximum shear stress
4) Effect of continuity on continuous beam

b) Write down the procedure to find Normal stress, Shear stress and Resultant stress on oblique plane by using Mohr's circle method. **06**

Q.7 Draw SFD and BMD for following fixed beam. **14**



SLR-HF-11

Seat No.	

Set P

B. Architecture (Semester - III) (Old) (CBCS) Examination: Oct/Nov-2022
ARCHITECTURAL GRAPHICS- III

Day & Date: Wednesday, 01-02-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Retain all construction lines.
4) Five marks are reserved for neatness and good drafting quality.
5) Make suitable assumptions wherever required.

Q.1 Draw one point perspective view for the object given below by observing following points/conditions. (Figure - A) **20**

Q.2 Draw Two point perspective view for the object given below by observing following points/conditions. (Figure - B) **25**

Q.3 Draw shade and shadow for the object (Figure - C) in plan and elevation considering the source of lights is in conventional direction on the vertical and horizontal planes of the object. **20**

FIG. - (A)

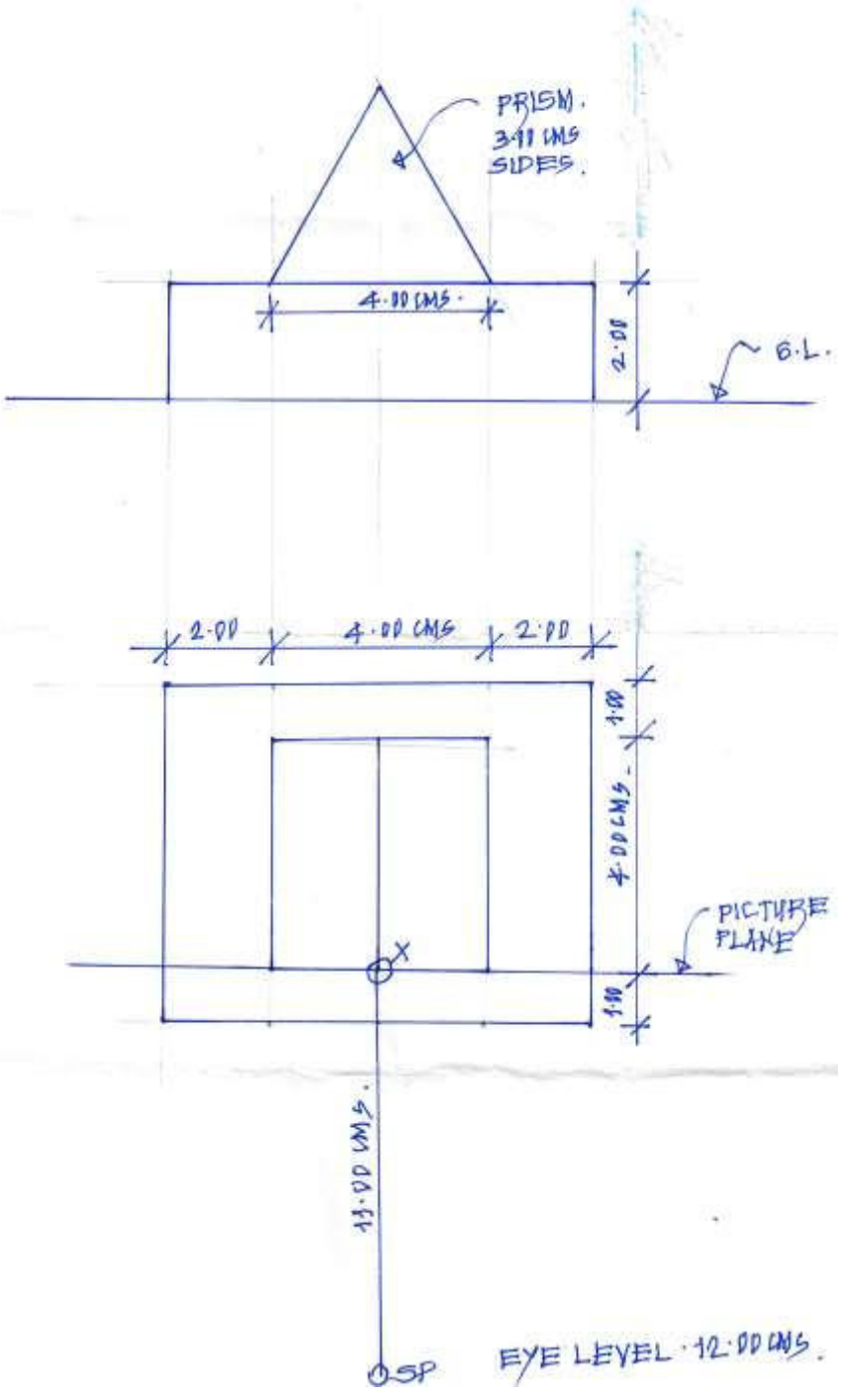
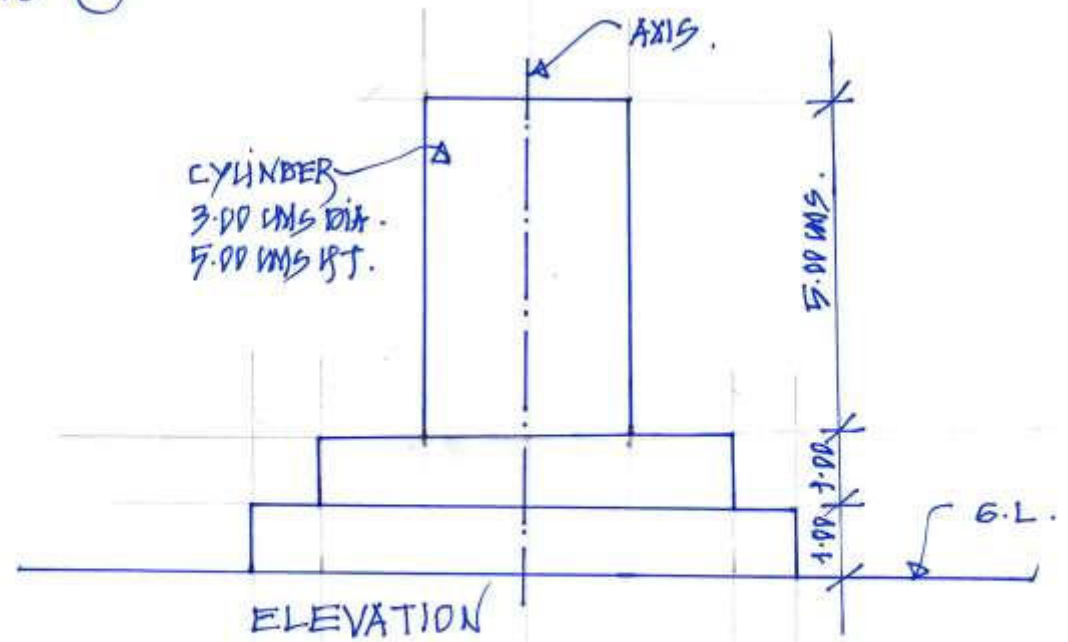
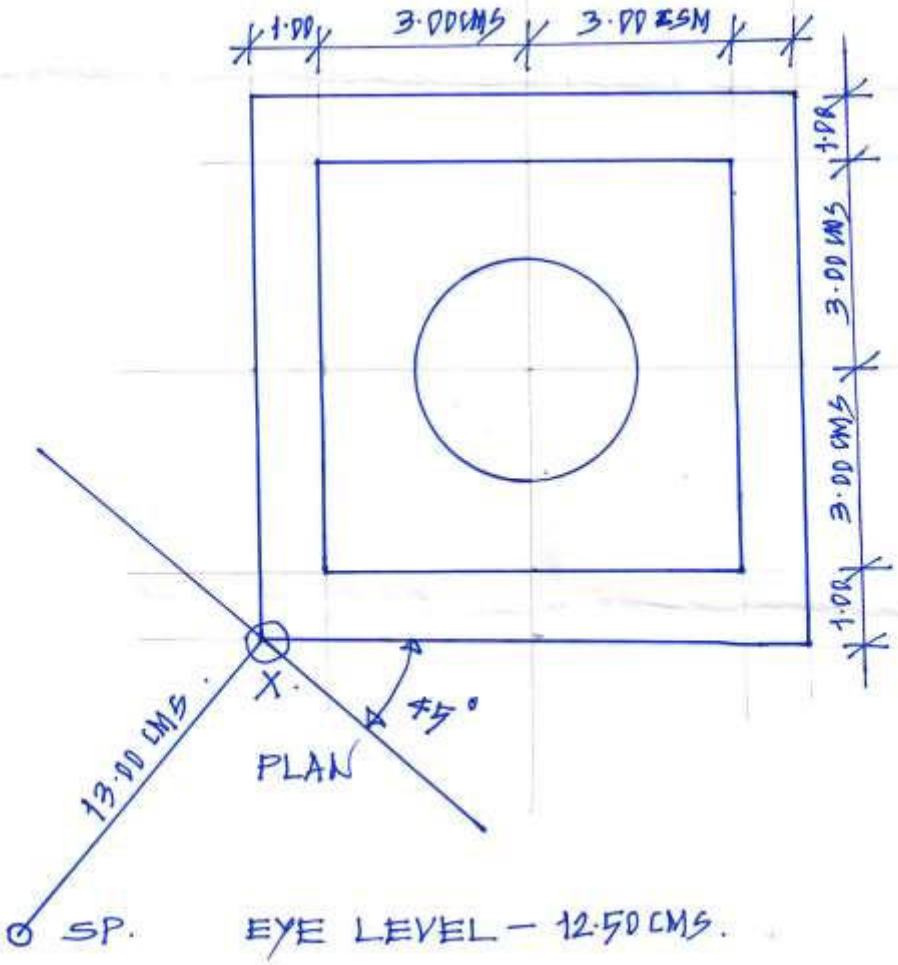

PRISM.
3.99 CMS
SIDES.
4.00 CMS.
2.00
G.L.
2.00
4.00 CMS
2.00
1.00
4.00 CMS.
PICTURE
PLANE
1.00
13.00 CMS.
SP
EYE LEVEL · 12.00 CMS.

FIG. (B)



ELEVATION

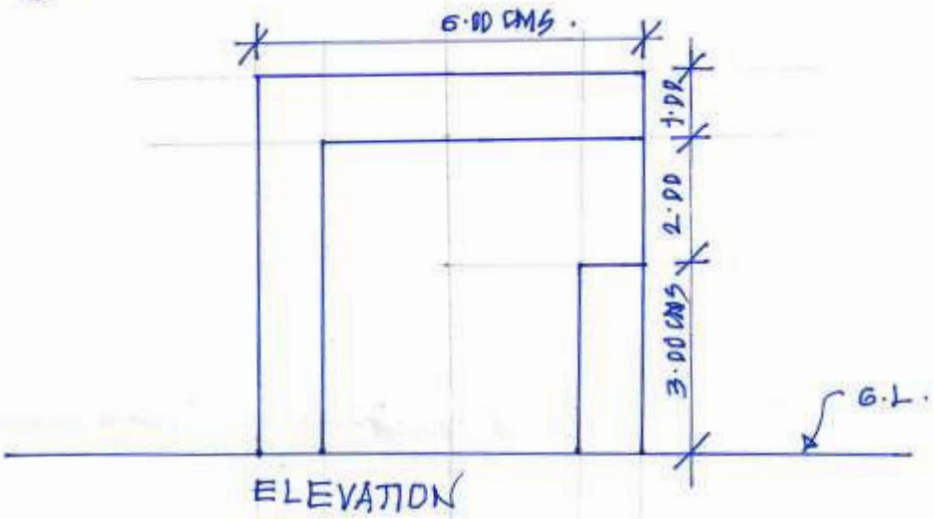


PLAN

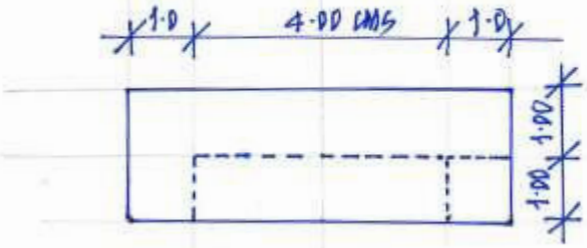
SP. EYE LEVEL – 12.50 CMS.

FIG. (C)

1.

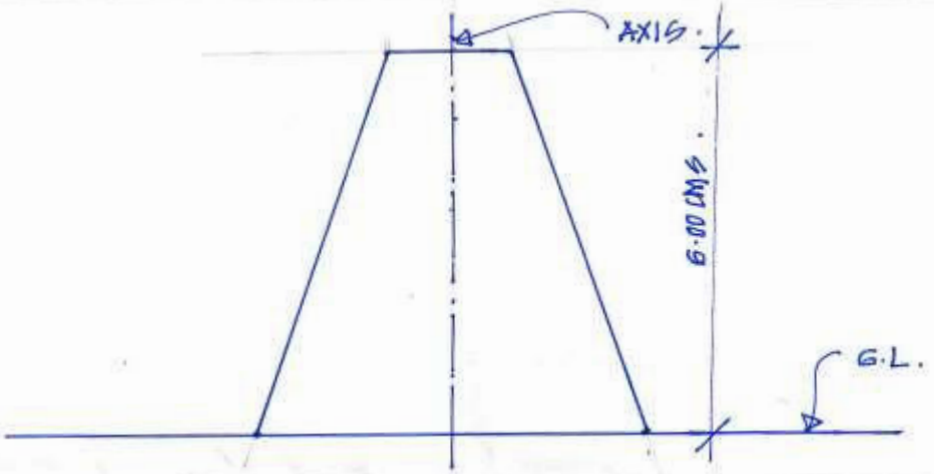


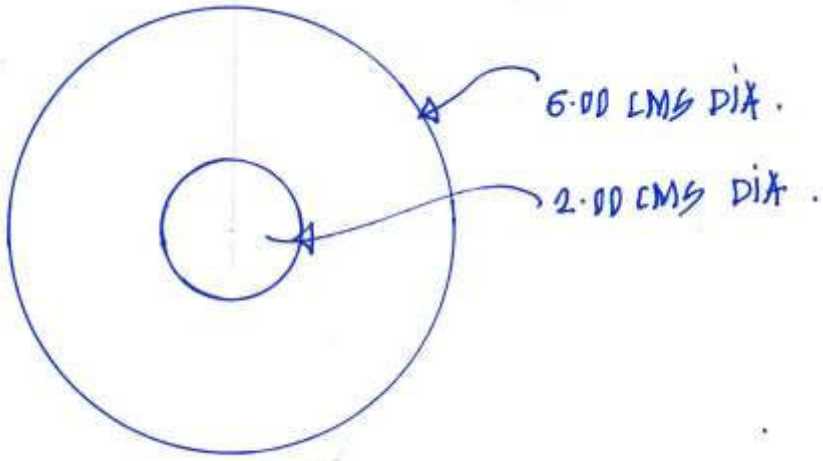
ELEVATION



PLAN

2.





SLR-HF-14

Seat No.	

Set P

B. Architecture (Semester – IV) (CBCS) Examination: Oct/Nov-2022
ARCHITECTURAL GRAPHICS – IV

Day & Date: Saturday, 28-01-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Retain all construction lines.
4) Five marks are reserved for neatness and good drafting quality.
5) Make suitable assumptions wherever required.

