



SLR-TI – 1

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**B. Arch. (Semester – I) (CBCS) Examination, 2017
THEORY OF STRUCTURE – I**

Day and Date : Thursday, 7-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Total Marks : 70

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

1. Select the correct option for the following : 8
- 1) The Unit for Moment is
A) N B) N-m C) N/m D) m
- 2) 1 MN force is equal to _____ N
A) 10^9 B) 10^4 C) 10^6 D) 10^3
- 3) The given type of support is  _____
A) Roller B) Hinged C) Fixed D) Continuous
- 4) Lamis theorem can be applied when body is in _____
A) Ideal B) Equilibrium C) Stable D) None
2. Two forces of equal magnitude 'P' are acting at point with angle 'θ'. Calculate 'θ', if $R = P/2$. 6
3. a) Write a note on system of forces. 6
b) Five forces 100N, 200N, 300N, 500N and 600N acting away from origin in anticlockwise direction at 20° , 80° , 150° , 230° and 300° respectively along positive X-axis. Find resultant force in Magnitude and Direction. 8
4. a) State and explain different types of Supports. 6
b) Forces of 5, 6, 7, 8 and 9 N respectively are acting at one of the angular points of regular hexagon towards other five angular points taken in order. Find resultant of the system. 8

P.T.O.



5. a) Explain in detail load bearing structure and framed structure. **6**
- b) Find resultant in magnitude and direction of the following forces acting away from a point.
- 1) 25 N force acting 30° North of East
 - 2) 50 N force acting towards North of West
 - 3) 40 N force towards North
 - 4) 60 N force acting 40° towards South of West. **8**
6. a) A beam ABCD, supported at A and D such that $AB = BC = 2\text{m}$ and $CD = 4\text{m}$. Concentrated loads 25 KN and 50 KN acting at point B and C respectively and span CD subjected to UDL of 15 KN/m. Find support reactions. **10**
- b) State and explain Lami's theorem. **4**
7. a) What do you mean by perfect, imperfect and redundant frame ? Explain with example. **6**
- b) State and explain the type of foundations. **8**
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**B.Arch. (Semester – I) (CBCS Pattern) Examination, 2017
HISTORY OF ARCHITECTURE – I**

Day and Date : Saturday, 9-12-2017

Total Marks : 70

Time : 10.00 a.m. to 1.00 p.m.

Instructions : 1) Figures to the **right** indicate **full** marks.

2) Draw **neat** sketches **wherever** necessary.

3) Q. No. 1 and Q. No. 2 are **compulsory**. Solve **any four** questions from the remaining.

1. Fill in the blanks:

7

- A) Polished stone tools were used in _____ period.
- B) _____ number of vedas were composed by Aryans.
- C) The founder of Mauryan dynasty was King _____
- D) The Minoans inhabited the Greek island of _____
- E) Queen of all civilisation was _____
- F) Entrance gateway of citadel of Tyrins is known as _____
- G) Road pattern in mohenjodaro city _____

2. Write short notes on **any three**

15

- 1) Dolmen
- 2) Vedic huts and houses
- 3) Egyptian columns.
- 4) Ziggurat at Ur Nammu.

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3. What is the significance of the invention of i) fire ii) the wheel iii) agriculture in neolithic period. **12**
 4. Discuss planning features of the city of harrapa and Mohenjodaro. **12**
 5. Explain the great pyramid of cheops at giza with neat sketch along with its important architecture features. **12**
 6. Highlight the features and layout of the palace of persepolis with neat sketch. **12**
 7. Briefly describe the palace of Sargon-II at Khorshabad with neat sketch. **12**
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**B.Arch. (Semester – II) (New) Examination, 2017
ARCHITECTURAL GRAPHICS – II (CBCS Pattern)**

Day and Date : Wednesday, 29-11-2017

Max. Marks : 70

Time : 10.00 a.m. to 1.00 p.m.

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.

5) Assume suitable data not provided if any.

1. A plane cuts the object as shown in fig. A at pp1. Draw plan and sectional elevation (front side) of the cut object (scale 1 : 1). **25**
2. Draw true cut portion or development of surface of the cut object from Q. No. 1 of fig. A (scale 1 : 1). **10**
3. Draw the development of surfaces of the following objects in fig. B (scale 1 : 1) . **10**
4. Draw the isometric view of the object shown in fig. C. **15**
5. Mention the number of surface of the following object as shown in fig. D. **5**

Note : all dimensions are in cm. only.

P.T.O.



Fig. A

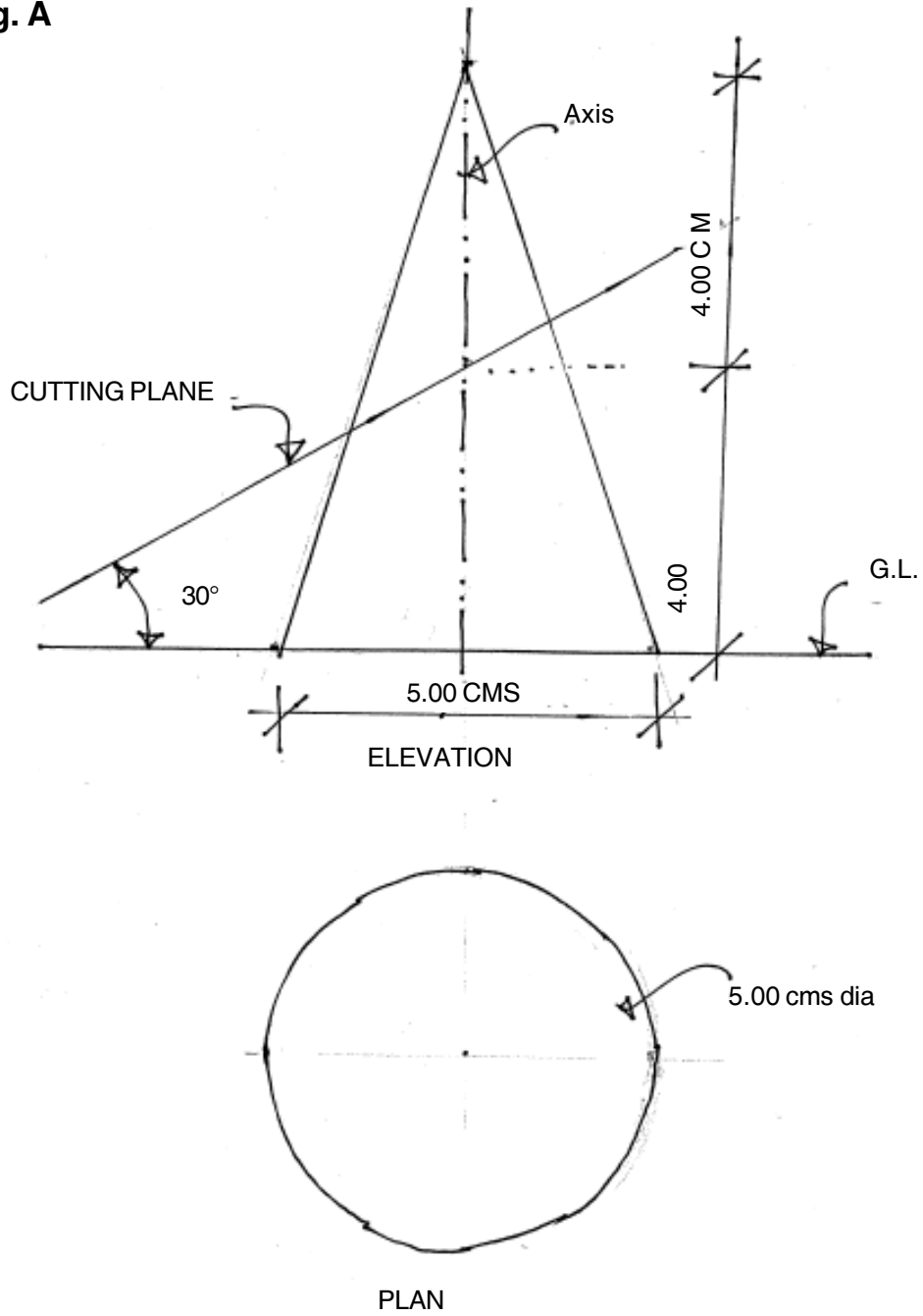




Fig. B

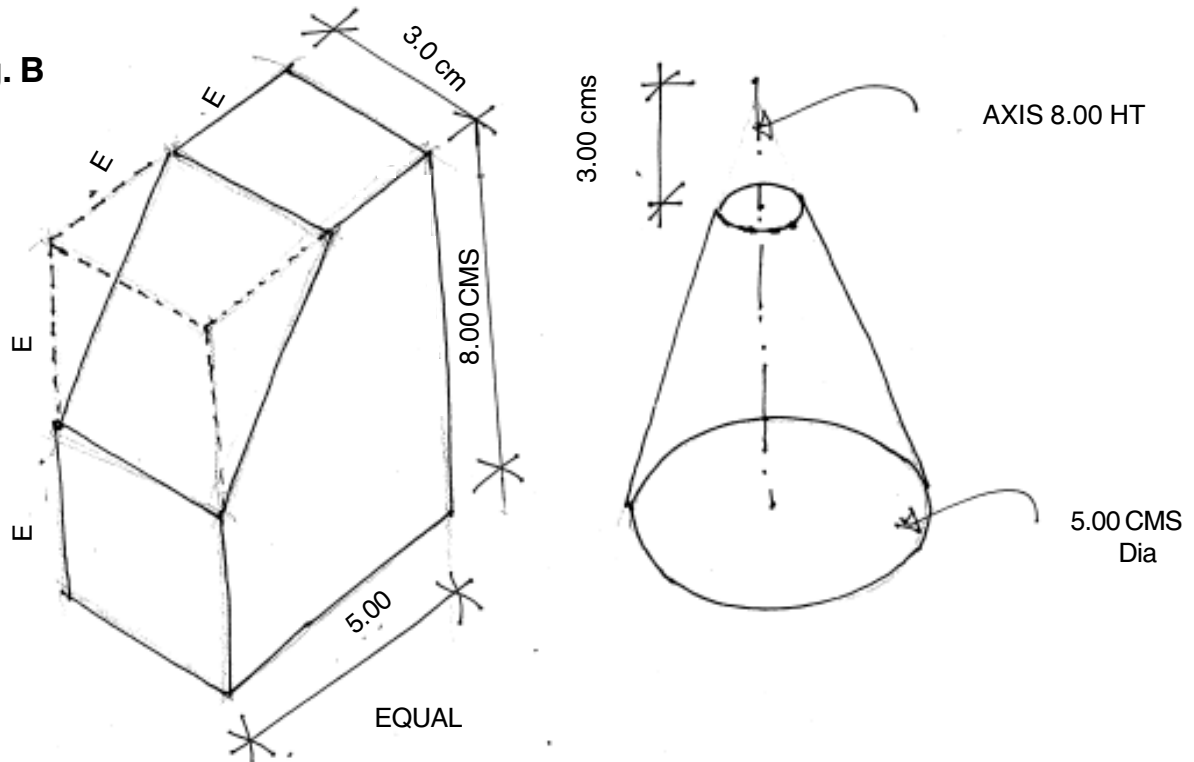


Fig. C

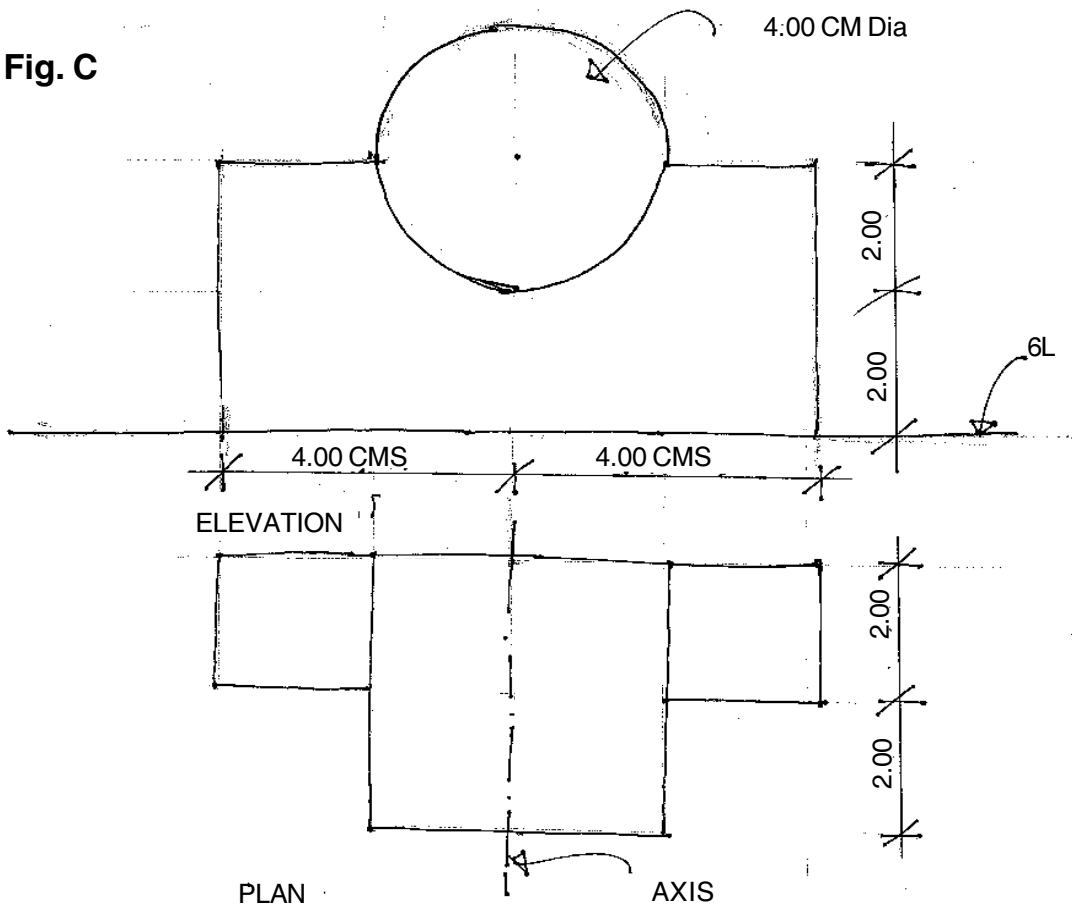
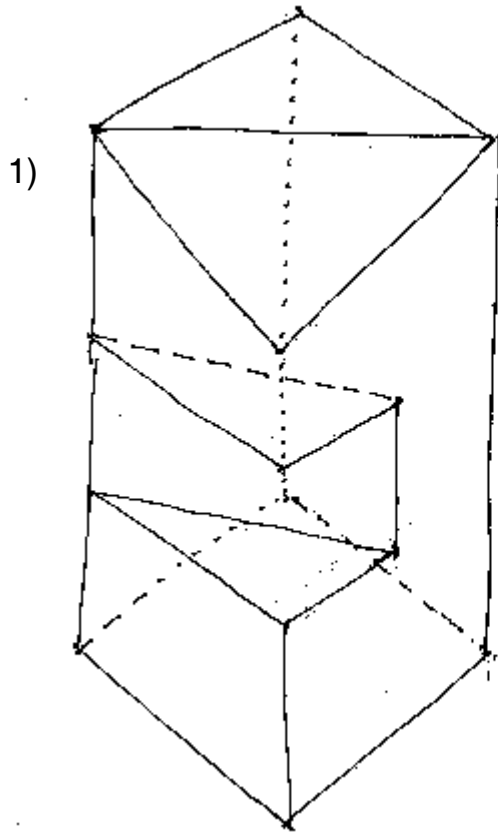




Fig. D



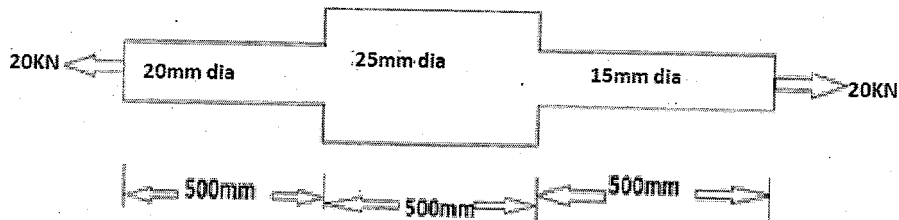
2)





3. Determine total Elongation and stresses developed in bar as shown in figure.
Take $E = 200 \text{ GPa}$.

14

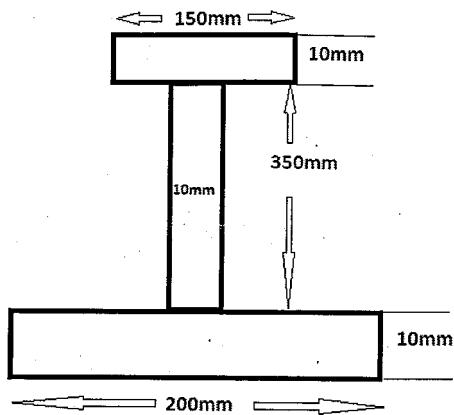


4. a) Explain Stress-Strain graph in detail.
b) What do you mean by SFD and BMD. Explain point of Contra flexure with example.
5. Calculate the moment of inertia of following section :

7

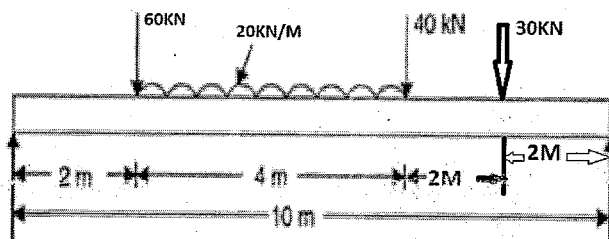
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6. Draw SFD and BMD for the following beam.

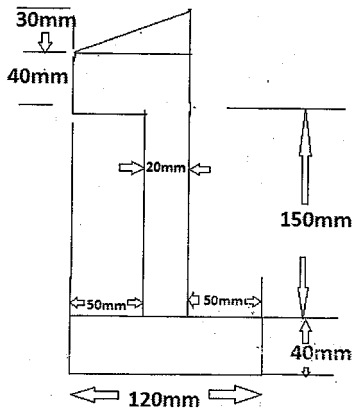
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7. a) Calculate centroid of following Section.

8



b) Explain the term :

- 1) Centre of Gravity
- 2) Poisson's ratio
- 3) Hooke's law.

6



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B.Arch. (Semester – II) Examination, 2017
HISTORY OF ARCHITECTURE – II (New CBCS Pattern)

Day and Date : Tuesday, 5-12-2017

Max. Marks : 70

Time : 10.00 a.m. to 1.00 p.m.

Instructions: 1) Question no. 1 is **compulsory**.
2) Draw **neat sketches wherever necessary**.

I. Fill in the blanks :

7

- Entablature consists of architrave, _____ and cornice.
- Column generally consists of base, shaft and _____
- Apsidal end of the church is termed as _____
- _____ support central dome in Hagia Sophia.
- _____ houses the symbol or idol of God.
- Greek temple having eight columns in front is termed as _____ temple.
- Residences of Buddhist monks _____

II. Write short notes on **(any 3)** :

15

- Ashoka Pillar
- Theatre in Greece
- Chaitya window
- Tuscan order.

