

Subject Code: R10205/R10

Set No - 1

I B.Tech II Semester Regular Examinations Oct./Nov. - 2013

ENGINEERING DRAWING

(Common to BME, CE, ME, CHEM, AE, AME, PT branches)

Time: 3 hours

Max. Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

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1. (a) Construct a regular heptagon of 30 mm side and inscribe a circle in it.
(b) Construct a diagonal scale of representative fraction equal to $1/4000$ to show meters and long enough to measure up to 400 meters. Also show a distance of 256 meters on the Scale. [8+7]
2. (a) A 80 mm line is parallel to and 30 mm in front of the vertical plane. Its two ends are 20 mm and 50 mm above the horizontal plane. Draw its projections and find its inclination with the horizontal plane.
(b) The front view of a line, which is inclined at 30° to the vertical plane, is 70 mm long. Draw the projections of the line, when it is parallel to and 50 mm below the horizontal plane, its one end being 20 mm in front of the vertical plane. [8+7]
3. A line AB of length 70 mm is inclined at 30° to the horizontal plane. Its end A is 16 mm above the horizontal plane and 24 mm in front of the vertical plane. Its front view measures 55 mm. Draw the top view of AB and determine its inclination with the vertical plane. [15]
4. A rectangular plate of 70 mm and 50mm long sides has a semi-circle on its longer side. Draw its projections when the longer side is parallel to the horizontal plane and inclined at 45° to the vertical plane, the surface of the plate making 60° with the horizontal plane. [15]
5. A rectangular block of 60 mm x 40 mm x 20 mm thick has a 25 mm hole drilled centrally through its largest faces. Draw the projections when the block has its 40 mm long edge parallel to the horizontal plane and perpendicular to the vertical plane and has the axis of the hole inclined at 30° to the horizontal plane. [15]
6. A pentagonal pyramid, of base 25 mm side and axis 60 mm long, has an edge of its base on the ground. Its axis is inclined at 45° to the ground and parallel to the vertical plane. Draw its projections. [15]



7. Projections of a casting are given in Fig. 1. Draw the isometric view of the casting. All dimensions are in mm.

[15]

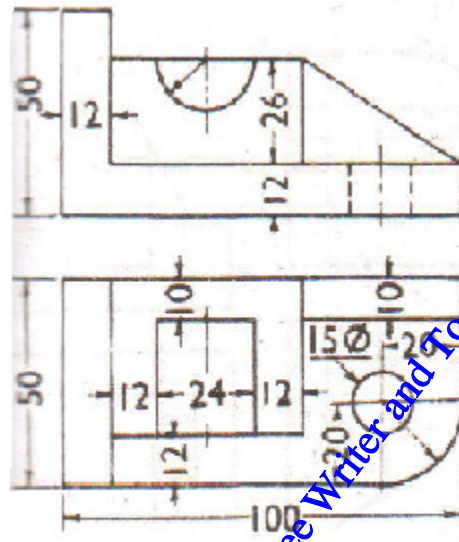


Fig. 1

8. Pictorial view of an object is shown in Fig. 2. Draw, to the scale of full size, the following views. All dimensions are in mm.
(i) Front view
(ii) Top view

[15]

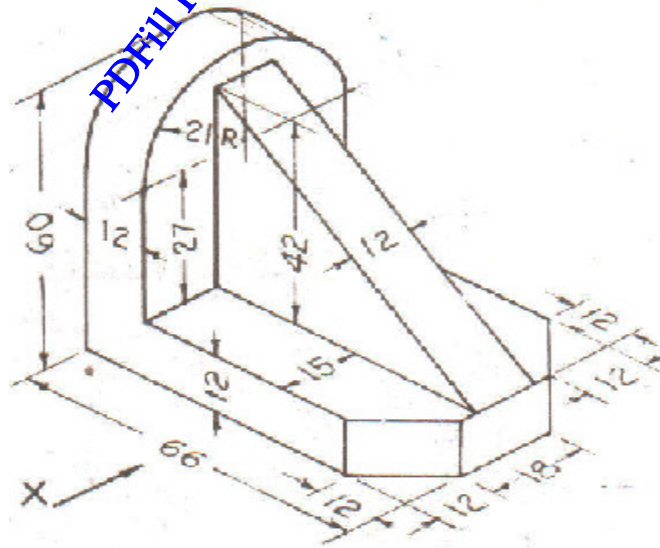


Fig. 2



Subject Code: R10205/R10

Set No - 2

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ENGINEERING DRAWING

(Common to BME, CE, ME, CHEM, AE, AME, PT branches)

Time: 3 hours

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Answer any FIVE Questions
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* * * * *

1. (a) Describe a regular pentagon about a circle of 80 mm diameter.
(b) Draw a vernier scale of representative fraction equal to $1/20$ to read centimeters up to 5 meters and show a length representing 3.18 meters on it. [8+7]
2. (a) A 90 mm long line is parallel to and 20 mm below the horizontal plane. Its two ends are 30 mm and 60 mm behind the vertical plane respectively. Draw its projections and find its inclination with the vertical plane.
(b) A vertical line PQ, 90 mm long, has its end P in the horizontal plane and 20 mm in front of the vertical plane. A line PR, 120 mm long is in the horizontal plane and parallel to the vertical plane. Draw the projections of the line joining Q and R, and determine its inclination with the horizontal plane. [8+7]
3. A line AB of 100 mm long is inclined at 45° to the horizontal plane and its top view makes an angle of 60° with the vertical plane. The end A is in the horizontal plane and 15 mm in front of the vertical plane. Draw its front view and find its true inclination with the vertical plane. [15]
4. Draw the projections of a rhombus having diagonals of 100 mm and 40 mm long if its smaller diagonal is parallel to both the principal planes and the longer one is inclined at 60° to the horizontal plane. [15]
5. A hexagonal prism of base 30 mm side and axis 65 mm long rests on one of its rectangular faces on the ground. Its axis is inclined at 30° to the vertical plane. Draw its projections. [15]
6. A square pyramid, base 30 mm side and axis 70 mm long, has a triangular face on the ground and the vertical plane containing the axis makes an angle of 30° with the V.P. Draw its projections. [15]



7. Projections of a casting are given in Fig. 1. Draw the isometric view of the casting. All dimensions are in mm.

[15]

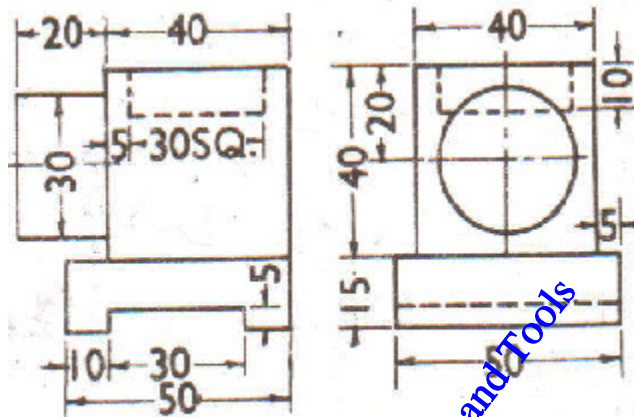


Fig. 1

8. Pictorial view of an object is shown in Fig. 2. Draw, to the scale of full size, the following views. All dimensions are in mm.
- (i) Front view
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[15]

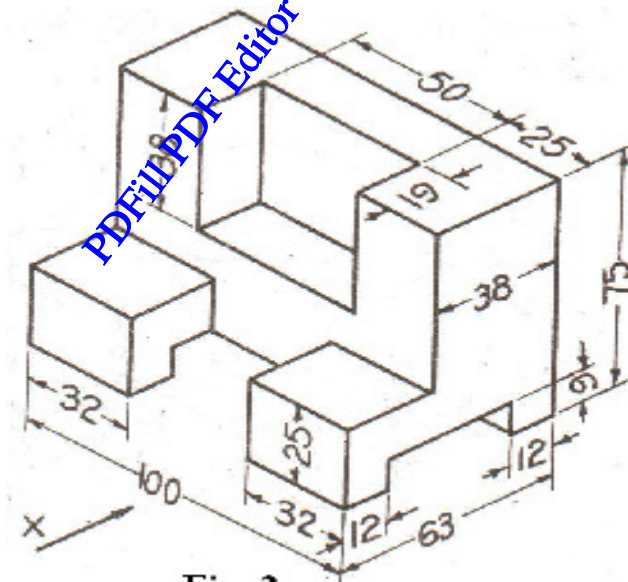


Fig. 2



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Set No - 3

I B.Tech II Semester Regular Examinations Oct./Nov. - 2013

ENGINEERING DRAWING

(Common to BME, CE, ME, CHEM, AE, AME, PT branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
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* * * * *

