



PURCHASE & STORES SECTION

No. MANUU/Purchase/F.33/2015-16/246

16<sup>th</sup> June 2016

To

**Sub:** MANUU - Purchase of To supply and installation of Professional DSLR (Digital Single-Lens Reflex Camera) Camera with DSLR KIT Lens 18-135mm f/3.5-5.6 IS STM & Other items for Instructional Media Centre, MANUU of Limited Tender Enquiry of Reg.

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Sir,

The University intends to supply and installation of Professional DSLR (Digital Single-Lens Reflex Camera) Camera with DSLR KIT Lens 18-135mm f/3.5-5.6 IS STM at IMC as per the specification mentioned below from the original manufacturer / supplier / Govt. organization only. You are requested to submit quotations in sealed envelope as per Annexure (Price bid) on a printed letter head of the firm consisting the details as per attached proforma, on or before **29.06.2016 by 02.30 p.m. and the tender will be opened on the same day at 2:45 p.m.** in the presence of prospective bidders.

**Specification:**

- 1- Professional DSLR (Digital Single-Lens Reflex Camera) Camera with DSLR KIT Lens 18-135mm f/3.5-5.6 IS STM: **Qty:01**

Specifications	
<b>Type</b>	
Type	Digital, single-lens reflex, AF/AE camera with built-in flash
Recording media	CF cards (Type I, UDMA 7 supported) SD / SDHC/ SDXC memory cards UHS-I cards compatible.
Image sensor size	Approx. 22.4 x 15.0mm
Compatible lenses	EF lenses (including EF-S lenses) Excluding EF-M lenses (35mm-equivalent focal length is approx. 1.6 times the focal length indicated on the lens)
Lens Mount	EF mount
<b>Image Sensor</b>	
Type	CMOS sensor
Effective pixels:	20.20 megapixels or higher
Aspect ratio	3:2
Dust deletion feature	Auto / Manual, Appending Dust Delete Data
<b>Recording System</b>	
Recording format	Design rule for Camera File System (DCF) 2.0



PURCHASE & STORES SECTION

Image type	JPEG, RAW (14-bit), RAW+JPEG simultaneous recording possible
Recording functions	Standard, Auto switch card, Record separately, Record to multiple
<b>Image Processing</b>	
Picture Style	Auto, Standard, Portrait, Landscape, Neutral, Faithful, Monochrome
White balance	Auto, Preset (Daylight, Shade, Cloudy, Tungsten light, White fluorescent light, Flash), Custom, Color temperature setting (approx. 2500-10000 K), White balance correction
Noise reduction	Applicable to long exposures and high ISO speed shots
Automatic image brightness correction	Auto Lighting Optimizer needed
Lens aberration correction	Peripheral illumination correction, Chromatic aberration correction, Distortion correction
Anti-flicker	Facility needed
<b>Viewfinder</b>	
Type	Eye-level pentaprism
Coverage	Vertical / Horizontal approx. 100% (with Eye point approx. 22mm)
Magnification	Approx. 1.00x (-1 m <sup>-1</sup> with 50mm lens at infinity)
Eyepoint	Approx. 22mm (from eyepiece lens center at -1 m <sup>-1</sup> )
Built-in dioptic adjustment	Approx. -3.0 - +1.0 m <sup>-1</sup> (dpt)
Focusing screen	Eh-A standard screen, interchangeable
Grid display	Needed
Electronic level	Needed
Function setting display	Shooting mode, White balance, Drive mode, AF operation, Metering mode, Image quality: JPEG / RAW, Flicker detection, Warning symbol !, AF status
Mirror	Quick-return type
Depth-of-field preview	Needed
<b>Autofocus</b>	
Type	TTL secondary image-registration, phase-difference detection with the dedicated AF sensor
AF Points	65 (Cross-type AF point: Max. 65 points)
Focusing brightness range	EV -3 - 18 (Conditions: f/2.8-sensitive center AF point, One-Shot AF, room temperature, ISO 100)
Focus operation	One-Shot AF, AI Servo AF, AI Focus AF, Manual focusing (MF)
AF area selection mode	Single-point Spot AF (manual selection), Single-point AF (manual selection), AF point expansion (manual selection: up, down, left, and right), AF point expansion (manual selection: surround), Zone AF (manual selection of zone), Large Zone AF (manual selection of zone), 65-point automatic selection AF
AF point automatic selection conditions	AF setting (Enables AF incorporating human face/color information) Intelligent Tracking and Recognition
AI Servo AF characteristics	Tracking sensitivity, Acceleration/deceleration tracking, AF point auto switching
AF Custom Functions	17 functions
AF fine adjustment	AF Micro adjustment (All lenses by same amount or Adjust by lens)