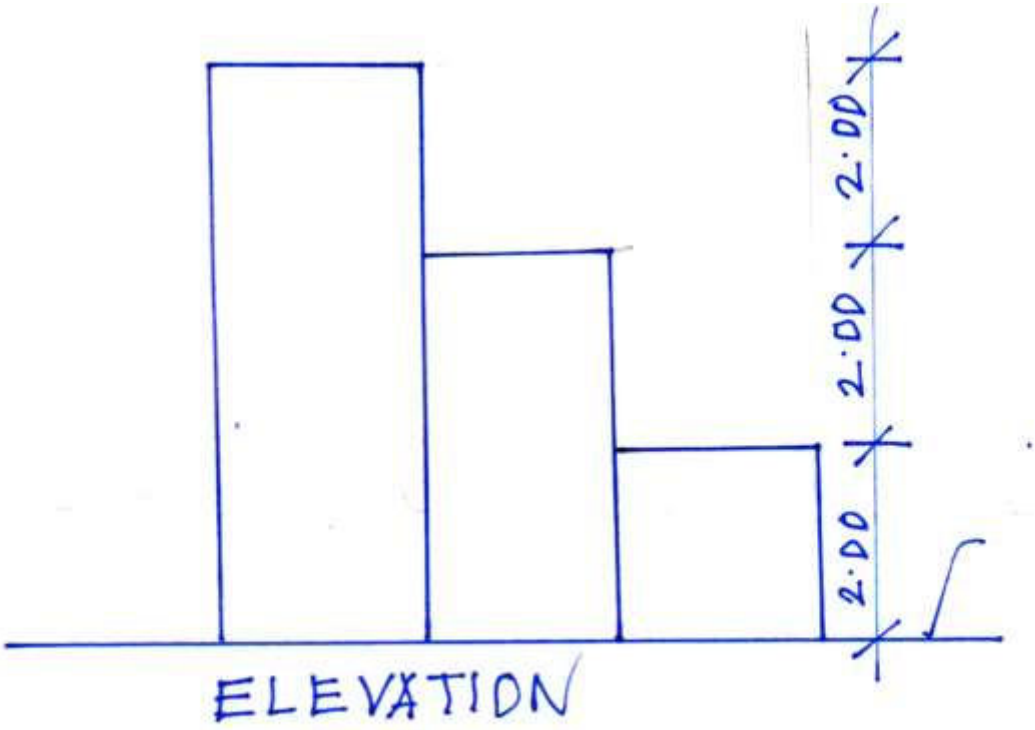
Q.1 Draw shades and shadows of the Dia. A in plan and elevation considering the source of light is in conventional direction on the vertical and horizontal planes of the object. **20**

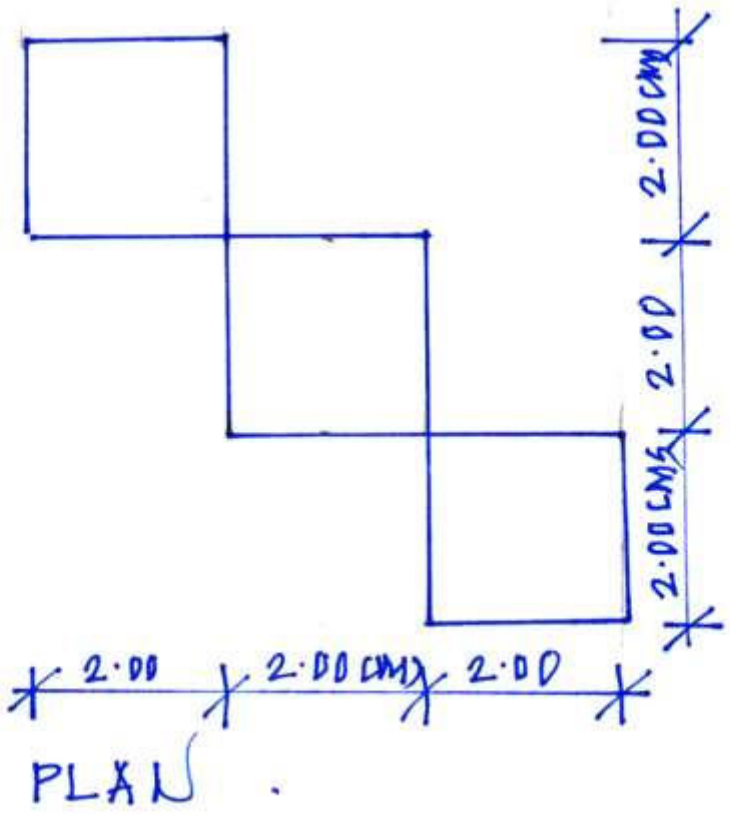
Q.2 Draw perspective view of the given object by observing points in Dia. B **20**
a) A plane makes an angle as shown in Figure
b) The picture plane touches the object at X.
c) Station point is 140 mm away from the 'X'
d) The eye level is 130 mm above ground level

Q.3 Dia. C shows plan and elevation of the object as shown in the figure and draw perspective view observing the following points. **25**
a) Picture plane passes through 'X'.
b) Station point is 150 mm away from picture plane
c) Eye level is 120 mm away and above ground level and draw shades and shadows in perspective view.

Diagram A

1)





2)

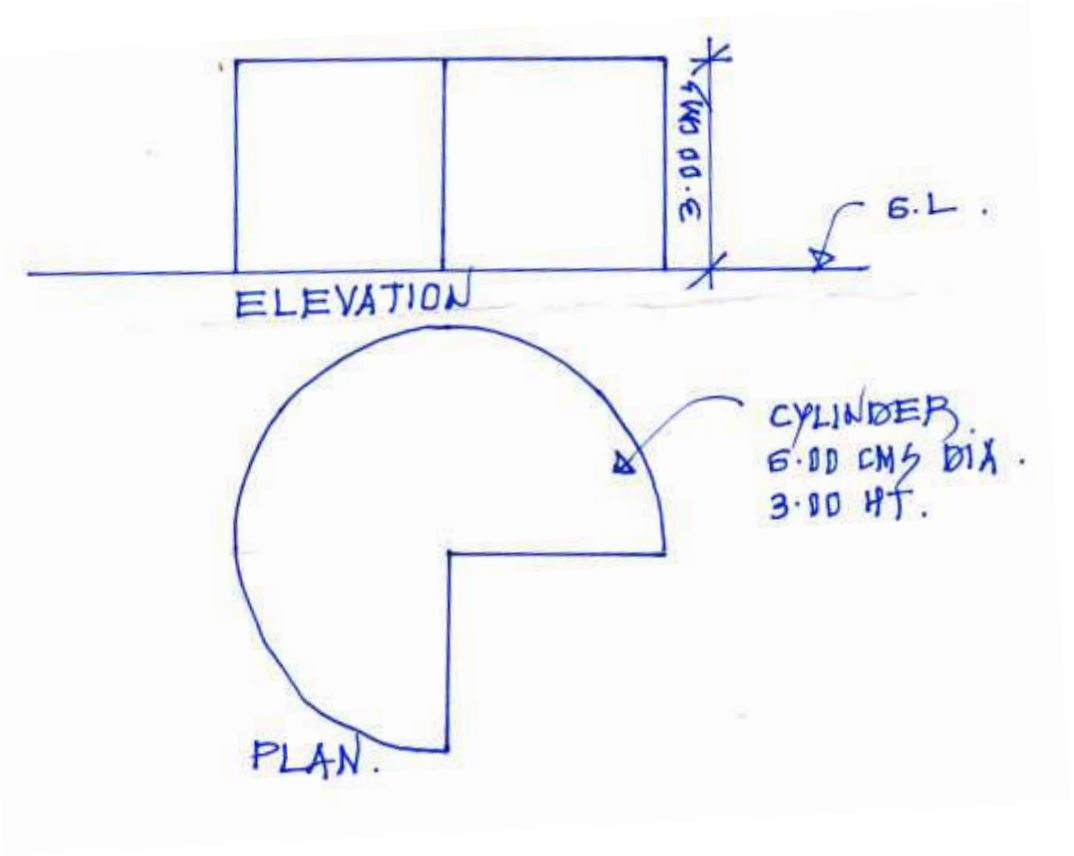


Diagram B)

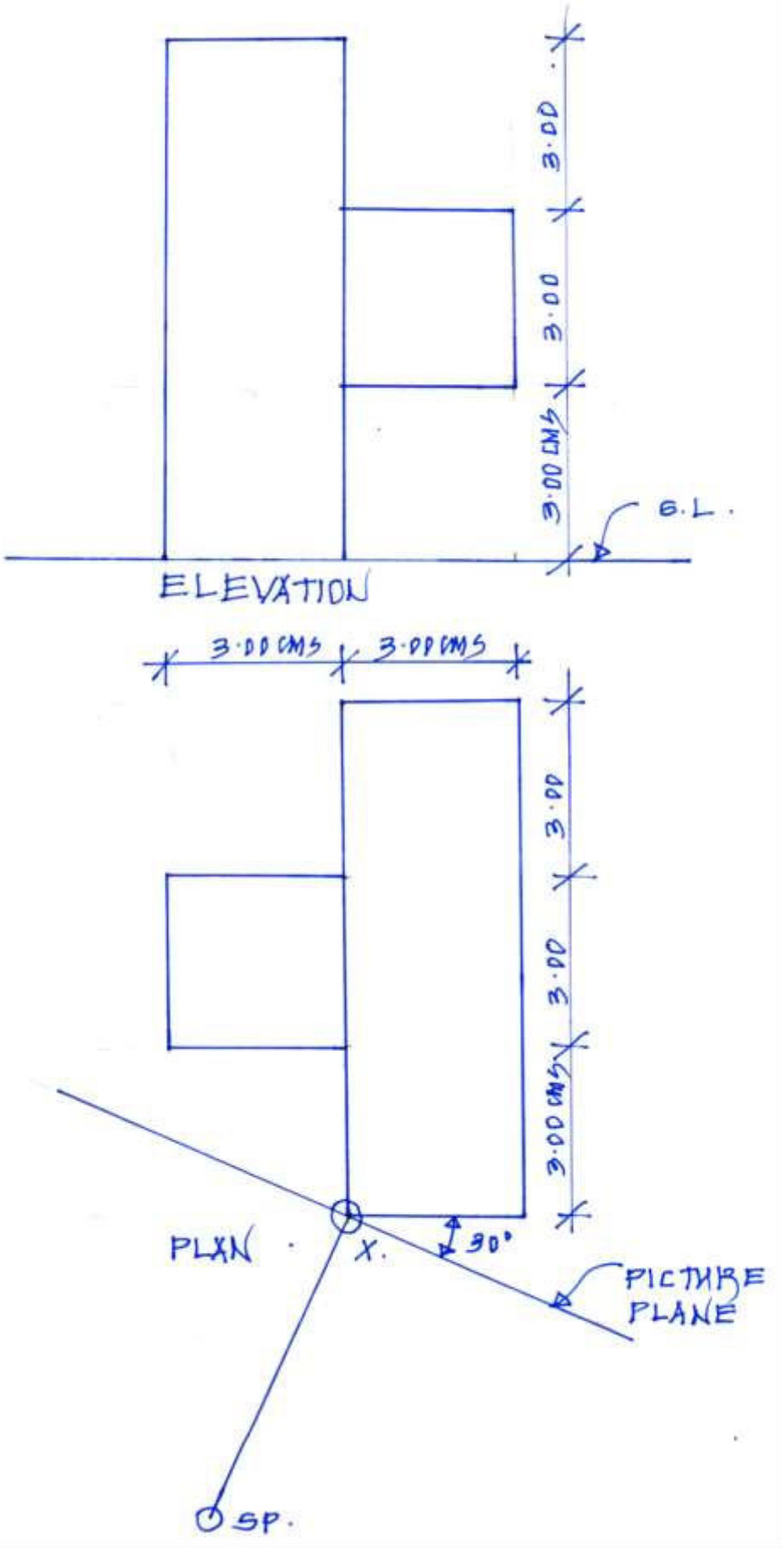
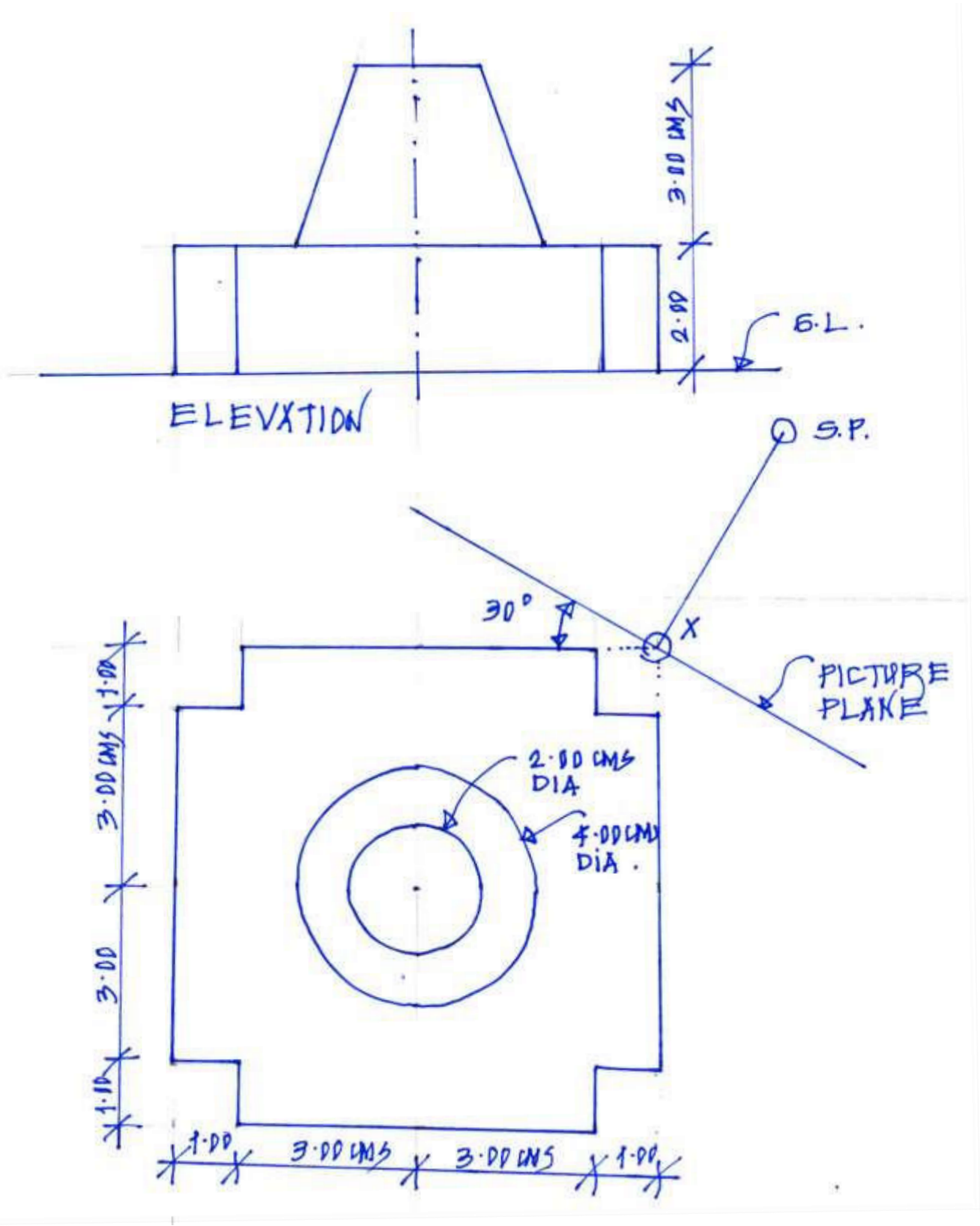

3·00
3·00
3·00 CMS
G.L.
ELEVATION
3·00 CMS
3·00 CMS
3·00
3·00
3·00 CMS
PLAN
X.
30°
PICTURE PLANE
SP.

Diagram C)


3·00 CMS
2·00
G.L.
ELEVXTION
S.P.
30°
X
PICTURE PLANE
2·00 CMS DIA
4·00 CMS DIA .
1·00
3·00 CMS
3·00
1·10
1·00
3·00 CMS
3·00 CMS
1·00

SLR-HF-15

Seat No.		Set	P

B. Architecture (Semester - IV) (CBCS) Examination: Oct/Nov-2022
BUILDING SERVICES – II

Day & Date: Tuesday, 31-01-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) Draw neat sketches wherever necessary.
2) Figures to the right indicate full marks.