1. The major axis of an ellipse is 120 mm long and the minor axis is 80 mm long. Find the foci and draw the ellipse by arcs of circles method. Draw a tangent to the ellipse at a point on it 20 mm above the major axis. [15]
2. (a) A 70 mm long line is parallel to and 30 mm behind the vertical plane. Its two ends are 10 mm and 40 mm below the horizontal plane respectively. Draw its projections and find its inclination with the horizontal plane.
(b) The top view of 80 mm long line is 65 mm. The line is parallel to and 20 mm behind the vertical plane. Its lower end is 20 mm above the horizontal plane. Draw its projections. [8+7]
3. A line AB, inclined at 50° to the vertical plane, has its ends 60 mm and 20 mm above the horizontal plane. The length of the front view is 70 mm and its vertical trace is 12 mm above the horizontal plane. Determine the true length of AB, its inclination with the horizontal plane. [15]
4. A regular hexagonal plate of 50 mm side has a central hole of 50 mm diameter. The plane stands vertical on the horizontal plane on one of its corners with its two sides vertical. Draw its projections when the plane surface is vertical and inclined at 30° to the vertical plane. [15]
5. A cylindrical block of 80 mm diameter and 30 mm thick has a hexagonal hole of 25 mm side cut centrally through its flat faces. Draw its projections when it has its flat faces vertical and inclined at 30° to the vertical plane and two faces of the hole perpendicular to the horizontal plane. [15]
6. A hexagonal pyramid, base 30 mm side and axis 60 mm long, has an edge of its base on the ground. Its axis is inclined at 30° to the ground and parallel to the vertical plane. Draw its projections. [15]



7. Projections of a casting are given in Fig. 1. Draw the isometric view of the casting. All dimensions are in mm.

[15]

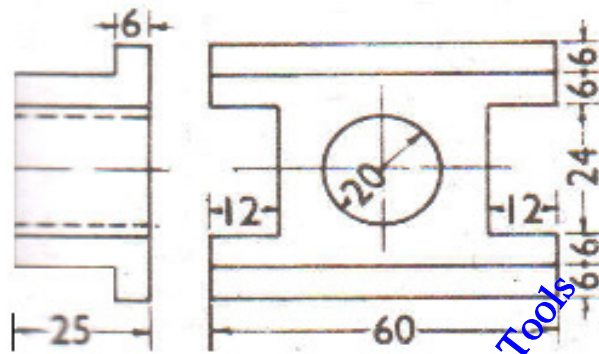


Fig. 1

8. Pictorial view of an object is shown in Fig. 2. Draw to the scale of full size, the following views. All dimensions are in mm.
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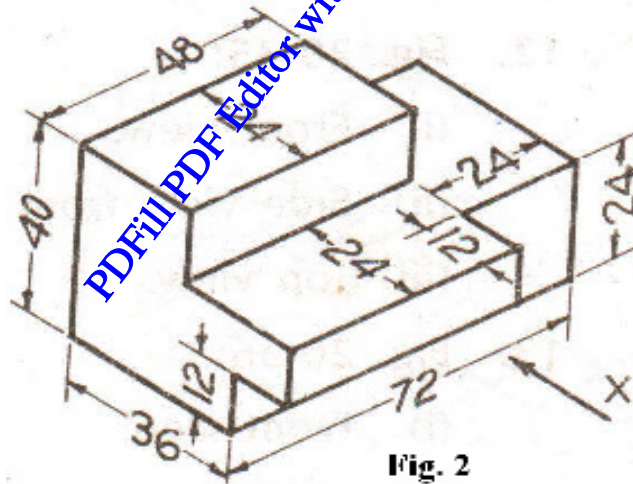


Fig. 2



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Set No - 4

I B.Tech II Semester Regular Examinations Oct./Nov. - 2013

ENGINEERING DRAWING

(Common to BME, CE, ME, CHEM, AE, AME, PT branches)

Time: 3 hours

Max. Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

*** * * * ***

1. Inscribe an ellipse in a parallelogram having sides 150 mm and 100 mm long and an included angle of 120° . [15]
2. (a) A 100 mm long line is parallel to and 40 mm in front of the vertical plane. Its two ends are 20 mm and 60 mm above the horizontal plane respectively. Draw its projections and find its inclination with the horizontal plane.
(b) The front view of line, inclined at 30° to the vertical plane, is 60 mm long. The line is parallel to and 30 mm below the horizontal plane. Its nearer end is 40 mm in front of the vertical plane. Draw the projections of the line. [8+7]
3. A line AB, 80 mm long is in the second quadrant with the end A in the horizontal plane and the end B in the vertical plane. The line is inclined at 30° to the horizontal plane and at 45° to the vertical plane. Draw the projections of AB. [15]
4. Draw the projections of a circle of 90 mm diameter having the end A of the diameter AB in the horizontal plane, the end B in the vertical plane and the surface inclined at 30° to the horizontal plane and 60° to the vertical plane. [15]
5. Draw the projections of a pentagonal prism, base 25 mm side and axis 70 mm long, resting on an edge of its base on the ground with rectangular face containing the edge being perpendicular to the vertical plane. Its axis is inclined at 30° to the ground and parallel to the vertical plane. [15]
6. Draw the three views of a cone, base 40 mm diameter and axis 70 mm long, having one of its generators in the vertical plane and inclined at 30° to the horizontal plane, the apex being in the horizontal plane. [15]



7. Projections of a casting are given in Fig. 1. Draw the isometric view of the casting. All dimensions are in mm.

[15]

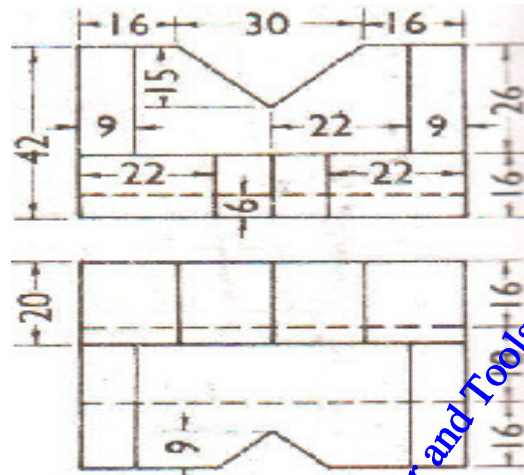


Fig. 1

8. Pictorial view of an object is shown in Fig. 2. Draw, to the scale of full size, the following views. All dimensions are in mm.
(i) Front view
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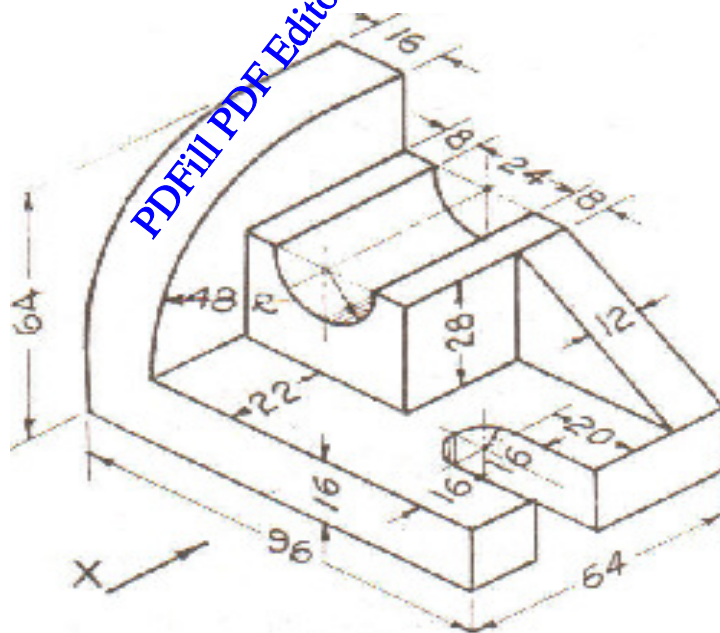
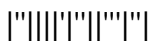