III. Answer in brief with neat sketches **(any 4)** :

(12 Marks each)

- Briefly mention the background for the development of Early Christian architecture.
 - Briefly discuss the significance of Early Shrines at Sanchi.
 - What is Thermae ? Explain its function. Explain in detail the Thermae at Carcalla.
 - Briefly explain Great Stupa at Sanchi.
 - Explain any three Rathas at Mahabalipuram.
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**B.Arch. (Semester – II)(CGPA Pattern) Examination, 2017
ARCHITECTURAL GRAPHICS – II (Old)**

Day and Date : Wednesday, 29-11-2017

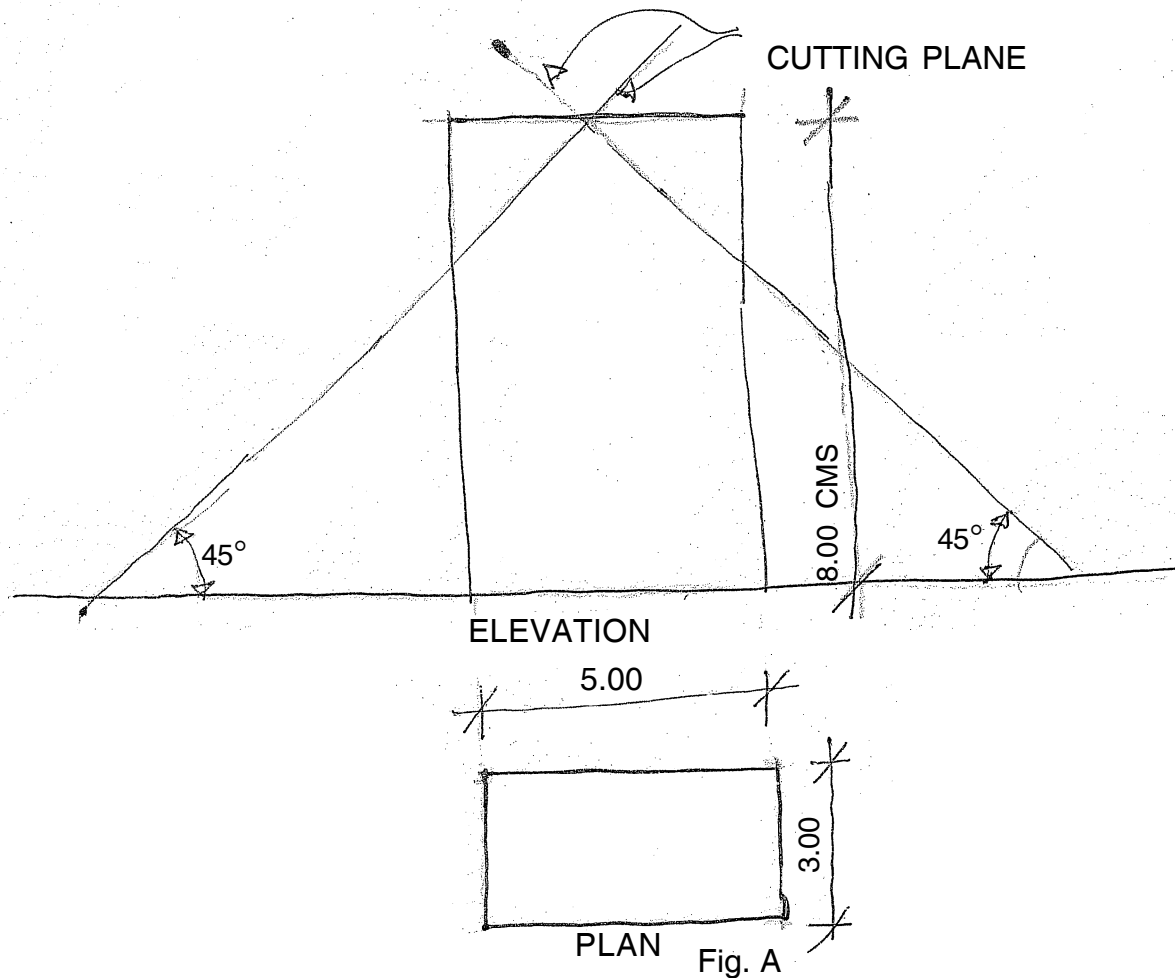
Total Marks : 70

Time : 10.00 a.m. to 1.00 p.m.

- 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.

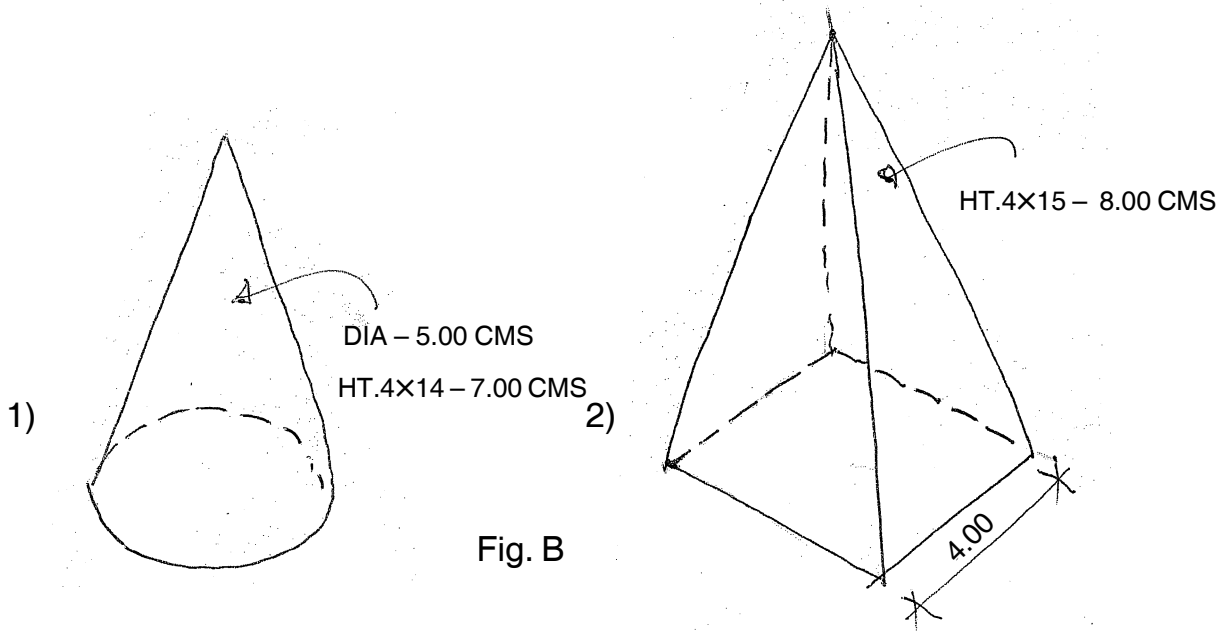
1. A plane cuts the object as shown in Fig. A at PP¹. Draw plan and sectional elevation (front side) of the cut object (scale – 1 : 1)

25





- 2. Draw true cut portion or development of surface of cut object from Q. No. 1 of Fig A. (Scale – 1 : 1). 10
- 3. Draw the development of surfaces of the following objects in Fig. B (Scale – 1 : 1). 10



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

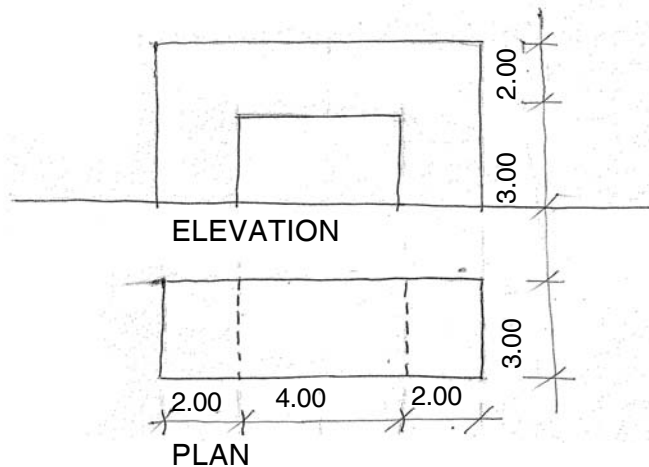


Fig. C



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

5

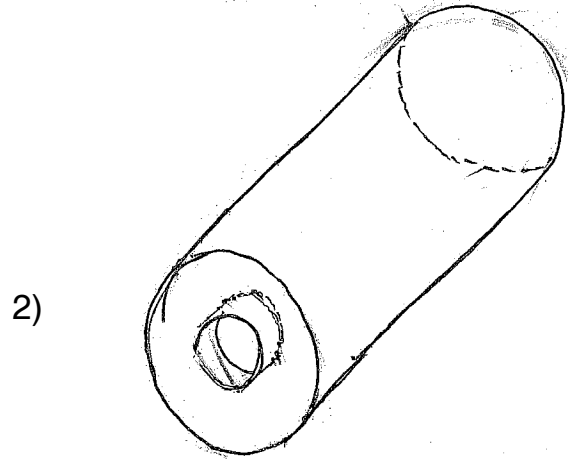
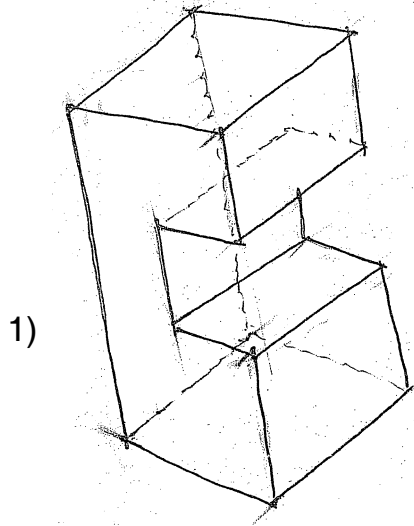


Fig. D

* All dimensions are in CMS only.



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**B.Arch. (Semester – II) (CGPA) Examination, 2017
THEORY OF STRUCTURE – II (Old)**

Day and Date : Saturday, 2-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Total Marks : 70

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

1. Select the correct option for the following :

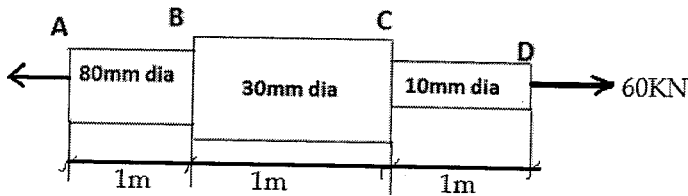
8

- 1) The point at which the whole weight of body acts is called
 - a) Moment
 - b) Section Modulus
 - c) Centre of Gravity
 - d) None
- 2) Radius of Gyration = _____
 - a) $R = \sqrt{I^2/A}$
 - b) $R = \sqrt{I/A^2}$
 - c) $R = \sqrt{I^2/A^2}$
 - d) $R = \sqrt{I/A}$
- 3) The property of undergoing deformation without rupture is known as _____
 - a) Metability
 - b) Ductility
 - c) Plasticity
 - d) Elasticity
- 4) The ratio of direct stress to volumetric strain is known as
 - a) Bulk modulus
 - b) Shear strain
 - c) Modulus of Elasticity
 - d) None of above

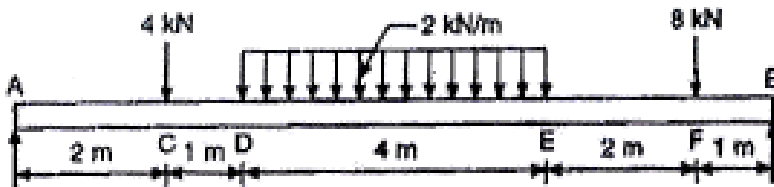
P.T.O.



2. Derive formula for Rectangular section for Moment of Inertia _____ **6**
3. a) What is Strain ? State and explain different types of Strain. **8**
 b) Explain following terms :
 1) Elasticity
 2) Young's Modulus
 3) Poisson's ratio. **6**
4. A bar is stretched to axial tensile force of 60 KN. Calculate total Elongation if $E = 1.5 \times 10^5$ Mpa. Also calculate stress in AB, BC, CD _____ **14**



5. a) Explain in detail stress-strain graph. **7**
 b) What do you mean by SFD and BMD. Explain Simply supported beam with centre point load as an example. **7**
6. Draw the SFD and BMD for the beam : **14**



7. a) Explain in detail behavior of ductile material under tension. **10**
 b) An equilateral bar of 20 mm side and 3 m long contracts in length by 3 mm. Calculate the push on bar if modulus of elasticity $E = 2 \times 10^5$ Mpa. **4**



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**B. Arch. (Semester – II) Examination, 2017
HISTORY OF ARCHITECTURE – II (Old CGPA Pattern)**

Day and Date : Tuesday, 5-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Max. Marks : 70

Instructions : 1) Question no. 1 is **compulsory**.
2) Draw **neat sketches wherever necessary**.

I. Fill in the blanks.

7

- Constantine declared _____ as a state religion.
- Ladkhan and Durga temple are examples of _____ architecture.
- _____ period in Indian history deserves the name Golden Age of Indian art.
- Public Bath in Imperial Rome _____
- Column generally consists of base, shaft and _____
- Great Church Hagia Sophia is situated in _____
- Greek temple having eight columns in front is termed as _____ temple.

II. Write short notes on (**any 3**) :

15

- Trajans Column.
- Dharmaraj Ratha.
- Agora at Greece.
- Vihara no. 1 at Ajantha.

III. Answer in brief with neat sketches (**any 4**) :

(12 marks each)

- Explain the Old St. Peter's Rome with the help of a neat sketch.
 - Write in brief about Pantheon temple, Rome.
 - Explain Buddhist rock-cut architecture with suitable example.
 - Briefly discuss the significance of Durga temple at Aihole with the help of a neat sketch.
 - Explain any three Rathas at Mahabalipuram.
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Set **P**

B.Arch. (Semester – III) (CBCS) Examination, 2017
BUILDING SERVICES – I (New)

Day and Date : Tuesday, 28-11-2017

Max. Marks : 70

Time : 3.00 p.m. to 6.00 p.m.

Note: 1) Question No. 1, 2 are **compulsory**.
2) Solve **any 4** questions from the remaining.

1. Fill in the blanks : 7
 - 1) The lower most level or surface of a sewer is known as its _____ .
 - 2) The pipe which is installed in house drainage to preserve the water seal of traps is called _____ .
 - 3) In _____ of sewerage the sanitary sewage and storm water are carried in separately in two sets of sewers.
 - 4) Sewers should be laid at sufficient slope to develop _____
 - 5) The _____ generally of a bent tube which provides a water seal between the atmosphere and the sewer gases.
 - 6) The sewerage system originates from _____ .
 - 7) An _____ is provided at the junction of a house sewer and municipal sewer.
 2. Short notes (**any 3**) : 15
 - 1) Bath tub
 - 2) Oil and Grease Trap.
 - 3) Smoke test
 - 4) Street inlet.
 3. Explain with the help of neat sketch various systems of plumbing. 12
 4. Explain combined and separate system drainage system. 12
 5. Discuss the methods of testing the pipes carrying sewage. 12
 6. State and explain the general principles governing the design of building drainage. 12
 7. Explain the necessity of providing manhole in sewer line. Explain manhole with the help of neat sketch. 12
-



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Set **P**

**B. Arch. (Semester – III) (New) Examination, 2017
(CBCS Pattern)**

ARCHITECTURAL GRAPHICS – III

Day and Date : Thursday, 30-11-2017

Max. Marks : 70

Time : 3.00 p.m. to 6.00 p.m.

N. B. : 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 quality.*

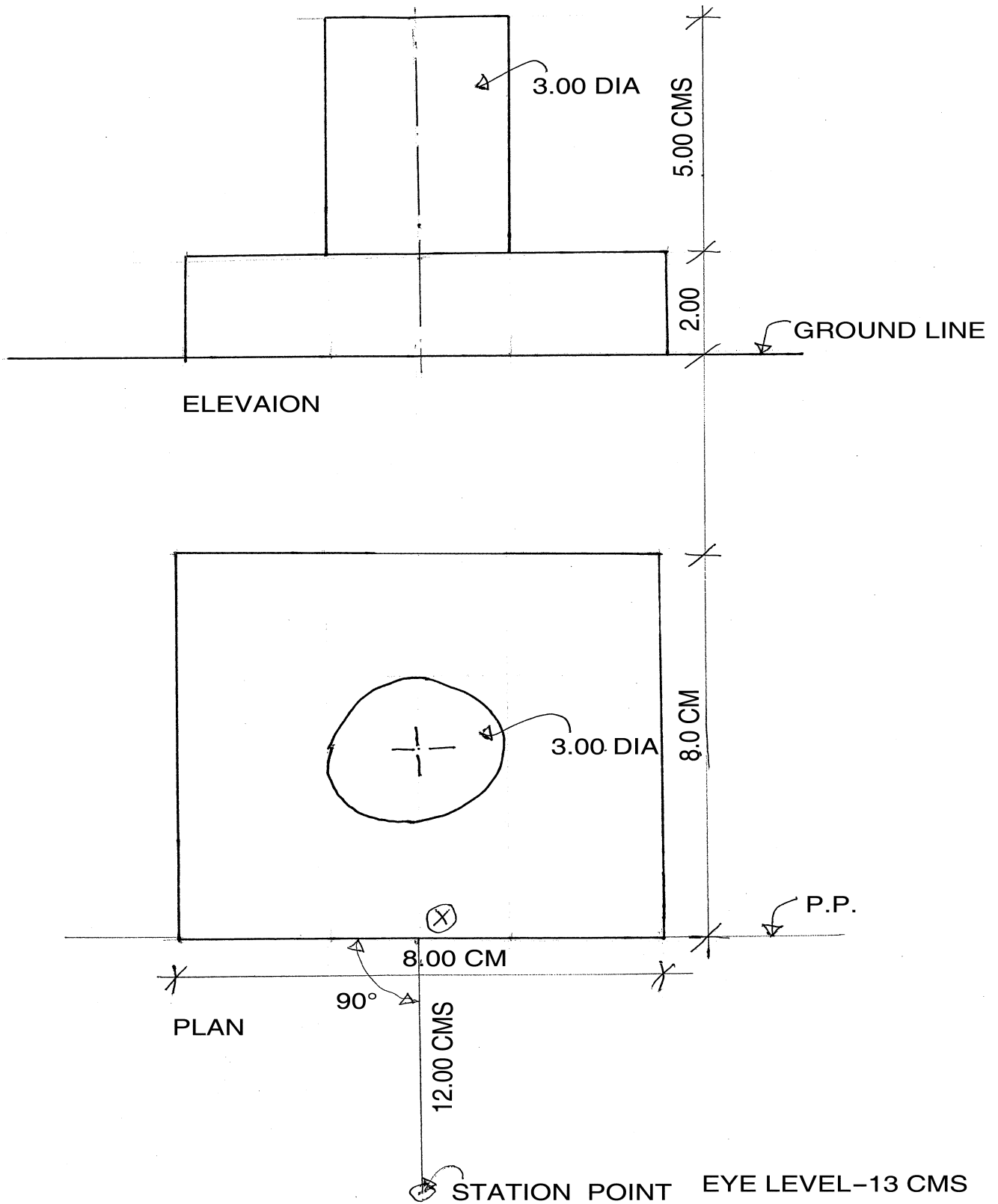
5) *Make suitable assumptions **wherever** required.*

