

NÍÉ

5

(b) $\frac{a^2 + b^2}{a^2 - b^2} = \frac{a^2 + b^2}{a^2 - b^2} : -$

' + ' MÉ] ã

(1) $+E^{\circ} \text{H}^{\circ} \text{E}^{\circ} \text{E}^{\circ}$

(2) $E^{\circ} \text{H}^{\circ} \text{E}^{\circ} \text{E}^{\circ}$

(3) $\int_{\mathbb{R}^n} |\nabla u|^2 dx = 0$

(4) $\circ | \acute{E} \grave{a} M \acute{e} x \acute{E}$

(5) $\frac{1}{2}p^a E^a E^a \otimes u$

‘**ᐃ**’, **ME]** ò

(+) EðlGò]õ "É]®E±É ÊÊC°É Eð®nÄä

(d) 90° E dñé "éñéh^aé°éé` 0

(E0) 1 : 2 : 4

(b) 1 : 6

(\langle) {É}áóMé°ÉÉ`ò´ÉÉ{É®üÉÉiÉ.

[illegible]

(+) E°E'É] ò °IE±É SÉÉSéhÈÒ °{É'] ò Eò®Ù.

(ㄷ) SÉÉNE+^aÉE EòGò] SÉa MÈBÈVÉ'ÉÇ °ÉÉNE.

(Eò) {Éä} ö "½mÉVÉä Eä^{aé} ? i^aÉÉSÉä |ÉEä[®]ú °ÉÉ É°iÉ[®]ú °{É1} ö Eò[®]ú.

(b) $\hat{E}V\hat{E}x^a\hat{E}\hat{E}S\hat{E}a \quad \hat{E}\hat{E}\hat{E}\hat{E}\hat{E}3\check{y} \mid \hat{E}\hat{E}\hat{E}\hat{E}^{\textcircled{R}}\hat{u} \circ \{\hat{E}^{\textcircled{1}}\} \tilde{o} \hat{E}\hat{E}^{\textcircled{R}}\hat{u}.$

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3. $J_{E \perp E_0}^{\perp}(E_0) \in \mathcal{H}_E^{\perp}(E_0) \cap \mathcal{H}_E^{\perp}(E_0) = \mathcal{H}_E^{\perp}(E_0) : -$

[illegible]

(4) $nWEEC | E^{\otimes n} E_a S E_a' E E E^3 \tilde{q} | E E d^{\otimes u} E + E 1/2 \tilde{p}$.

(Eò) ÈÈdMÉ {ÉÉÉ] ò] PÉSEÒ °ÉÉÈÒ +ÉÈbiÈÒ EðfÉ.

(b) ~~_____~~ E^o~~_____~~ E^a E^{3yE0} P^{EE'E0} ?

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4. $J_{E \pm E_0 \pm i(E_0)} E_{\alpha}^{\pm} E_{\beta}^{\pm} = k E_{\alpha}^{\pm} E_{\beta}^{\pm} : -$

$$(+)\quad j_0^{\otimes R} \otimes \{[1] \otimes E_0^{\otimes R} - \} \pm [1] \otimes \otimes \ddot{u}_j \otimes + \hat{E} \hat{E} \hat{E} \hat{E} \hat{E} \{[Sb \div \otimes \ddot{u}_j \otimes$$

(d) "ÉÉ-ÉÉÉ }±ÉÉä+É®WE É°ÉÉ ÉªÉÉSÉÒ {ÉrÜÉÒ É±É½ð.

(Eò) nᵒᵁÉÉVÉEÉSĀ ÉNÉ ÉNÉ³ŷ |ÉÉđ®ú °ÉÉNÉE.

(b) $+E_1E_0+E_1E_1E_0+E_1E_1E_1E_0+\dots\{+E_1^0\}E_1^{\otimes n}E_0^{\otimes n}h^aE_1^aE_1^a\{E_1E_0+E_1E_1/2\}.$

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5. $\hat{E} \left(\frac{\partial E}{\partial t} + \frac{1}{2} \right) = (E \frac{\partial h}{\partial t} + \frac{1}{2}) S^H$:-

(+) $\langle \hat{M} \pm \hat{Q} \rangle \neq 0$

(၁၆) ဇာတိဇာနည်စာရင်း

$$(E_0) + \left[\begin{matrix} \textcircled{R} \\ \textcircled{U} \end{matrix} \right] \textcircled{O} \textcircled{E}_0. \textcircled{O} \textcircled{E}_0. \textcircled{E} \pm \textcircled{E} \textcircled{E} \textcircled{E}$$

(b) ±ÉÉÉÜb÷®KÉE´ÉhEä

(\leq) {ÉÉhÉÒ-Ê°Ê´Éä ò MÈBÉÉ&É®Ú

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6. $J_{E \pm E_0 + E(E_0)} E d h_i^{a(E \pm E_0)} n_{E \pm E_0}^{(E \pm E_0)} = k_E^{(E \pm E_0)} E \pm E_0 : -$

(+) EJEb-EòSä ÉNÉ ÉNÉ³ | ÉÉÉ® ú ÉÉÉÉ.