**PURCHASE & STORES SECTION**

AF-assist beam:	Small series of flashes fired by built-in flash	
<b>Exposure Control</b>		
Brightness metering range	EV 0 - 20 (at room temperature, ISO 100)	
Exposure control	Program AE (Scene Intelligent Auto, Program), Shutter-priority AE, Aperture-priority AE, Manual exposure, Bulb exposure	
ISO speed (Recommended exposure index)	Scene Intelligent	ISO 100 - ISO 6400 set automatically
ISO speed settings	ISO speed range, Auto ISO range, and Auto ISO minimum shutter speed settable	
Exposure compensation	Manual:	±5 stops in 1/3- or 1/2-stop increments
	AEB:	±3 stops in 1/3- or 1/2-stop increments (can be combined with manual exposure compensation)
AE lock	Auto:	Applied in One-Shot AF mode with evaluative metering when focus is achieved
	Manual:	By AE lock button
Interval timer	Shooting interval and shot count settable	
Bulb timer	Bulb exposure time settable	
<b>HDR Shooting</b>		
Dynamic range adjustment	Auto, ±1, ±2, ±3	
Effects	Natural, Art standard, Art vivid, Art bold, Art embossed	
<b>Multiple Exposures</b>		
Shooting methods	Function / control priority, Continuous shooting priority	
Number of multiple exposures	2 to 9 exposures	
Multiple-exposure control	Additive, Average, Bright, Dark	
<b>Shutter</b>		
Type	Electronically-controlled, focal-plane shutter	
Shutter speeds	1/8000 sec. to 30sec. (total shutter speed range; available range varies by shooting mode), Bulb, X-sync at 1/250sec.	
<b>Drive System</b>		
Drive modes	Single shooting, High-speed continuous shooting, Low-speed continuous shooting, Silent single shooting, Silent continuous shooting, 10-sec. self-timer/remote control, 2-sec. self-timer / remote control	
Continuous shooting speed	High-speed continuous shooting:	Max. approx. 10.0 shots/sec.
	Low-speed continuous shooting:	Approx. 3.0 shots/sec
	Silent continuous shooting:	Approx. 4.0 shots/sec.
Max. burst	JPEG Large / Fine:	Approx. 130 shots (approx. 1090 shots)
	RAW:	Approx. 24 shots (approx. 31 shots)
	RAW+JPEG Large/Fine:	Approx. 18 shots (approx. 19 shots)
<b>Flash</b>		
Built-in flash	Retractable, auto pop-up flash	
	Guide number:	Approx. 11/36.1 (ISO 100, in meters/feet)
	Flash coverage:	Approx. 15mm lens angle of view
	Recycling time:	Approx. 3 sec.
<b>Live View Shooting</b>		



PURCHASE & STORES SECTION

Focus methods	Dual Pixel CMOS AF system/Contrast-detection AF system
Continuous AF	Needed
Focusing brightness range	EV 0 - 18 (at room temperature, ISO 100)
Brightness metering range	EV 0 - 20 (at room temperature, ISO 100)
Aspect ratio	3:2, 4:3, 16:9, 1:1
Grid display	3 types
<b>Movie shooting</b>	
Recording format	MOV / MP4
Movie	MPEG-4 AVC / H.264 Variable (average) bit rate
Audio	MOV: Linear PCM MP4: AAC
Card requirements (Writing / reading speed)	CF card
Focus methods	Same as focusing with Live View shooting Movie Servo AF customizable
Brightness metering range	EV 0 - 20 (at room temperature, ISO 100)
Exposure control:	Auto exposure shooting (Program AE for movie shooting), Shutter-priority AE, Aperture-priority AE, Manual exposure
Exposure compensation	±3 stops in 1/3-stop or 1/2-stop increments
ISO speed (Recommended exposure index)	Scene Intelligent Auto, Tv: Automatically set within ISO 100 - ISO 16000
Time code	Supported
Drop frames	Compatible with 59.94p / 29.97p
Sound recording	Built-in monaural microphone, external stereo microphone terminal needed Sound-recording level adjustable, wind filter provided, attenuator needed
Headphones	Headphone socket provided and volume adjustment possible
Grid display	3 types
2-screen display	LCD monitor and HDMI output movie displayable simultaneously
HDMI output	Movie without information display can also be output.
<b>LCD Monitor</b>	
Type	TFT color, liquid-crystal monitor
Monitor size and dots	Wide 7.7cm (3.0-in) (3:2) with approx. 1.04 million dots
Brightness adjustment	Auto (Dark, Standard, Bright), Manual (7 levels)
Electronic level:	Needed
Interface languages	25
<b>Playback</b>	
Image display formats	Single-image display (without shooting information), Single-image display (with simple information), Single-image display (Shooting information displayed: Detailed information, Lens / histogram, White balance, Picture Style, Color space / noise reduction, Lens aberration correction, GPS), Index display (4/9/36/100 images), Two-image display
Highlight alert	Overexposed highlights blink