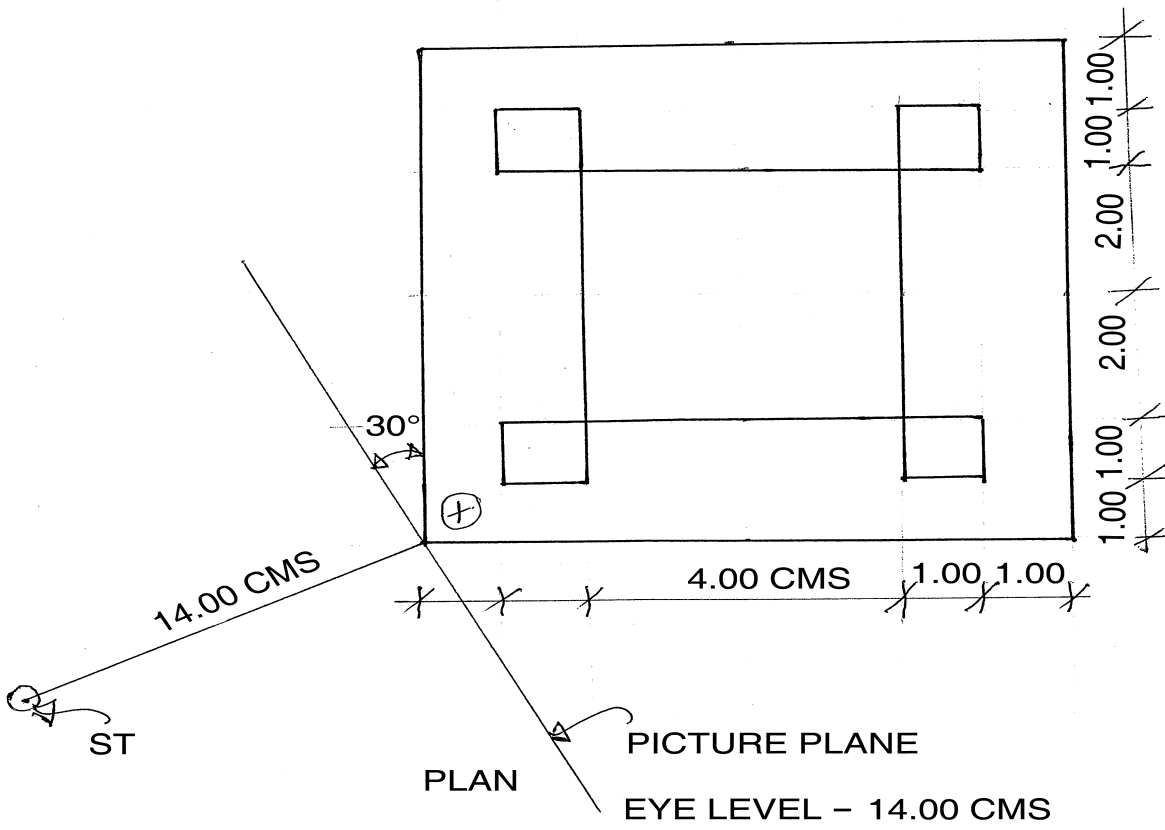
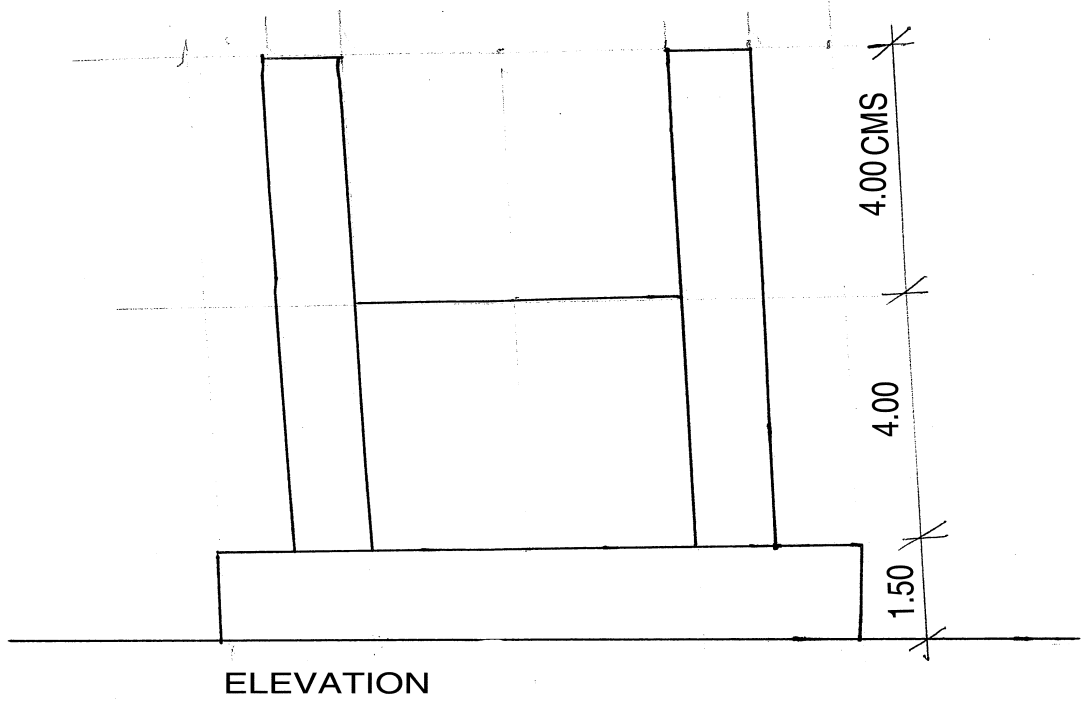
1. Draw one point perspective view for the object given below by observing following points/conditions. (Figure – A). **20**
2. Draw two point perspective view for the object given below by observing following points/conditions (Figure – B). **25**
3. Draw shade and shadow for the object (Figure – C) in plan and elevation considering the source of light is in conventional direction on the vertical and horizontal planes of the object. **20**

P.T.O.



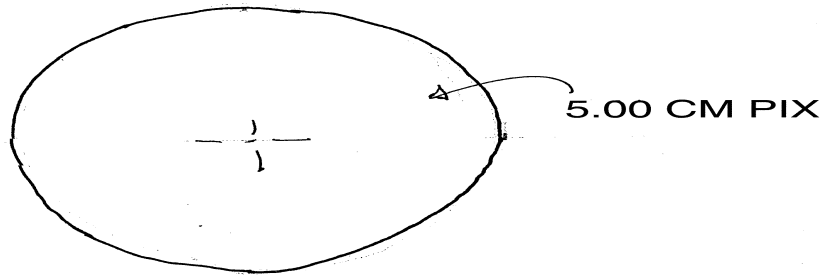
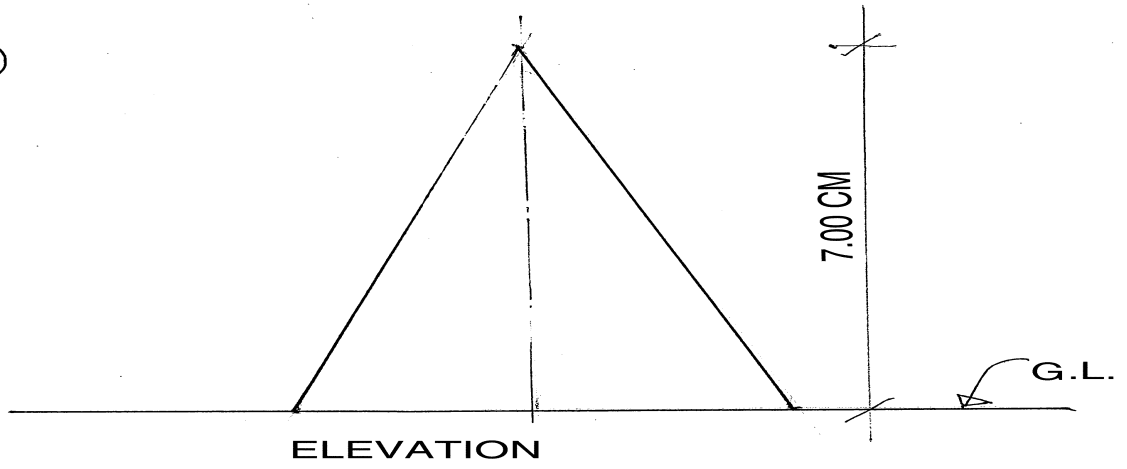
-2-
(Figure - A)





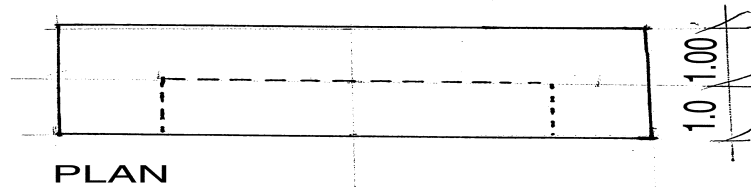
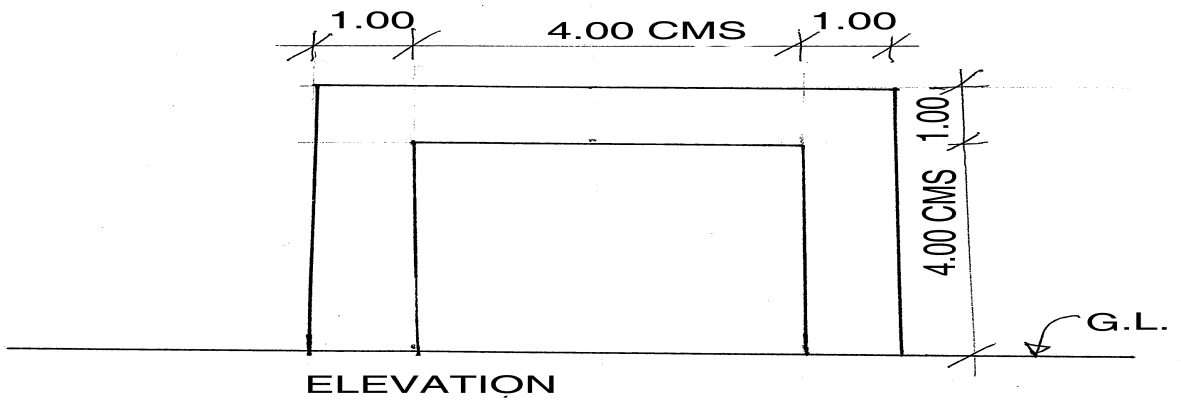


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B.Arch. – II (Semester – III) (New CBCS) Examination, 2017
CLIMATOLOGY AND ENVIRONMENT – I

Day and Date : Monday, 4-12-2017
Time : 3.00 p.m. to 6.00 p.m.

Max. Marks : 70

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

1. Choose the correct option from the following :

7

1) Thermal balance exists when

- a) $Met + Evp + Cnd - Cnv$ b) $Met - Evp \pm Cnd \pm Cnv$
c) $Met \pm Evp \pm Cnd \pm$ d) None of these

2) Summer solstice for north hemisphere is on

- a) 21st June b) 23rd September
c) 22nd May d) 23rd January

3) Sub group of hot and dry desert climate is

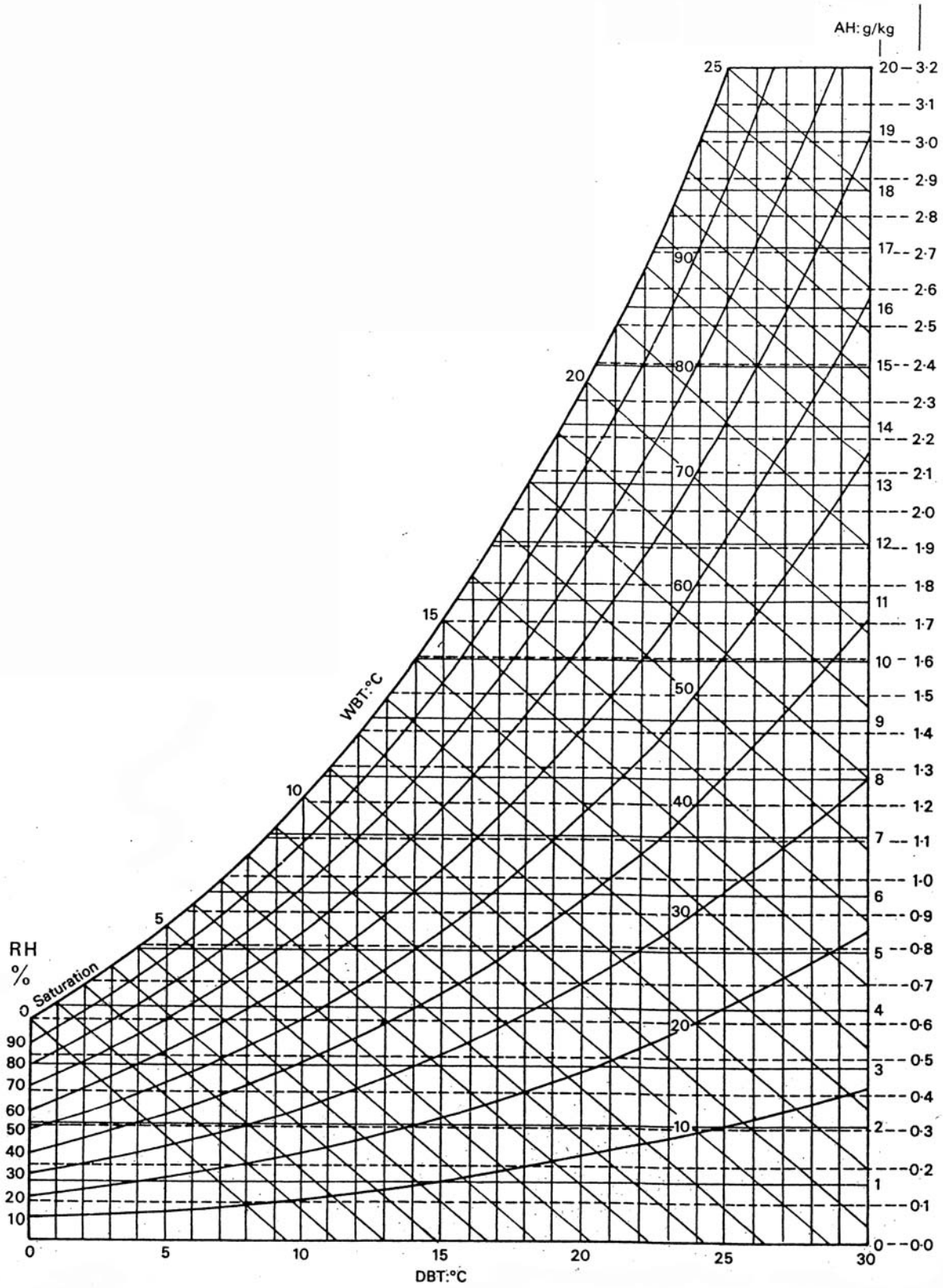
- a) Very hot and very dry b) Warm and humid
c) Hot and dry maritime d) Tropical upland

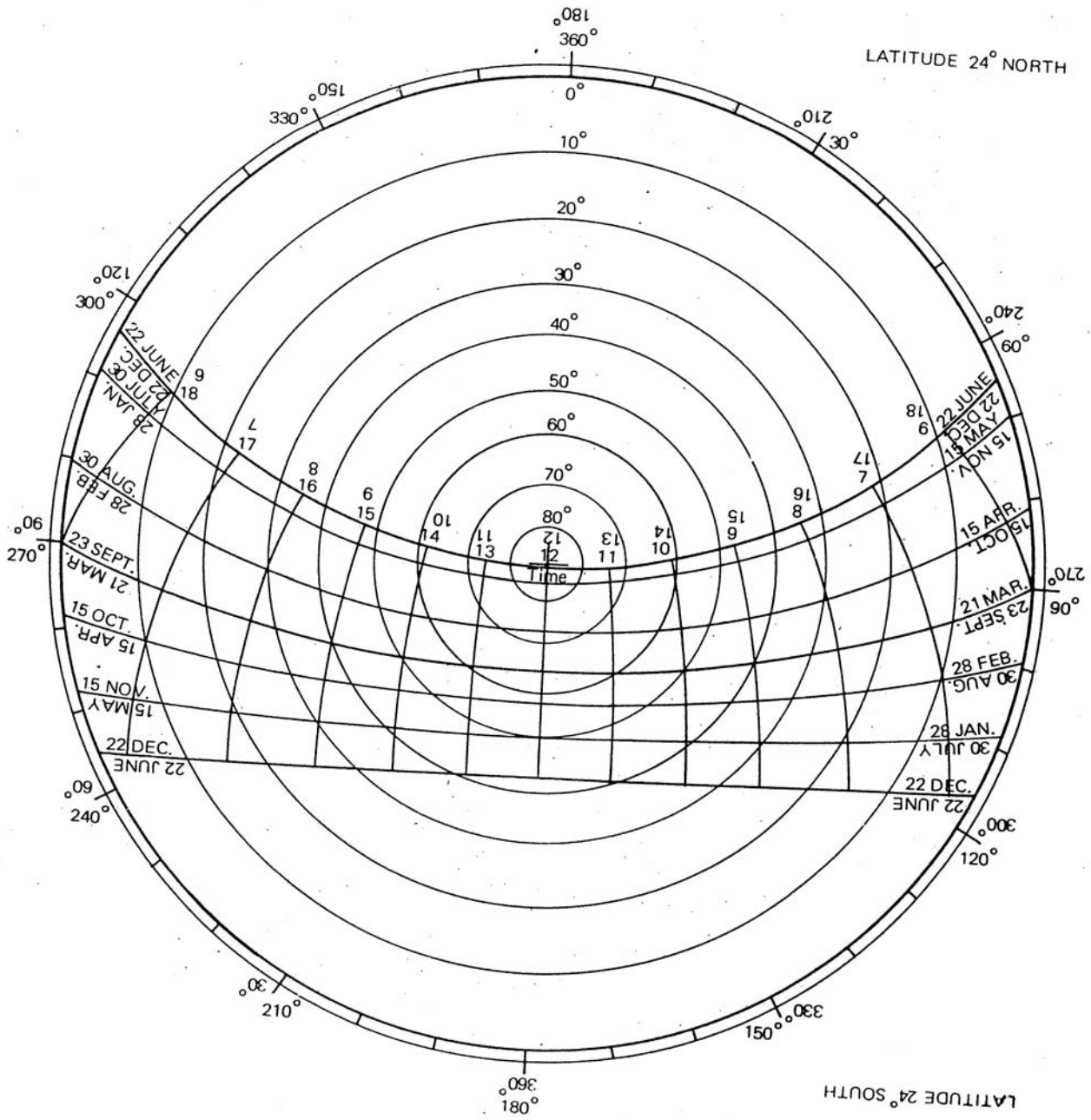
4) Evaporation depends on

- a) Humidity of air b) Sky condition
c) Driving rain d) All of the above

5) Relative humidity is

- a) $(SH/AH) \times 100$ b) $(AH/SH) \times 100$
c) $(SH/AH) \times 200$ d) $(AH/SH) \times 200$







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**B.Arch. (Semester – III) (CBCS) Examination, 2017
THEORY OF STRUCTURE – III (New)**

Day and Date : Wednesday, 6-12-2017
Time : 3.00 p.m. to 6.00 p.m.

Total Marks : 70

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

1. Select the **correct** option for the following : **8**
- 1) Principle Stress with greater magnitude is known as _____ Principle Stress.
a) Major b) Minor c) Both d) Greater
- 2) Maximum bending Moment for Cantilever beam with UDL over span is _____
a) wl b) $wl/4$ c) $wl^2/2$ d) $WL^2/8$
- 3) Two Hinged Arch is Statically _____
a) Perfect b) Determinate c) Indeterminate d) None
- 4) Formula for Shear Stress is $q =$ _____
a) $F \cdot Ay / I \cdot b$ b) $FA / Y \cdot I \cdot b$ c) $F \cdot Ay / I$ d) None
2. State importance of Soil Mechanics and what are different types of soils. **6**
3. a) Explain Section Modulus. Derive formula of section modulus for Hollow Rectangular Section. **6**
- b) A Cantilever beam of section 250 mm wide and 400 mm deep carries UDL of 10 KN/m over span of 4 m and carries Point load of 25KN at its free end. Draw Bending Stress Distribution Diagram. **8**

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4. a) Explain Concept Compaction and Consolidation. **4**
- b) A simply supported beam of 5m span is having 'T' section with flange 150×20 mm and web of 125×15 mm. It is subjected to shear force of 40KN. Draw shear stress Distribution Diagram. **10**
5. Write a short note on : **14**
- a) One hinged Arch, Two Hinged Arch, Three Hinged Arch.
- b) Derive formula- $M/I=F/Y=E/R$.
6. A continuous beam ABC of uniform section, with span AB as 8 m and BC as 6 m, simply supported at AB and BC. The beam is carrying a uniformly distributed load of 5KN/m over span AB and carries Point Load of 40KN at centre of Span BC. Find moments along the beam and reactions at supports. Also draw shear force diagram and bending moment diagram. **14**
7. a) Explain in short following terms :
- A) Angle of Obliquity.
- B) Resultant Stress.
- C) Major Principal Stress.
- D) Minor Principal Stress. **8**
- b) A plane element of a body is subjected to a compressive stress of 200 MPa in x-x direction and tensile stress 100 MPa in the y-y direction. Each of above stresses is subjected to shear stress of 100 MPa such that when it is associated with compressive stress, it tends to rotate in anticlockwise direction. Find Normal and Shear Stress on a plane inclined at angle 45° with x-x axis. **6**
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B.Arch. (Semester – III) (New CBCS Pattern) Examination, 2017
HISTORY OF ARCHITECTURE – III

Day and Date : Friday, 8-12-2017
Time : 3.00 p.m. to 6.00 p.m.