Q.1 Fill in the blanks. **07**

a) The property of water which prevents lathering of soap is known as _____.
b) In _____ system water is supplied after intervals, for fixed hours in a day or many of the times alternate days.
c) _____ are the devices used to stop and regulate the flow of water in plumbing system.
d) Combined Pumping and Gravity system of water distribution is known as _____
e) To store the treated water for distribution _____ are used.
f) PH Value of pure/Neutral water is _____.
g) _____ utilizes energy from Sun to heat water.

Q.2 Write Short Notes on. (Any Three) **15**

a) Gravity method of water distribution
b) Wholesome water
c) Various types of pipe fittings used in water supply works
d) Pumps used in water supply work

Q.3 Answer the following in detail. (Any Four) **48**

a) Define an Intake structure? Sketch and explain Lake Intake and River Intake.
b) What are Pipe Appurtenances? Sketch and explain following types of Pipe appurtenances.
  i) Fire Hydrants
  ii) Water Meter
c) Sketch and explain following methods of layout of distribution system –
  i) Dead end system
  ii) Radial System
d) Design overhead water tank for small residential colony of 25 tenements? Make suitable assumptions wherever necessary.
e) Draw flow diagram of water treatment plant, state the purpose of every treatment method.

SLR-HF-16

Seat No.	

Set P

B. Architecture (Semester – IV) (CBCS) Examination: Oct/Nov - 2022
CLIMATOLOGY AND ENVIRONMENT - II

Day & Date: Friday, 17-02-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Make suitable assumptions wherever necessary and mention in your answer book.

Q.1 Fill in the blanks correctly and rewrite the sentences. **07**

a) _____ is the process of knowing the temperature at any point within the wall.
b) The _____ relies on thermal forces, set up by density difference (caused by temperature differences) between the indoor and outdoor air.
c) In _____ an electrical discharge takes place between two electrodes through low pressure mercury vapour.
d) If parallel rays of incident light remain parallel after reflection from a surface, the surface is a _____.
e) The sky is typically overcast and the whole of the sky hemisphere acts as a light source in _____.
f) _____ can eliminate the effect of pressure built-up above the window, thus the pressure below the window will direct the air flow upwards.
g) The reciprocal of air- to -air transmittance is _____.

Q.2 Write Short Notes on. (Any Three) **15**

a) Evaporation
b) Wind Scoop
c) Daylight Factor Concept
d) Types of Reflection

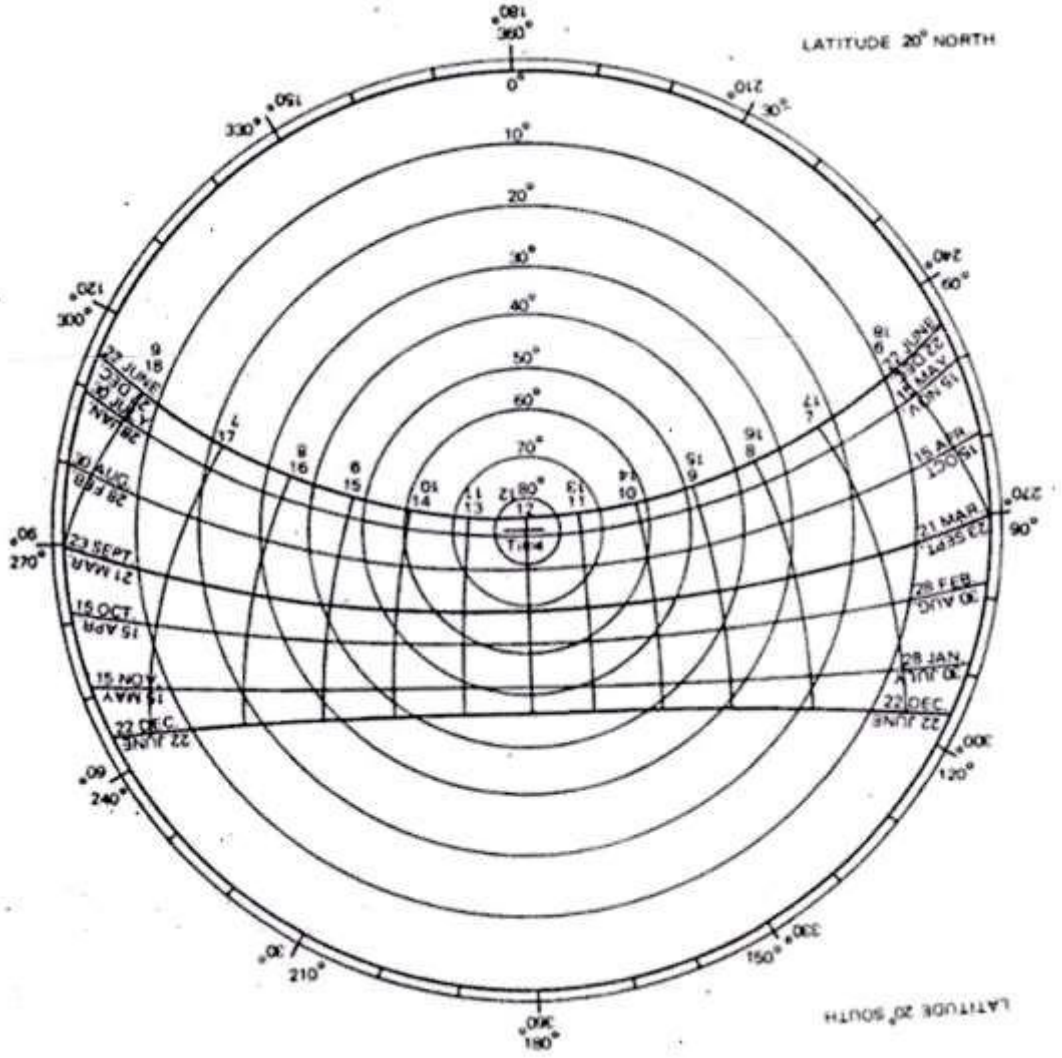
Q.3 **a)** Describe in brief with a neat sketch heat exchange process of building. **06**
b) Explain the term Munsell Color-System. **06**

Q.4 Sketch & explain three strategies each for following Scales: **12**

a) Site Scale
b) Component Scale

Q.5 **a)** Sketch & explain the provisions for ventilation: Stack Effect. **06**
b) From the given Sun Path diagram for 20°N latitude, find the azimuth and altitude angles of the sun on: **06**

1) 15th April at 10.00
2) 15th November at 16.00
3) 30th August at 15.00



Q.6 **a)** Explain the term Controls of Opening in detail. **06**

b) Sketch & explain daylight in Hot-Dry Climate. **06**

SLR-HF-17

Seat No.		Set	P

B. Architecture (Semester - IV) (CBCS) Examination: Oct/Nov-2022
THEORY OF STRUCTURE- IV

Day & Date: Wednesday, 08-02-20203 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) Use of Scientific Calculator is allowed.
2) Q. No. 1 and q. No. 2 is compulsory. From remaining questions solve any four.
3) Figures to the right indicate full marks.
4) Assume suitable data if necessary.

Q.1 Select the correct option from the following. **08**

1) Rankine's formula of crippling load is applicable to _____.
   a) Long columns only b) Short columns only
   c) Long and short columns d) Concrete columns

2) A cantilever beam of length L is subjected to point load P at free end. Slope at fixed support will be _____.
   a) PL^2/EI b) $PL^2/2EI$
   c) $PL^3/3EI$ d) zero

3) A load which does not pass through centre of gravity of member is called as _____.
   a) Concentric load b) Eccentric load
   c) Uniform load d) Non uniform load

4) In working stress method, relationship between stress and strain is considered as _____.
   a) Linear b) Parabolic
   c) Cubic d) None of the above

Q.2 State and explain different types of retaining wall. **06**

Q.3 a) A solid round bar 3m long and 5cm in diameter is used as a strut, determine the crippling load. Take $E=2x10^5 N/mm^2$. **14**
   1) One end hinged and other end fixed.
   2) One end is fixed and other end is free.
   3) Both the ends are fixed.

Q.4 a) Write short note on equivalent length of column. **04**
b) Explain the concept of core of section. Derive the expression of core of section for rectangular and circular section. **10**

Q.5 A simply supported beam of span 9 m carries two point loads 210 KN and 125 KN at 2 m and 6 m from left support. The beam is also subjected to UDL of 26 KN/m. Determine slope at supports and deflection at centre of beam. Take EI as constant. **14**

Q.6 a) Explain working stress method and limit state method. **06**
b) State and explain different types of masonry structures. **08**

Q.7 A cast iron column of 200 mm diameter carries a vertical load of 400 KN, at a distance of 40 mm from the centre. Determine the maximum and minimum stress developed in the section, along the diameter passing through the point of loading. **14**

SLR-HF-18

Seat No.	

Set P

B. Architecture (Semester - IV) (CBCS) Examination: Oct/Nov - 2022
History of Architecture - IV

Day & Date: Tuesday, 14-02-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks
3) Draw explanatory sketches for Q.2 and Q.3.

Q.1 Fill in the blanks. **07**

a) Gol Gumbaz is the mausoleum of _____.
b) Rauza-i-Munavvara is the original name of _____.
c) _____ is the covered mosque in India.
d) _____ is the raised platform with steps for the preacher to deliver the sermon.
e) _____ was credited to be the main architect of Taj Mahal.
f) Mihrab of the mosque faces _____ direction.
g) The total height of Qutb Minar is _____ m.

Q.2 Write Short Notes on. (Any Three) **15**

a) Panchmahal
b) Components of Taj Mahal
c) Victoria Terminus
d) Ibrahim Rauza

Q.3 Answer the following. (Any Four) **48**

a) Describe in detail the structures of Qutb complex.
b) Explain the planning and design of the sacred complex of Fatehpur Sikri.
c) What is meant by provincial style in Islamic Architecture? Explain with one example.
d) Describe Gulbarga mosque in detail.
e) Explain the following monuments of Fatehpur Sikri
1) Raja Birbal's house
2) Diwan-i-khas

SLR-HF-19

Seat No.	

Set P

B. Architecture (Semester – IV) (CBCS) Examination: Oct/Nov-2022
Theory of Design

Day & Date: Thursday, 16-02-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 Fill in the blanks **07**

a) A _____ has no length or width.
b) A series of forms arranged sequentially in a row is known as _____.
c) A type of balance in which both sides of a composition are balanced yet different is known as _____.
d) The golden ratio used to determine pleasing dimensional relationship between the width of a building to its height is approximately _____.
e) The circular chart used to remember colour relationships is _____.
f) _____ are Primary colours.
g) Blue and green are examples of _____.

Q.2 Write short notes (Any Three) **15**

a) Cluster Organization
b) Symmetry
c) Hue, Value, Chroma, Shade, Tint
d) Ratio, Proportion and Scale

Q.3 Answer in brief (Any Four) **48**

a) Mention the different elements of design and explain any 3 in detail.
b) Mention the principles of design and explain any 2 in detail with neat sketches.
c) Explain centralized organization with their advantages and disadvantages of organizing the circular form.
d) Mention the rules of composition and explain any 3 in detail.
e) Mention the various colour schemes and explain any 3 in detail.

SLR-HF-21

Seat No.	

Set P

B. Architecture (Semester - V) (CBCS) Examination: Oct/Nov-2022
THEORY OF STRUCTURE - V

Day & Date: Wednesday, 25-01-2023 sMax. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) Use of scientific calculator is allowed.
2) Q. No. 1 and Q. No. 2 is compulsory. from remaining questions solve any four.
3) Figures to the right indicate full marks.
4) Assume suitable data if necessary.
5) IS 800 and Steel table is allowed.

Q.1 Select the correct option from the following. **08**

1) The unit mass of structural steel as prescribed by IS 800 in kg/cu.m is _____.
a) 7580 **b)** 7780
c) 7850 **d)** 8750

2) Slenderness ratio of a tension member in which reversal of direct stress occurs due to loads other than wind and earthquake loads
a) 280 **b)** 180
c) 250 **d)** 350

3) The minimum pitch of rivets shall not be less than _____.
a) 1.5 X diameter of rivet **b)** 3.5 X diameter of rivet
c) 2.5 X diameter of rivet **d)** 2.0 X diameter of rivet

4) The angle of roof truss with asbestos sheets should not be less than _____.
a) 30° **b)** 40°
c) 50° **d)** 20°

Q.2 Write a note on advantages and disadvantages of welded connections. **06**

Q.3 **a)** Explain modes of failure of riveted joint. **04**

b) Determine the rivet value of 20mm diameter rivets connecting 12mm plate and is in **10**
1) single shear
2) double shear
The permissible stresses for the rivets in shear and bearing are 90 MPa and 250 MPa resp.

Q.4 **a)** Write a note on net effective area of tension members. **04**
b) What are the different methods of analysis of truss? **04**
c) What do you mean by effective length of column? Explain in detail. **06**

Q.5 Design a Simply supported beam of length 5m which is carrying UDL of 50 KN/m. Effective length of compression flange of beam is also 5m. The ends of beam are not free to rotate at the bearings. **14**

Q.6 Design a rolled steel I section column to carry an axial load of 1000 KN. The column is 3.8m long and adequately restrained in position but not in direction at both the ends. **14**

Q.7 Find the forces in the members of following truss. **14**

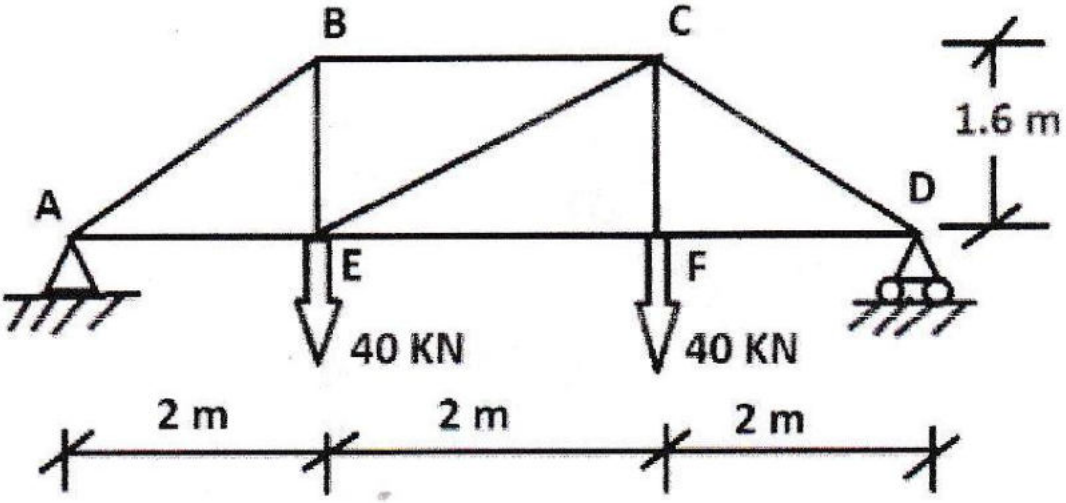


Figure - 1

SLR-HF-22

Seat No.		Set	P

B. Architecture (Semester - V) (CBCS) Examination: Oct/Nov-2022
HISTORY OF ARCHITECTURE – V

Day & Date: Friday, 27-01-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) All Questions are compulsory.
2) Draw neat sketches wherever necessary.

Q.1 Fill in the blanks. **07**

a) _____ & _____ are the pioneers of Art and craft Movement.
b) _____ called as father of skyscrapers.
c) Form ever follow function philosophy invented by _____.
d) At & T Building is also called as _____.
e) _____ was founder of Bauhaus School.
f) _____ material is used for the exterior look of the Guggenheim Museum, Bilbao.
g) _____ style in architecture is characterised by the idea of Fragmentation.