Fig. 2



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Set No - 1

I B.Tech II Semester Regular Examinations Oct./Nov. - 2013

ENGINEERING CHEMISTRY - II

(Common to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Explain free radical mechanism with example.
(b) Write about the preparation and properties of bakelite.
(c) Write notes on biodegradable polymers. [5+6+4]
- 2.(a) Write notes on (i) Bullet proof plastics. (ii) Glass Fiber reinforced plastics.
(b) With a neat sketch explain extrusion moulding [10+5]
- 3.(a) Write in detail about compounding of rubber.
(b) Give any five engineering applications of elastomers. [9+6]
- 4.(a) Discuss any two methods for the synthesis of carbon nanotubes.
(b) What are fullerenes? Give any four engineering applications of fullerenes. [8+7]
- 5.(a) Describe the manufacture of Portland cement by rotary kiln method.
(b) Discuss the following properties of refractories
(i) Refractoriness under load (ii) Refractoriness [9+6]
- 6.(a) Explain moving bed catalytic cracking method with a neat labeled diagram.
(b) Explain the terms octane number and cetane number.
(c) Write any four applications of lubricants. [7+4+4]
- 7.(a) Explain differential aeration corrosion, & galvanic corrosion.
(b) Explain the constituents of paints.
(c) Differentiate between galvanizing and tinning. [6+5+4]
- 8.(a) Discuss the principles of green chemistry.
(b) Explain in detail any two methods of green synthesis. [5+10]



Subject Code: R10204/R10

Set No - 2

I B.Tech II Semester Regular Examinations Oct./Nov. - 2013

ENGINEERING CHEMISTRY - II

(Common to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Explain the significance of Zeigler-Natta Catalyst.
(b) Explain addition and condensation polymerization with example.
(c) Write about the preparation and properties of polyvinyl chloride. [5+5+5]
- 2.(a) Write notes of fiber reinforced plastics.
(b) With a neat sketch explain extrusion moulding.
(c) Give any four properties of plastics. [5+5+5]
- 3.(a) Explain how Buna-N rubber is prepared? What are its important applications?
(b) What are the limitations of natural rubber? How does vulcanization improve the properties of rubber?
(c) Give any five engineering applications of elastomers. [4+7+4]
- 4.(a) Describe the production of carbon nanotubes by laser ablation method with a neat sketch.
(b) Write the engineering applications of carbon nanotubes.
(c) Discuss the properties of fullerenes. [5+5+5]
- 5.(a) Explain setting and hardening of cement with suitable chemical equations.
(b) Write notes on glazed and unglazed clays.
(c) Explain the classification of refractories based on chemical composition with examples. [7+4+4]
- 6.(a) Write short notes on fractional distillation of petroleum with a neat sketch diagram.
(b) Write notes on antiknocking agents
(c) Describe the mechanism of thick film and thin film lubrication. [5+3+7]
- 7.(a) Explain the mechanism of pitting and galvanic corrosion.
(b) Discuss on the metallic coatings (i) Electroplating (ii) Electroless plating.
(c) Explain how corrosion can be controlled by proper selection and designing. [5+6+4]
- 8.(a) Explain aqueous phase method and supercritical fluid extraction method of green synthesis.
(b) Discuss any five applications of green chemistry. [10+5]



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Set No - 3

I B.Tech II Semester Regular Examinations Oct./Nov. - 2013

ENGINEERING CHEMISTRY - II

(Common to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Write about the preparation and properties of polycarbonates
(b) Explain the physical and mechanical properties of polymers
(c) What is glass transition temperature? [4+8+3]
- 2.(a) Write notes on
(i) Fiber reinforced plastics (ii) Bullet proof plastics
(b) With a neat sketch explain extrusion and compression moulding. [8+7]
- 3.(a) Write in detail about compounding of rubber.
(b) Explain how polyurethane rubber is prepared? What are its important applications?
(c) Write the structure of natural rubber and Gutta Percha. [8+4+3]
- 4.(a) Describe the production of carbon nanotubes by arc discharge method with a neat sketch.
(b) Explain the properties of carbon nanotubes.
(c) Discuss on the applications of fullerenes. [5+5+5]
- 5.(a) Write notes on glazed & unglazed ceramics. Give any four engineering applications of ceramics.
(b) Classify types of refractories based on chemical composition with examples.
(c) Discuss the effect of CO₂ on cement concrete. [8+4+3]
- 6.(a) What is meant by cracking of oil? Explain fluid bed catalytic cracking method with a labeled diagram.
(b) Explain the terms octane number and cetane number.
(c) Discuss on (i) Cloud and Pour Point (ii) Aniline Point [6+4+5]
- 7.(a) Explain the factors affecting corrosion.
(b) What is the role of sacrificial anode in corrosion control?
(c) State and explain Pilling Bedworth rule. [8+4+3]
- 8.(a) Describe the phase transfer catalyst for green synthesis.
(b) Discuss the principles of green chemistry.
(c) Discuss on the (five) applications of green chemistry. [4+6+5]



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Set No - 4

I B.Tech II Semester Regular Examinations Oct./Nov. - 2013

ENGINEERING CHEMISTRY - II

(Common to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

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- 1.(a) Write notes on stereospecific polymers.
(b) Write about the preparation and properties of Teflon.
(c) Explain the physical and mechanical properties of polymers. [4+4+7]
- 2.(a) With a neat sketch explain extrusion moulding and injection moulding.
(b) Write notes of fiber reinforced plastics. [10+5]
- 3.(a) What are the drawbacks of natural rubber? How does vulcanization improve the properties of rubber?
(b) Write about the preparation and properties of polyurethanes.
(c) Give any five engineering applications of elastomers. [7+4+4]
- 4.(a) Describe the production of carbon nanotubes by arc discharge and chemical vapour deposition method.
(b) Write the (atleast three each) engineering applications of carbon nanotubes and fullerenes. [9+6]
- 5.(a) Explain setting and hardening of cement with suitable chemical reactions.
(b) Write notes on (i) Thermal spalling (ii) Refractoriness
(c) Define glazed and unglazed ceramics. [7+4+4]
- 6.(a) Write short notes on refining and reforming of gasoline.
(b) Describe Fischer Tropsh method with a neat labeled diagram.
(c) Describe the mechanism of extreme pressure lubrication. [8+4+3]
- 7.(a) Discuss how corrosion can be minimized using the cathodic protection method.
(b) Explain differential aeration corrosion and pitting corrosion.
(c) Discuss the differences between tinning and galvanizing [6+6+3]
- 8.(a) Explain in detail any three methods of green synthesis
(b) Discuss on the applications of green chemistry. [12+3]



MATHEMATICS - II

(Common to All Branches)