Total Marks : 70

1. Fill in the blanks : (1×7=7)
- 1) Circumbulatory passage on Hindu temple is termed as _____
 - 2) The temple Shikharas used _____ technique for its building.
 - 3) The _____ is the central aisle of a church.
 - 4) The vestibule or the intermediate chamber between mandapa and garbha griha is known as _____
 - 5) The plinth or a platform of the temple is known as _____
 - 6) North Indian temples are also known as _____
 - 7) Lingraja Temple is dedicated to Lord _____
2. Write short notes on (**any three**) : (3×5=15)
- 1) Sabhamandapa
 - 2) Choumukha temple
 - 3) Gopuram
 - 4) Gothic buttresses.
3. Explain with neat sketch (**any four**) : (4×12=48)
- 1) Vaikuntha Perimul Temple, at Kanchipuram
 - 2) Chennakeshav Temple at Belur
 - 3) Lingraja temple at Bhuvaneshwara
 - 4) West Minister, Abbey Church in London
 - 5) Kailasha Temple at Ellora.
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B.Arch. (Semester – III) (New CBCS Pattern) Examination, 2017
A) ART IN ARCHITECTURE

Day and Date : Monday, 11-12-2017
Time : 3.00 p.m. to 6.00 p.m.

Max. Marks : 70

Note : • Draw *neat sketches wherever applicable.*

1. Fill in the blanks : **(7×1=7)**
 - a) _____ is an example of ceremonial art.
 - b) _____ is a celebrated contemporary painter from India.
 - c) _____ is a famous painting by Pablo Picasso.
 - d) Gothic art developed in _____
 - e) _____ was a Mexican painter inspired by Mexican popular culture.
 - f) Tanjore painting was patronized by the _____
 - g) _____ is the common material of construction in vernacular practices of Kutch, Rajasthan.

 2. Short notes (**any five**) : **(5×3=15)**
 - a) Ceremonial arts.
 - b) Leonardo da Vinci.
 - c) Bhimbetka.
 - d) Cave dwellings, Cappadocia, Turkey.
 - e) Color and architecture.
 - f) Jaisalmer, Rajasthan.

 3. Answer in brief (**any four**) : **(4×12=48)**
 - a) Explain in brief the purpose of art in everyday life.
 - b) Explain how art and culture brings about brotherhood and economic vitality in a community.
 - c) Write a note on the any three Masters of Renaissance.
 - d) Enumerate and explain climate-responsive architecture examples.
 - e) Enumerate any four folk arts practiced in India and explain in brief on any two.
-



SLR-TI – 18

Seat No.	
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Set

P

B.Arch. – II (Semester – III) Examination, 2017
BUILDING SERVICES – I
(Old CGPA Pattern)

Day & Date : Tuesday, 28-11-2017
Time : 3.00 p.m. to 6.00 p.m.

Max. Marks : 70

- Instructions:** 1) Figures to the **right** indicates **full** marks.
2) Draw **neat** sketches **wherever** necessary.
3) Q. No. **1** and **2** are **compulsory**. Solve **any four** questions from the remaining.

1. Fill in the blanks.

7

- A) Name any one type of privy _____
- B) In _____ system of sewerage one set of sewer is laid.
- C) / _____ pipe is provided to furnish the flow of air from a drainage system.
- D) Two pit latrines popularly known as _____
- E) _____ Trap used for wash basin.
- F) A Small covered opening in a paved area allowing access beneath, especially one leading to a sewer is _____.
- G) / _____ is the waste water resulting from bathing, laundry and cleansing of utensils.

2. Write short notes on **any three**.

15

- 1) Bidet
- 2) Lamp hole
- 3) Inlets
- 4) Surface drains.

P.T.O.



3. Discuss different types of pipes used in drainage system. State there advantages and disadvantages. **12**
 4. Explain with neat sketch, traps which are classified according to shape. **12**
 5. Explain the various methods of testing of drains and pipes joints. **12**
 6. Define antisiphonage pipe. Where and why it is used ? **12**
 7. Explain with neat sketch the construction, working and function of septic tank. **12**
-



SLR-TI – 19

Seat No.	
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Set **P**

**B.Arch. (Semester – III) (Old CGPA) Examination, 2017
(CGPA Pattern)
ARCHITECTURAL GRAPHICS – III**

Day and Date : Thursday, 30-11-2017
Time : 3.00 p.m. to 6.00 p.m.

Max. Marks : 70

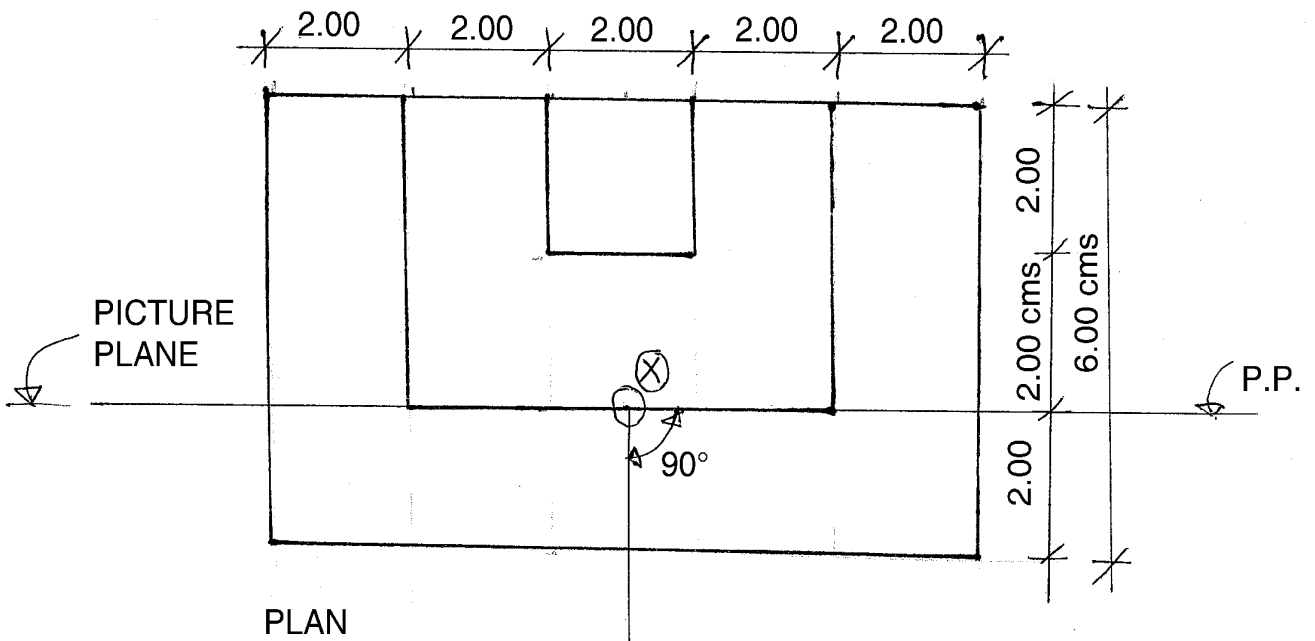
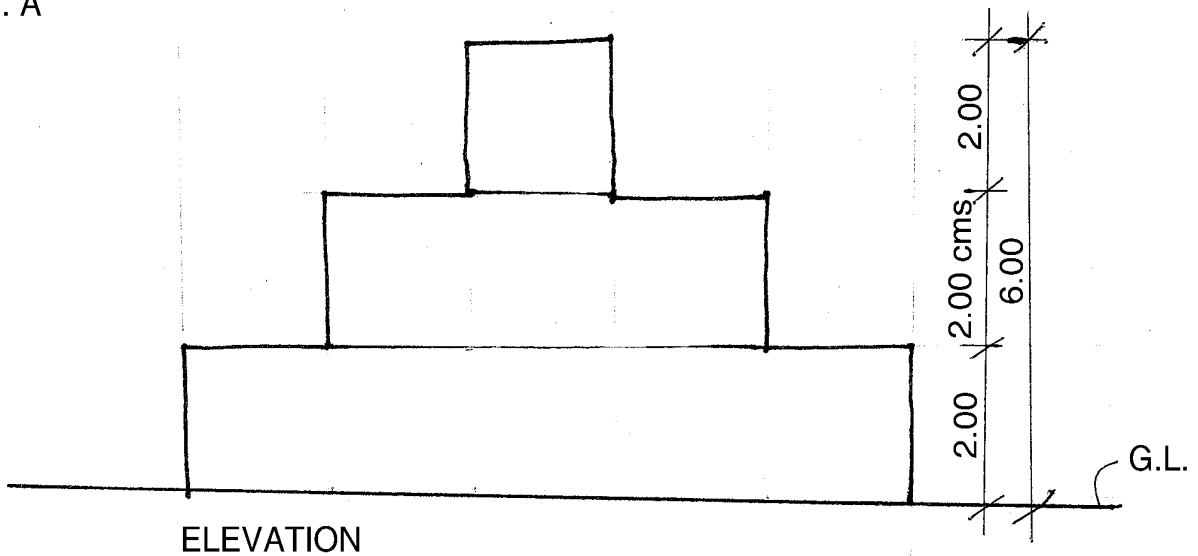
- N. B. :**
- 1) **All questions are compulsory.**
 - 2) **Retain all construction lines.**
 - 3) **Figures to the right indicate full marks.**
 - 4) **Five marks are reserved for neatness and good drafting quality.**
 - 5) **Make suitable assumptions wherever required.**
- (Note : All Dimensions are in Centimeter)**

1. Draw one point perspective view for the object given below by observing following points/conditions (Figure – A). **20**
2. Draw two point perspective view for the object given below by observing following points/conditions (Figure – B). **25**
3. Draw shade and shadow for the object (Figure – C) in plan and elevation considering the source of light is in conventional direction on the vertical and horizontal planes of the object. **20**

P.T.O.

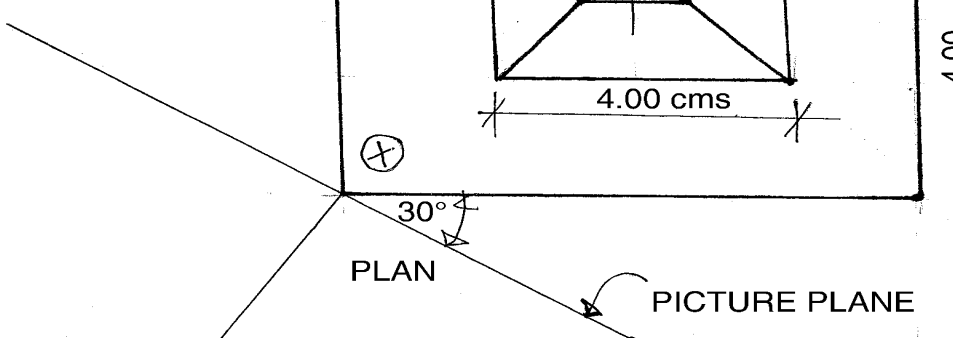
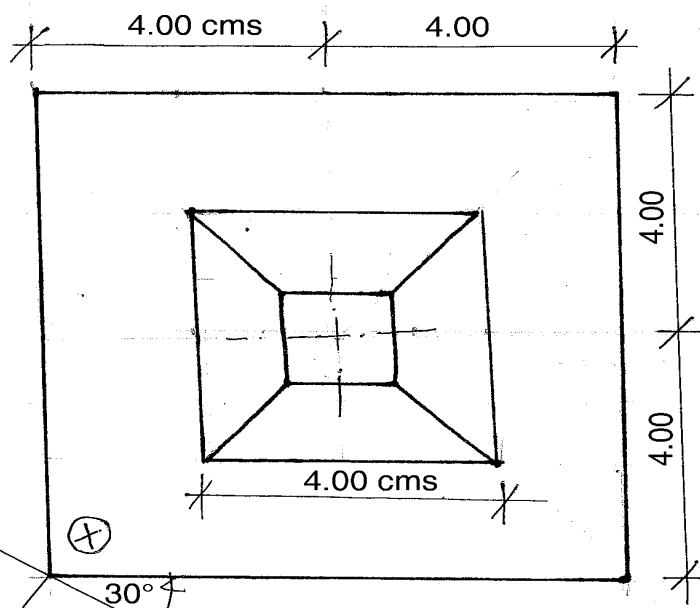
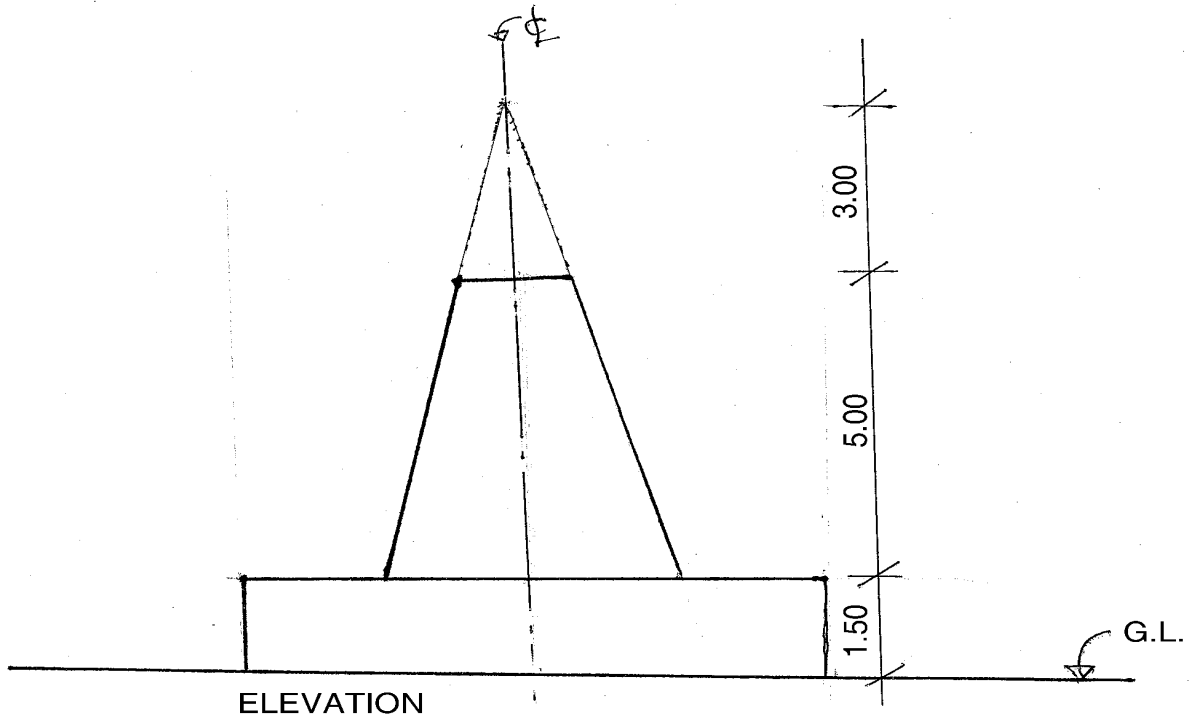


Fig. A



S.P. = 12.00 cms
EYE LEV = 15.00 cms

S.P.

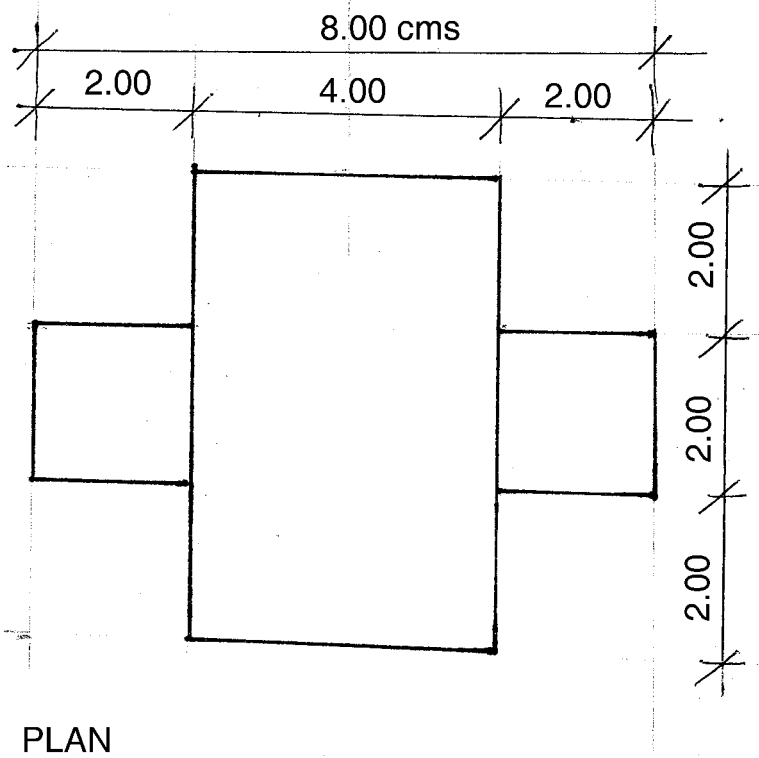
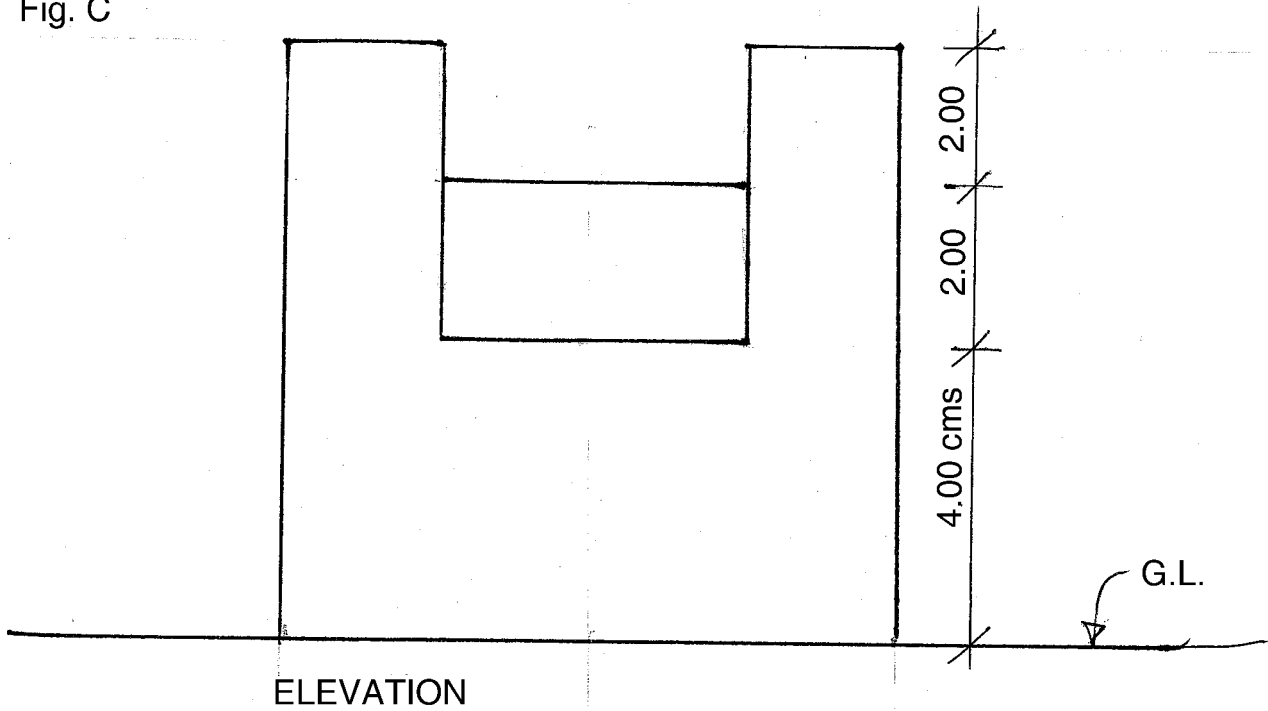


S.P. = 13.00 cms
EYE LEV = 14.00 cm

S.P.



Fig. C





SLR-TI – 20

Seat
No.

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Set

P

**B.Arch. (Semester – III) (CGPA) (Old) Examination, 2017
CLIMATOLOGY AND ENVIRONMENT – I**

Day and Date : Monday, 4-12-2017

Max. Marks : 70

Time : 3.00 p.m. to 6.00 p.m.

Instructions : 1) Make suitable assumptions **wherever** necessary and mention in your Answer Book.

2) Figures to **right** indicate **full** marks.

3) **All** questions are **compulsory**.

1. Fill in the blanks :

7

1) Wind velocity is measured by _____

- a) Pitot tube
- b) Wind gauge
- c) Wind graph
- d) Bioclimatic chart

2) _____ is measured by Stevenson screen.

- a) DBT
- b) WBT
- c) Radiation
- d) Humidity

3) _____ is due to heat transmission from body to air in contact with skin.