Q.2 Write a short note with Sketches (any 3) **15**

a) Guggenheim Museum, New York
b) International Style
c) Chicago School Movement
d) Bauhaus School

Q.3 Answer in brief with sketches (any 4) **48**

a) Explain the Industrial Revolution with its causes and effects in Architecture and explain example Crystal Palace.
b) Explain philosophy and work of Architect Louis Sullivan with example Wainwright Building.
c) Explain philosophy and work of Architect Mies Van Der Rohe with example Farnsworth House.
d) Explain the philosophy and work of Architect Le Corbusier with example Villa Savoye.
e) Explain Art and Craft Movement with an example.

SLR-HF-23

Seat No.	

Set P

B. Architecture (Semester - V) (CBCS) Examination: Oct/Nov-2022
BUILDING SERVICES – III

Day & Date: Monday, 30-01-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) Make suitable assumptions wherever necessary and mention in your answer book
2) Q. No. 1 and Q. No. 2 are compulsory. Solve any four from remaining Questions.
3) Figures to the right indicate full marks.

Q.1 Select the correct option from the following. **07**

1) The process of extraction of the certain required amount of water from air is known as _____.
a) Heating **b)** Cooling
c) Humidification **d)** Dehumidification

2) The process of direct transmission of heat through a material is known as _____.
a) Conduction **b)** Radiation
c) Thermal insulation **d)** Thermal energy

3) In which component of the chilled water system, the return air and the fresh air mixture is filtered?
a) Fan coil unit **b)** Ducting grill
c) Compressor **d)** Evaporator

4) The general temperature difference between inside and outside of a room is not more than _____.
a) 3°C **b)** 5°C
c) 6°C **d)** 8°C

5) Removal of inside air and supply of fresh outside air in a closed room is known as _____
a) Ventilation **b)** Absorption
c) Adsorption **d)** Transmission

6) Fire is a combination of _____.
a) Fuel, light and Wood, oxygen
b) Fuel, heat and carbon dioxide
c) Fuel, heat and oxygen
d) Fuel, light and nitrogen and Carbon Dioxide
e) None of the above

7) _____ fires are fires in ordinary combustibles such as wood, paper, cloth, rubber, and many plastics.
a) Class A **b)** Class B
c) Class C **d)** Class D

Q.2 **Write Short Note on (Any Three)** **15**

1) Plenum system
2) Fire Hydrants
3) Sodium vapours lamps
4) Earthing for safety

Q.3 What is natural ventilation? What are its general rules and write a note on various types of ventilation system? **12**

Q.4 Explain the concept of Air conditioning system and explain its various elements of central air conditioning system like - central plant, air handling unit ducts risers and dampers. **12**

Q.5 What are the essential features of elevator explain with the help of neat sketch? **12**

Q.6 What are different classification of fire and write a note on automatic sprinklers in fire protection system. **12**

Q.7 Explain with help of sketch various types of wiring used in domestic lighting. **12**

SLR-HF-24

Seat No.		Set	P

B. Architecture (Semester –V) (CBCS) Examination: Oct/Nov 2022
Acoustic

Day & Date: Wednesday, 01-02-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) All questions are compulsory.
2) Make suitable assumptions wherever necessary.

Q.1 a) Fill in the blanks **07**

1) Sound can propagate in _____ medium.
   a) Elastic b) No media
   c) Vacuum d) None of the above

2) Sound focus or whispering gallery produced due to _____.
   a) Square b) Dome
   c) Triangle d) Squinch

3) Sound pressure level is expressed in _____.
   a) Db b) meter
   c) Kg d) Km/hr

4) Unwanted sound is _____.
   a) Noise b) Reverberation
   c) Echo d) Frequency

5) Glass wool is sound _____ material.
   a) Absorbing b) Reflecting
   c) Reflecting d) None

6) To avoid noise _____ done around the building.
   a) Excavation b) Vegetation
   c) Bridge d) Tunnel

7) Velocity of sound in air is _____ m/s.
   a) 343.2 b) 440
   c) 240 d) None of these

b) Calculate the Total Absorption required and Design a Theater for the capacity of 500 people. **27**

Consider Volume 5 m3/ person and Rt = 1.2 seconds.
Use following coefficients, Give conceptual plan and section of Designed Theater.
POP - 0.26
Plaster - 0.004
Glass wool - 0.15
Occupied seat - 0.42
Unoccupied Seat - 0.18
Curtains - 0.12

Q.2 a) Give Design Guidelines for Open Air Theater. **12**

OR

b) Write any four sound absorbing materials in detail.

Q.3 **a)** Explain in detail Whispering Gallery. **05**

b) Explain Reverberation and Echo. **07**

Q.4 **Write Short Note (Any Three)** **12**

a) Sabin's Formula

b) Propagation of sound

c) Open Air Theater

d) Reflection of sound

SLR-HF-25

Seat No.		Set	P

B. Architecture (Semester – V) (CBCS) Examination: Oct/Nov 2022
Sustainable Building Materials

Day & Date: Tuesday, 07-02-2023 Max. Marks: 50
Time: 10:00 AM To 01:00 PM

Instructions: 1) Q.1 and Q.2 are compulsory. Solve any three questions from remaining.
2) Figures to the right indicate full marks.
3) Draw sketches wherever necessary.

Q.1 Fill in blanks: **05**

1) For a gold LEED certification, how many points are required?
   a) 40-49 b) 60-79
   c) 50-59 d) 80-110
2) Which of the below green building in India has received a platinum LEED certification?
   a) Dabur India, Chandigarh
   b) Logix Cyber Park, UP
   c) Unitech Commercial Tower, Chandigarh
   d) Suzlon One Earth, Pune
3) Which of the below is a global scale environmental issue?
   a) Eutrophication b) Regional ozone
   c) Climate change d) Pollution
4) Sustainable development can be thought of in terms of three spheres i.e.
   a) environment, economy and society
   b) environment, economy and equity
   c) environment, ecology and society
   d) environment, economy and ecology
5) Modern concept of sustainable development focuses more on
   a) economic development b) social development
   c) environmental protection d) All of the above

Q.2 Write short notes on: (Any 3) **15**

a) Cradle to grave approach
b) Stabilized rammed earth foundation
c) Embodied energy
d) Wattle daub and Adobe
e) Properties of soil

Q.3 Explain the treatment methods and properties of bamboo as a building material. **10**

Q.4 Explain with examples comparison of sustainable and R.C.C construction. **10**

Q.5 Explain in detail life cycle analysis of building material. **10**

Q.6 Explain reuse of materials in building with 4 examples. **10**

SLR-HF-28

Seat No.	

Set P

B. Architecture (Semester – VI) (CBCS) Examination: Oct/Nov-2022
BUILDING SERVICES – IV

Day & Date: Saturday, 28-01-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat sketches wherever necessary.

Q.1 Fill in the blanks. **07**

a) _____ is waste water from a community containing solid and liquid excreta.
b) _____ is the process of separating large particles suspended or floated in sewage by using screens.
c) _____ an artificial pond of shallow depth formed for the retention of sewage for sufficient time, to purify sewage by dual action of aerobic bacteria and algae.
d) Natural methods of sewage disposal _____.
e) _____ is all solid and semisolid waste matters, organic or inorganic, of the community except night soil.
f) _____ non- putrecible waste which constitutes either combustible or noncombustible waste.
g) _____ Putrescible solid waste like vegetable waste, fruits, meat etc.

Q.2 Write Short Notes on. (Any Three) **15**

a) Objectives of Sewage Treatment
b) Grit Chamber
c) Trickling Filters
d) Hazardous waste

Q.3 Answer the following in detail. (Any Four) **48**

a) What is mean by sewerage system? Explain the types of sewerage system? State its advantages and disadvantages?
b) 1) What is mean by Privy? Sketch and explain Bore hole Privy?
2) Sketch and explain Sulbha Shouchalaya - Two Pit Latrines?
c) Describe with flow chart typical water treatment plant.
d) Explain following methods of refuse disposal – a) Incineration & b) Biogas Plant.
e) Discuss solid waste management for high rise building. Explain refuse chute system.

SLR-HF-32

Seat No.	

Set P

B. Architecture (Semester - VI) (CBCS) Examination: Oct/Nov - 2022
THEORY OF STRUCTURE-VI

Day & Date: Friday, 17-02-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) Use of scientific calculator is allowed.
2) Q. No. 1 and Q. No. 2 is compulsory. From remaining questions solve any four.
3) Figures to the right indicates full marks
4) Assume suitable data if necessary.

Q.1 **Choose the correct alternative from the following options.** **08**

1) For a circular section, minimum number of main steel bars required is _____.
a) 4 b) 6
c) 8 d) 10

2) If Ly/Lx ratio of a slab is greater than 2, then it is a _____.
a) Short span b) Waffle slab
c) One way slab d) Two way slab

3) Minimum depth assumed at edge of foundation is _____.
a) 100mm b) 150mm
c) 125mm d) 200mm

4) If concrete is of M20 grade, 20 represents _____.
a) Mix design b) Characteristic load
c) Characteristic strength d) None of the above

Q.2 Write note on working stress method and limit state method. **06**

Q.3 Design simply supported slab for a hall of 3m X 6.5m with 230mm thick wall. Assume live load of 3.2KN/m^2 and floor finish of 1 KN/m^2. Use M20 grade of concrete and Fe415 steel. **14**

Q.4 Simply supported beam of length 4m is carrying UDL of 30 KN/m inclusive of self-weight. Analyse and design the beam. Use M20 grade of concrete and Fe415 steel. **14**

Q.5 Design a rectangular column of 5m unsupported length, restrained in position and direction at both ends to carry an axial load of 1100KN. Use M20 grade of concrete and Fe415 steel. **14**

Q.6 **a)** Explain under reinforced, balanced and over reinforced section. **06**
b) Write down design steps for Two way slab. **08**

Q.7 Design footing to carry 600KN load. Take safe bearing capacity of soil as 150KN/m^2. Use M20 grade of concrete and Fe415 steel. **14**

SLR-HF-33

Seat No.	

Set P

B. Architecture (Semester –VI) (CBCS) Examination: Oct/Nov-2022
URBAN PLANNING

Day & Date: Wednesday, 08-02-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) Q.1 and Q.2 are compulsory. From remaining questions solve any four
2) Figures to the right indicate full marks
3) Assume suitable data if necessary and mention in your answer book.

Q.1 Fill in the blanks. **07**

a) The ratio of height to width of road will be _____ in Case of 45 degree air plane under height zoning.
b) Broad acre is a linear city designed by _____.
c) Clarence stein and Clarence Perry advocated the concept of _____.
d) The concept on _____ was advocated by Raymond Unwin.
e) Gandhinagar is situated on the bank of river _____.
f) _____ is transfer of development right.
g) _____ stands for housing an urban development corporation.

Q.2 Write Short Notes on. (Any Three) **15**

a) Light plane
b) Rotrary island
c) Causes of slum
d) C. A. Doxiades

Q.3 What is meant by the term planning and discuss natural growth of town with reference to origin and direction of growth? **12**

Q.4 What is the impact of industrial revolution on urban planning? **12**

Q.5 Write a note on concept of neighbourhood planning and explain with help of sketches. **12**

Q.6 What are the main objectives of traffic management and what are the measures to control traffic at junctions? **12**

Q.7 Discuss in detail term zoning and write a note on use zoning and its advantages. **12**

SLR-HF-34

Seat No.	

Set P

B. Architecture (Semester –VI) (CBCS) Examination: Oct/Nov - 2022
Estimating Specifications & Costing – I

Day & Date: Tuesday, 14-02-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) All questions are compulsory.
2) Use of Scientific Calculator is allowed.
3) Figures to the right indicate full marks.
4) Assume suitable data if necessary.

Q.1 Choose the correct alternative from the following options. (Any Four) **08**

1) Unit of wood work for door frames is _____.
   a) Square metre b) Metre
   c) Cubic metre d) Numbers
2) Volume of 1 bag of cement is _____.
   a) 0.030 m^3 b) 0.035 m^3
   c) 0.050 m^3 d) 0.045 m^3
3) Unit of Neeru plaster is _____.
   a) Square metre b) Metre
   c) Cubie metre d) Numbers
4) 1 m^3 of steel weighs _____.
   a) 8750 kg b) 7950 kg
   c) 7850 kg d) 7860 kg
5) How many bricks required in 10Cum volume (brick size = 20 x 10 x 10 cm)
   a) 4500 b) 5000
   c) 5500 d) None of the above

Q.2 Solve any two from the following. **12**

a) Write a note on centre line method and long wall - short wall method of taking out quantities.
b) Explain plinth area estimate and cubic rate estimate.
c) State rules for deductions of openings for internal plaster.

Q.3 Calculate quantity of any five-following item of work and enter the same in standard format of measurement sheet with brief description of item. (Refer fig. 1). **35**

a) Excavation in soft murum in foundation
b) PCC bed in foundation (1:4:8)
c) UCR masonry in foundation and plinth in CM (1:6)
d) DPC in cement concrete
e) Mosaic tiled flooring in all rooms
f) Internal plaster in CM (1:4)
g) RCC lintel

Q.4 Prepare abstract sheet for above residential building with following given rate. **15**

a) Excavation in soft murum in foundation, Rs. 500/- per Cum
b) PCC bed in foundation (1:4:8), Rs.5568/- Cum
c) UCR masonry in foundation and plinth in CM (1:6), Rs. 3500/- per Cum
d) DPC in cement concrete, Rs.5850/- Cum
e) Mosaic tiled flooring in all rooms, Rs. 1347/- per Sqm
f) Internal plaster in CM (1:4), Rs. 365/- per Sqm
g) RCC lintel, Rs. 7256/- per Cum

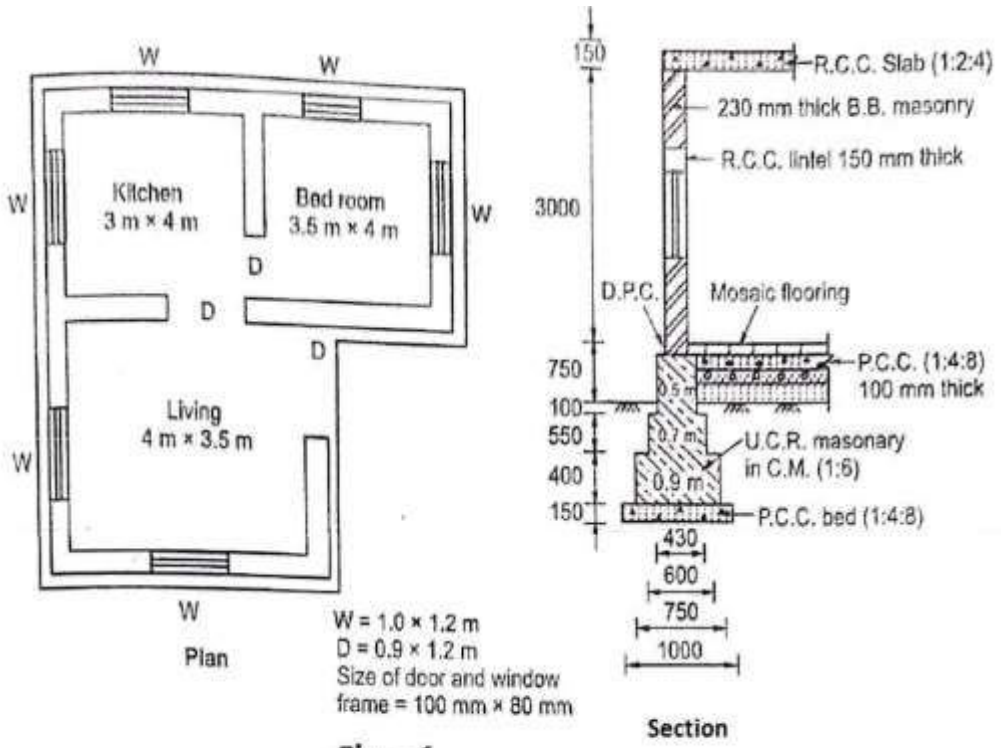


Fig. - 1

SLR-HF-35

Seat No.		Set	P

B. Architecture (Semester - VII) (CBCS) Examination: Oct/Nov-2022
PROFESSIONAL PRACTICE - I

Day & Date: Wednesday, 25-01-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 Fill in the Blanks. **07**

a) The word _____ is derived from the Greek word “arch” meaning “chief’ and the word “tekton meaning “carpenter” or “builder”.
b) _____ means one that involves some branch of learning and science and is normally associated with the exercise of intellectual or technical equipment resulting from learning or science.
c) An _____ carries responsibility on account of confidence placed in his judgement and integrity.
d) _____ is nothing but an offer made by one party to another for execution of specified work.
e) There are three ways in which _____ can be called.
f) _____ Tender is an offer to execute the work based on rates of different item of work.
g) The present _____ document being used by Architects and Engineers for the building works has been approved by Indian Institute of Architect.