Time: 3 hours**Max. Marks: 75**

Answer any FIVE Questions
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- 1.(a) Evaluate $\int_0^{\infty} \frac{e^{-t} \sin^2 t}{t} dt$ using Laplace transforms.
 (b) Find $L[(t^2 + e^{-t}) \sin 3t]$ [8+7]
- 2.(a) Find $L^{-1} \left[\frac{s+1}{(s^2+2s+2)^2} \right]$
 (b) Solve $y'' + y = e^{-2t} \sin t, y(0) = y'(0) = 0$ using Laplace transforms. [8+7]
- 3.(a) Find the Fourier series of $f(x) = x^2$ for $0 < x < 2\pi$.
 (b) If $f(x) = 1 - \frac{x}{L}$, in $0 < x < L$, then find the half range Fourier cosine series. [8+7]
4. Find the Fourier cosine and sine integrals of $f(x) = \begin{cases} \sin x & 0 < x \leq \pi \\ 0 & x > \pi \end{cases}$. [15]
- 5.(a) Form the partial differential equation by eliminating the arbitrary function f from $xyz = f(x+y+z)$.
 (b) Solve $p \tan x + q \tan y = \tan z$. [8+7]
6. A bar of length, laterally insulated, has its ends A and B kept at 0°C and 100°C respectively until steady state conditions prevail. If the temperature at B is suddenly reduced to 0°C and kept so, while that of A is maintained at 0°C . Find the temperature $u(x,t)$ in the bar at any subsequent time. [15]
- 7.(a) Find $Z(n \cos n\theta)$.
 (b) Solve $a_{n+2} - 2a_{n+1} + a_n = 3n + 5$ using Z transforms. [8+7]
- 8.(a) Evaluate $\int_0^{\infty} a^{-bx^2} dx$.
 (b) Prove that $\beta(p, q) = \beta(p+1, q) + \beta(p, q+1)$. [8+7]



MATHEMATICS - II

(Common to All Branches)

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* * * * *

- 1.(a) Find $L \left[\int_0^t \frac{\sin u}{u} du \right]$.
(b) Find $L[e^{-t} \sin^2 t]$. [8+7]
- 2.(a) Find $L^{-1} \left[\frac{16}{(s-2)(s+2)^2} \right]$ using convolution theorem.
(b) Solve $y'' + 7y' + 10y = 4e^{-3t}$, $y(0) = 0$, $y'(0) = -1$ using Laplace transforms. [8+7]
- 3.(a) Find the Fourier series of $f(x) = x \sin x$ in $(-\pi, \pi)$.
(b) If $f(x) = 1 - \frac{x}{L}$, in $0 < x < L$, then find half range Fourier sine series. [8+7]
4. Represent $f(x)$ as an exponential Fourier transform, where

$$f(x) = \begin{cases} \sin x & 0 < x \leq \pi \\ 0 & x > \pi \end{cases}$$
and deduce that $f(x) = \frac{1}{\pi} \int_0^{\infty} \frac{\cos ax + \cos a(\pi-x)}{1+a^2} da$ [15]
- 5.(a) Form the partial differential equation of all spheres whose centers lie on z-axis.
(b) Solve $(y^2+z^2)p - xyq + xz = 0$. [8+7]
6. Find the displacement of a string stretched between two fixed points at a distance $2c$ apart, when the string is initially at rest in equilibrium position and points of the string are given initial velocity $v = \begin{cases} \frac{x}{c} & 0 < x < c \\ \frac{2c-x}{c} & c < x < 2c \end{cases}$, where x is the distance measured from one end. [15]
- 7.(a) Find $Z(\cosh n\theta)$.
(b) Solve $a_{n+2} - 4a_{n+1} + 3a_n = 5^n$ using Z transforms. [8+7]
- 8.(a) Evaluate $\int_0^2 x \sqrt[3]{8-x^3} dx$.
(b) Prove that $\beta(p, q) = \frac{(m-1)!(n-1)!}{(m+n-1)!}$. [8+7]

MATHEMATICS - II

(Common to All Branches)

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- 1.(a) Find $L[f(t)]$, where $f(t) = \begin{cases} 1 & 0 \leq t < 2 \\ -1 & 2 \leq t \leq 4 \end{cases}$ and $f(t+4) = f(t)$.
 (b) Find $L[t^{\frac{7}{2}} e^{3t}]$. [8+7]
- 2.(a) Using convolution theorem, find $L^{-1} \left[\frac{s^2}{(s^2+a^2)(s^2+b^2)} \right]$.
 (b) Solve $y^{11} + n^2 y = a \sin(nt + 2)$, $y(0) = 0$, $y'(0) = 0$ using Laplace transforms. [8+7]
- 3.(a) Find the Fourier series of $f(x) = x \cos x$ in $(-\pi, \pi)$.
 (b) If $f(x) = \sin\left(\frac{\pi x}{L}\right)$, in $0 < x < L$, then find half range Fourier sine series. [8+7]
4. Find Fourier cosine transform of $f(x) = e^{-ax}$ for $x \geq 0$, $a > 0$ and evaluate $\int_0^{\infty} \frac{\cos ax}{a^2 + \alpha^2} d\alpha$. [15]
- 5.(a) Form the partial differential equation by eliminating the arbitrary constants a and b from $z = xy = y\sqrt{x^2 + a^2 + b^2}$.
 (b) Solve $(x^2 - y^2 - yz)p + (x^2 - y^2 - xz)q = z(x-y)$. [8+7]
6. Solve the Laplace equation for $u(x,y)$ satisfying the conditions $u(0,y)=0$, $u(a,y)=0$, $u(x,b)=0$ and $u(x,0) = f(x)$. [15]
- 7.(a) Find $Z\left(a^n \frac{e^{-a}}{n!}\right)$.
 (b) Solve $a_{n+2} + 2a_{n+1} + a_n = n$, with $a_0 = a_1 = 0$, using Z transforms. [8+7]
- 8.(a) Evaluate $\int_0^1 x^{\frac{3}{2}} (1-x^2)^{5/2} dx$.
 (b) Prove that $\beta(p, q) = \frac{\Gamma(m)\Gamma(n)}{\Gamma(m+n)}$. [8+7]



MATHEMATICS - II

(Common to All Branches)

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* * * * *

- 1.(a) If $f(t) = \frac{e^{-at} - e^{-bt}}{t}$, find $L[f(t)]$.
(b) Find $L[\cosh at \cos bt]$. [8+7]
- 2.(a) Solve $y'' + 2y' + 5y = e^{-t} \sin t, y(0) = 0, y'(0) = 1$ using Laplace transforms.
(b) Determine function $f(t)$ for which $L[f(t)] = \frac{1}{2} \ln \left(\frac{s+1}{s-1} \right)$. [8+7]
- 3.(a) Derive the Fourier series of $f(x) = \frac{\pi-x}{2}$ in $(0, 2\pi)$.
(b) If $f(x) = \sin \left(\frac{\pi x}{L} \right)$, in $0 < x < L$, then find half range Fourier cosine series. [8+7]
4. Find Fourier sine transform of $f(x) = e^{-ax}$ for $x \geq 0, a > 0$ and evaluate $\int_0^{\infty} \frac{\alpha \sin \alpha x}{a^2 + \alpha^2} d\alpha$. [15]
- 5.(a) Form the partial differential equation for the family of all circles with given radius r and their centers in xy -plane.
(b) Solve $yp + xq + pq = 0$. [8+7]
6. A string of length L is fastened at both ends A and C . At a distance 'b' from A , the string is transversely displaced to a distance 'd' and is released from rest when it is in this position. Find the subsequent displacement of the string. [15]
- 7.(a) Find $Z(n \cos n\theta)$.
(b) Solve $a_{n+2} + 4a_{n+1} + 3a_n = 3^n$, with $a_0 = 0, a_1 = 1$ using Z transforms. [8+7]
- 8.(a) Evaluate $\int_0^1 \left(\frac{x}{1-x^3} \right)^{1/2} dx$.
(b) Prove that $\Gamma\left(\frac{1}{2}\right) = \sqrt{\pi}$. [8+7]