- a) Evaporation
- b) Reflection
- c) Convection
- d) None of the above

4) SI unit of radiation is _____

- a) w/m^2
- b) Btu
- c) w/hr
- d) None of the above

P.T.O.

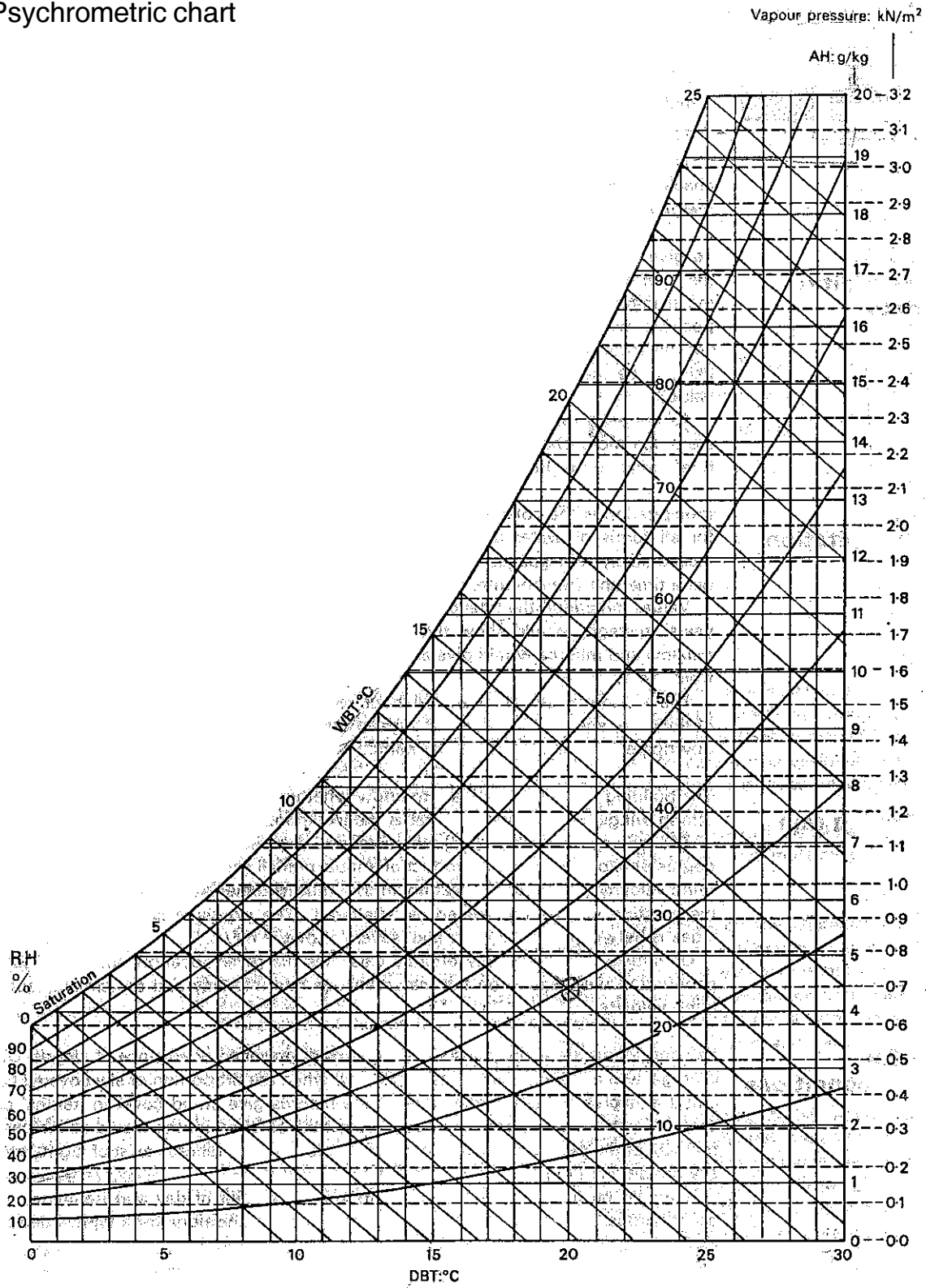


- 5) Temperature is measured in _____
- a) Degree Celsius
 - b) BTU
 - c) Watts
 - d) Celsius
- 6) Air temp (DBT) at day time varies between _____ degC in hot and dry climates.
- a) 32-43
 - b) upto 27
 - c) 21-27
 - d) Nov-22
- 7) Interval or difference between temperature is _____
- a) degC
 - b) °C
 - c) deg
 - d) none of above

2. Write short note on **any 3** : **15**
- 1) The Stevenson Screen
 - 2) Warm and Humid Climate
 - 3) Heat island effect
 - 4) Cosine law.
3. A) Explain Calm, Warm Air, Moderate Humidity. **6**
B) Explain Body's Heat Loss. **6**
4. Explain Global Wind Pattern. **12**
5. A) Find VP, RH, WBT when AH 8 g/kg DBT 20 C. **5**
B) Explain effective temperature. **7**
6. Explain composite climate with its parameters. **12**



Psychrometric chart





Seat No.	
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Set	P
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**B.Arch. (Semester – III) (CGPA) Examination, 2017
THEORY OF STRUCTURE – III (Old)**

Day and Date : Wednesday, 6-12-2017
Time : 3.00 p.m. to 6.00 p.m.

Total Marks : 70

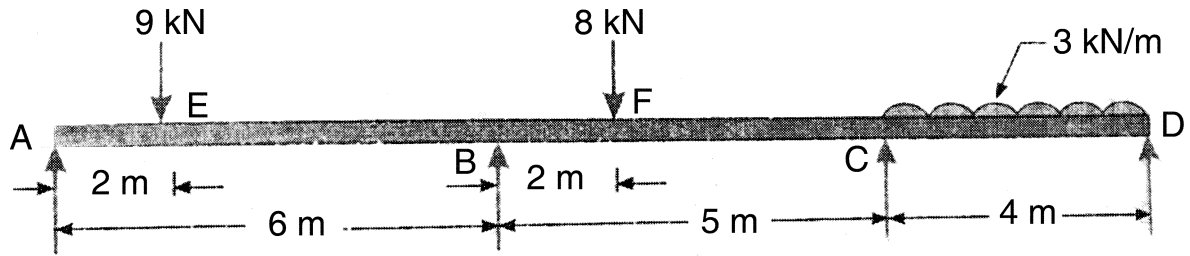
- Instructions :** 1) Use of scientific calculator is **allowed**.
2) Q. No. 1 and 2 are **compulsory**. From remaining questions solve **any four**.
3) Figures to the **right** indicates **full** marks.
4) Assume suitable data **if necessary**.

1. Select the correct option for the following : **8**
- 1) Flexural formula is
a) $M/I = F/Y = E/R$ b) $F \cdot A_y / I_b$ c) Both d) None
- 2) Maximum bending moment for simply supported beam with UDL over span is
a) wl b) $wl/4$ c) $wl/2$ d) $WL^2/8$
- 3) Unit of stress is
a) N/sqmm b) Nsqmm c) N-mm d) None
- 4) If shear force along section of beam is zero, the bending moment at section is
a) Zero b) Maximum c) Minimum d) None
2. Explain earth pressure at rest, active earth pressure, passive earth pressure. **6**
3. a) Explain modulus of section. Derive formula of section modulus for solid rectangular section. **6**
- b) A cantilever beam of rectangular section supports a point load of 10 kN at free end. Span of beam is 2 m. Maximum bending stress is 100 N/sqmm. Determine size of beam if depth = 2 * breadth. **8**
4. a) Explain assumption made in theory of simple bending. **4**
- b) A rectangular c/s beam of size 300 × 500 mm is subjected to shear force of 20 KN. Calculate maximum shear stress, average shear stress also shear stress 150 mm above N.A. **10**



5. Write a short note on : 14
- a) Arches and chimneys
 - b) Derive shear stress formula- $q = F_{ay}/Ib$.

6. Draw shear force and bending moment diagram for following beam : 14



7. a) Derive formula for normal and tangential stresses when a member is subjected to Axial load and Compressive load. 7
- b) The stresses at a point in a component are 100 MPa (tensile) and 50 MPa (compressive). Determine the magnitude of the normal and shear stresses on a plane inclined at an angle of 25° with tensile stress. Also determine the direction of resultant stress and the magnitude of the maximum intensity of shear stress. 7



SLR-TI – 22

Seat No.	
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Set	P
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**B.Arch. (Semester – III) Examination, 2017
HISTORY OF ARCHITECTURE – III (Old CGPA Pattern)**

Day and Date :Friday, 8-12-2017
Time : 3.00 p.m. to 6.00 p.m.

Total Marks : 70

Instructions: 1) Question No. 1 is **compulsory**.
2) Draw **neat sketches wherever necessary**.

I. Fill in the blanks : 7

- a) _____ houses the symbol or statue of god or goddess in a Hindu temple.
- b) The temples of Hoysala period display _____ planning.
- c) The circum ambulating path in a Hindu temple is known as _____
- d) _____ is an excellent example of Orissan Indo-Aryan architecture.
- e) Linaraj temple is located in _____ state.
- f) _____ stone was used for minute carvings in Hoysala temple.
- g) The plan of Khajuraho temple is _____ cross.

II. Write short notes on **(any 3)** : 15

- 1) Evolution of Hindu temple.
- 2) Pointed arches in Gothic style.
- 3) Indo-Aryan Shikharas.
- 4) Stellate planning.

III. Explain in brief with **neat sketches (any 4)** : (12 marks each)

- 1) Kailasha temple at Ellora.
 - 2) Choumukh temple.
 - 3) Sun temple at Konark
 - 4) Meenaxi Sundaram temple at Madurai.
 - 5) Hoysaleswar temple at Halebid.
-



SLR-TI – 23

Seat No.	
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Set

P

B.Arch. (Semester – IV) (CGPA) Examination, 2017
BUILDING SERVICES – II

Day and Date : Wednesday, 29-11-2017
Time : 3.00 p.m. to 6.00 p.m.

Total Marks : 70

- Note :** 1) Q. No. 1 and Q. No. 2 are **compulsory**.
2) Solve **any four** questions from the remaining.
3) Draw **neat sketches wherever necessary**.

1. Fill in the blanks : 7
- 1) Most commonly used chemical disinfectant for water is _____
 - 2) The recommended pH value for treated drinking water is _____
 - 3) _____ also known as gate valve.
 - 4) _____ of the water is He property of water which prevents lathering of soap.
 - 5) Name any one biological impurity in water _____
 - 6) _____ process of water treatment floating matters, leaves, dead animals etc. are removed.
 - 7) Drawing water from the water sources commonly known as _____
2. Write short notes on the following (**any three**) : 15
- 1) Wholesome water
 - 2) Solar water heater
 - 3) Push tap
 - 4) Artesian well.
3. Draw a neat sketch of the layout of the water treatment plant and mention its objectives. 12

P.T.O.



4. Define with neat sketch :
- A) Dead end system of water supply.
 - B) Circular system of water supply. **12**
5. Why pumping is necessary in water supply ? What are the various types of the pumps used for water supply ? Explain any one with neat sketch. **12**
6. Enlist various pipe materials used for conveyance of water. **12**
7. Design a overhead water tank for the apartment of 20 tenaments. Sketch showing details of connections. **12**
-



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B.Arch. (Semester – IV) (CGPA) Examination, 2017
ARCHITECTURAL GRAPHICS – IV

Day and Date : Saturday, 2-12-2017

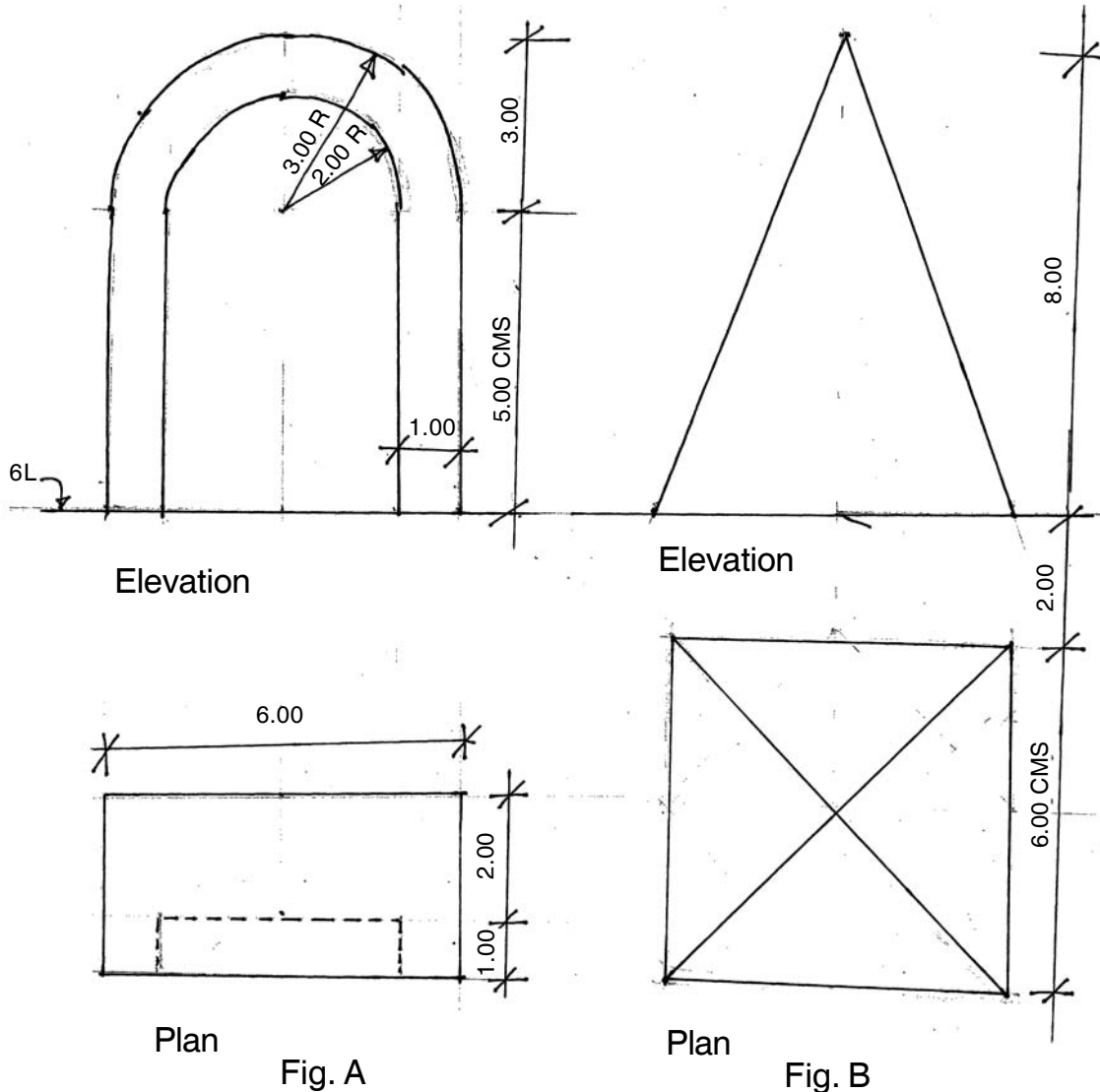
Time : 3.00 p.m. to 6.00 p.m.

Total Marks : 70

- 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 quality.
5) Assume data **not** provided if **any**.

1. Draw shades and shadows of the dia. A and B in plan and elevation considering the source of light in conventional direction on the vertical and horizontal planes of the object.

20



P.T.O.



2. Draw perspective view of the object in fig. C with the given data.

20

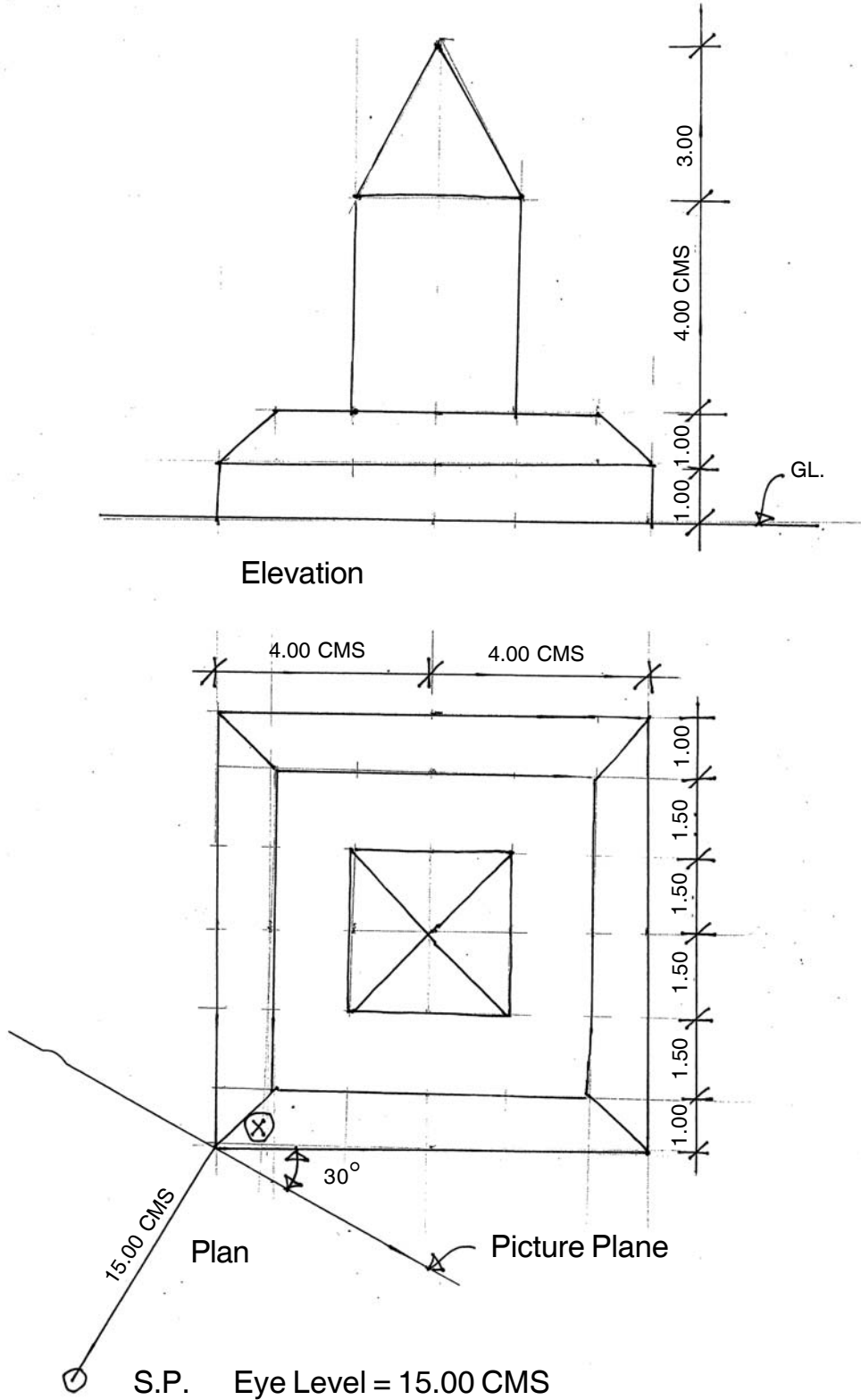
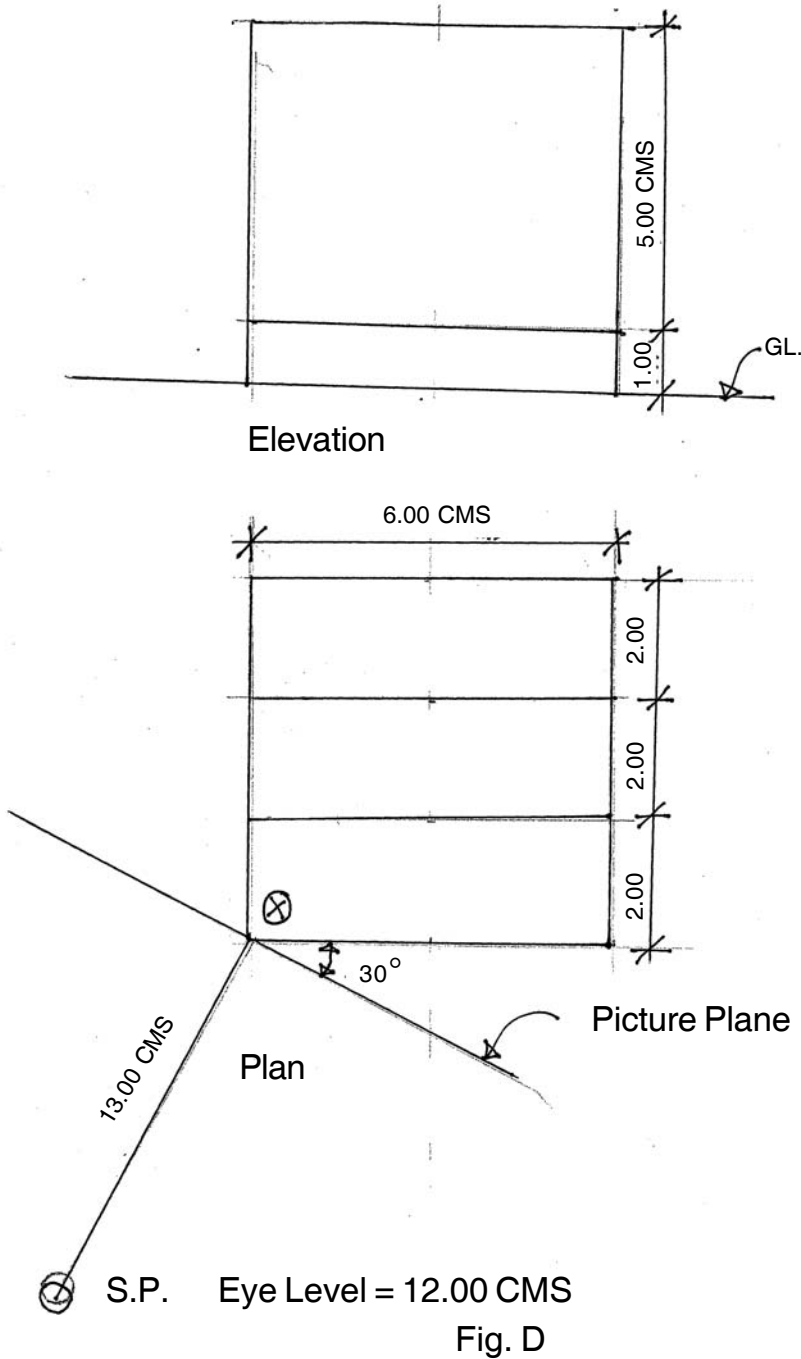


Fig. C



3. Draw a perspective sciography of the object as shown in fig. D with the given data.

25





SLR-TI – 25

Seat No.	
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Set

P

B.Arch. (Semester – IV) (CGPA) Examination, 2017
CLIMATOLOGY AND ENVIRONMENT – II

Day and Date : Tuesday, 5-12-2017

Max. Marks : 70

Time : 3.00 p.m. to 6.00 p.m.