(d) $\frac{d}{dt} \left(\frac{1}{2} m v^2 \right) = \frac{d}{dt} \left(\frac{1}{2} m \dot{x}^2 \right) = m \dot{x} \ddot{x} = m \dot{x} a = m \dot{x} \frac{d^2 x}{dt^2} = m \frac{d}{dt} \left(\frac{1}{2} \dot{x}^2 \right) = m \frac{d}{dt} \left(\frac{1}{2} v^2 \right)$

(E0) $J\dot{E}b-E\dot{d}S\dot{E}a=n\dot{u}\frac{1}{2}Pm\dot{E}^{\circ}E\frac{1}{2}b\mid E\dot{E}d^{\circ}u\dot{E}+E\frac{1}{2}b.$

[illegible]

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ENGLISH

[TIME ALLOWED—3 HOURS]

(MARKS—100)

MATERIAL AND CONSTRUCTION (THEORY-I)**Marks**

1. (a) Choose the correct answers (any *five*) :— 5
- (i) Mortar is mix of with water.
 - (a) Cement, sand, metal (b) Cement, metal
 - (c) Cement, sand (d) Sand, metal.
 - (ii) is the most common joint of stone masonry used for ordinary work.
 - (a) Lapped joint (b) Butt joint
 - (c) Tabled joint (d) Other joint.
 - (iii) Quarry stone are used as it is in Stone masonry.
 - (a) Ashlar masonry (b) Rubble masonry
 - (c) Ashlar fine masonry (d) Uncoursed rubble masonry.
 - (iv) Steel used in construction safe-Rusted because of
 - (a) Paint (b) Damphen
 - (c) Curing (d) Other.
 - (v) The cost of framework varies from
 - (a) 10%–20% (b) 20%–30%
 - (c) 30%–40% (d) 40%–50%
 - (vi) is an example of igneous rock.
 - (a) Marble (b) Sand stone
 - (c) Limestone (d) Granite.
- (b) State *True* or *False* (any *five*) :— 5
- (i) The brickwork is stronger than stonework.
 - (ii) Good quality timber has minimum knots.
 - (iii) For ordinary Portland cement curing period is about 5 to 7 days.
 - (iv) A sloping roof is known as Pitched roof.
 - (v) Cement mortar 1:2 used for pointing.
 - (vi) Pile foundation is used at hard murum land.
- (c) State Long form of the following (any *five*) :— 5
- (i) P.C.C. (ii) R.C.C. (iii) A. C. Sheet
 - (iv) G.I. Wire (v) M.S. Bar (vi) G.L.

Marks

- (d) Match the following :— 5
- | Group 'A' | Group 'B' |
|--------------------|-------------------------------------|
| (i) R.C.C. work | (a) Use to mix concrete ingredients |
| (ii) Brick masonry | (b) To measure 90° angle |
| (iii) Try square | (c) 1 : 2 : 4 |
| (iv) Spray gun | (d) 1:6 |
| (v) Vibrator | (e) Used for painting. |
2. Attempt any *two* of the following :— 16
- (a) State the test on field of cement.
 - (b) Explain the quality of good concrete.
 - (c) What is paint ? Explain it's types.
 - (d) Explain the types of stairs.
3. Attempt any *two* of the following :— 16
- (a) Describe the process of making cement.
 - (b) What are the different types of pointing ?
 - (c) Draw neat figure of king post truss.
 - (d) Write the precautions taken in masonry.
4. Attempt any *two* of the following :— 16
- (a) Differentiate between flat roof and pitched roof.
 - (b) Write the procedure of fixing marble flooring.
 - (c) What are the different types of doors ?
 - (d) Write the procedure of internal wall plastering.
5. Write short notes (any *four*) :— 16
- (a) English bond
 - (b) Storing of cement
 - (c) R.C.C. Lintel
 - (d) Seasoning of timber
 - (e) Water cement ratio.
6. Attempt any *two* of the following :— 16
- (a) What are the different types of windows ?
 - (b) What are the merits and demerits of wall papering.
 - (c) Classify with examples of Rocks.
 - (d) Differentiate between Shallows foudation and Deep foundation.
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