Answer any FIVE Questions
All Questions carry equal marks

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- 1.(a) Write down time dependent and time independent Schrodinger wave equations.
(b) Show that the energy of an electron confined in a one dimensional potential well of length L and infinite depth is quantized.
(c) The electron trapped in potential well cannot have zero energy. Explain, why? [4+9+2]
- 2.(a) Explain the terms 'Drift Velocity' and 'Carrier Mobility'.
(b) What are assumptions of classical free electron theory?
(c) Based on classical free electron theory, derive an expression for electrical conductivity in metals. [3+4+8]
- 3.(a) Discuss with suitable mathematical expressions, the motion of an electron in a periodic potential.
(b) Explain how the above theory leads to the concept of band structure of solids.
(c) What is effective mass of electron? [8+4+3]
- 4.(a) What are ferromagnetic materials? Write notes on hysteresis.
(b) How would you use the hysteresis curves to select material for the construction of permanent magnets?
(c) Diamagnetic Al_2O_3 is subjected to external magnetic field of 10^5 A/m. Evaluate magnetization and magnetic flux density in Al_2O_3 . (Susceptibility of $Al_2O_3 = -5 \times 10^{-5}$). [9+2+4]
- 5.(a) Explain the significance of three critical parameters of superconductors.
(b) Explain ac and dc Josephson's effect. Discuss the applications of Josephson's effect. [6+9]
- 6.(a) What do you understand by dielectric constant? Define dielectric susceptibility. Derive the relation between dielectric constant and dielectric susceptibility.
(b) Explain electronic polarisability and show that electronic polarisability for a mono atomic gas increases as the size of the atom becomes larger. [5+10]
- 7.(a) Write the expressions for electron and hole concentrations in an intrinsic semiconductor and hence derive the expression for Fermi energy in an intrinsic semiconductor.
(b) How does the electrical conductivity vary with temperature for an intrinsic semiconductor?
(c) If the effective mass of electron is equal to twice the effective mass of hole, determine the position of the Fermi level in an intrinsic semiconductor from the centre of forbidden gap at room temperature. [6+5+4]
8. Write a brief note on
(i) Nano materials
(ii) Flux quantization
(iii) Hall effect [5+5+5]



Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Show that the solution of Schrodinger's equation for a particle in an infinite potential well leads to the concept of quantization of energy. Obtain Eigen functions for the particle. Show necessary wave forms.
(b) Find the lowest energy of an electron confined to move in a one dimensional box of length 1Å. Express the result in electron volts. [11+4]
- 2.(a) What are the drawbacks of the classical free electron theory?
(b) Derive an expression for electrical conductivity of a conducting material based on quantum mechanical treatment.
(c) Find the relaxation time of conduction electrons in a metal if its resistivity is $1.54 \times 10^{-8} \Omega m$ and it has 5.8×10^{28} conduction electrons/ m^3 . [3+8+4]
- 3.(a) Discuss with suitable mathematical expressions, the motion of an electron in a periodic potential.
(b) Explain how the above theory leads to the concept of band structure of solids.
(c) What is effective mass of electron? [8+4+3]
- 4.(a) Explain magnetic flux density, B, magnetic field strength, H and Magnetisation M. Derive the relation between them.
(b) Describe dia, para and ferromagnetic materials. Explain their classification on the basis of permanent magnetic moment. [6+9]
- 5.(a) What is superconductivity? Explain Meissner effect. Describe type-I and type-II superconductors.
(b) Discuss the applications of superconductors. [12+3]
- 6.(a) What do you understand by dielectric constant? Define dielectric susceptibility. Derive the relation between dielectric constant and dielectric susceptibility.
(b) Explain electronic polarisability and show that electronic polarisability for a mono atomic gas increases as the size of the atom becomes larger. [5+10]
- 7.(a) Write notes on drift and diffusion currents.
(b) Obtain the expression for density of electrons in the conduction band of an n-type extrinsic semiconductor. [6+9]
8. Write a brief note on
(i) Nano tubes
(ii) Clausius-Mosotti equation
(iii) Bloch theorem [5+5+5]



Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Write down time dependent and time independent Schrodinger wave equations.
(b) Show that the energy of an electron confined in a one dimensional potential well of length L and infinite depth is quantized.
(c) The electron trapped in potential well cannot have zero energy. Explain, why? [4+9+2]
- 2.(a) What are the drawbacks of the classical free electron theory?
(b) Derive an expression for electrical conductivity of a conducting material based on quantum mechanical treatment.
(c) Find the relaxation time of conduction electrons in a metal if its resistivity is $1.54 \times 10^{-8} \Omega m$ and it has 5.8×10^{28} conduction electrons/ m^3 . [3+8+4]
- 3.(a) Explain the formation of energy bands in solids and explain in detail how solids are classified on the basis of energy band gap.
(b) According to band theory, a completely filled or empty band is not associated with electrical conduction. Only partially filled band is responsible for electrical conduction. Explain. [10+5]
- 4.(a) What are ferromagnetic materials? Write notes on hysteresis.
(b) How would you use the hysteresis curves to select material for the construction of permanent magnets?
(c) Diamagnetic Al_2O_3 is subjected to external magnetic field of 10^5 A/m. Evaluate magnetization and magnetic flux density in Al_2O_3 . (Susceptibility of $Al_2O_3 = -5 \times 10^{-5}$). [9+2+4]
- 5.(a) What is superconductivity? Explain Meissner effect. Describe type-I and type-II superconductors.
(b) Discuss the applications of superconductors. [12+3]
- 6.(a) Distinguish between electronic, ionic and orientation polarization and discuss the effect of temperature on each of them.
(b) Deduce an expression for Lorentz field relating to a dielectric material. [7+8]
- 7.(a) Write notes on drift and diffusion currents.
(b) Obtain the expression for density of electrons in the conduction band of an n-type extrinsic semiconductor. [6+9]
8. Write a brief note on
(i) Nano materials
(ii) Flux quantization
(iii) Hall effect [5+5+5]



Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Show that the solution of Schrodinger's equation for a particle in an infinite potential well leads to the concept of quantization of energy. Obtain Eigen functions for the particle. Show necessary wave forms.
(b) Find the lowest energy of an electron confined to move in a one dimensional box of length 1\AA . Express the result in electron volts. [11+4]
- 2.(a) Explain the terms 'Drift Velocity' and 'Carrier Mobility'.
(b) What are assumptions of classical free electron theory?
(c) Based on classical free electron theory, derive an expression for electrical conductivity in metals. [3+4+8]
- 3.(a) Explain the formation of energy bands in solids and explain in detail how solids are classified on the basis of energy band gap.
(b) According to band theory, a completely filled or empty band is not associated with electrical conduction. Only partially filled band is responsible for electrical conduction. Explain. [10+5]
- 4.(a) Explain magnetic flux density, B, magnetic field strength, H and Magnetisation M. Derive the relation between them.
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(b) How does the electrical conductivity vary with temperature for an intrinsic semiconductor?
(c) If the effective mass of electron is equal to twice the effective mass of hole, determine the position of the Fermi level in an intrinsic semiconductor from the centre of forbidden gap at room temperature. [6+5+4]
8. Write a brief note on
(i) Nano tubes
(ii) Clausius-Mosotti equation
(iii) Bloch theorem [5+5+5]



Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Describe how changes in society through technology can lead to wealth generation in a poor country like India.
(b) Write the antonyms:
(i) Negate (ii) Abundance (iii) Vulnerable
(iv) Straight (v) Indolence [10+5]
- 2.(a) Explain the views of L.A. Hill in 'Principles of Writing'.
(b) Supply the quantifiers: (some, no, any, all, a lot of, many, much)
(i) Are there ---- eggs in the basket?
(ii) There is ---- sugar in the tin.
(iii) She knows ----- stories.
(iv) Can you give me ----- advice?
(v) There are ----- vehicles on the road. [10+5]
- 3.(a) What are the suggestions made by Russell to nations and general public for the maintenance of peace?
(b) Fill in the blanks with suitable conjunctions:
(i) I came early----- everyone was late.
(ii) Bread ----- butter make a good breakfast.
(iii) The boy was lazy----- the teacher punished him.
(iv) She is a good singer----- a poor dancer.
(v) ----- it rains, I will not go to school. [10+5]
- 4.(a) Describe the behavior of the local population as narrated by George Orwell.
(b) Correct the following sentences:
(i) He is an university student
(ii) We discussed about the matter.
(iii) He told to me that he was a teacher.
(iv) He is sick but he cannot attend the school.
(v) He is the tallest of the two. [10+5]
- 5.(a) 'Adaptability' is one of the personal traits that helps to achieve the career goal'- Explain.
(b) Fill in the blanks with correct prepositions:
(i) The cat is----- the sofa.
(ii) He looked -----.
(iii) This book is written----- Adams.
(iv) He waited there ----- two hours.
(v) I don't agree ----- you. [10+5]



- 6.(a) Write a report to the Chief Engineer on the necessity of solar energy devices. You are working in State Electricity Board as Assistant Engineer.
- (b) Read the passage and answer the questions:

Being stupid and having no imagination, animals often behave far more sensibly than men. Efficiently and by instinct they do the right, appropriate thing at the right moment – eat when they are hungry, look for water when they feel thirsty, make love in the mating season, rest or play when they have leisure.