Q.2 Write short notes on (Any Three) **15**

a) Procedure of invitation tender
b) Retention amount
c) Architectural profession
d) Types of firms in architectural profession

Q.3 Answer the following (Any Four) **48**

a) Architect office and its management
b) Role of COA and IIA
c) Advantages and disadvantage of Lump-sum tender
d) Explain the Architect’s duties against his client.
e) Write in brief Cost plus percentage or cost-plus fee contract.

SLR-HF-36

Seat No.		Set	P

B. Architecture (Semester –VII) (CBCS) Examination: Oct/Nov-2022
THEORY OF STRUCTURE- VII

Day & Date: Monday, 30-01-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) Use of scientific calculator is allowed.
2) Q. No. 1 and Q. No. 2 is compulsory. From remaining questions solve any four.
3) Figures to the right indicate full marks.
4) Assume suitable data if necessary.

Q.1 Select the correct option from the following. **08**

1) Indian code of practice for liquid retaining structures is _____.
   a) IS 456 b) IS 3370
   c) IS 1893 d) IS 875
2) Raft foundation is used if _____.
   a) SBC of soil is low b) Loads on structure is heavy
   c) both a) and b) d) None of the above
3) A ribbed slab is provided for _____.
   a) A plain ceiling b) Thermal insulation
   c) Acoustic insulation d) All of the above
4) Which of the following losses of prestress occurs only in pre-tensioning, but not in post-tensioning?
   a) Elastic shortening of concrete b) Shrinkage of concrete
   c) Creep of concrete d) Loss due to friction

Q.2 Write note on Pile foundation. Also describe types of pile foundation. **06**

Q.3 Design a circular tank of capacity 4,50,000 litres with flexible connection at base. The tank is rest on the firm level ground. The tank is open at top with free board of 180mm. Use M20 grade of concrete and Fe415 steel. **14**

Q.4 **a)** Explain in detail pre-tensioning and post-tensioning. **06**
b) Write note on earthquake proof design and construction procedure. **08**

Q.5 **a)** Write a note on flat slab and waffle slab. **06**
b) Explain in detail gantries and cranes. **08**

Q.6 **a)** What do you mean by Raft foundation? Explain its types. **06**
b) Write a note on folded plates and shells. **08**

Q.7 Calculate the stresses at top and bottom fibres for a prestressed beam as shown in fig. below. A prestressing force of 1500KN is applied at an eccentricity of 100mm. The beam is loaded with UDL of 40KN/m. Size of beam is 450mm X 700mm. Also draw stress distribution diagram. **14**

SLR-HF-37

Seat No.	

Set P

B. Architecture (Semester - VII) (CBCS) Examination: Oct/Nov-2022
ESTIMATING SPECIFICATION & COSTING – II

Day & Date: Wednesday, 01-02-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Use of scientific calculator is allowed.
4) Assume suitable data if necessary.

Q.1 Solve any four from the following. **08**

1) Which of the following is not a type of contract?
a) Item rate b) Approximate
c) Lump sum d) Labour

2) _____ is a offering in writing for execution of certain specified work of for supply of specified materials subject to certain terms and conditions such as rates, time limits, etc.
a) Contract b) Estimate
c) Tender d) None of the above

3) Percentage rate contract has following advantage/s
a) Suitable for private work
b) Allows extra items
c) No scope for contractor to submit unbalanced tender
d) All of the above

4) _____ cu m brickwork in superstructure can be completed by a mason per day.
a) 1.00 b) 2.00
c) 1.50 d) 2.50

5) Security deposit is _____ of total cost of tender.
a) 2.0% b) 5.0%
c) 4.0% d) 3.0%

Q.2 Solve any two from the following. **12**

a) Write a note on labour contract, demolition contract, target contract and negotiated contract.
b) Explain brief specification and detailed specification.
c) State and explain types of tenders.

Q.3 Calculate quantity of any five following item of work and enter the same in standard format of measurement sheet with brief description of item. (Refer fig.1) **30**

a) Excavation in foundation
b) Brick masonry work up to plinth
c) Concrete in RCC beam
d) Concrete in RCC slab
e) Internal flooring in all rooms
f) Internal Sand faced plaster in CM (1:6)
g) Concrete in RCC Footing

Q.4 Write in detail specifications for workmanship. (Any Two) **20**

a) Excavation in hard rock
b) First class brick work
c) Plastering in 1:6 CM for brick work
d) RCC work in 1:1.5:3 cement concrete

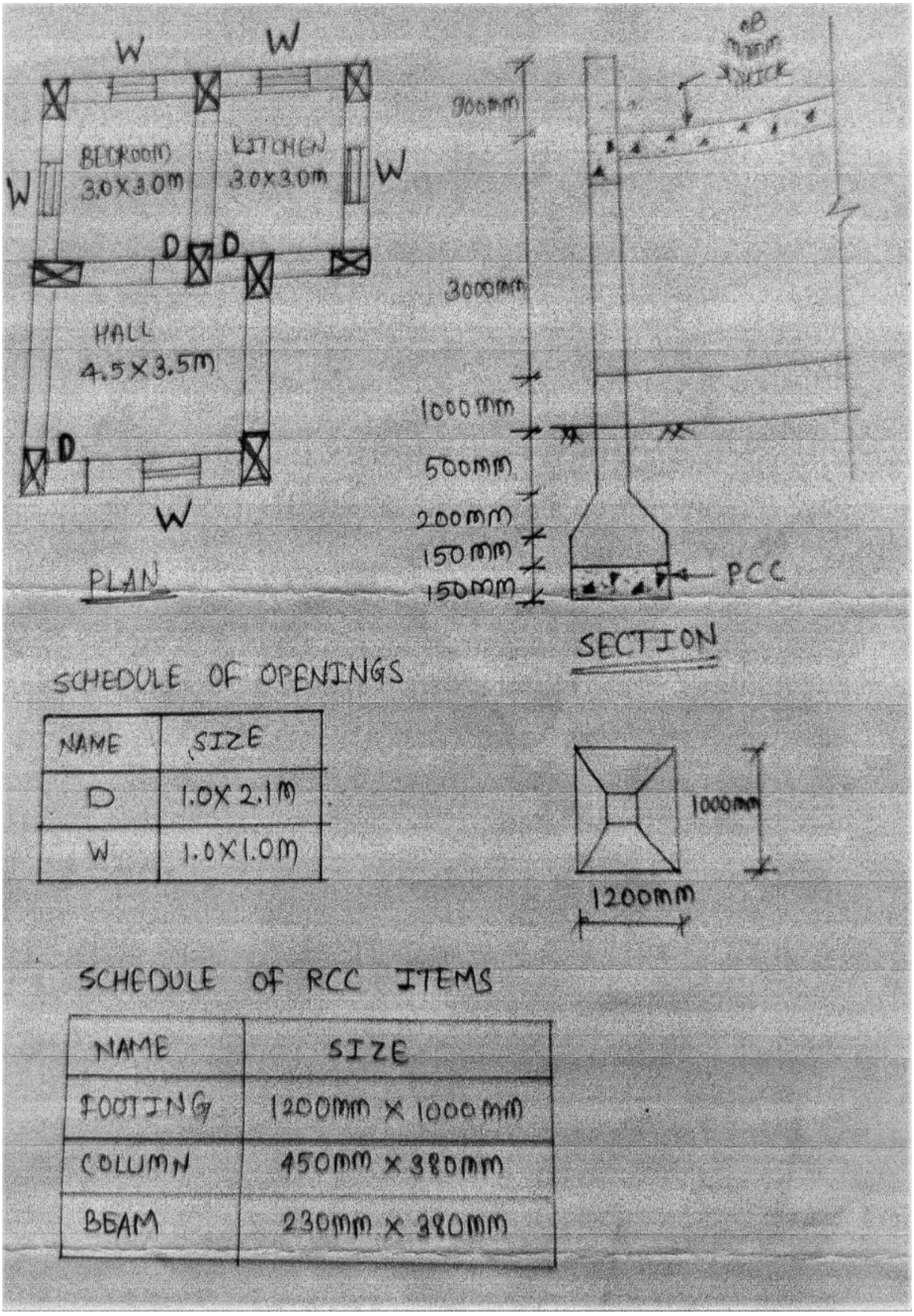

W
W
BEDROOM
3.0X3.0m
KITCHEN
3.0X3.0m
W
W
D
D
HALL
4.5X3.5m
D
W
PLAN
300mm
3000mm
1000mm
500mm
200mm
150mm
150mm
PCC
SECTION
SCHEDULE OF OPENINGS
NAME
SIZE
D
1.0X2.1m
W
1.0X1.0m
1000mm
1200mm
SCHEDULE OF RCC ITEMS
NAME
SIZE
FOOTING
1200mm X 1000mm
COLUMN
450mm X 380mm
BEAM
230mm X 380mm

Figure 1

SLR-HF-38

Seat No.	

Set P

B. Architecture (Semester –VIII) (CBCS) Examination: Oct/Nov-2022
PROF. PRACTICE - II

Day & Date: Tuesday, 31-01-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 Fill in the blanks. **07**

1) _____ is the final decision given by the arbitral tribunal after investigation of the case submitted for adjudication.
2) _____ is the person to whom the dispute and differences are referred for necessary adjudication.
3) In limited competition, approximately _____ architects are invited to participate.
4) The land for the beneficial enjoyment of which the right of easement exists is called the _____.
5) The land acquisition act was enacted in _____.
6) FSI is the ratio of _____.
7) The land acquired under land acquisition act should be _____ from all encumbrance.

Q.2 Write short notes on. (Any Three) **15**

1) Continuous and discontinuous easement
2) Arbitral tribunal
3) Limited competition
4) Principles of land acquisition act
5) Necessity of bye – laws

Q.3 Answer the followings. (Any Four) **48**

1) Write in brief the procedure involved for the acquisition of land under the act.
2) What is Arbitration? Explain the advantages and disadvantages of setting the disputes by this method.
3) Explain the role of Council of Architecture (COA) in Architectural Competitions.
4) Explain the term Easement and its characteristics.
5) Write in brief, municipal bye laws regulated for a residential building in Solapur.
6) Write the safety measures undertaken by the contractor for the labors in the construction industry.

SLR-HF-39

Seat No.	

Set P

B. Architecture (Semester – VIII) (CBCS) Examination: Oct/Nov-2022
PROJECT MANAGEMENT

Day & Date: Friday, 17-02-2023 Max. Marks: 70
Time: 02:00 PM To 05:00 PM

Instructions: 1) Q.1 and Q.2 are compulsory. From remaining questions solve any four.
2) Figures to the right indicate full marks.
3) Assume suitable data if necessary.

Q.1 Fill in the blanks. **07**

a) PERT network is _____ oriented
b) CPM stands for _____.
c) An activity is represented by an _____.
d) In a Bar Chart the horizontal axis represents _____ elapsed.
e) The term Float is used in _____ oriented network.
f) In PERT, time durations are _____.
g) _____ introduced Gantt charts.

Q.2 Write Short Notes on. (Any Three) **15**

a) Define Work Breakdown structure and explain its types
b) Write a note on activity and give its examples
c) Explain Bar Chart and its demerits
d) Differentiate between CPM and PERT

Q.3 a) Write about background, objective and compensation calculation under Workmen's compensation act. 1923. **06**

b) Explain types of Project Costs with a graph diagram. **06**

Q.4 a) What are different aspects of Project Management? **10**

b) Explain dummy activity. **02**

Q.5 a) Draw a Bar/ Gant chart for the following points. **06**

A project consists of 7 activities A,B,C,D,E, F, G with the duration of 2, 4, 5, 5, 3, 4 and 5 weeks respectively.

- Activity A is the first activity starting at the zero time
- Activity B and C can start simultaneously but after A is completed
- Activity D can start only after Activity B is completed but can start before Activity C is completed.
- Activity E can start only after C is completed
- Activities F and G can start simultaneously but can start only after D is completed.

b) Draw a network diagram for the following activities and determine the Critical Path. **06**

Activity	Duration	Predecessor
A	3	-
B	4	A
C	2	A
D	5	B
E	1	C
F	2	C
G	4	D,E
H	3	F,G

Q.6 Following Table gives the data about duration and costs **12**

Activity	Normal Duration (Weeks)	Normal Cost (Rs)	. Crash time by (Weeks)	Crash cost (Rs)
A (1-2)	5	200	2	260
B (1-3)	6	220	3	310
C (2-4)	4	310	2	390
D (2-6)	7	250	4	400
E (3-5)	5	350	3	390
F (4-5)	4	150	2	230
G (4-6)	6	300	3	420
H (5-6)	7	200	4	290

Indirect Cost = 50 Rs/ week

* Find out total project cost for above table
* Carry out stage by stage compression of network for above table
* Find optimum duration and minimum cost for above table

Q.7 Find Mean duration, Standard deviation and Variance for the following data. Also find Critical path with the help of network diagram. **12**

Activity	Predecessor	to	tm	tp
A	-	2	4	9
B	A	5	8	14
C	B	4	10	13
D	B	4	7	10
E	C	11	14	20
F	D	9	13	16
G	E,F	2	4	6

SLR-HF-40

Seat No.	

Set P

B. Architecture (Semester - I) (New) (CBCS) Examination: Oct/Nov-2022
Building Construction and Material - I

Day & Date: Thursday, 23-03-2023 Max. Marks: 100
Time: 10:00 AM To 02:00 PM

Instructions: 1) Write question number correctly.
2) Draw neat sketches wherever necessary.
3) Q.no-2 has to be compulsorily drafted on sheets provided by the university.

Q.1 Fill in the blanks. **05**

a) A stone passing through a wall from front to back face and acting as a binder for the two faces of the wall is termed as _____.
b) A sloping or a steeped pier and its provided to work as lateral support of the wall is _____.
c) A brick with its breadth or width parallel to the face or front or direction of a wall is known as _____.
d) A brick moulded with a double bullnose on end is termed as a _____.
e) The lowest artificially prepared parts of the structures which are in direct contact with the ground and which transmit the loads of the structures to the ground are known as the _____.

Q.2 Draw and label. (Any One) **30**

a) Draw plan, elevation and isometric view of header bond, stretcher bond, English bond up to 1 brick thick wall.
b) Draw to scale 1:10 elevation and section of ashlar fine, ashlar rough tooled masonry, ashlar quarry faced, ashlar chamfered.

