

DEPARTMENT OF ARCHITECTURE  
AU COLLEGE OF ENGINEERING

I/V B.Arch.DegreeExamination

**MODEL QUESTION PAPER**  
**BASIC DESIGN AND VISUALARTS**

(Effectivefromthe admittedbatch of2022-2023)

**FIRST SEMESTER**

**Time: 5Hours**

**Max.Marks:50**

PART-A is **COMPULSORY**

**1x30=30M**

**PART-A**

1. Designalogoforayogavillageinyourcityreflectingthepurposeofthespacekeepinginmind the design principles.

**2x10=20M**

AnswerAny**TWO**fromPart-B

**PARTB**

2. Withthehelp of neatsketchesexplain the following
  - a. Hierarchy
  - b.Rhythm
  - c.Datum
3. Whataretheelementsof design?Elaboratewiththehelp ofdiagrams.
4. Whatistransformation?Withthehelpofsketchesdescribevariouswaysoftransformationof forms.
5. Distinguishbetween
  - a. Analogous colors&contrastingcolors
  - b. Tone &Texture
  - c. Warmcolors and cool colors

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**MODEL QUESTION PAPER**  
**ARCHITECTURAL DRAWING AND GRAPHICS-I**  
(Effectivefromthe admittedbatch of2022-2023)

**FIRSTSEMESTER**

**Time: 5hours**

**Max.Marks:50**

Answer any **FIVE** questions

All questions carry **EQUAL** marks.

1. Compose the LOGO of an Architects firm in A4 size sheet
2. Construct a complex geometric pattern using any two geometrical shapes
3. Draw the projections of hexagonal pyramid base 30mm side and axis 60mm long having its base on the H.P. and one of the edge of the base inclined at 45 degrees to the V.P.
4. Answer any two of the following
  - a. Write architectural style of lettering of the following in 2x2cm "ARCHITECTURE IS THE MOTHER OF ALL ARTS"
  - b. Inscribe a regular pentagon in a circle of dia 8cm.
  - c. Describe the importance of line types and weights
5. Draw Isometric for Figure 1.
6. Draw architectural symbols for the following
  - a) Any two human posters
  - b) Two Plants in elevation
  - c) Door and windows in plan
7. Draw an intersection of two cylinders of 15cm long and 5cm diameter, intersecting perpendicularly at their respective centers
8. Answer any two of the following
  - a. Draw an involute of a square 4cm x 4cm.
  - b. Write at least 5 abbreviations used in architectural representation
  - c. Show graphical representation for glass, wood, stone, concrete, RCC

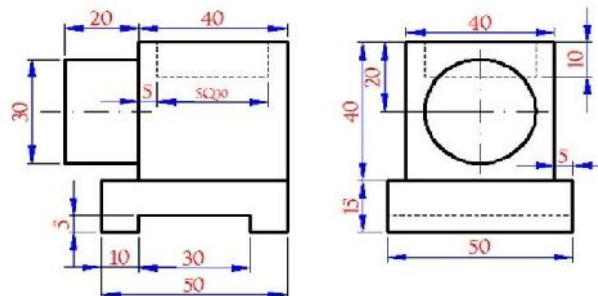


Figure 1

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**MODEL QUESTION PAPER**  
**BUILDING MATERIALS AND CONSTRUCTION-I**  
(Effectivefromthe admittedbatch of2022-2023)

**FIRSTSEMESTER**

**Time: 5hours**

**Max.Marks:50**

Answer any **ONE** from Part  
A Answer any **THREE** from Part-B

**PART-A**

**1x20=20M**

1. Draw to scale plans and elevations of alternative courses of 1 and 1 ½ bricks thick wall in (a) English bond (b) Flemish bond. (adopt scale of 1:20)
2. Draw a three centered arch with an opening size of 1.5M wide and 2.10M height (from floor finishing to the key stone) and also mention all the technical terms of an arch. (adopt scale of 1:10)

**PART-B**

**3x10=30M**

3. Explain basic principles of load bearing and framed structures
4. Write short notes on
  - a. Bulking of sand
  - b. Lightweight mortars
5. Give classification, qualities, uses and localities where they are available in India of the following stones.
  - a. Granites
  - b. Limestone
  - c. Marble
  - d. Quartzite
  - e. Sandstone
6. What are the qualities of ideal preservatives? Mention the preservatives which are commonly used
7. Define the following with the help of neat sketches
  - a. Steel lintels and RCC lintels
  - b. Lintel and Arch.