Men are intelligent and imaginative; they look backwards and ahead; they invent ingenious explanation, or observe phenomena; they devise elaborate and roundabout means for the achievement of remote ends. Their intelligence which has made them the masters of the world often causes them to act like imbeciles. No animal, for example, is clever and imaginative enough to suppose that an eclipse is a work of a serpent devouring the sun. And only a human being would dream of making ritual gestures, in the hope of influencing for his own benefit the outside world. Man being endowed with reason and imagination, wastes half his time and energy in doing things that are completely idiotic. In time true experience teaches formulas and ceremonial gestures would not give him what he wants. But until experience has taught him, he takes surprisingly long time to learn that man’s behavior in many respects is far sillier than that of the animal’s.

QUESTIONS

- (i) Which factor helps the animals to do the right thing at right time?
- (ii) How can you say that men act like imbeciles?
- (iii) Why do men observe rituals?
- (iv) How does man waste his time?
- (v) Compare man’s behavior with that of an animal. [10+5]

- 7.(a) Make a presentation with 5 to 6 slides on ‘Tree Plantation’.
- (b) Fill in the blanks with suitable articles.

- (i) I met ----- university student.
- (ii) I saw him at----- museum.
- (iii) Jone is ----- Italian.
- (iv) He is ----- honorable person.
- (v) Shall we have----- drink? [10+5]

- 8.(a) Write a letter to a book seller placing an order for the books. Give the list of the books and write a covering letter.
- (b) Match the following.

A	B	
(i) Didactic	Pound foolish	
(ii) Beg, Borrow	Disaster	
(iii) Pennywise	Quantifier	
(iv) Earthquake	Or steal	
(v) A little	Teaching	[10+5]



I B.Tech II Semester Regular Examinations July/Aug. - 2013

ENGLISH - II

(Common to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) What are the problems that India would face in making Abdul Kalam's dream into reality?
(b) Write the antonyms:
(i) Essential (ii) Endured (iii) Tenacity
(iv) Avert (v) Soggy [10+5]
- 2.(a) Write an essay on the importance of a writer being a good reader and a keen observer on the basis of Hill's guidelines.
(b) Supply the quantifiers: (any, some, anything, nothing, something, a lot of)
(i) There is ---- problem with the fan.
(ii) Is there ---- food in the kitchen?
(iii) I have ---- work to do.
(iv) Did you say ----?
(v) Would you like---- to eat? [10+5]
- 3.(a) Justify Russell's statement that world is 'full of conflicts'.
(b) Fill in the blanks with suitable conjunctions:
(i) Did you come by bus----- train?
(ii) He is a good worker ----- he got a promotion.
(iii) It started raining ----- we were playing.
(iv) Let us go home----- it gets dark.
(v) She looked upset ----- the results were announced. [10+5]
- 4.(a) Comment on Orwell's decision to shoot the elephant.
(b) Correct the following sentences:
(i) He described about his journey.
(ii) Ram worked hard so he failed.
(iii) Little water in the pot quenched the thirst of the crow.
(iv) The leader did anything for the people.
(v) He ran fastly. [10+5]
- 5.(a) Write about motivation and commitment.
(b) Fill in the blanks with correct prepositions.
(i) The cat is ----- the sofa.
(ii) He looked ----- the sky.
(iii) This book is written ----- Graham Swift.
(iv) He waited there----- two hours.
(v) I don't agree ----- you. [10+5]



6.(a) Write a report to the Managing Director, Arvind Textiles, 6th cross, Peters Lane, Calcutta on the feasibility of starting a new Textile Industry in Hyderabad. You are the sales manager of the company .

(b) Read the passage and answer the questions:

The philosophers have often maintain that happiness, like beauty, is a by-product, a lovely but accidental acquisition. As the bloom appears on flowers or on the face of youth, so does bliss slip into our lives, coming the more surely the less it is pursued. You set out to do something, you pin your mind on the purpose, you do the job and lo! Happiness descends upon you. But you must not think about the pleasure; stick to the deed, the action and there comes the joy, a secret visitation. The nature of the deed does not matter greatly, so long as your heart and brain and the muscles are in the work. To hit a ball correctly or to compose a masterpiece, the process is the same. Concentrate and the mysterious felicity will follow. The way to ensure happiness is not to seek it. So they say, but mankind has never believed it. Mankind, in the main is more concerned with pleasure than with happiness; it believes in a "good time" which is made good by the very reason of our intention to enjoy. This fervor of holiday spirit, this instinctive passion for carnival, is perhaps inarticulate but quite an unquestionable response to the grave philosopher, who resolves happiness into an accident of successful action.

Questions

- (i) What is an accidental acquisition?
- (ii) How does happiness descend on us?
- (iii) What does the philosopher say about happiness?
- (iv) Give the list of the tasks for which the process is the same.
- (v) Explain the nature of mankind.

[10+5]

7.(a) Prepare a presentation on 'Eco Friendly Power generation'. Explain with the help of 5 to 6 slides.

(b) Fill in the blanks with suitable articles:

- (i) I met ----- one-eyed man at the station.
- (ii) Can you play----- instrument?
- (iii) ----- Bible is ----- holy book.
- (iv) It is ----- unicorn.

[10+5]

8.(a) Write a complaint letter to the Municipal Commissioner about the bad state of roads and drainage system in your locality.

(b) Match the following:

- | A | B |
|-----------------------|-------------|
| (i) Etiquette | vegetation |
| (ii) Commission | calamity |
| (iii) Flora and fauna | punctuation |
| (iv) Tornado | members |
| (v) Semi-colon | decorum |

[10+5]



Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) What are the factors that constitute a knowledge society according to Abdul Kalam.
(b) Write the antonyms:
(i) Err (ii) Altruistic (iii) Glee
(iv) Endowed (v) Flabbily [10+5]
- 2.(a) Analyse Hill's observation regarding a simple and clear style of writing.
(b) Supply the quantifiers: (many, some, plenty, a lot of, enough, any, a few)
(i) Drink ----- water.
(ii) There is ---- water in the pot.
(iii) I want to buy ----- books.
(iv) She never had---- experience for the post.
(v) There isn't --- parking space here. [10+5]
- 3.(a) Are the views of Russell on war and peace relevant to the present world? Justify.
(b) Fill the blanks with conjunctions:
(i) -----he failed in the exam, he left the hostel.
(ii) ----- he is poor ,he is generous.
(iii) I dropped the jar -----it didn't break.
(iv) ----- it is hot outside the children are playing.
(v) Ram ----- Shyam are good friends. [10+5]
- 4.(a) Describe in your own words the actual shooting of the elephant in Orwell's work.
(b) Correct the following sentences.
(i) Despite of his illness, he attended the meeting.
(ii) She is angry on me.
(iii) He cut the apple by the knife.
(iv) Do you see blue sky ?
(v) There is many milk in the bottle. [10+5]
- 5.(a) Write an essay on 'Stress Management'.
(b) Fill in the blanks with correct prepositions.
(i) He was ----- time for presentation.
(ii) The thief was caught ----- the police.
(iii) He congratulated the team ----- their success.
(iv) The Exam starts ----- 9 a.m.
(v) She is angry ----- me. [10+5]



- 6.(a) The management of a newspaper wants to start a weekly magazine and has asked one of its committee members to make a study of the readership and send a report.

- (b) Read the passage and answer the questions:

Being stupid and having no imagination, animals often behave far more sensibly than men. Efficiently and by instinct they do the right, appropriate thing at the right moment – eat when they are hungry, look for water when they feel thirsty, make love in the mating season, rest or play when they have leisure.