Q.3 With neat sketches write short notes on. (Any Five) **25**

a) Compare English and Flemish bond
b) Closer, queen closer, king closer.
c) Classification of stone masonry.
d) Types of joints in stone masonry.
e) Retaining walls

Q.4 Fill in the blanks. **05**

a) The presence of moisture in sand increases the volume of sand. This phenomenon is known as _____.
b) The structure of the brick should be _____, compact and free from any defects.
c) Standard size of the brick is _____.
d) The average weight of the brick is about _____.
e) _____ is a paste prepared by adding required quantity of water to a mixture of binding material like cement, lime and fine aggregate like sand.

Q.5 Answer in Detail. (Any Two) **20**

a) Enumerate the qualities of good bricks and uses of bricks.
b) What is meant by dressing of stone? Sketch various varieties of dressing.
c) Explain bearing capacity of soil and angle of repose.

Q.6 Write short notes on (Any Three) **15**

a) Classification of bricks
b) Uses of stone
c) Quarrying and its methods
d) Types of soil
e) Uses of concrete blocks

SLR-HF-41

Seat No.	

Set P

B. Architecture (Semester – I) (New) (CBCS) Examination: Oct/Nov-2022
Theory of Structure – I

Day & Date: Saturday, 25-03-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) Use of scientific calculator is allowed.
2) Q.No.1 and Q.No.2 are compulsory.
3) Attempt any four questions from the remaining.
4) Figures to the right indicate full marks.
5) Assume suitable date if necessary.

Q.1 Choose the correct alternative from the following options. **08**

1) Self weight of any member is considered as _____.
a) Live load b) Dead load
c) Minor load d) None of the above

2) Varignon's theorem is used to find _____.
a) Moment b) Load
c) Resultant d) Couple

3) Centre of gravity of a circle with diameter d is at _____.
a) At d/2 from centre b) At centre
c) At d/ 4 from centre d) On radius

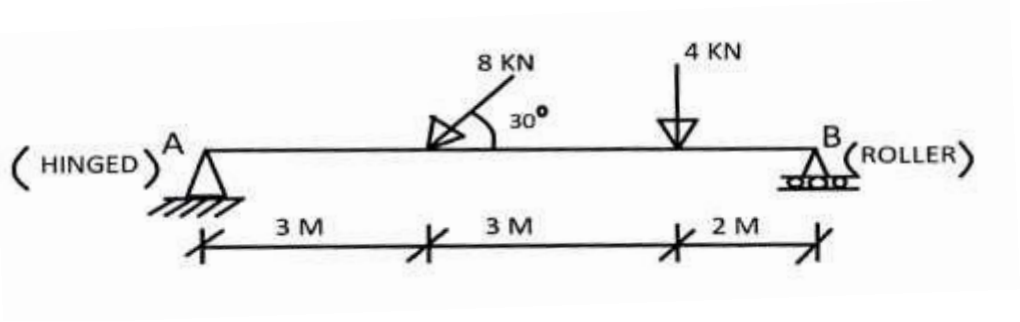
4) Non concurrent force system is also called _____.
a) Parallel b) Perpendicular
c) Normal d) None of the above

Q.2 Write a note on components of building. **06**

Q.3 **a)** Write a note on Lami's theorem. **06**
b) Two forces of magnitude of 100 N and 300 N are acting at 50° to each other. Determine the resultant in magnitude and direction if **08**
1) forces have same sense
2) forces have different sense

Q.4 **a)** Write a note on system of forces. **06**
b) Five forces of 100, 200, 300, 400 and 500 N are acting at angle of 40, 100, 210, 280 and 340 in anti-clockwise direction from x axis at a point, all away from the point. Find the resultant force in magnitude and direction. **08**

Q.5 **a)** Write a note on types of beams. **06**
b) A horizontal beam AB, 8 m long is hinged at A and supported on rollers at B. It is loaded as shown in the fig. Find reactions analytically at A and B. Also find direction of reactions. **08**



Q.6 **a)** Explain in detail load bearing structure and Framed structure. **06**

b) Define centre of gravity and centroid. Derive expression for centroid of hollow rectangular section. **08**

Q.7 **a)** State and explain law of parallelogram of forces. **06**

b) A sphere weighing 500 N is supported by two planes. One vertical (plane A) and another (plane B) is inclined at 60° to the horizontal. Calculate reactions at the planes. **08**

SLR-HF-42

Seat No.	

Set P

B. Architecture (Semester– I) (New) (CBCS)Examination: Oct/Nov-2022
Human Settlement Planning

Day & Date: Monday, 27-03-2023 Max. Marks: 70
Time: 10:00 AM To 01:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 Choose the correct alternative from the following options. **07**

1) Which settlement pattern is found along coasts?
a) Rectangular b) Linear
c) Triangular d) Star-like

2) The earliest city discovered in India was _____.
a) Harappa b) Punjab
c) Mohenjo-Daro d) Sindh

3) With which of the following centers of learning, Chanakya the famous teacher of Chandragupta Maurya, was associated?
a) Taxila b) Nalanda
c) Vikramshila d) Vaishali

4) What is the Greek word for city-state?
a) Polis b) Agora
c) Parthenon d) Stoa

5) What does the word Pharaoh mean?
a) King b) Great house
c) God d) Evil

6) What were the main items of trade in ancient China?
a) Silk b) Tea
c) Paper d) All of them

7) What is a cenote?
a) A square pyramid with steps
b) A ritual headdress
c) Clay Mayan coins used for commerce
d) A deep sinkhole with water at the bottom

Q.2 Write short notes on (Any Three) **15**

a) Egyptians belief in afterlife
b) Acropolis of Athens
c) The Medieval city
d) Man and Environment

Q.3 Answer the following the detail. (Any Four) **48**

a) What is the meaning of human settlement? Sketch and Describe Dispersed, nucleated and linear Patterns of Settlement?
b) Differentiate between rural and urban settlement?

c) What is mean by Civilization? Why did the earliest Civilizations grow up near rivers?

d) Describe the Town Planning and The Drainage System of the Indus Valley Civilization.

e) What is mean by industrial revolution? Discuss its impact on society?

SLR-HF-43

Seat No.		Set	P

B. Architecture (Semester – II) (New) (CBCS) Examination: Oct/Nov-2022
Building Construction and Material - II

Day & Date: Monday, 20-03-2023 Max. Marks: 100
Time: 02:00 PM To 06:00 PM

Instructions: 1) Write question number correctly.
2) Figures to the right indicate full marks.
3) Draw neat sketches wherever necessary.
4) Q.no-2 has to be compulsorily drafted on sheets provided by the university.

Q.1 Fill in the blanks. **05**

a) _____ are the wedge shaped units forming the courses of an arch.
b) _____ is the vertical member which is fixed between string and handrail to give support to the handrail.
c) _____ are the wooden pieces which are placed horizontally on principal rafters to carry the common rafters.
d) _____ consists of wedge shaped units joined together with mortar and are constructed to span across an opening.
e) _____ is a horizontal member which is employed to sub divide a window opening horizontally.

Q.2 Draw and label (Any One) **30**

a) Draw plan, elevation and section of ledged, battened and braced door. Consider 1.2mtr wide opening and 2.1 meter in height.
b) Draw to scale 1:10, Plan and sectional elevation of any 5 types of arches.

Q.3 With neat sketches write short notes on (Any Five) **25**

a) RISER, TREAD, PITCH, WAIST SLAB, HEADROOM
b) RAFTERS, EAVES, SPAN, RIDGE, RISE
c) SKEW BACK, SOFFIT, CROWN, SPANDRIL, PIERS
d) DIFFERENTIATE ARCHES AND LINTELS
e) JOINTS IN CARPENTRY
f) FRAME HOLDFASTS, STYLES, PANEL, SHUTTERS

Q.4 Fill in the blanks **05**

a) The heating of redness in contact with air is known as _____.
b) The product obtained by slaking of quick lime is known as _____.
c) A paste prepared by adding required quantity of water to a mixture of binding material and aggregate is known as _____.
d) The proportion of lime mortar selected for plaster works is _____.
e) _____ sand mainly used for plastering.

Q.5 Answer in detail (Any Two) **20**

a) Explain in brief the manufacturing process of fat lime.
b) How is lime mortar prepared?
c) Explain various sources and classification of sand.

Q.6 Write short notes on (Any Three) **15**

a) Properties of good sand
b) Bulking of sand
c) Uses of lime
d) Uses of Mortar

SLR-HF-44

Seat No.	

Set P

B. Architecture (Semester - II) (New) (CBCS) Examination: Oct/Nov-2022
Architectural graphics and drawing – II

Day & Date: Friday, 24-03-2023 Max. Marks: 70
Time: 03:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Retain all construction lines.
4) Five marks are reserved for neatness and good drafting.

Q.1 A plane cuts the object as shown in Fig. A at PP, Draw plan and sectional elevation (front side) of the cut object (scale - 1:1). **25**

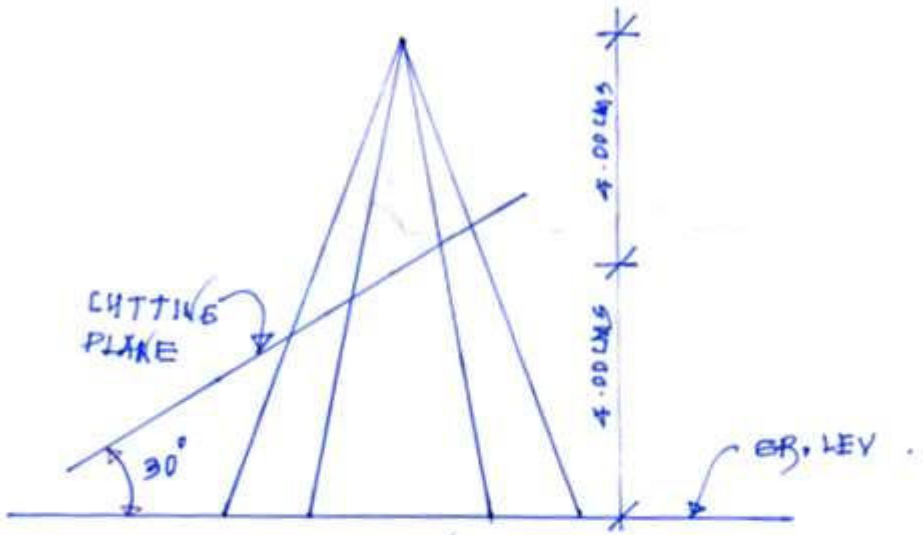
Q.2 Draw true cut portion or development of surface of cut object from Q. No. 1 of Fig. A. (scale - 1:1). **10**

Q.3 Draw the development of surfaces of the following objects in Fig. B (Scale -1:1). **10**

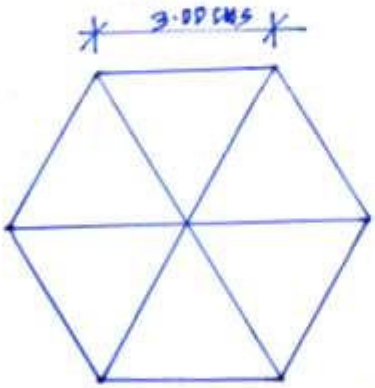
Q.4 Draw isometric view of the object shown in Fig. C. **15**

Q.5 Mention the no. of surfaces of the following objects as shown in Fig. D. **05**

FIG. (A)



ELEVATION



PLAN.

FIG. (B)

1.

2.

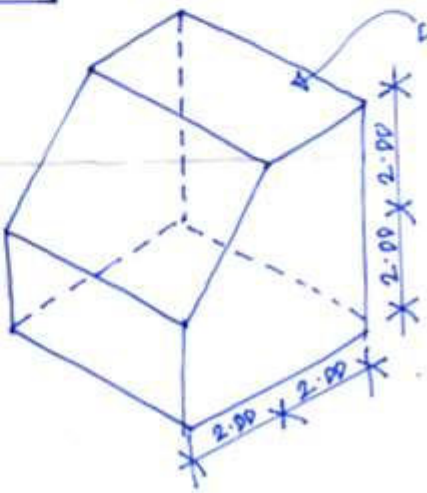


FIG-(C)

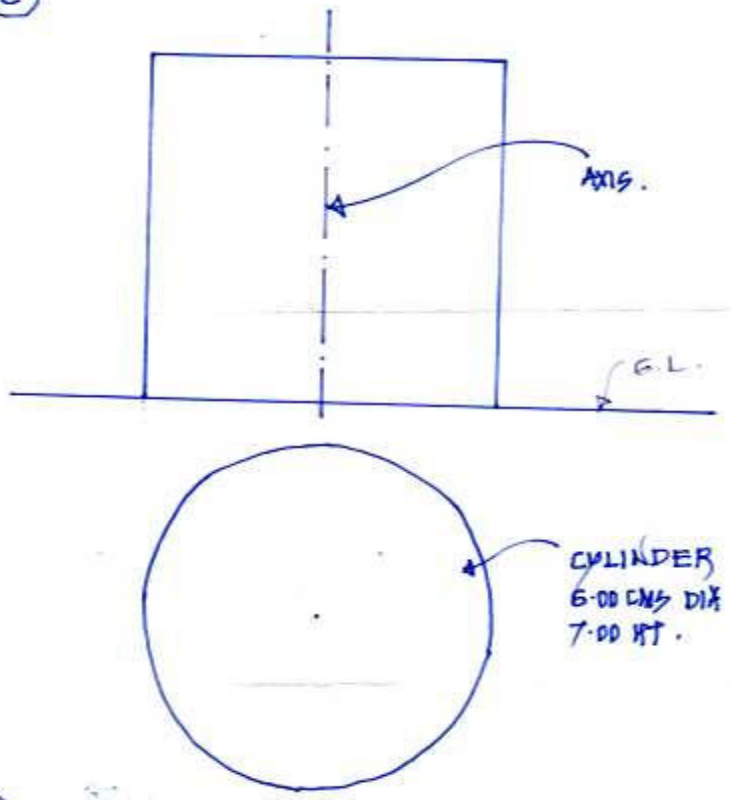
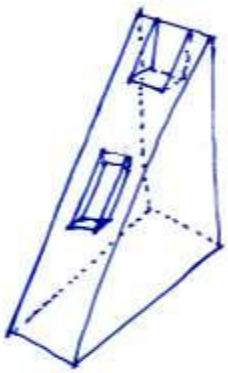
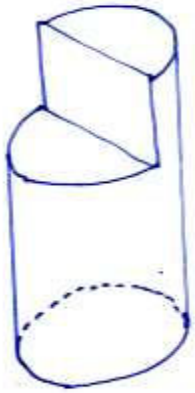


FIG-(D)

1.



2.



SLR-HF-45

Seat No.	

Set P

B. Architecture (Semester – II) (New) (CBCS) Examination: Oct/Nov-2022
Theory of Structure – II

Day & Date: Saturday, 25-03-2023 Max. Marks: 70
Time: 03:00 PM To 06:00 PM

Instructions: 1) Use of scientific calculator is allowed.
2) Q.No.1 and Q.No.2 are compulsory.
3) Attempt any four questions from the remaining.
4) Figures to the right indicate full marks.
5) Assume suitable date if necessary.