Note : 1) *Make suitable assumptions wherever necessary and mention in your answer book.*

2) *Figures to **right** indicate **full** marks.*

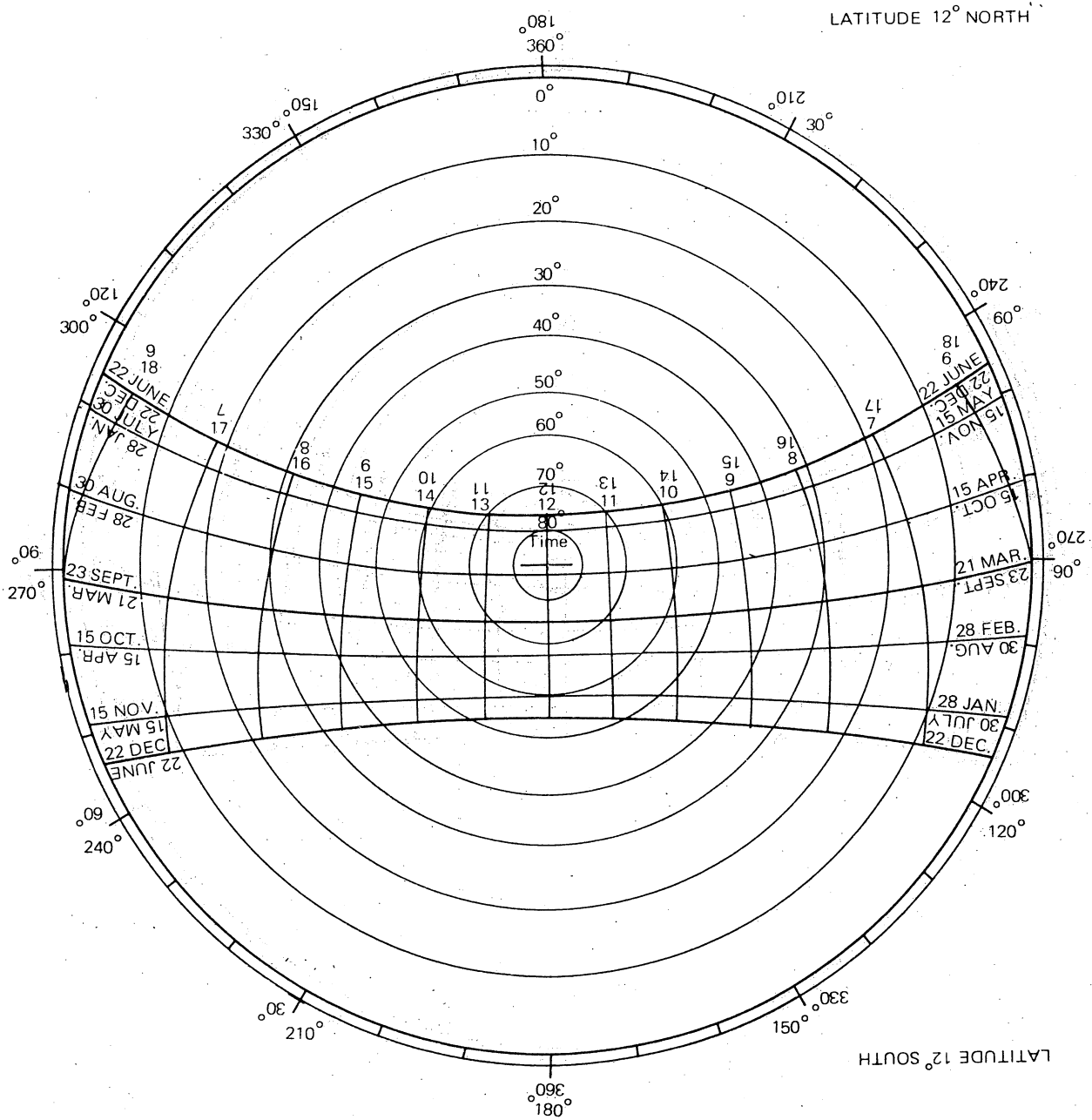
3) **All questions are compulsory.**

1. Fill in the blanks :

7

- 1) Stack effect refers to _____
 - a) Cross ventilation
 - b) Window
 - c) Courtyard
 - d) Duct
- 2) Addition of moisture in air _____ temperature.
 - a) Decrease
 - b) Neutral
 - c) Increase
 - d) No change
- 3) Radiation is measured in _____
 - a) %
 - b) Watts/sqm
 - c) deg.C
 - d) None of above
- 4) Ratio of outdoor and indoor illumination is _____
 - a) Day light factor
 - b) K factor
 - c) Percentage
 - d) Natural light
- 5) Temperature is measured in _____
 - a) Degree Celsius
 - b) BTU
 - c) Watts
 - d) Celsius

P.T.O.





Seat No.	
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Set **P**

B.Arch. (Semester – IV) (CGPA) Examination, 2017
THEORY OF STRUCTURE – IV

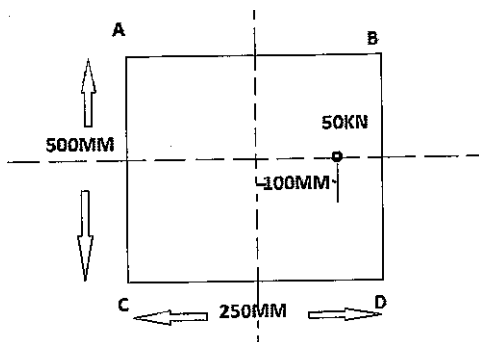
Day and Date : Thursday, 7-12-2017

Total Marks : 70

Time : 3.00 p.m. to 6.00 p.m.

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

1. Select the correct option for the following : 8
 - 1) Maximum deflection of cantilever beam with UDL on full length is
a) $wL^4/8EI$ b) $wL^4/6EI$ c) $wL^4/4EI$ d) None
 - 2) Effective length of column of both ends hinged is
a) $L_{eff} = L$ b) $L_{eff} = 2L$ c) $L_{eff} = L/2$ d) $L_{eff} = 3L$
 - 3) Bending of column occurs under
a) Axial load b) Transverse load
c) Direct load d) None
 - 4) Crushing stress of Cast Iron is
a) 250 Mpa b) 550 Mpa c) 50 Mpa d) 320 Mpa
2. Explain working stress method and limit state method. 6
3. A steel T section 20 cm × 15 cm × 2 cm is used as a strut, 5m long which is hinged at both ends. Calculate the Crippling load by Euler's formulae = $2.1 \times 10^6 \text{ kg/cm}^2$. 14
4. A rectangular column carries an eccentric point load as shown in figure. Calculate stresses at each corner, zone of tensile stresses and also additional force such that no tensile stress is produced. 14

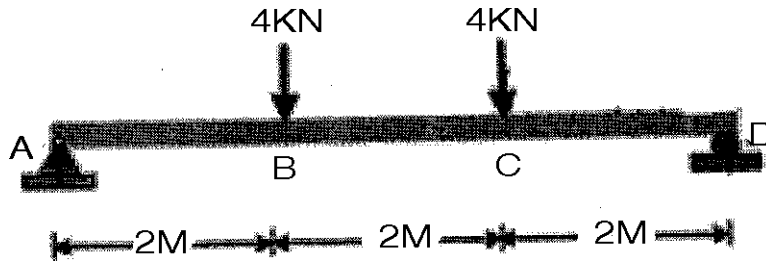


P.T.O.



5. Find slope at A and deflection at C for following beam if $E = 2 \times 10^5 \text{ N/mm}^2$,
 $I = 5.5 \times 10^6 \text{ mm}^4$.

14



6. a) Explain concept of retaining wall with its types. 7
b) Explain in detail structural properties and allowable stresses in masonry structures. 7
7. a) Explain concept of core of section. Derive equation of core of section for rectangular and circular section. 10
b) Write a short note on End Condition of column. 4



SLR-TI – 27

Seat No.	
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Set

P

B. Arch. (Semester – IV) (CGPA Pattern) Examination, 2017
HISTORY OF ARCHITECTURE – IV

Day and Date : Saturday, 9-12-2017
Time : 3.00 p.m. to 6.00 p.m.

Max. Marks : 70

- Note :** 1) Q.No.1 and Q.No. 2 are **compulsory**.
2) Solve **any four** questions from the **remaining**.
3) Draw **neat sketches wherever necessary**.

1. Fill in the blanks : 7
 - 1) Construction work of Qutb Minar was completed by _____.
 - 2) Golgumbaz is located in the State of _____.
 - 3) Architect of Parliament House is _____.
 - 4) The First Moghal Emperor invaded in India was _____.
 - 5) The founder of Slave Dynasty was _____.
 - 6) The V.T. terminus station in Mumbai now known as _____.
 - 7) Womans quarters are termed as _____ in Islam.
 2. Write short notes on the following (**any 3**) : 15
 - 1) Whispering Gallery in Gol-Gumbaz.
 - 2) Pendentives and Squinches.
 - 3) Raja Birbals House.
 - 4) Shalimar Bagh.
 3. Enumerate Architectural features of Tomb of Ghias-Ud -Din Tughlaq. 12
 4. Draw neat sketch of typical Indian Mosque Naming all the parts and indicating significance of each part. 12
 5. Explain with neat sketch Architectural Master piece, Taj Mahal along with its Architectural features. 12
 6. Explain with neat sketch Mosque at Gulburga and its Architectural features. 12
 7. Describe salient features of colonial architecture in India along with suitable example. 12
-



SLR-TI – 28

Seat No.	
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Set	P
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B.Arch. (Semester – V) (CGPA) Examination, 2017
THEORY OF STRUCTURE – V

Day and Date : Tuesday, 28-11-2017
Time : 10.00 a.m. to 1.00 p.m.

Total Marks : 70

- Instructions :** 1) Use of **IS 800**, **Steel table** and **Scientific calculator** is **allowed**.
2) Q. No. **1** and **2** are **compulsory**. From remaining questions solve **any four**.
3) Figures to the **right** indicates **full marks**.
4) **Assume** suitable data **if necessary**.

1. Select the correct option for the following :

8

- 1) Minimum pitch of the rivets shall not be less than
 - A) 1.5 d
 - B) 2.0 d
 - C) 2.5 d
 - D) 3.0 d
- 2) Slenderness ratio of such single angle strut should not exceed _____
 - A) 200
 - B) 150
 - C) 180
 - D) None of these
- 3) For the steel structures, ISJC stands for
 - A) Indian Standard Joint Channels
 - B) Indian Standard Junction Channels
 - C) Indian Standard Joist/Junior Channels
 - D) None of above
- 4) The effective length of a weld, is taken as the actual length
 - A) Minus twice the size of weld
 - B) Plus the size of weld
 - C) Minus the size of weld
 - D) None

P.T.O.



2. Define Gross diameter of rivet, Pitch of rivet, Gauge distance of rivets. **6**
3. a) Write a short note on failure of riveted joints. **4**
- b) A single riveted lap joint is used to connect plate 10 mm thick. If 20 mm diameter rivets are used at 55 mm pitch, determine the strength of joint and its efficiency. Working stress in shear in rivets = 80 N/mm^2 (MPa). Working stress in bearing in rivets = 250 N/mm^2 (MPa). Working stress in axial tension in plates = 156 N/mm^2 . **10**
4. a) What are different minor and major types of tension members ? **4**
- b) Design a single angle tension member to sustain a tension of 1,30,000 N. Use 18 mm diameter rivets. **10**
5. Design a double angle compression member to carry 150 kN load. The length of member between center to center of intersections is 4 m. **14**
6. Design a simply supported beam to carry a uniformly distributed load of 44 kN/m. The effective span of beam is 8 meters. The effective length of compression flange of the beam is also 8 m. The ends of beam are not free to rotate at the bearings. **14**
7. a) Write a short note on effective lengths of compression members. **7**
- b) Advantages and disadvantages of welded connections. **7**
-



SLR-TI – 29

Seat No.	
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Set **P**

**B.Arch. (Semester – V) Examination, 2017
HISTORY OF ARCHITECTURE – V (CGPA Pattern)**

Day and Date : Thursday, 30-11-2017

Max. Marks : 70

Time : 10.00 a.m. to 1.00 p.m.

I. Fill in the blanks : **7**

- a) Art Nouveau Movement belongs to _____ ism.
- b) Crystal palace is an example of _____ revolution.
- c) Bauhaus school of architecture is located in _____.
- d) The Guggenheim Museum at Bilbao is designed by _____.
- e) National Congress Complex is designed by _____.
- f) Falling Water is designed by _____.
- g) Ar. _____ coined the term “Less in bore”.

II. Write short notes on (**any 3**) : **15**

- 1) Louis Sullivan.
- 2) Arts and Crafts.
- 3) IBA Housing.
- 4) Guggenheim Museum at Bilbao.

III. Answer in brief with neat sketches (**any 4**) : **(12 marks each)**

- 1) Explain the works and philosophy of Charles Correa and two works of his in brief.
 - 2) Explain falling water in detail with plan and elevation.
 - 3) Explain Bauhaus School in detail.
 - 4) Explain the works and philosophy of Antonio Gaudi and one work of his in brief.
 - 5) Describe various theories of Le Corbusier.
-



SLR-TI – 30

Seat No.	
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Set

P

B.Arch. (Semester – V) (CGPA) Examination, 2017
BUILDING SERVICES – III

Day and Date : Monday, 4-12-2017

Time : 10.00 a.m. to 1.00 p.m.

Total Marks : 70

Instructions : 1) Q.No. 1 and Q.No. 2 are **compulsory**.
2) Solve **any 4** questions from remaining.

1. Fill in the blanks : 7
 - a) _____ volt is obtained from single phase supply.
 - b) _____ meters are kept as clearance in machine room for working.
 - c) _____ are used in air conditioning to keep air free from dust, bacteria etc.
 - d) In incandescent bulb _____ filament is used.
 - e) Voltage \times current = _____
 - f) _____ is nothing but a moving staircase.
 - g) The flow of electron in metal called _____
 2. Write short notes : 15
 - a) Smoke detectors
 - b) Sodium discharge lamps
 - c) Plenum system.
 3. Give general consideration and rules for natural ventilation. 12
 4. Explain Electrical wiring in small 1bhk residence with sketch. 12
 5. Explain with sketch “Earthing for safety” and pipe electrode. 12
 6. Explain with sketch Split air-conditioning system. 12
 7. Explain working of lift with sketch. 12
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SLR-TI – 31

Seat No.	
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Set **P**

**B.Arch. – III (Semester – V) Examination, 2017
ACOUSTICS (CGPA)**

Day and Date : Wednesday, 6-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Total Marks : 70

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

1. A) Fill in the blanks :

7

- 1) Sound pressure level is expressed in _____
a) dB b) meter c) kg d) none
- 2) Sound intensity is measured in _____
a) watts/cm² b) dB
c) jules/m d) none of the above
- 3) _____ is used in optical model test to stud sound behaviour.
a) sound source b) light source
c) liquid source d) none of the above
- 4) The time taken by sound to diminish is called _____
a) Reverberation time b) Dead time
c) Flutter d) None of the above
- 5) Thin wall barrier is _____ scale strategy.
a) Site b) Component
c) Building d) None of the above
- 6) Velocity of sound in air is _____ m/s.
a) 344 b) 650
c) 297,600,000 d) 0
- 7) Noise criteria for recording room is _____
a) Quite zone b) Moderate
c) Noisy zone d) Live zone

P.T.O.



- B) Calculate total absorption required and design a multipurpose hall for capacity of 900 people consider volume $4.5 \text{ m}^3/\text{person}$ and $R_t = 1.2$; use following absorption coefficient; give conceptual section and plan. **27**
- 1) Pop – 0.26
 - 2) Plaster – 0.004
 - 3) Glass wool – 0.15
 - 4) Occupied seat – 0.42
 - 5) Unoccupied seat – 0.18
 - 6) Curtain – 0.12.
2. A) Give acoustical design consideration for site scale building scale and component scale. **12**
- OR
- B) Explain acoustical designing for open air theatre. **12**
3. A) Explain with sketches two acoustical material with installation. **5**
- B) Explain reverberation of sound and Sabine's formula. **7**
4. Write short note on **any 3** : **12**
- 1) Control of airborne sound
 - 2) Optical model test
 - 3) Propagation of sound
 - 4) Sound theory and hearing phenomenon.
-



SLR-TI- 34

Seat No.	
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Set

P

B.Arch. (Semester – V) (CGPA) Examination, 2017
Self Learning (HSS Course)
BUILDING BYELAWS

Day and Date : Friday, 8-12-2017
Time : 10.00 a.m. to 12.00 noon

Max. Marks : 50

Note : 1) Question No. 1, 2 are **compulsory**.
2) Solve **any 2** questions from the remaining.

1. Fill in the blanks. 5
 - 1) Refuse area to be provided for the building exceeding _____m in height.
 - 2) Minimum area for W.C. is _____sqm, minimum width is 0.9 M.
 - 3) Minimum area for any bathroom is _____sqm.
 - 4) _____ means a passage, channel or means of egress from any public building.
 - 5) Maximum area of store room provided in residential building is _____sqm.
 2. Short notes (**any 3**) : 15
 - 1) Tenament density.
 - 2) Recreational open space.
 - 3) Occupancy certificate.
 - 4) Carpet area.
 3. Explain necessity of building byelaws. 15
 4. A) Explain necessity of fire protection requirement. 7
B) Write a note on subdivision of a layout. 8
- OR
5. Write a note on landuse classification and its permissible uses. 15
-



SLR-TI – 35

Seat No.	
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Set

P

B.Arch. (Semester – VI) (New) Examination, 2017
BUILDING SERVICES – IV (CGPA)

Day and Date : Wednesday, 29-11-2017

Max. Marks : 70

Time : 10.00 a.m. to 1.00 p.m.