Men are intelligent and imaginative; they look backwards and ahead; they invent ingenious explanation, or observe phenomena; they devise elaborate and roundabout means for the achievement of remote ends. Their intelligence which has made them the masters of the world often causes them to act like imbeciles. No animal for example is clever and imaginative enough to suppose that an eclipse is a work of a serpent devouring the sun. And only a human being would dream of making ritual gestures, in the hope of influencing for his own benefit the outside world. Man being endowed with reason and imagination, wastes half his time and energy in doing things that are completely idiotic. In time true experience teaches formulas and ceremonial gestures would not give him what he wants. But until experience has taught him, he takes surprisingly long time to learn that man's behavior in many respects is far sillier than that of the animal's.

QUESTIONS

- (i) Which factor helps the animals to do the right thing at the right time?
(ii) How can you say that men act like imbeciles?
(iii) Why do men observe rituals?
(iv) How does man waste his time?
(v) Compare man's behavior with that of an animal.

[10+5]

- 7.(a) Make a presentation on the necessity to build check dams near your area to store water during rainy season .Give the details of the available area of the cultivable land,location etc.... Prepare 5 or 6 slides.

- (b) Fill in the blanks with suitable articles.

- (i) It is ----- wonderful painting.
(ii) I have ----- one rupee coin with me
(iii) He is ----- idiot.
(iv) ----- Ramayana is ----- great epic.

[10+5]

- 8.(a) Write a letter to your father inviting him to attend your convocation ceremony.

- (b) Match the following.

A

- (i) Didactic
(ii) Beg, Borrow
(iii) Pennywise
(iv) Earthquake
(v) A little

B

- Pound foolish
Disaster
Quantifier
Or steal
Teaching

[10+5]



Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) What is Abdul Kalam's vision regarding knowledge society?
(b) Give the antonyms:
(i) Negate (ii) Tenacity (iii) Noble
(iv) Despotism (v) Eliminate [10+5]
- 2.(a) Summarize L.A. Hills advice to the one who wants to be a successful writer.
(b) Supply the quantifiers.(many, some, no, any, a lot of, much, something)
(i) There is a ----- sugar in the tin.
(ii) There are ----- apples in the basket.
(iii) I want -----to eat now.
(iv) I have to drink----- water.
(v) Is there ----- sense in this question. [10+5]
- 3.(a) Russell in his essay describes the repercussion of atomic warfare. Summarize in your own words.
(b) Fill in the blanks with suitable conjunctions:
(i) The meeting began in the morning----- lasted----- evening.
(ii) ----- the weather is cold, John has put on a coat.
(iii) He worked hard ----- secured first rank.
(iv) ----- it rains, I need not water the plants. [10+5]
- 4.(a) Comment on Orwell's decision to shoot the elephant in the lesson prescribed for your study.
(b) Correct the following sentences.
(i) The two thieves shared the money among themselves.
(ii) He is so weak to attend the work.
(iii) Either Ram nor Shyam will attend the meeting.
(iv) The Ashoka is a great king.
(v) Violin is a musical instrument. [10+5]
- 5.(a) Write an essay on Team Work and Integration.
(b) Fill in the blanks with correct prepositions:
(i) He is curious ----- many things.
(ii) I am looking forward ----- the proposal.
(iii) He is leaving----- Delhi tomorrow.
(iv) The table is made----- wood.
(v) I am tired ----- walking. [10+5]



6.(a) As a Marketing Manager of Sunfield Automobiles, Andheri , Mumbai,submit a report on the decline of sales to the Director, Marketing.

(b) Read the passage and answer the questions:

The philosophers have often maintain that happiness, like beauty, is a by-product, a lovely but accidental acquisition. As the bloom appears on flowers or on the face of youth, so does bliss slip into our lives, coming the more surely the less it is pursued. You set out to do something, you pin your mind on the purpose, you do the job and lo! Happiness descends upon you. But you must not think about the pleasure; stick to the deed, the action and there comes the joy, a secret visitation. The nature of the deed does not matter greatly, so long as your heart and brain and the muscles are in the work. To hit a ball correctly or to compose a masterpiece, the process is the same. Concentrate and the mysterious felicity will follow. The way to ensure happiness is not to seek it. So they say, but mankind has never believed it. Mankind, in the main is more concerned with pleasure than with happiness; it believes in a "good time" which is made good by the very reason of our intention to enjoy. This fervor of holiday spirit, this instinctive passion for carnival, is perhaps inarticulate but quite an unquestionable response to the grave philosopher, who resolves happiness into an accident of successful action.

Questions

- (i) What is an accidental acquisition?
- (ii) How does happiness descend on us ?
- (iii) What does the philosopher say about happiness?
- (iv) Give the list of the tasks for which, the process is the same.
- (v) Explain the nature of mankind.

[10+5]

7.(a) Prepare a presentation with 5to 6 slides on Sources of Power Generation .

(b) Write the articles in the blanks:

- (i) I wrote ----- letter to him.
- (ii) There is ----- umbrella in the corner.
- (iii) The Nile is -----longest river in Egypt.
- (iv) He is ----- honest man.
- (v) The earth revolves round----- sun.

[10+5]

8.(a) Write a letter to the university to know the details of admissions, courses available and fee structure etc....

(b) Match the following.

- | A | B |
|-----------------------|-------------|
| (i) Etiquette | vegetation |
| (ii) Commission | calamity |
| (iii) Flora and fauna | punctuation |
| (iv) Tornado | members |
| (v) Semi-colon | decorum |

[10+5]



I B.Tech II Semester Supplementary Examinations July/Aug. - 2013

ENGLISH - II

(Common to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) You are in charge of stock verification of your library, Write an e-mail message to your staff members to return the books to the library.
- (b) Fill in the blanks with suitable conjunctions:
- (i) Think twice----- you act
 - (ii) He writes slowly----- neatly.
 - (iii) He passed the examination ----- he works hard.
 - (iv) They offered lunch-----I didn't eat.
 - (v) I went to the station ----- the train had left the platform.
- [10+5]
- 2.(a) Develop a dialogue between you and a sales person of A.C machines. You want to purchase 6 A.C machines for your office.
- (b) Supply the quantifiers.(a little, many, some, a few, any, nothing)
- (i) Do you have ----- questions to ask?
 - (ii) How----- children are there in the hostel?
 - (iii) At least ----- people shall attend the meeting.
 - (iv) Not -----, I want -----
- [10+5]
- 3.(a) The general manager of Opera detergent factory, Ahmadabad asked the senior sales executive to submit a report on the feasibility of starting a new branch. You are the senior sales executive.
- (b) Insert articles where necessary.
- (i) Do you have----- pen?
 - (ii) Look at----- moon!
 - (iii) He is ----- honest person.
 - (iv) I met him ----- year ago.
 - (v) ----- I want to read is not in the library.
- [10+5]
- 4.(a) Write an Essay on 'Use of Plastics'.
- (b) Write the Antonyms of the following.
- (i) Summit
 - (ii) Beneath
 - (iii) Sparingly
 - (iv) Vulnerable
 - (v) Noble
- [10+5]



- 5.(a) How will you make a power point presentation on Development of technology with the help of 5 to 6 slides ?
- (b) Fill in the blanks with suitable prepositions.
- (i) He has no desire ----- fame.
 - (ii) They stopped me----- going.
 - (iii) Silkworms feed----- mulberry leaves.
 - (iv) I exchanged ----- him, my mobile ----- a pen drive.
- [10+5]
- 6.(a) Write a dialogue between you and your senior colleague on the first day of your office.
- (b) Punctuate the following.
Alex dont you think we should order dinner I m hungry lets have waffles again.
- [10+5]
- 7.(a) Write about 'Motivation' to attain the desired goal.
- (b) Place Exclamatory marks:
- (i) Wow it's a wonder
 - (ii) Ah I passed the exam
 - (iii) I am pleased
 - (iv) O my God
 - (v) of course you do
- [10+5]
- 8.(a) You ordered furniture for your office. Write a letter to Alpha Furniture shop, Main Street, 11th cross, Lucknow, about the delay in supplying the order.
- (b) Match the following:
- | | |
|------------------------|------------------|
| (i) Plenty of | Interaction |
| (ii) Stress management | Full of problems |
| (iii) Communication | Dazzling |
| (iv) Gorgeous | Life skill |
| (v) Pandora's box | Quantifier |
- [10+5]