Q.1 Choose the correct alternative from the following options. **08**

1) The ratio of lateral strain to longitudinal strain is called as _____.
a) Young's Modulus b) Shear Modulus
c) Bulk Modulus d) Poison's Ratio

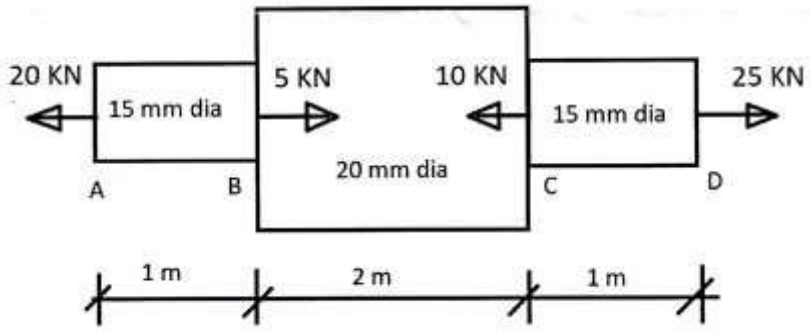
2) A truss is called redundant if it has number of members _____ that required for perfect truss.
a) More than b) Equal to
c) Less than d) Can not be decided

3) Condition of pure bending takes place in a region of beam if _____.
a) Shear force is zero in that region
b) Bending moment is constant in that region
c) Both a) and b)
d) Neither of the above

4) Moment of inertia of a rectangular section having width b and depth d about horizontal axis is _____.
a) $db^3/6$ b) $bd^3/12$
c) $db^3/12$ d) $bd^3/6$

Q.2 Write a note on Stress strain curve of mild steel. **06**

Q.3 a) A steel bar ABCD 4m long is loaded as shown in fig. Find stresses in each section and total elongation of bar. Take E = 200GPa. **14**



Q.4 a) Write a note on radius of gyration **06**
b) Define SFD and BMD. Explain with an example of simply supported beam subjected to point load P at centre of span L. **08**

Q.5 **a)** Explain Bulk Modulus, Shear Modulus and Young's Modulus. **06**

b) A rectangular beam of breadth 100 mm and depth 200 mm is simply supported over a span of 4 m. The beam is loaded with an uniformly distributed load of 5 kN/m over the entire span. Find the maximum bending stresses. **08**

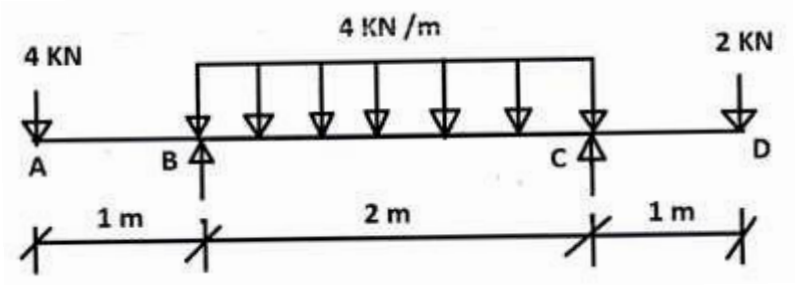
Q.6 **a)** Find moment of inertia for a hollow rectangular section with external dimensions (B and D), internal dimensions (b,d). **06**

b) A rectangular beam 150mm wide and 300mm deep is subjected to maximum shear force of 80 KN. Determine. **08**

1) Average shear stress
2) Maximum shear stress
3) Shear stress at a distance of 25 mm above Neutral Axis

Q.7 **a)** Write a note on types of trusses based on shape along with its suitability. **06**

b) Draw SFD and BMD for an overhanging beam as shown in fig. below. **08**



SLR-HF-46

Seat No.		Set	P

B. Architecture (Semester – II) (New) (CBCS) Examination: Oct/Nov-2022
History of Architecture – I

Day & Date: Monday, 27-03-2023 Max. Marks: 70
Time: 03:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat illustrative sketches to support answer wherever necessary.

Q.1 Fill in the blanks. **07**

a) _____ civilization is considered as an egalitarian civilization.
b) _____ was first civilization which designed and built the precursors to amous Four fold Gardens/ Chahar Bagh Gardens in their palaces.
c) _____ is the famous code of Law complied by the Babylonian Civilization.
d) Building material of a outer fencing in a village of Vedic period was _____.
e) Mauryan capital of Pataliputra was planned and divided into _____ sectors.
f) _____ civilization built the first planned cities.
g) _____ was the main building material used for the construction of Kings chamber in the Khufu's Pyramid.

Q.2 Explain the terms. (Any Three) **15**

a) Terra Amata & Mezhirich huts
b) Stambhas in Buddhist architecture
c) Ishtar gate
d) Catal Huyuk

Q.3 Describe in detail about town planning systems in Harappan civilization with two examples. **12**

OR

Describe in detail about the Viharas & Chaitya's of Buddhist architecture with two examples.

Q.4 Answer the following: (Any Two) **24**

a) Describe and discuss architectural characteristics of the Vedic houses.
b) Describe and discuss architecture of Sanchi Stupa.
c) Discuss in detail the symbolism & architecture of Stone Henge.
d) Discuss in detail about the Ziggurat at Ur.

Q.5 Describe and discuss symbolism, architectural components & characteristics of the Egyptian architecture. **12**

OR

Describe in detail the about the Persian architecture. Describe Pcrsepolis & architectural characteristics of Apadana & Palace of Darius

SLR-HF-47

Seat No.	

Set P

B. Architecture (Semester – II) (Old) (CBCS) Examination: Oct/Nov-2022
Architectural Graphics - II

Day & Date: Friday, 24-03-2023 Max. Marks: 70
Time: 03:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
2) Retain all construction lines.
3) Figures to the right indicate full marks.
4) Five marks are reserved for neatness and good drafting.

Q.1 A plane cuts the object as shown in Fig. A at PP, Draw plan and sectional elevation (front side) of the cut object (scale -1:1). **25**

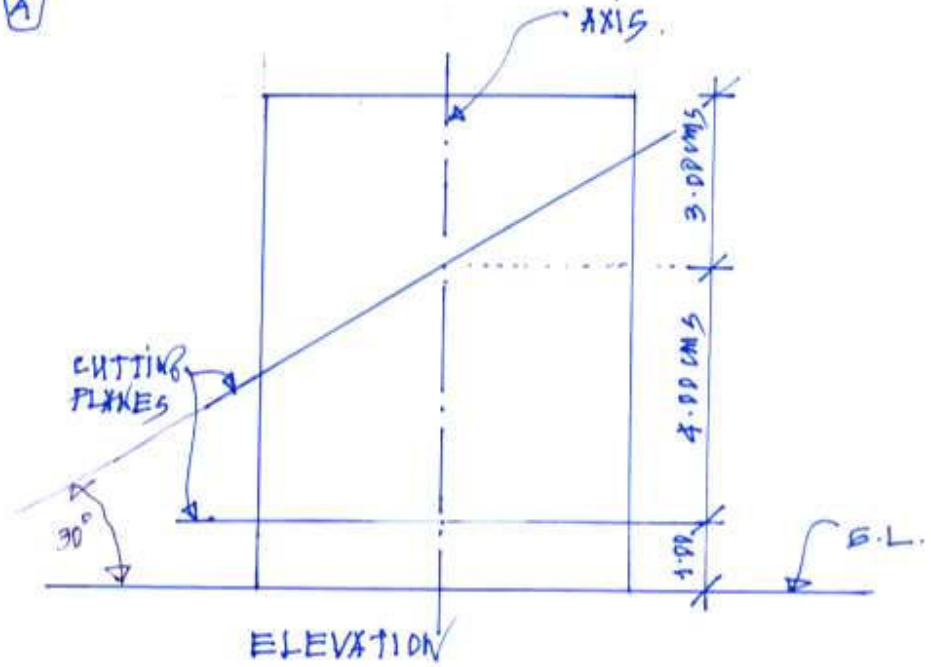
Q.2 Draw true cut portion or development of surface of cut object from Q. No. 1 of Fig. A. (Scale 1:1) **10**

Q.3 Draw the development of surfaces of the following objects in Fig. B (Scale -1:1). **10**

Q.4 Draw isometric view of the object shown in Fig. C. **15**

Q.5 Mention the no. of surfaces of the following objects as shown in Fig. D. **05**

FIG. (A)


AXIS.
3.00 CMS
4.00 CMS
1.00
CUTTING PLANES
30°
G.L.
ELEVATION

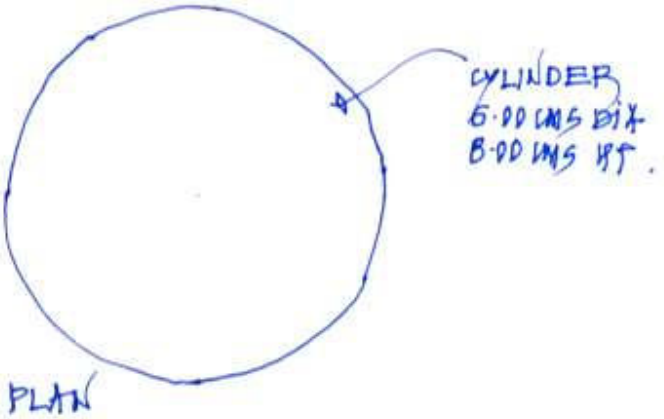

CYLINDER
6.00 CMS DIA
8.00 CMS HT.
PLAN

FIG. (B)

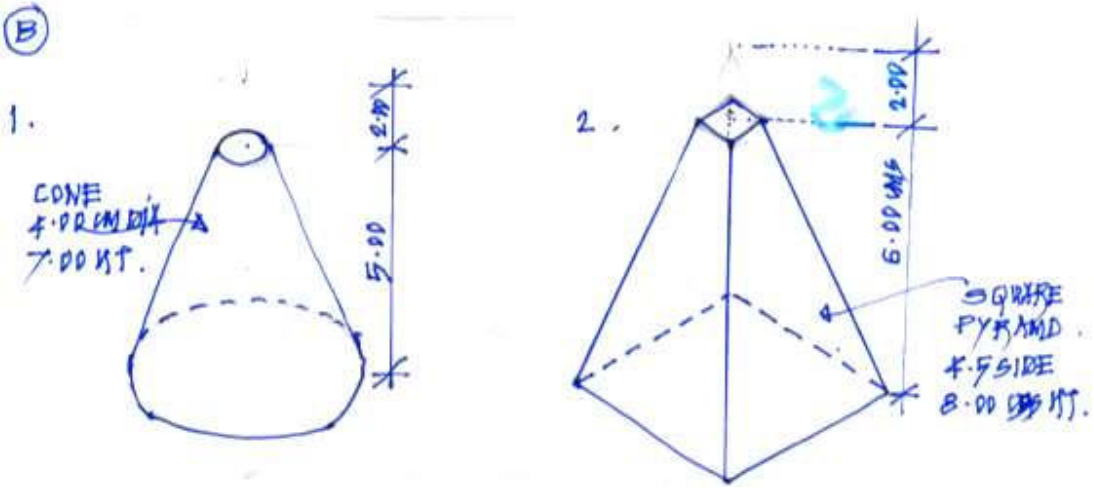
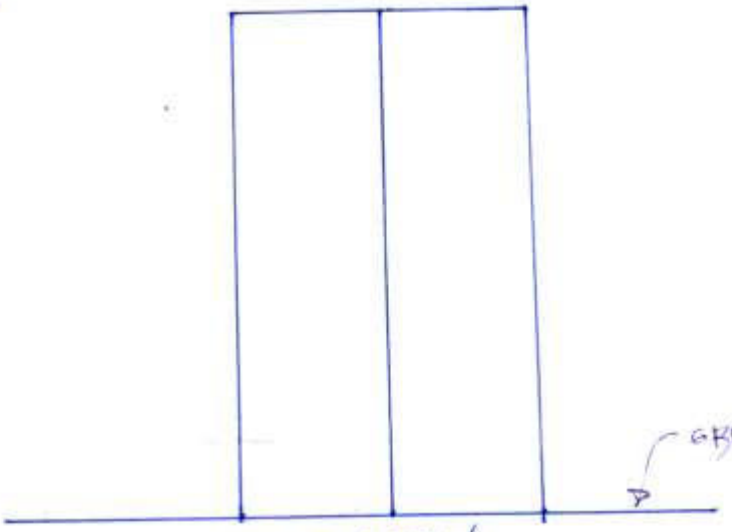
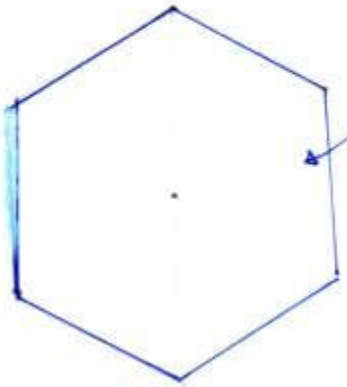

1.
CONE
4.00 CM DIA
7.00 HT.
2.00
5.00
2.
2.00
6.00 CMS
SQUARE PYRAMID
4.5 SIDE
8.00 CMS HT.

FIG. (C)



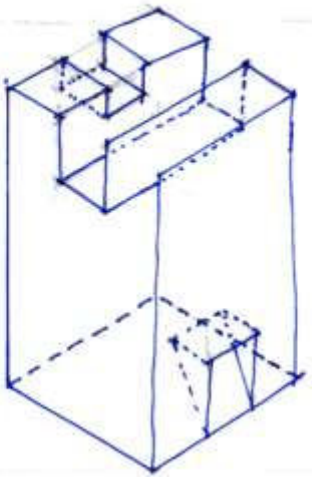
ELEVATION



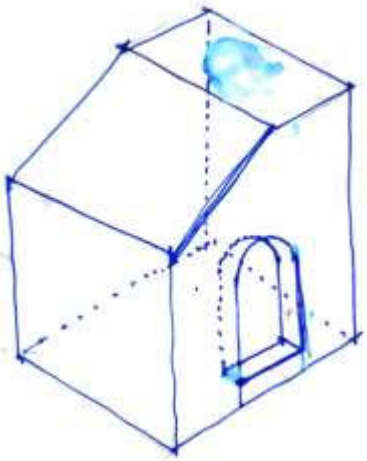
PLAN.

FIG. D

1



2



SLR-HF-48

Seat No.	

Set P

B. Architecture (Semester – II) (Old) (CBCS) Examination: Oct/Nov-2022
Theory of Structure – II

Day & Date: Saturday, 25-03-2023 Max. Marks: 70
Time: 03:00 PM To 06:00 PM

Instructions: 1) Use of scientific calculator is allowed.
2) Q.No.1 and Q.No.2 are compulsory.
3) Attempt any four questions from the remaining.
4) Figures to the right indicate full marks.
5) Assume suitable date if necessary.

Q.1 Choose the correct alternative from the following options. **08**

1) The ratio of lateral strain to longitudinal strain is called as _____.
a) Young's Modulus b) Shear Modulus
c) Bulk Modulus d) Poison's Ratio

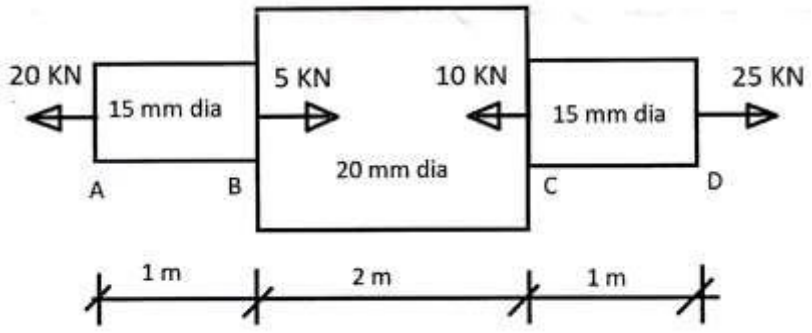
2) A truss is called redundant if it has number of members _____ that required for perfect truss.
a) More than b) Equal to
c) Less than d) Can not be decided

3) Condition of pure bending takes place in a region of beam if _____.
a) Shear force is zero in that region
b) Bending moment is constant in that region
c) Both a) and b)
d) Neither of the above

4) Moment of inertia of a rectangular section having width b and depth d about horizontal axis is _____.
a) $db^3/6$ b) $bd^3/12$
c) $db^3/12$ d) $bd^3/6$

Q.2 Write a note on Stress strain curve of mild steel. **06**

Q.3 a) A steel bar ABCD 4m long is loaded as shown in fig. Find stresses in each section and total elongation of bar. Take E = 200GPa. **14**



Q.4 a) Write a note on radius of gyration **06**
b) Define SFD and BMD. Explain with an example of simply supported beam subjected to point load P at centre of span L. **08**

Q.5 **a)** Explain Bulk Modulus, Shear Modulus and Young's Modulus. **06**

b) A rectangular beam of breadth 100 mm and depth 200 mm is simply supported over a span of 4 m. The beam is loaded with an uniformly distributed load of 5 kN/m over the entire span. Find the maximum bending stresses. **08**

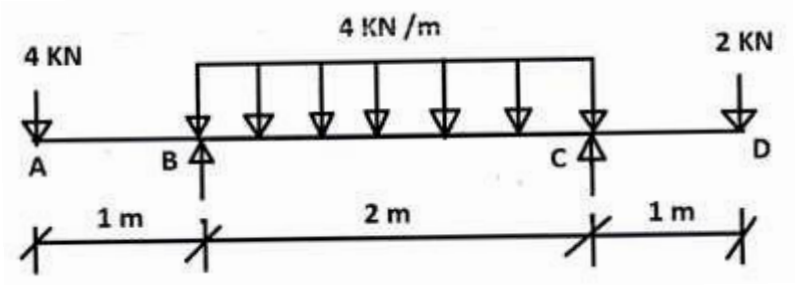
Q.6 **a)** Find moment of inertia for a hollow rectangular section with external dimensions (B and D), internal dimensions (b,d). **06**

b) A rectangular beam 150mm wide and 300mm deep is subjected to maximum shear force of 80 KN. Determine. **08**

1) Average shear stress
2) Maximum shear stress
3) Shear stress at a distance of 25 mm above Neutral Axis

Q.7 **a)** Write a note on types of trusses based on shape along with its suitability. **06**

b) Draw SFD and BMD for an overhanging beam as shown in fig. below. **08**



SLR-HF-49

Seat No.	