- Note :** 1) Q. No.1 and Q. No. 2 are **compulsory**.
2) Solve **any four** questions from the **remaining**.
3) Draw neat sketches **wherever** necessary.

1. Fill in the blanks. 7
 - 1) C.O.D. indicates _____
 - 2) When decomposition of organic matter takes place in presence of oxygen is termed as _____ digestion.
 - 3) _____ is the method of sewage disposal in which sludge is burnt in incinerators.
 - 4) Waste management is the collection, transportation and _____ of waste.
 - 5) Name any one privy _____.
 - 6) The process of settling suspended particle in STP known as _____.
 - 7) Sulabha shouchalaya also termed as _____.
 2. Write short notes on **any three**. 15
 - 1) Industrial waste.
 - 2) Ventilation of sewer.
 - 3) Primary treatment of sewage.
 - 4) Trickling filters.
 3. What are natural methods of sewage disposal ? Explain any two in detail. 12
 4. Explain with neat sketch AQUA privy. 12
 5. Write down methods of collection of solid waste. State the importance of segregation of waste. 12
 6. Explain with neat sketch refuse chute. 12
 7. Explain with neat sketch the objectives, location and details of septic tank. 12
-



SLR-TI – 38

Seat No.	
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Set **P**

B.Arch. (Semester – VI) (CGPA) Examination, 2017
Self Learning (Technical Course)
SUSTAINABLE BUILDING MATERIAL (New)

Day and Date : Saturday, 2-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Total Marks : 50

- Note :** 1) *Make suitable assumptions wherever **necessary** and **mention** in your answer book.*
2) *Figures to **right** indicates **full** marks.*
3) *Question **1** is **compulsory** and solve **any 3** from **remaining**.*

1. A) Write short note on **any 3** : **15**
 - 1) Bamboo as reinforcement
 - 2) Screening test for soil
 - 3) The humid curing of bricks
 - 4) Fly ash bricks.

B) Explain recycling of building material. **5**
 2. Explain bamboo and its properties : sketch any three building component in bamboo. **10**
 3. A) Use of aluminium in building industry. **5**

B) Explain types of soil and their composition. **5**
 4. What is life cycle analysis of building material. **10**
 5. Give three example of material reuse in building. **10**
-



SLR-TI – 39

Seat No.	
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Set	P
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**B.Arch. (Semester – VI) (CGPA) Examination, 2017
THEORY OF STRUCTURE – VI (New)**

Day and Date : Tuesday, 5-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Total Marks : 70

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

1. Select the correct option for the following :

8

- 1) Minimum cover required for beam is
 - a) 20 mm
 - b) 25 mm
 - c) 40 mm
 - d) None
- 2) In over reinforced section
 - a) $X_u < X_{u\max}$
 - b) $X_u = X_{u\max}$
 - c) $X_u > X_{u\max}$
 - d) None
- 3) Minimum numbers of bars required in circular column
 - a) 4
 - b) 6
 - c) 8
 - d) None
- 4) In working stress method, material is
 - a) Elastic
 - b) Plastic
 - c) Brittle
 - d) None

P.T.O.



2. Explain design steps for two way slab. **6**

 3. Design simply supported RCC slab for a hall 3 m * 7.5 m (inner dimension) with 230 mm thick wall. Assume live load of 4.5 kN/m² and floor finish 1 kN/m². Use M 20 grade of concrete and Fe 415 steel. **14**

 4. A simply supported beam of length 4 m unsupported carries UDL of 15 kN/m. Analyse and design beam. Take M 20 Grade of concrete and Fe 415 steel. **14**

 5. Design a rectangular column of 5. 2 m unsupported length, restrained in position and direction at both ends, to carry axial load of 800 kN. Use M20 grade concrete and Fe 415 steel. **14**

 6. Design footing for axial load of 700 kN. Soil bearing capacity = 150 kN/m². Use M20 grade of concrete and Fe 415 steel. **14**

 7. Explain : **14**
 - 1) Working stress method and limit state method
 - 2) Design steps for doubly reinforced beams.
-



SLR-TI – 40

Seat No.	
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Set	P
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B.Arch. (Semester – VI) (CGPA) Examination, 2017
URBAN PLANNING (New)

Day and Date : Thursday, 7-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Max. Marks : 70

I. Fill in the blanks : **(7×1=7)**

- 1) C.A. Doxiadis advocated the theory of _____.
- 2) The master plan of Chandigarh city was planned by _____ after Albert Mayer.
- 3) Under use zoning, the percentage of area allocated for industrial zone varies from _____.
- 4) The space at a road junction over which traffic is not allowed to move is known as _____.
- 5) The ratio of height of building to width of road will be _____ in case of 45 degree airplane rule under height zoning.
- 6) TDR stands for (full form) _____
- 7) A narrow street or approach road with a dead end is known as _____.

II. Write short notes on (**any 3**) : **(3×5=15)**

- 1) Residential zone.
- 2) Concentric spread of development.
- 3) Clover leaf junction.
- 4) Differentiate between rural and city planning.

III. Answer the following (**any 4**) : **(4×12=48)**

- 1) Differentiate between horizontal and vertical growth of town.
 - 2) Explain in brief, the urban planning of New Delhi.
 - 3) Write in detail, the principles advocated by Sir Le Corbusier, as a town planner.
 - 4) What is zoning ? Explain the objectives and principles of zoning.
 - 5) Explain any 4 patterns of street system.
 - 6) Write in brief the objectives and principles of CIDCO.
-



SLR-TI – 41

Seat No.	
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Set **P**

**B.Arch. (Semester – VI) (CGPA) Examination, 2017
ESTIMATING SPECIFICATION AND COSTING – I (New)**

Day and Date : Saturday, 9-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Max. Marks : 70

N.B. : 1) **All questions are compulsory.**
2) **Non programmable calculator is allowed.**

1. Solve **any four** of the following :

8

a) Mild steel Z section window with glass

- | | |
|---------|--------|
| 1) Sq.m | 2) Cum |
| 3) Rmt | 4) No. |

b) Cement paint to external wall

- | | |
|---------|--------|
| 1) Sq.m | 2) Cum |
| 3) Rmt | 4) No. |

c) How many bricks required in 10 cum volume (Brick size = 20 × 10 × 10 cm) ?

- | | |
|---------|----------------------|
| 1) 4500 | 2) 5000 |
| 3) 5500 | 4) None of the above |

d) How many cement bag required in 10 cum volume M20 concrete ?

- | | |
|---------------|----------------------|
| 1) 78.96 bags | 2) 62.04 bags |
| 3) 43.42 bags | 4) None of the above |

e) Brick work in cement mortar 1 : 4

- | | |
|---------|--------|
| 1) Sq.m | 2) Cum |
| 3) Rmt | 4) No. |

2. Prepare rate analysis for following **any two** activity.

12

a) M20 Cement Concrete for PCC.

b) Brick masonry in plinth 1 : 5 cement mortar.

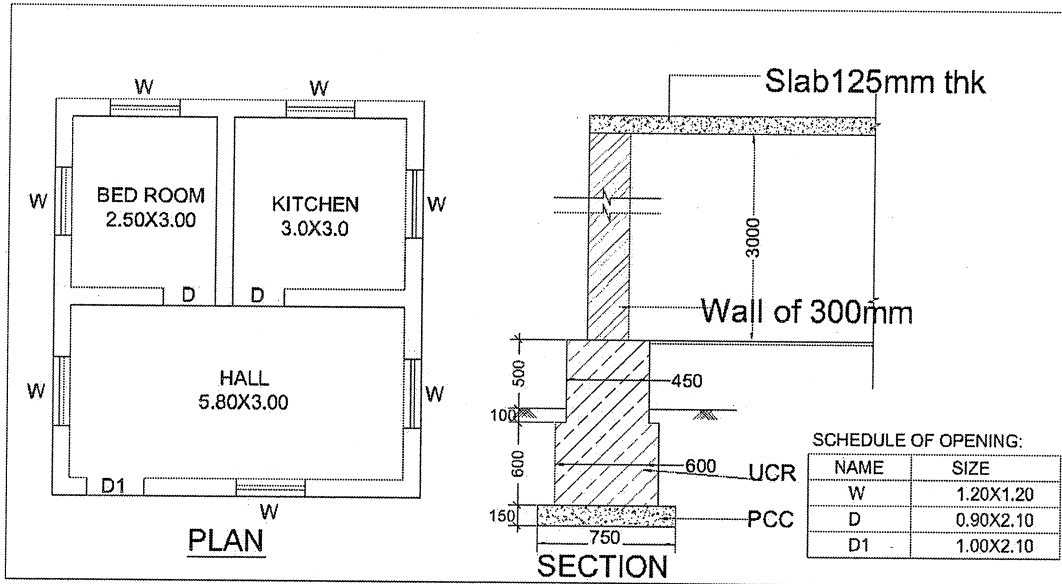
c) Internal plaster in 1 : 4 cement mortar.

P.T.O.



3. Calculate quantity of following item of work and enter the same in standard format of measurement sheet with brief description of item. (Refer Fig. 1).

35



- i) Excavation for foundation
 - ii) Stone masonry work up to ground level
 - iii) Flooring work
 - iv) RCC slab
 - v) Windows and door.
4. Prepare abstract sheet for above residential building with following given rate. 15
- i) Excavation for foundation = Rs. 650/cum
 - ii) Stone masonry = Rs. 5,250/cum
 - iii) Flooring work = Rs. 1,150/sq.m.
 - iv) RCC slab = Rs. 7,800/cum
 - v) Windows and door = Rs. 2,250/sq.m.



SLR-TI – 42

Seat No.	
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Set **P**

B.Arch. (Semester – VI) (Old) Examination, 2017
BUILDING SERVICES – IV

Day and Date : Wednesday, 29-11-2017
Time : 10.00 a.m. to 1.00 p.m.

Total Marks : 70

Instructions : 1) *Make suitable assumptions wherever necessary and mention in your answer book.*
2) *Figures to **right** indicates **full** marks.*
3) *Question No. **1** and **2** are **compulsory** solve **any 4** from the **remaining**.*

1. Fill in the blanks : 7
 - 1) When decomposition of organic matter takes place in absence of oxygen it is known as _____ process.
 - 2) The grit from the sewage is generally removed by _____ in sewage treatment plant.
 - 3) The term _____ is used to indicate waste water from bathroom kitchen etc.
 - 4) The underground conduits or drains through which sewage is conveyed are known as _____
 - 5) The pipe installed for the purpose of ventilation is called _____
 - 6) The process of sedimentation with coagulation is known as _____
 - 7) _____ is defined as amount of oxygen required to oxidise the organic matter by strong oxidising agent under aerobic.

2. Write short note on **any 3** : 15
 - 1) Septic tank
 - 2) Sludge digestion
 - 3) Vermiculture
 - 4) Sewage sickness.

3. Write note on broad irrigation and sewage farming with the help of neat sketch. 12

4. What do you understand by primary and secondary methods of sewage treatment. 12

5. Discuss the various methods of disposal of excreta unsewered areas. 12

6. What is refuse chute ? Where is it used explain with the help of neat sketch. 12

7. List all the units for a typical waste water treatment plant. 12



SLR-TI – 45

Seat
No.

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Set

P

B.Arch. (Semester – VI) (Old) Examination, 2017
URBAN PLANNING

Day and Date : Thursday, 7-12-2017

Max. Marks : 70

Time : 10.00 a.m. to 1.00 p.m.

Instructions: 1) Draw **neat sketches wherever necessary.**
2) Write **neatly and assume suitable data if necessary.**

- I. Fill in the blanks : (1×7=7)
- a) _____ prepared the town plan for Radburn city in New-Jersey.
 - b) Gandhi Nagar is situated on the banks of the river _____
 - c) The diameter of the cul-de-sac is _____
 - d) At road junction, for the safety of pedestrian _____ are provided for crossing the road.
 - e) _____ stands for housing and urban development corporation.
 - f) _____ is transferable of development rights.
 - g) _____ was the town planner for Chandigarh City.
- II. Write short notes on (**any 3**) : (3×5=15)
- 1) Clover leaf junction.
 - 2) Satellite Town.
 - 3) Apartments and skyscrapers.
 - 4) Grid iron road pattern.
- III. Answer **any 4** from remaining question : (4×12=48)
- 1) Explain with example the scattered type growth of town.
 - 2) Explain the concept of “garden city”.
 - 3) Explain in detail how the growth of town is influenced by climate.
 - 4) Explain the types and uses of different types of zoning.
 - 5) What are the causes of slum and measures adopted to develop it.
 - 6) Write in brief the necessity for proper road planning.
-



SLR-TI – 46

Seat No.	
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Set	P
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**B.Arch. (Semester – VI) (Old) Examination, 2017
ESTIMATING SPECIFICATION AND COSTING – I**

Day and Date : Saturday, 9-12-2017
Time : 10.00 a.m. to 1.00 p.m.

Max. Marks : 70

N.B. : 1) **All questions are compulsory.**
2) **Non programmable calculator is allowed.**

1. Solve **any four** of following :

8

a) M.S. Grill work

- 1) Sq. m. 2) Cum 3) Rmt 4) No.

b) Kota flooring

- 1) Sq. m. 2) Cum 3) Rmt 4) No.

c) How many bricks required in 10 cum volume (Brick size = 20×10×10 cm)

- 1) 4500 2) 5000 3) 5500 4) None of above

d) How many cement bag required in 10 cum volume M15 concrete ?

- 1) 78.96 Bags 2) 62.04 Bags 3) 43.42 Bags 4) None of above

e) Brick work

- 1) Sq. m. 2) Cum 3) Rmt 4) No.

2. Prepare rate analysis for following **any two** activity.

12

a) M15 Cement Concrete

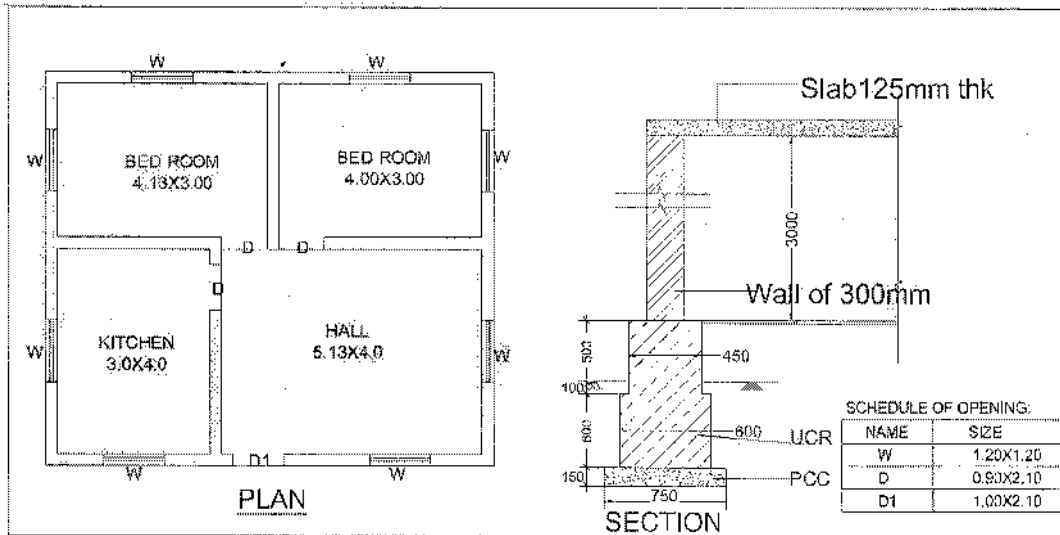
b) Brick masonry in 1 : 5 cement mortar

c) Internal plaster in 1 : 4 cement mortar.

P.T.O.



3. Calculate quantity of following item of work and enter the same in standard format of Measurement Sheet with brief description of item (Refer fig. 1). 35
- i) Excavation for foundation
 - ii) PCC in foundation
 - iii) Flooring work
 - iv) RCC Slab
 - v) Windows and door.
4. Prepare abstract sheet for above residential building with following given rate. 15
- i) Excavation for foundation = Rs. 350/cum
 - ii) PCC in foundation = Rs. 4,250/cum
 - iii) Flooring work = Rs. 950/sqm
 - iv) RCC Slab = Rs. 7,500/cum
 - v) Windows and door = Rs. 2,250/sqm.





SLR-TI – 47

Seat No.	
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Set **P**

**B. Arch. (Semester – VII) (New-CGPA) Examination, 2017
THEORY OF STRUCTURE – VII**

Day and Date : Tuesday, 28-11-2017

Total Marks : 70

Time : 3.00 p.m. to 6.00 p.m.

- Instructions :** 1) **Use of IS 456 and scientific calculator is allowed.**
2) **Q. No. 1 and 2 are compulsory. From remaining questions solve any four.**
3) **Figures to the right indicates full marks.**
4) **Assume suitable data if necessary.**

1. Choose the correct option for the following : **8**
- 1) The ratio span/eff. depth for cantilever slab is
a) 20 b) 7 c) 2 d) None
- 2) _____ piles are used where the loads are not heavy.
a) Friction piles b) Sheet piles
c) Underreamed piles d) None
- 3) Partial frames are made of
a) Concrete only b) Steel only
c) Concrete and steel d) None
- 4) Raft Foundation has reinforcement
a) Only top b) Only bottom
c) Top and bottom d) None
2. A) Write a note on Space frame. **3**
B) Write a note on raft foundation. **3**
3. Design a circular water tank with flexible base connection at base for capacity of 7,00,000 liter's. The tank rest on firm level ground. The height of water tank including a free board of 200 mm should not exceed 3 m. The tank is open on top. Use M20 grade concrete and Fe 415 steel. **14**

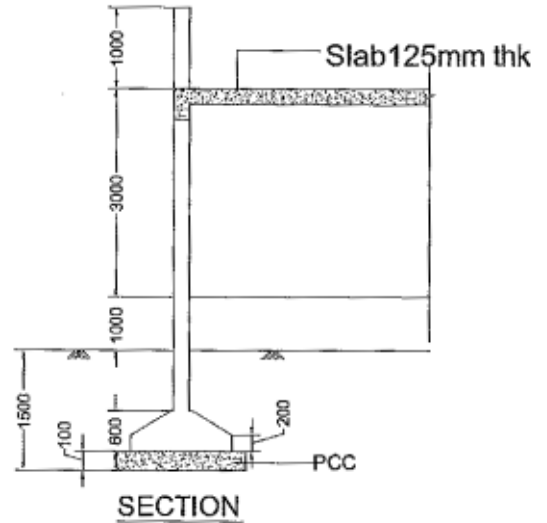
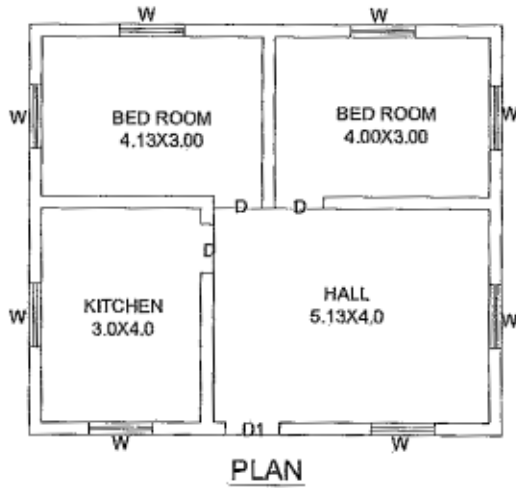
P.T.O.