I B.Tech II Semester Supplementary Examinations July/Aug. - 2013

ENGLISH - II

(Common to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Write an email message to your friends inviting them to your birthday party.
(b) Complete the sentence with suitable conjunctions.
(i) I wonder ----- he will come.
(ii) I ran fast----- I missed the train.
(iii) I will stay----- you return.
(iv) Is the story true----- false ?
(v) Man proposes ----- god disposes.
- [10+5]
- 2.(a) Develop a dialogue between two friends about traffic congestion in the town.
(b) Supply suitable quantifiers. (more, some, plenty, many, a few, nothing, something, any, enough)
(i) I have ----- money.
(ii) There is ---way to get out the danger.
(iii) I want ----- water.
(iv) ----- is impossible
(v) ----- damage is done by your misdeeds.
- [10+5]
- 3.(a) Submit a Report on the free meal scheme to school children to the district educational officer. You are the officer in charge of the scheme.
(b) Insert articles where necessary.
(i) Not-----word is said.
(ii) He can play ----- flute.
(iii) He is not ----- honest man.
(iv) John got ----- best present.
(v) Varanasi is ----- holy city.
- [10+5]
- 4.(a) Write an essay on solar power energy.
(b) Give the antonyms of the following.
(i) Noble
(ii) Glee
(iii) Summit
(iv) Elevate
(v) Abundance.
- [10+5]



- 5.(a) Give a power point presentation on disaster management.
(b) Fill in the blanks with correct prepositions.
(i) The river flows----- the bridge.
(ii) I bought it----- fifteen rupees.
(iii) He was stabbed ---- the thief----- a dagger.
(iv) It's ten o'clock----- my watch.
(v) I will sit ----- my desk to do my work. [10+5]
- 6.(a) Develop a dialogue between a traveler and a tourist guide.
(b) Punctuate the following.
thank you yes I want to know how long it will take anyway I too dont know [10+5]
- 7.(a) Write about the importance of Time Management to minimize Stress level.
(b) Place exclamatory marks
(i) Hey what is going on
(ii) Alas he is dead
(iii) Hats off
(iv) Hush the baby is sleeping
(v) You lost the game. Shame [10+5]
- 8.(a) Write a letter to the post master about the change in your address.
(b) Match the following:
(i) Pediatrics Hockey
(ii) Tyrant Natural disaster
(iii) Centre forward Child treatment
(iv) Tsunami Saves nine
(v) A stitch in time Despotie [10+5]



I B.Tech II Semester Supplementary Examinations July/Aug. - 2013

ENGLISH - II

(Common to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

* * * * *

- 1.(a) Send an e-mail message to your class mates inviting them to attend the old students' day. Give the details.
(b) Fill in the blanks with suitable conjunctions.
(i) Time -----tide wait for no man.
(ii) I believe ----- he is truthful.
(iii) Wait ----- I come.
(iv) He worked hard ----- he passed.
(v) ----- he is rich, he is not happy. [10+5]
- 2.(a) Write a situational dialogue between a student and the teacher. The student wants to participate in the science fair.
(b) Supply the quantifiers.(much, many ,no, several, a lot of, all, everything)
(i) He has ----- desire for fame.
(ii) ----- that glitters is not gold.
(iii) I have----- doubts.
(iv) ----- has to be done for the poor.
(v) ----- people attended the fair. [10+5]
- 3.(a) Submit a report to the Secretary, Ministry of Agriculture about the drought situation in your district. You are working as a rural development officer.
(b) Insert articles where necessary.
(i) I saw ----- blind man.
(ii) ----- purse I had lost was found.
(iii) Mary goes to ----- church every Sunday.
(iv) The ball looks like ----- egg.
(v) Do you see ----- sky? [10+5]
- 4.(a) Write an essay on Nuclear power energy.
(b) Give the antonyms of the following
(i) Cheerful
(ii) Tenacity
(iii) Vulnerable
(iv) Melancholy
(v) Rival [10+5]



- 5.(a) Give a PPT on the work - shop conducted in your department.
(b) Fill in the blanks with correct prepositions:
(i) They came ----- taxi.
(ii) Mumbai is famous----- its textiles.
(iii) The dog ran----- the road.
(iv) The girl sat---- the cottage door.
(v) He walked--- foot. [10+5]
- 6.(a) Develop a dialogue--- you have an argument with a person who hit your two wheeler and damaged it.
(b) Punctuate the following:
Alex dont you think we should order dinner I m hungry lets have waffles again. [10+5]
- 7.(a) Regular diet and physical exercise are helpful to maintain good health- elaborate.
(b) Place exclamatory marks
(i) Hey you won the game
(ii) Alas I lost my money
(iii) Oh she is in danger
(iv) Get lost
(v) What a thing. [10+5]
- 8.(a) Write a letter to the book publisher asking him to send the books that you ordered as soon as possible.
(b) Match the following:
(i) Plenty of Interaction
(ii) Stress management Full of problems
(iii) Communication Dazzling
(iv) Gorgeous Life skill
(v) Pandora's box Quantifiers [10+5]



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ENGLISH - II

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Answer any FIVE Questions
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* * * * *

- 1.(a) Give an e-mail message to your customer as sales manager, about the new products launched by your Seasons Cosmetics Company.
(b) Fill in the blanks with suitable conjunctions.
(i) Stay----- Monday.
(ii) I shall go ----- I am invited.
(iii) Run fast----- you will miss the train.
(iv) He is richer ----- I am.
(v) He writes slowly----- neatly. [10+5]
- 2.(a) Write a dialogue on the necessity of speed breakers in front of your college gate.
(b) Supply the quantifiers. (much, great, almost, enough, more, a lot of, many, little)
(i) He has----- money in his pocket.
(ii) It is ----- I don't want any more.
(iii) There is ----- noise in the class room.
(iv) ----- people remained in the dark.
(v) The resources are ----- exhausted. [10+5]
- 3.(a) The general manager of Opera Detergent Factory, Ahmadabad, asked the senior sales executive to submit a report on the feasibility of starting a new branch. You are the senior sales executive.
(b) Fill in the blanks with suitable articles:
(i) Ram goes to ----- temple every day.
(ii) Sheila is ----- untidy girl.
(iii) I saw ----- unicorn.
(iv) It is ----- historical novel.
(v) I met him----- year ago. [10+5]
- 4.(a) Write about protection of environment and conservation of resources.
(b) Give the synonyms of the following.
(i) Emphasis
(ii) Juggernaut
(iii) Conviction
(iv) Preventive
(v) Pedagogue [10+5]



- 5.(a) What are the advantages of a power point presentation? Give the details of your college Industrial tour making a PPT of about 6 to 8 slides.
- (b) Fill in the blanks with correct prepositions:
- (i) He complained ----- his neighbour.
 - (ii) What are you aiming-----?
 - (iii) The snake crept----- the hole.
 - (iv) He drew water----- the well.
 - (v) The enemy was killed ----- a soldier.
- [10+5]
- 6.(a) Develop a dialogue--- You boarded a wrong train. Convince the ticket collector.
- (b) Punctuate the following:
thank you yes I want to know how long it will take anyway I too dont know
- [10+5]
- 7.(a) Discuss the importance of Sports. Do you suggest that sports should be included in curriculum?
- (b) Place exclamatory marks.
- (i) Oh I missed it
 - (ii) Shut the door
 - (iii) My heavens
 - (iv) Don't go away
 - (v) How fast he ran
- [10+5]
- 8.(a) Write a letter to the Editor, Times of India, Calcutta, about conducting a common entrance examination for all the courses.
- (b) Match the following:
- | | |
|----------------------|------------------|
| (i) Pediatrics | Hockey |
| (ii) Tyrant | Natural disaster |
| (iii) Centre forward | Child treatment |
| (iv) Tsunami | Saves nine |
| (v) A stitch in time | Despotic |
- [10+5]