**PURCHASE & STORES SECTION**

AF point display	Needed
Grid display	3 types
Magnified view	Approx. 1.5x-10x, initial magnification and position settable
Image browsing methods	Single image, Jump by 10 or 100 images, By shooting date, By folder, By movies, By stills, By protected images, By rating
Image rotation	Needed
Movie playback	Enabled (LCD monitor, HDMI) Built-in speaker
Slide show	All images, By date, By folder, By movies, By stills, By protected images, By rating
<b>Post-Processing of Images</b>	
In-camera RAW image processing	Brightness correction, White balance, Picture Style, Auto Lighting Optimizer, High ISO speed noise reduction, JPEG image-recording quality, Color space, Peripheral illumination correction, Distortion correction, Chromatic aberration correction
Resize	Needed
<b>Image Transfer</b>	
Transferrable files	Still photos (JPEG, RAW, RAW+JPEG images), Movies
<b>Customization Functions</b>	
Custom Functions	18
My Menu	Up to 5 screens can be registered
Custom shooting modes	Register under Mode Dial's C1, C2, or C3
Copyright information	Text entry and inclusion enabled
<b>Interface</b>	
DIGITAL terminal	Super Speed USB (USB 3.0) Computer communication, direct printing
HDMI mini OUT terminal	Type C (Auto switching of resolution), CEC-compatible
External microphone IN terminal	3.5mm diameter stereo mini-jack
Headphone terminal	3.5mm diameter stereo mini-jack
<b>Operating Environment</b>	
Working temperature range	0°C - 40°C / 32°F - 104°F
Working humidity	85% or less



**PURCHASE & STORES SECTION**

2. Flash (Speed Light) Compatible with S.No.1 DSLR Camera: Qty: 01

Specifications	
Type	E-TTL II/E-TTL auto flash, Shoe-mount Speed lite
<b>Flash Head (Light-emitting unit)</b>	
Guide No	Approx. 43/141.1 (at 105 mm flash coverage, ISO 100, in meters/feet)
Flash coverage	Supports a shooting angle of view with a lens, focal length of 24-105 mm (with wide panel use: 14 mm)
	Automatic setting/Manual setting
Bounce	90° up, 150° left, 180° right
Flash duration	Normal flash: Approx. 1.8 ms or less, Quick flash: 2.3 ms or less
Color temperature information transmission	Flash light color temperature information transmitted to camera when flash is fired
<b>Exposure Control</b>	
Exposure control system	E-TTL II/E-TTL autoflash, manual flash
Effective flash range:	Normal flash: Approx. 0.7 - 23.6 m / 2.3 - 77.4 ft.
	Quick flash: Approx. 0.7 - 13.6 m / 2.3 - 44.6 ft. (at Guide No. 19.1/62.7, in meters/feet) High-speed sync: Approx. 0.7 - 12.8 m / 2.3 - 42.0 ft. (at 1/250 sec.)
Flash exposure compensation	±3 stops in 1/3- or 1/2-stop increments
FE lock	Possible with the camera's Multi-function button or FE lock/AE lock buttons
Manual flash	1/1 - 1/128 power (1/3-step increments)
Modeling flash	Fired with camera's depth-of-field preview button or Speedlite's test flash button
<b>AF-Assist Beam</b>	
Emission method	Switchable in Personal Functions between Intermittent flashes (a series of small flashes) and Infrared AF-assist beam
Emitting small series of flashes	Supported during viewfinder shooting, and Quick mode during Live View shooting or movie shooting
	Effective distance: At center: Approx. 0.7 - 4 m / 2.3 - 13.1 ft., At periphery: Approx. 0.7 - 3.5 m / 2.3 - 11.5 ft.
Infrared AF-assist beam	Center AF point in viewfinder supported
	Effective distance: Approx. 0.7 - 8 m / 2.3 - 26.2 ft.