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**MODEL QUESTION PAPER**  
**INTRODUCTION TO ARCHITECTURE ART CULTURE**  
(Effectivefromthe admittedbatch of2022-2023)

**FIRSTSEMESTER**

**Time: 3hours**

**Max. Marks: 70**

Answer any **FIVE** questions

All questions carry **EQUAL** marks.

1. Explain briefly about development of Ancient Civilizations
2. Write short notes on development of shelter forms from prehistoric period.
3. Explain Arts and Crafts Movement.
4. Explain the terms Art, Culture, Architecture with relevant examples and briefly discuss how they are inter related to each other.
5. What is ornament? Discuss about types of ornamentation in buildings.
6. Write short notes on stages of early History of Architecture with suitable examples and sketches.
7. Discuss the evolution of Architecture from the Renaissance to the contemporary.
8. List the difference between Indian architecture and western architecture with suitable examples.

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**MODEL QUESTION PAPER**  
**SURVEY & SITE STUDIES**

(Effectivefromthe admittedbatch of2022-2023)

**FIRST SEMESTER**

**Max.Marks: 50**

**PRACTICAL&VIVA-VOCEEXAMINATION**

**FIRST SEMESTER**

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** questions

All questions carry **EQUAL** marks.

1. A man raises a 10-kg joist, of length 4 m, by pulling on a rope. Find the tension  $T$  in the rope and the reaction at  $A$ . (Refer Fig.1)

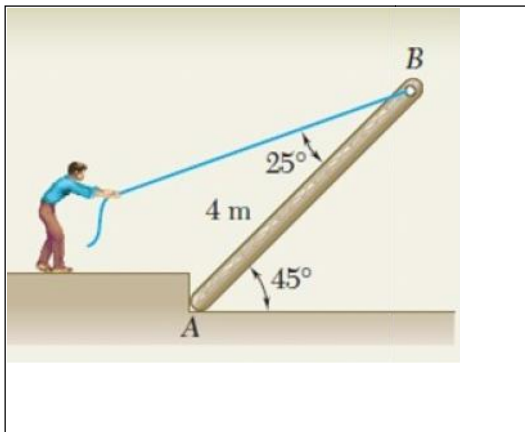


Fig.1

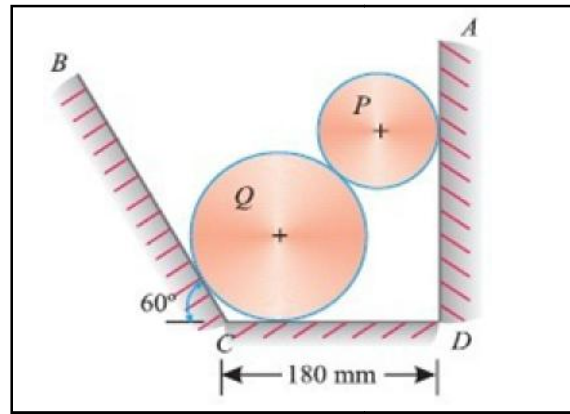


Fig.2

2. Two cylinders rest in a channel as shown in Fig. 2. The cylinder  $P$  has diameter of 100mm and weighs 200N, whereas the cylinder  $Q$  has diameter of 180mm and weighs 500N. If the bottom of the box is 180mm with one side vertical and other inclined at  $60^\circ$ . Determine the reaction at all the four points of contacts.

3. Using the method of joints, determine the force in each member of the truss shown in Fig.3. Indicate whether the members are in tension or compression.