4. Explain in detail : **14**
- a) Design concept of pile foundation.
 - b) Differentiate between portal frames and rigid frame.
5. A) Explain in detail earthquake proof design and construction. **7**
- B) Explain in detail concept of Gantry Girders. **7**
6. The section of a concrete beam is 300 mm × 550 mm. The beam carries a UDL of 14 KN/m length over an effective span of 8 m. An effective prestressing force of 1600 KN is applied at an eccentricity of 110 mm. Draw the stress diagram with values. **14**
7. Write a note on :
- a) Folded plates. **4**
 - b) Flat Slab. **4**
 - c) Waffle slab and hollow core slab. **6**
-



2. Write a short note on following (**any four**). **20**
- A) Labour Contract.
 - B) Material Supply Contract.
 - C) Turnkey Contract.
 - D) Item Rate Contract.
 - E) Percentage Rate Contract.
3. Write a distinguish between of following (**any one**). **10**
- A) Earnest money deposit and Security Deposit.
 - B) Schedule “A” and Schedule “B”.
4. Prepare detail estimate of following building items of attached drawing (**any four**). **20**
- 1) RCC footing.
 - 2) RCC Column.
 - 3) Brick work in superstructure.
 - 4) External plastering.
 - 5) Internal flooring.
5. Prepare abstract sheet of following building items with brief specification of attached drawing. **12**
- 1) RCC footing, Rate = Rs. 6,500/- per cum
 - 2) RCC coloumn, Rate = Rs. 7,500/- per cum
 - 3) Brick work in superstructure, Rate = Rs.5,500/- per cum
 - 4) External plastering, Rate = Rs. 250/- per sqm
 - 5) Internal flooring, Rate = Rs. 850/- per sqm
- OR
6. Prepare detail specification for first class brick work in superstructure in cement mortar 1 : 4 work. **12**

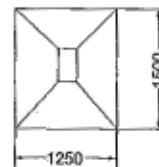


SCHEDULE OF OPENING:

NAME	SIZE
W	1.20X1.20
D	0.91X2.10
D1	1.00X2.10

SCHEDULE OF RCC ITEM:

NAME	SIZE
FOOTING	1250X1500
COLOUMN	230X380
BEAM	230X450





SLR-TI – 49

Seat No.	
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Set

P

B.Arch. (Semester – VII) (New CGPA) Examination, 2017
PROFESSIONAL PRACTICE – I

Day and Date : Monday, 4-12-2017
Time : 3.00 p.m. to 6.00 p.m.

Max. Marks : 70

I. Fill in the blanks :

(1×7=7)

- 1) Architect's Act was enacted in the year _____.
- 2) An Architect may exhibit his name outside a building for which he/she is/was an Architect, provided the lettering does not exceed _____ in height.
- 3) The elected president of Council of Architecture (COA) can hold the office for a term of _____ years.
- 4) The installments retained with the owner is known as _____.
- 5) Minimum time of returning the tender by the contractor should be at least _____ days from the date of issue of the same.
- 6) IIA stands for _____.
- 7) The Indian Contract Act was enacted in the year _____.

II. Write Short Notes on (**Any 3**).

(3×5=15)

- 1) Certificates given/issued by the Architect.
- 2) Earnest Money And Security Deposit.
- 3) Liquidated Damages.
- 4) Breach of Contract.
- 5) Structure of An Architect's Office.

P.T.O.



III. Answer in brief (**Any 4**).

(12×4=48)

- 1) Explain in detail the scope of work and schedule of services of an Architect.
 - 2) Explain in brief, the scale of charges and schedule of payment for an Architect.
 - 3) Differentiate between item Rate and Demolition Tender.
 - 4) Explain in detail Cost Plus Percentage/Fee Tender, Cost Plus Fixed Fee Tender, Cost Plus Fixed Fee With Bonus And Penalty.
 - 5) Explain in brief, Labour Contract, with its advantages and disadvantages.
 - 6) Explain in detail the advantages of Item Rate Contract over Lumpsum Contract.
-



SLR-TI – 50

Seat No.	
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Set **P**

B.Arch. (Semester – VII) Examination, 2017
THEORY OF STRUCTURE – VII (Old)

Day and Date : Tuesday, 28-11-2017

Total Marks : 80

Time : 3.00 p.m. to 6.00 p.m.

Instructions : 1) *Use of IS 456 and Scientific calculator is allowed.*

2) *Q. No. 1 and 2 are compulsory. From remaining questions solve any four.*

3) *Figures to the right indicate full marks.*

4) *Assume suitable data if necessary.*

1. Choose the **correct** option for the following :

10

1) The ratio Span/Eff. Depth for cantilever slab is _____

- a) 20 b) 7 c) 2 d) None

2) Stresses developed during transportation and erection are known as _____

- a) Tensile stresses b) Compressive stresses
c) Shear stresses d) None

3) Due to Pre-stressing force, tension is developed at _____

- a) Bottom b) Top
c) Neutral axis d) None

4) Indian Code of practice for liquid retaining structure is _____

- a) IS 456 b) IS 875
c) IS 3370 d) IS 800

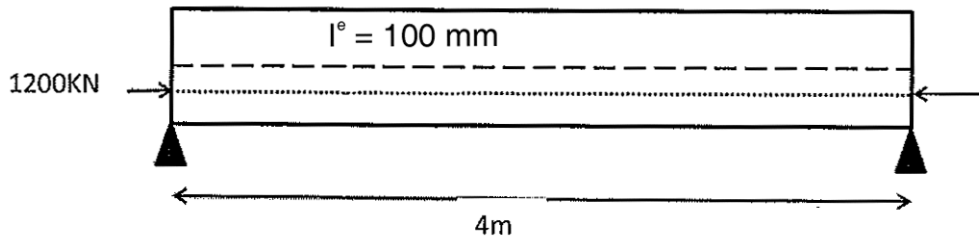
5) Minimum thickness of flat slab is _____

- a) 250 mm b) 150 mm
c) 300 mm d) None

P.T.O.



- 2. A) Write a note on Grid slab. 5
- B) Write a note on Gantry Girder. 5
- 3. Calculate the stresses at top and bottom fibres for beam as shown in figure. The beam loaded with 40 KN/m and applied force is at an eccentricity 100 mm. 15



- 4. Design a circular water tank with flexible base connection at base for capacity of 7,50,000 liter's. The tank rest on firm level ground. The height of water tank including a free board of 250 mm should not exceed 3.5 m. The tank is open on top. Use M20 grade concrete and Fe 415 steel. 15
- 5. Explain in detail.
 - a) Design concept of Pile foundation. 5
 - b) Folded plates. 5
 - c) Gantries and cranes. 5
- 6. A) Write a note on Earthquake resistant structure. 7
- B) Differentiate between Portal Frames and Rigid Frame. 8
- 7. Write a note on :
 - a) Space Frame. 5
 - b) Concept of Gantry Girders. 5
 - c) Shells. 5



SLR-TI – 51

Seat No.	
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Set **P**

B.Arch. (Semester – VII) (Old) Examination, 2017
ADVANCE ESTIMATING SPECIFICATION AND COSTING – II

Day and Date : Thursday, 30-11-2017
Time : 3.00 p.m. to 6.00 p.m.

Max. Marks : 80

- N. B. :** 1) **All questions are compulsory.**
2) **Non programmable calculator is allowed.**
3) **Assume suitable data, if required.**

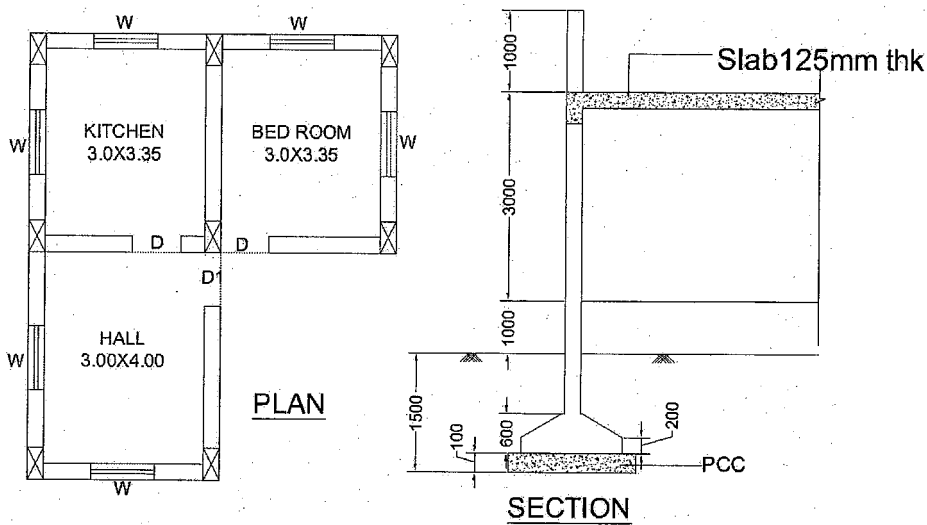
1. Write the answer of following **any two** : **12**
- Explain Cubical Content estimate.
 - Which is the most reliable estimate, explain with min 3 points ?
 - Which are the factors that plays important role in calculating in estimate, explain how ?
2. Write in brief specifications on workmanship (**any three**) : **18**
- M20 RCC slab
 - Half Brick work CM 1 : 6
 - Internal cement plaster CM 1 : 5
 - Colour wash.
3. Prepare the rough estimate for a proposed commercial complex for a municipal corporation for the following data : **30**
- Plinth area = 500 m²/floor
 - Ht of each storey = 3.5 m
 - No. of storeys = G+2
 - Cubical content rate = Rs. 1,000/m³
 - Provided for a following as a percentage of structured cost
 - Water supply and sanitary arrangement – 8%
 - Electrification – 6%
 - Fluctuation of rates – 5%
 - Contractors profit – 10%
 - Petty supervision and contingencies – 3%.

OR

P.T.O.



3. Prepare detail estimate of following building items of attached drawing : 30
- 1) RCC Footing
 - 2) RCC Slab and Slab Beam
 - 3) Brick work in superstructure
 - 4) Internal Flooring.
4. Distinguish between earnest money deposit and security deposit. 10
5. Write a short note of following (**any two**) : 10
- A) Revise Estimate
 - B) Supplementary Estimate
 - C) Work charge establishment
 - D) Schedule “A” and Schedule “B”.

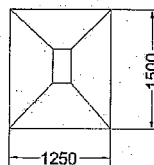


SCHEDULE OF OPENING:

NAME	SIZE
W	1.20X1.20
D	0.91X2.10
D1	1.00X2.10

SCHEDULE OF RCC ITEM:

NAME	SIZE
FOOTING	1250X1500
COLOUMN	230X380
BEAM	230X450





SLR-TI – 52

Seat No.	
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Set **P**

**B.Arch. – IV (Semester – VII) (Old) Examination, 2017
BUILDING CONSTRUCTION AND MATERIAL – VII**

Day and Date : Monday, 4-12-2017

Max. Marks : 50

Time : 3.00 p.m. to 6.00 p.m.

- I. Fill in the blanks : 5
- a) The recommended size of passenger lift for 5 persons is _____
 - b) Portal frame is a continuous or rigid frame with a _____ joint between the column and beam.
 - c) The proportion of concrete used in underpinning is _____
 - d) In post tensioning, _____ are laid after concrete is hardened.
 - e) The pitch varies between _____ in case of escalator.
- II. With the help of neat sketches, show the constructional measures adopted for resisting earthquake in a building at foundation, junction of walls, lintel, column and beam. 15
- III. 1) Name the various materials used for false ceiling and explain the method of installation of ceiling board as a false ceiling material. 15
- OR
- 2) a) Explain the properties and application of any one sound insulating material. 8
 - b) Write in brief the use of Epoxy material in building construction. 7
- IV. Write short notes on **(any 3)** : (3×5=15)
- a) Grain Godown
 - b) Underpinning
 - c) Space Frames
 - d) Chimney construction
 - e) Pre-Tensioning.
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SLR-TI – 53

Seat No.	
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Set

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B.Arch. (Semester – VII) Examination, 2017
ENVIRONMENTAL DESIGN (Old)

Day and Date : Wednesday, 6-12-2017

Total Marks : 100

Time : 3.00 p.m. to 6.00 p.m.

- Note :** 1) Draw sketches *wherever* necessary.
2) Solve **any 5** question from the given.
3) Assume suitable data *wherever* necessary.

1. What do you mean by the subject Environmental design ? Describe the environment of any recreational open space in your vicinity. **20**
 2. Describe different types of road through the city are and try to explain any two road junctions with the help of neat sketches. **20**
 3. Explain with help of neat sketch any principles of sustainable development in building design used in your city. **20**
 4. Discuss hierarchy of open spaces in city. **20**
 5. Explain with help of an example volumetric study for residential building having F.S.I.1. **20**
 6. Explain landuse planning and its permissible uses. **20**
 7. Discuss amenities and facilities to be considered in designing neighbourhood. **20**
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SLR-TI – 54

Seat No.	
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B.Arch. (Semester – VII) (Old) Examination, 2017
ADVANCED ARCHITECTURAL DESIGN – VII

Day and Date : Monday, 11-12-2017, Tuesday, 12-12-2017, Wednesday, 13-12-2017

Total Marks : 150

Time : 10.00 a.m. to 4.00 p.m.

- Instructions** :
- 1) *The candidates are allowed to go to visit lavatory otherwise **all** are required to remain in the **Examination Hall** continuously for **six hours** of Examination.*
 - 2) *The Supervisors should **make arrangement** to supply eatables, ordered by the Candidate from outside allow the candidates to consume eatables and have cold or hot drinks in the **Examination Hall**.*
 - 3) *The candidate should be allowed to **do coloring work** up to the **last minute** and paper should be collected after they are **dried**. While students may leave the **Examination Hall** after time is over.*
 - 4) *The candidate can leave the **Examination Hall** after completion of paper with proper information to Supervisors.*
 - 5) ***All Students** shall submit only their basic plans and design scheme drawn on tracing paper at the end of **first day**.*
 - 6) *The above submitted drawing shall **not be returned** to them **next day**.*
 - 7) ***Any serious** deviation from original scheme is **not permitted**.*
 - 8) ***All other rough** sketches shall be given back to the candidate **along with the paper, next day**.*

CULTURAL CENTER AT SOLAPUR

Municipal Corporation of SOLAPUR wants to establish a cultural center at SOLAPUR to boost the Tourism and enrich the cultural practices at SOLAPUR.

Architectural Programme

- | | | |
|------------------------------|-----|-----------|
| 1. Library | ... | 300 sq.m. |
| 2. Office admin area | ... | 250 sq.m |
| 3. Exhibition area | ... | 350 sq.m |
| 4. Conference /A.V. room | ... | 350 sq.m |
| 5. Display and sales area | ... | 300 sq.m |
| 6. Enhance, toilets, parking | ... | Adequate |

P.T.O.



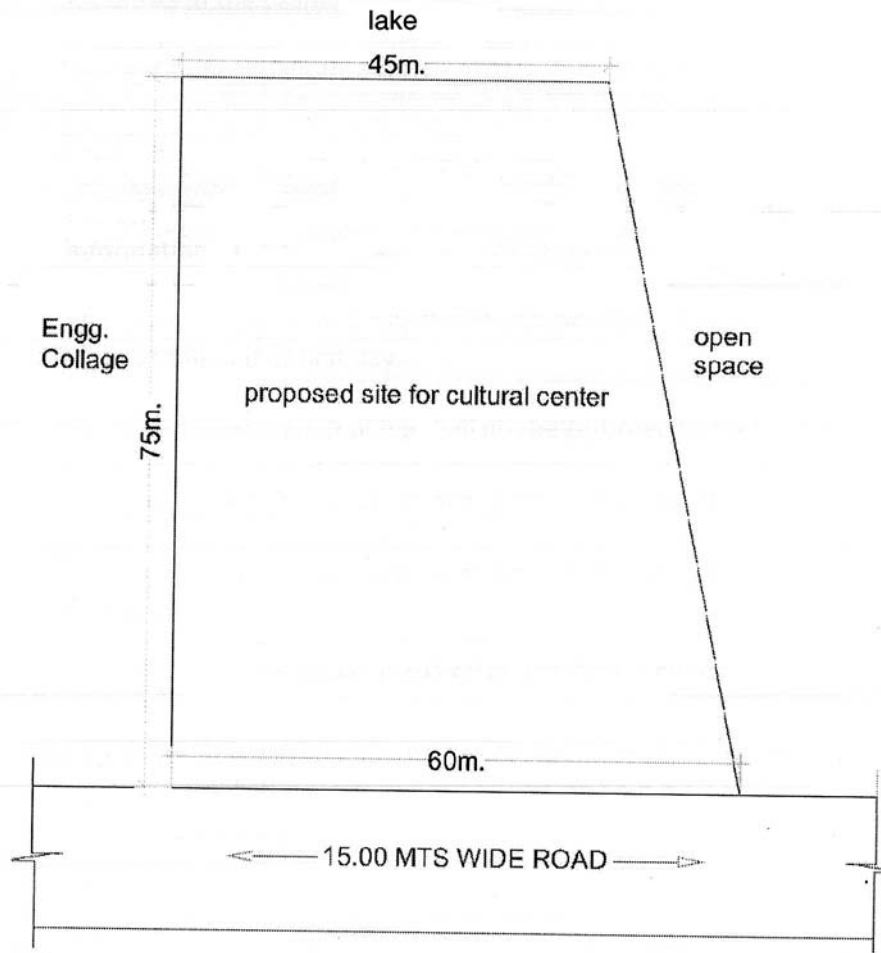
The design has to correlate with the climate of SOLAPUR and architectural heritage styles may be given as key features.

Drawing requirements :

1. Concept (not to scale)	15
2. Site plan (1:200)	25
3. All floor plans (1:100)	50
4. 2 sections (1:100)	25
5. 2 elevations (1:100)	20
6. 3D view (not to scale)	15



SITE PLAN



Margins –

- Front – 15 m.
- Side and rear – 6 m. each



SLR-TI – 57

Seat No.	
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B.Arch. (Semester – VIII) (New) Examination, 2017
PROFESSIONAL PRACTICE – II

Day and Date : Wednesday, 29-11-2017
Time : 3.00 p.m. to 6.00 p.m.

Total Marks : 80

- I. Fill in the blanks : **(1×8=8)**
- i) The minimum fees/reimbursable expenses for an individual house is _____ on the cost of work assigned towards the architect.
 - ii) In demolition tender, the _____ and the lowest tender should be approved.
 - iii) Contract is a _____ by law in written.
 - iv) _____ is the person to whom it the disputes and differences are referred for necessary adjudication.
 - v) _____ stage competition is suitable for town planning and large scale or complex project
 - vi) The land on which the liability of beneficial enjoyment of the easement is imposed is called _____ heritage.
 - vii) Land or property to be acquired under land acquisition act, should be used for _____ purpose.
 - viii) FAR stands for (full form) _____.
- II. Write short notes on **(any 3)** : **(3×4=12)**
- i) Security deposit.
 - ii) Dominant and servient heritage.
 - iii) Arbitral agreement.
 - iv) Open competition.
- III. Answer the following **(any 5)** : **(5×12=60)**
- i) Explain in detail the role of COA in architectural education.
 - ii) Write in brief tender document.
 - iii) Differentiate between mediation, conciliation and arbitration.
 - iv) Discuss the nature of competition.
 - v) Differentiate between natural and customary rights.
 - vi) Mention the factors considered for women under Factory Act.
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SLR-TI – 58

Seat No.	
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B.Arch. – IV (Semester – VIII) (Old) Examination, 2017
PROFESSIONAL PRACTICE – II

Day and Date : Wednesday. 29-11-2017

Time : 3.00 p.m. to 6.00 p.m.

Total Marks : 80

1. Fill in the blanks : (8×1=8)

- i) _____ is enacted for the registration of architects and for matters concerned there with.
- ii) The liability of the architect expires after _____ years from the date of completion of relevant part of work.
- iii) EMD stands for _____
- iv) _____ is a written decision given by the arbitrator on issues referred.
- v) Land Acquisition Act was enacted by the government of India in _____
- vi) The number of assessor in any competition should always be _____ in number.
- vii) The landlord is known as _____ the written lease or agreement between the landlord and tenant.
- viii) _____ is an offer in writing to do a particular work at a specified time and cost.

2. Write short notes on **(any 3)** : (4×3=12)

- i) Responsibilities of a client towards Architect.
- ii) Demolition tender.
- iii) Natural and customary rights.
- iv) Duties of an assessor in Architectural Competitions.
- v) Arbitrary tribunal.

P.T.O.



3. Write in brief (**any 5**) :

(12×5=60)

- i) Explain in detail Architects Act – 1972.
 - ii) What is Easement right and also describe the methods of acquiring easement rights ?
 - iii) What are the provisions made for ensuring health and hygiene, for the labours under Labour Act ?
 - iv) Differentiate between Item-rate Tender and Lumpsum Tender.
 - v) Explain in brief the process of acquiring a land under land Acquisition Act.
 - vi) Explain the principal requirements and conditions for conducting Architectural Competition.
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