Set P

B. Architecture (Semester – II) (Old) (CBCS) Examination: Oct/Nov-2022
History of Architecture – II

Day & Date: Monday, 27-03-2023 Max. Marks: 70
Time: 03:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicates full marks.

Q.1 Fill in the blanks. **07**

a) The great Parthenon is situated a top the _____ Athens, Greece.
b) The Great Sanchi stupa is located in the state of _____ in India.
c) Papyrus capital is an architectural element of _____ civilization.
d) Combination of Ionic and _____ orders lead to the formation of Composite order in Roman era.
e) _____ order in Greek architecture has no base to the column.
f) _____ were placed at the entrance gates in Assyrian Civilization.
g) Lad Khan Temple and Durga Temple at Aihole belong to _____ Dynasty.

Q.2 Write short notes on (Any Three) **15**

a) The Greek Agora
b) Buddhist Vihara
c) The Basilicas of Roman civilization
d) Hypostyle hall of Egyptians

Q.3 Answer in brief with detailed sketches (Any Four) **48**

a) Explain the Great Stupa at Sanchi in India with the help of sketches.
b) Describe in detail - Great Pyramid of Giza with necessary Plans, sections?
c) Draw a neat sketch - plan and elevations of Greek temple Parthenon, explain the same in detail.
d) With the help of neat sketches, explain construction technique adopted by Romans.
e) Explain with detailed sketch Durga Temple at Aihole.

SLR-HF-601

Seat No.	

Set P

B. Architecture (Semester - IV) Examination: Oct/Nov-2022
Environmental Studies

Day & Date: Sunday, 12-02-2023 Max. Marks: 40
Time: 03:00 PM To 05:00 PM

सूचना : 1) सर्व प्रश्न अनिवार्य आहेत.
2) उजवीकडील अंक पूर्ण गुण दर्शवितात.

प्र.1 खालील दिलेले योग्य पर्याय निवडून गाळलेल्या जागा भरा. **08**

1) 'पर्यावरण' हा शब्द ––– भाषेतून आला आहे.
अ) फ्रेंच ब) रोमन
क) लॅटिन ड) ग्रीक

2) ––– येथे पहिली जागतिक पर्यावरण परिषद भरली होती.
अ) मुंबई ब) स्टॉकहोम
क) लंडन ड) टोकिओ

3) सहारा हे ––– परिसंस्थेचे उदाहरण आहे.
अ) सागरी ब) गवताळ प्रदेश
क) जंगल ड) वाळवंटी

4) ऊर्जेचा प्राथमिक स्त्रोत ––– हा आहे.
अ) जलविद्युत ब) सागरी लाटा
क) सूर्य ड) वारा

5) भारतात वन्यजीव संरक्षण कायदा ––– साली संमत झाला.
अ) 1971 ब) 1972
क) 1974 ड) 1976

6) ––– या प्रूषणामूळे सागरीजीव धोक्यात येतात.
अ) भूमी ब) हवा
क) जल ड) ध्वनी

7) भारतातील ––– हा प्रदेश जैवविविधतेने समृध्द आहे.
अ) पश्चिम हिमालय – अरवली ब) अजिंठा – अरवली
क) पूर्व हिमालय – पश्चिम घाट ड) पूर्व घाट – कोरोमंडळ

8) ––– या दिवशी 'आंतरराष्ट्रीय ओझोन दिन' साजरा केला जातो.
अ) 16 जून ब) 16 जुलै
क) 16 ऑगस्ट ड) 16 सप्टेंबर

प्र.2 खालीलपैकी कोणत्याही चार प्रश्नांची थोडक्यात उत्तरे लिहा. **08**

अ) पर्यावरण अभ्यासाची व्याख्या लिहा.
ब) वाळवंटी परिसंस्थेतील जैविक घटक
क) नैसर्गिक साधनसंपत्तीचे प्रकार लिहा.
ड) जैवविविधता संवर्धनाचे प्रकार लिहा.
इ) वायु प्रदुषणाचे कारणे लिहा.
ई) ओझोन क्षयाची कारणे लिहा.

प्र.3 खालीलपैकी कोणत्याही दोन प्रश्नांची उत्तरे लिहा. **08**

अ) पर्यावरण अभ्यासाचे महत्व लिहा.
ब) परिसंस्थेतील ऊर्जाप्रवाह
क) पूराची कारणे लिहा.

प्र.4 खालीलपैकी कोणत्याही दोन प्रश्नांची उत्तरे लिहा. **08**

अ) जल प्रदूषणाची कारणे व परिणाम स्पष्ट करा.
ब) जैवविविधता म्हणजे काय? जैवविविधता प्रकाराचे वर्णन स्पष्ट करा.
क) वन्यजीव संरक्षण कायदा स्पष्ट करा.

प्र.5 खालीलपैकी कोणत्याही एका प्रश्नाचे उत्तर लिहा. **08**

पर्यावरण अभ्यासाचे स्वरुप व व्याप्ती स्पष्ट करा.

किंवा

लोकसंख्या वाढीचा पर्यावरणावर होणारा परिणाम स्पष्ट करा.

SLR-HF-601

Seat No.	

Set P

B. Architecture (Semester - IV) Examination: Oct/Nov-2022
Environmental Studies

Day & Date: Sunday, 12-02-2023 Max. Marks: 40
Time: 03:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q.1 Choose the correct alternatives from the options. **08**

1) The word 'Environment' is derived from_____ language.
   a) French b) Roman
   c) Latin d) Greek

2) First World Environmental conference was held at _____.
   a) Mumbai b) Stockholm
   c) London d) Tokyo

3) Sahara is a example of _____ ecosystem.
   a) Marine b) Glassland
   c) Forest d) Desert

4) The primary source of energy is _____.
   a) Hydal energy b) Tidals
   c) Sun d) Wind

5) The 'Wildlife Protection Act' was passed in the year _____ in India.
   a) 1971 b) 1972
   c) 1974 d) 1976

6) Marine life is in danger due to _____ Pollution.
   a) Land b) Air
   c) Water d) Noise

7) In India _____ region is rich in biodiversity.
   a) Western Himalaya – Aravali
   b) Ajantha – Aravali
   c) Eastern Himalaya -Western Ghat
   d) Eastern Ghat – Koromandal

8) International Ozone Day is celebrated on _____ day.
   a) 16th June b) 16th July
   c) 16th August d) 16th September

Q.2 Attempt any four of the following questions. **08**

1) Write a definition of environmental studies.
2) Biological components of desert ecosystems.
3) Write the types of natural resources.
4) Write the types of biodiversity conservation.
5) write the causes of air pollution.
6) Write the causes of ozone depletion.

Q.3 Attempt any two of the following questions. **08**

1) Write the importance of environmental studies.
2) Energy flow in the ecosystem
3) Write down the reasons for the flood.

Q.4 Attempt any two of the following questions. **08**

1) Explain the causes and effects of water pollution.
2) What is biodiversity? Explain the type of biodiversity.
3) Explain the Wildlife Conservation Act.

Q.5 Attempt any one of the following questions. **08**

1) Explain the nature and scope of environmental studies.
2) Explain the impact of population growth on the environment.

SLR-HF-650

Seat No.		Marks Obtained		Signature of Examiner		Signature of Junior Supervisor	

B. Architecture (Semester - II) (First Year) Examination: Oct/Nov-2022
Democracy, Elections and Good Governance

Day & Date: Sunday, 26-03-2023 Max. Marks: 50
Time: 03:00 PM to 05:00 PM

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Answer

Q.1 Choose the correct alternatives from the options and rewrite the sentence.

1) The word democracy is derived from the Greek words Demos and Kratos. The meaning of Demos is _____ and Kratos means _____.
a) people and rule b) animal and God
c) God and Saints d) none of these

2) A system of welfare and redistribution aimed to narrow social inequalities is called _____.
a) bureaucracy b) aristocracy
c) democracy d) technocracy

3) Direct democracy is also known as _____ democracy.
a) participatory b) representative
c) new d) negative

4) In democracy all issues in legislature, cabinet, executive and other committees are resolved through the principle of _____.
a) minority rule b) majority rule
c) leadership d) dictatorship

5) Dr. Babasaheb Ambedkar strongly advocated _____ democracy.
a) direct b) social
c) ancient d) modern

6) The principles of accountability and transparency are related to the _____.
a) bad governance b) old governance
c) mobocracy d) good governance

7) Indians can seek information from _____ under the Right to Information Act.
a) private companies b) government officials
c) multinational companies d) all of these

8) There are _____ elected members in Maharashtra Vidhansabha.
a) 75 b) 200
c) 288 d) 388

9) There are _____ tiers of Indian government.
a) four b) three
c) two d) five

10) The Mahatma Gandhi National Rural Employment Guarantee Act is the example of the largest _____ scheme of its kind in the world.

a) political b) social welfare
c) populist d) election

11) Which among the following is not the principle of democracy?

a) Government by consent b) Public Accountability
c) Rule of Law d) Dictatorship

12) The free and fair elections were conducted, at regular interval, in India except in _____.

a) 2014 b) 1977
c) 1967 d) 2000

13) Balwantrai Mehta and Ashok Mehta committee are related to _____ in India.

a) G.S.T. b) Parliament
c) State Governments d) Panchayati Raj institutions

14) The ancient Indian book Arthshastra highlighted the principle of Good Governance. Who is the author of Arthshashtra?

a) Ramchandran b) Kautilya
c) Mandan Mishr d) Kalidas

15) “Freedom, Equality and Fraternity” was the battle cry of the _____ revolution.

a) Indonesian b) French
c) American d) Russian

16) The Right to ___ is the example of transparency and accountability.

a) Information b) Property
c) Assembly d) Religion

17) Democracy is also considered as the _____ government which means government by law rather than by men.

a) Constitutional b) forceful
c) Whims and fanciful d) dictatorial

18) Public Accountability means the representative must remain ____ to the people.

a) opposite b) irresponsible
c) answerable d) all of these

19) Freedom, equality and fraternity are the core values of _____ democracy.

a) Old b) Greek
c) Social d) Foreign

20) The political process by which the administrative authority and responsibilities are transferred from central government to the local government is known as _____.

a) decentralization b) centralization
c) dictatorship d) interference

21) Criminalization of politics is the basic _____ before the democracy in India.

a) need b) challenge
c) qualification d) boon

22) The opportunities for political participation are minimal to _____ in India

a) women b) leaders
c) rich people d) none of these

23) Loksabha has _____ members which are directly elected by the people.

a) 555 b) 250
c) 288 d) 543

24) Solapur city comes under the jurisdiction of ____.

a) Municipal Corporation b) Village Panchayat
c) Municipal Council d) Panchayat Samiti

25) In the local governments of India one third of the seats are reserved for _____.

a) women b) fisher folks
c) migrated workers d) construction workers

26) _____ is the miniature of the Parliament of India at the grassroots level.

a) Loksabha b) Vidhan Parishad
c) Gram Sabha d) Rajya Sabha

27) What is the fee for getting information under Right to Information Act?

a) Rs. 100 b) Rs. 50
c) Rs. 10 d) Rs. 25

28) Which among the following is not the key dimension of good governance?

a) Accountability
b) Legal framework for management
c) Information and Transparency
d) Private sector management

29) Which of the following is the example of legislation with a view to achieve good governance in India?

a) Right to Information Act
b) Mahatma Gandhi National Rural Employment Guarantee Act
c) Right to Education Act
d) All of the above

30) The _____ constitutional amendment recognised and created legal conditions for Panchayati Raj in rural India.

a) 73^{rd} b) 74^{th}
c) 42^{nd} d) 111^{th}

31) If the fundamental rights are abridged by any individual or the state, any Indian citizen can move the _____.
a) Supreme Court or the High Courts
b) Parliament
c) Government
d) Law ministry

32) One of the principles of democracy is constitutional government. It means government by _____.
a) King b) Men
c) Law d) Prime-minister

33) The Right to _____ Act aims at good governance by ensuring the much needed transparency and accountability amongst public authorities.
a) Property b) Religion
c) Information d) None of these

34) The Constitution guarantees _____fundamental rights to Indian citizens.
a) Ten b) Six
c) Eleven d) two

35) Direct democracy was started in _____ in 3rd century B.C
a) Athens b) India
c) England d) U.S.A.

36) In representative democracy the process of _____ links the government and the people.
a) corruption b) dictatorship
c) election d) economics

37) Fundamental rights are enshrined in the _____ of Indian constitution.
a) Part 73 b) Part III
c) 42nd amendment d) concurrent list

38) Casual workers, Fisher folks and construction labourers are considered as _____ sections of India.
a) rich b) ruling
c) marginalized d) none of these

39) Social Democracy aims to promote _____.
a) bureaucracy b) social justice
c) educated d) inequality

40) Indirect democracy is also called as _____ democracy.
a) representative b) bad
c) worst d) direct

41) Which of the following is not the fundamental right?
a) Right to Freedom
b) Right to Property
c) Right to Equality
d) Right to Freedom of Religion

42) According to _____ Democracy is government of the people, by the people and for the people.

a) John Wood b) Abraham Lincoln
c) Mother Teresa d) Donald Trump

43) In _____democracy, citizens participated in the affairs of the state directly and had a say in the governance of the city state.

a) Indirect b) Direct
c) Indian d) none of these

44) The Right to Education makes it mandatory for the state to ensure that all children of the _____age group enroll themselves in schools.

a) 6 to 14 b) 1 to 5
c) 15 to 20 d) None of these

45) Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is one step towards implementing the provision of _____.

a) Right to Information b) Right to Education
c) Right to Work d) Right to Liberty

46) The members of Maharashtra _____ are directly elected by the people.

a) Vidhansabha b) Rajysabha
c) Vidhan Parishad d) Gramsabha

47) _____ is the example of rural local self government.

a) Village Panchayat b) Panchayat Samiti
c) Zilla Parishad d) All of these

48) Gram Sabha comprised of _____ in the village.

a) all the registered voters b) all the people
c) only male voters d) only female voters

49) _____ by all the members of society is the basic feature of good governance.

a) Equal participation b) violent participation
c) Unequal participation d) none of these

50) The Right to Information was passed in India in the year _____.

a) 2005 b) 1947
c) 1950 d) 2020