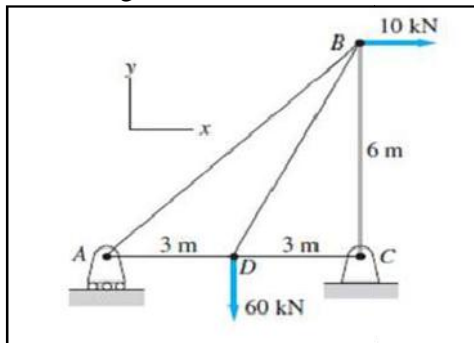


Fig.3

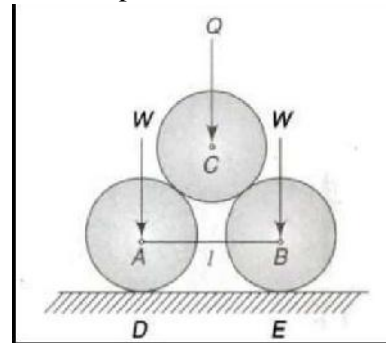


Fig.4

4. Two smooth circular cylinders, each of weight  $W = 445\text{N}$  and radius  $r = 152\text{mm}$ , are connected at their centres by a string  $AB$  of length  $l = 406\text{mm}$  and rest upon a horizontal plane, supporting above them a third cylinder of weight  $Q = 890\text{N}$  and radius  $r =$

5. Determine the moments of inertia  $I_x$  and  $I_y$  of the shaded area with respect to side AB for the plane area shown in Fig.5.

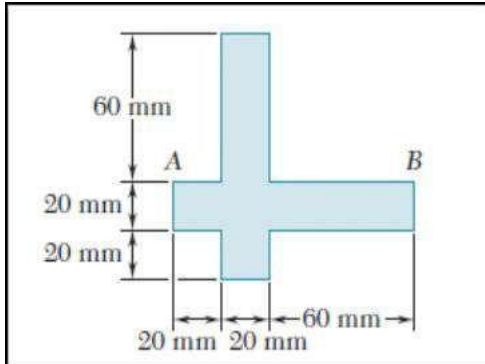


Fig.5

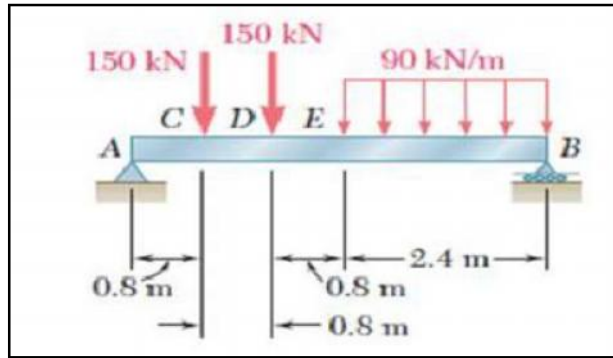


Fig.6

6. Draw the shear and bending-moment diagrams for the beam and loading shown in Fig.6.
7. Derive the basic equation  $\tau = f_s / R = G \theta / l$
8. A specimen of steel 20 mm diameter with a gauge length of 200 mm is tested to destruction. It has an extension of 0.25 mm under a load of 80 kN and the load at elastic limit is 102 kN. The maximum load is 130 kN. The total extension at fracture is 56 mm and diameter at neck is 15 mm.

Find

- (i) The stress at elastic limit.
- (ii) Young's modulus.
- (iii) Percentage elongation.
- (iv) Percentage reduction in area.
- (v) Ultimate tensile stress.

**Model Question Paper**  
**English**  
**I/IVB.Tech.,I/VIB.Tech+M.Tech.&I/VArchitecture(Effective from 2019-2020 Admitted Batches)**  
**(Common for all Branches)**

**Time: 3 hours Max marks: 70**

**Instructions:**

- Answer **Question No. 1**, and any **four** questions from the remaining.
- All parts of a question *must* be answered at one place.
- All questions carry equal marks.

1. a. Read the passage and answer the questions that follow:

Political education has many connotations. It may be defined as the preparation of a citizen to take well informed, responsible and sustained action for participation in the national struggle in order to achieve the socio-economic objectives of the country. The predominant socio-economic objectives in India are the abolition of poverty and the creation of a modern democratic, secular and socialist society in place of the present traditional, feudal, hierarchical and inegalitarian one. Under the colonial rule, the Congress leaders argued that political education was an important part of education and refused to accept the official view that education and politics should not be mixed with one another. But when they came to power in 1947 they almost adopted the British policy and began to talk of education being defiled by politics. 'Hand off education' was the call of all political parties. But in spite of it, political infiltration into the educational system has greatly increased in the sense that different political parties vie with each other to capture the mind of teachers and students. The wise academicians wanted political support, without political interference. What we have actually received is infinite political interference with little genuine political support. This interference with the educational system by political parties for their own ulterior motives is no political education at all and with the all round growth of elitism, it is hardly a matter for surprise that real political education within the school system (which really means the creation of a commitment to social transformation) has been even weaker than in the pre-independence period. During that time only, the struggle for freedom came to an end and the major non-formal agency of political education disappeared. The press played a major role by providing some political education. But it did not utilize the opportunity to the full and the stranglehold of vested interests continued to dominate it. The same can be said of political parties as well as of other institutions and agencies outside the school system which can be expected to provide political education. After analyzing all these things, it appears that we have made no progress in genuine political education in the post-independence period and have even slid back in some respects. For instance, the education system has become even more elite-oriented. Patriotism has become the first casualty. The father of the nation gave us the courage to oppose government when it was wrong, in a disciplined fashion and on basic principles. Today, we have even lost the courage to fight on basic issues in a disciplined manner because agitational and anarchic politics for individual, group or party aggrandizement has become common. In the recent times the education system continues to support domination of the privileged groups and domestication of the under-privileged ones. This situation will not change unless we take vigorous steps to provide genuine political education on an adequate scale. This is one of the major educational reforms we need, and if it is not carried out, mere linear expansion of the existing system of formal education will only support the status quo and hamper radical social transformation.

- i. According to the passage, what should be the main purpose of political education? (2 Marks)
  - ii. What would be the appropriate Title of the passage, state reason/s? (2 Marks)
  - iii. How has politics been related to educational institutions after independence? (2 Marks)
  - iv. Based on the passage, which is the major drawback of the presented education system? (2 Marks)
- b. Correct errors, if any, in the following sentences and rewrite them. (2 Marks)
- i. They discussed about the whole matter.
  - ii. I have just a little more page to read.
- c. Use the following phrasal verbs in sentences of your own. (2 Marks)
- i. Backout
  - ii. Standby
- d. Write the meanings of the following idiomatic expressions. (2 Marks)
- i. Black sheep
  - ii. Feel blue



2. a. What is William Hazlitt's advice to his son in 'On the Conduct of Life'. (7Marks)  
 b. Bring out the significance of Rudyard Kipling's poem, 'IF'. (7Marks)
3. a. How does Tennyson describe the poem, 'The Brook'. (7Marks)  
 b. What are the suggestions given by George Bernard Shaw to improve Public Speaking. (7Marks)
4. a. Discuss the significance of Saki's Play, *The Death Trap*. (7Marks)  
 b. Reflect on the ideas of Time Management, with reference to Seneca's letter. (7Marks)
5. a. Describe two instances in which Yellamma breaks gender and caste barriers in her life? (7Marks)  
 b. How does Muhammad Yunus' innovative idea help the poor women of Bangladesh. (7Marks)
6. a. Mention the rules George Orwell advocates in order to better one's use of language. (7Marks)  
 b. How does Mrinalini Sarabhaiserve as a motivation through her life? (7Marks)
7. a. Write an exchange of dialogues between you and your senior colleague. (7Marks)  
 b. Read the following passage and make notes on it, using headings and sub-headings:  
 (7Marks) India is a secular, democratic nation. This implies that every religion is treated equally and at par with every other religion. No religion is accorded any preferential treatment of any kind. All citizens are also free to practice, preach or profess any religion of their choosing. The state does not have a unified or homogeneous religious following. This unique characteristic of India ensures its unity in diversity. India has been the birthplace of several religions and is the land where all these religions - such as Hinduism, Christianity, Buddhism, Sikhism, Zoroastrianism, Jainism and so on exist simultaneously, peacefully and harmoniously. But, some anti-social elements have interpreted the sanctity of religions in a twisted way. No religion preaches violence or rioting. All the religions are but various ways to reach the Supreme Being, they are paths which lead to the ultimate truth and salvation, though we refer to the destination by various names such as Jesus, Krishna, Buddha, Allah and so on. It is important to realize that in order to ensure a peaceful mosaic of cultural distinctness, the path of non-violence or ahimsa, as given by the Father of the nation, must be followed unwaveringly. God created man in his own image. Hence, it follows naturally that there is some divinity within all human beings. Thus, to kill and murder in the name of religion is blasphemy. Only once the religious fanatics understand this, will there be perpetual peace in the land.
8. a. Write an essay on 'Women Empowerment in India'. (7Marks)  
 b. Write a letter to the Principal of your college requesting to conduct a Technical Fest. (7Marks)

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