3. Tripod (Compatible with above DSLR camera):Qty: 01

Specifications	
Load Capacity	5000 g
Material	Aluminium Alloy
Leg Tip	Rubber
Center Column	Multi-angle
<b>DIMENSIONS</b>	
Maximum Height	1550 mm
Weight	1450 g
Minimum Height	1235 mm
<b>HEAD FEATURES</b>	
Pan Head	3-way
<b>LEG FEATURES</b>	
Leg Angles	20°, 40°, 60°, 80°
Leg Lock Type	Quick-flip Leg Lock
Leg Tip	Rubber



**PURCHASE & STORES SECTION**

ADDITIONAL FEATURES	
Bubble Level Type	1
Special Features	20 mm Leg Diameter, QS-36 Quick Shoe Included, Tilt: ° / -60°, Swivel: 360°, Aluminum Tripod Offers a Magnesium Alloy Canopy and Head
Technical Details	3 Leg Section, 1 Bubble Level, Quick-flip Leg Locks, Anti-shock Ring, Folded Height 615 mm,

**4. Flash (Speed Light) Compatible with NIKON- D80 Camera: Qty: 01**

Specifications	
Electronic Construction	Automatic Insulated Gate Bipolar Transistor (IGBT) and series circuitry
Flash Exposure Control	Cameras sync modes: Slow-sync, Red-eye reduction in slow-sync, Rear-curtain sync, Rear-curtain slow-sync Shooting functions: Auto FP High-Speed sync, FV Lock flash
Guide Number	34/111.5 (ISO 100, m/ft), 48/157.5 (ISO 200, m/ft)
Flash Coverage	Multi-step auto zoom covers wide 17-200mm zoom range
Recycling Time	Approx. 4.0 sec. with AA Alkaline manganese batteries, 4.5 sec. with AA lithium batteries
Number of Flashes	Approx. 110 (Alkaline-manganese) 230 (Lithium)
Other Features	Ready Light, Thermal Cut-out function
Dimensions	Approx. 78.0 x 146.0 x 118.5 mm (3.0 x 5.7 x 4.7 in.)

Specifications		Qty.
5	Rechargeable Battery and Charger for Flash (Compatible with S.No. 2&4 Flash Light)	2 Nos
6	Camera backpack (one for S.No.1 Camera & another for D80 Nikon Camera)	2 Nos
7	a) UV Filter for S.No 1 Camera	1 No.
	b) Polarized Filter for S.No 1 Camera	1 No.
8	Multiple Card Reader	2 Nos
9	Pen Drive 32 Gb.	3Nos
10	Extra Battery for S.No 1 Camera	1 Nos
11	a) Memory Card Lexar (32Gb CF) 160 Mbps (compatible with S.No 1 Camera)	1 No
	b) Memory Card Lexar SD 32Gb 90 Mbps (compatible with S.No 1 Camera)	1 No
12	Adobe Master Collection Creative Cloud (Adobe Audition CC, Acrobat Pro DC, Bridge, Adobe Muse CC, Adobe Premiere Pro CC, After Effects CC, Dreamweaver CC, Edge Animate CC, Edge Code, Edge Inspect CC, Edge Reflow, Fireworks, Flash Builder, Flash Professional CC, Illustrator CC, InCopy CC, InDesign CC, Photoshop CC, Lightroom, Prelude CC, Media Encoder, Scout, Story Plus, Phonecap Builder & Speed Grade CC) (Includes offline version of Adobe Master Collection CC)	1 User



**PURCHASE & STORES SECTION**

**Terms & Conditions:**

1. Prices are to be quoted both in figures and in words. In case of a discrepancy, that quoted in words/ lowest amount will be taken as valid.
2. The bidder should be a reputed firm.
3. Incomplete Bids in any respect are liable to be rejected.
4. The bid must mention the specifications as per the **Annexure (price bid)** and to submit the sample (if any) as required by the University.
5. The quantity included in the bid can be increased or decreased at the discretion of the Competent Authority, Maulana Azad National Urdu University Hyderabad.
6. The supply of said items has to be made within a period of two weeks from the date of issue of Purchase Order. 0.5% cost of the whole supply for every week as late supply will be deducted from the bill to the maximum of 10% after which the order will remain cancelled. In case, if the firm supplies inferior quality, the University may at its decision reject the entire material and impose penalty.
7. Item offered in the tender enquiry may be re-ordered at the same rate, terms & conditions within a period of twelve months/one year.
8. The amount quoted should include all the charges including taxes, transportation, etc.
9. All pages of the tender document are to be signed and stamped by the tendering firm and to be attached along with the bids.
10. Conditional bids are not accepted.
11. The University reserves all the rights to place the order items wise with the firm quoted L-1 rates.
12. The L-1 firms should submit 10% EMD in the form of D.D drawn from any nationalized bank in favour of MANUU payable at Hyderabad, which will be released after execution of Purchase Order. In case no Bank Guarantee / EMD furnished, 10% of total cost will be retained from the payment and it will be returned after due fulfillment of tender obligations.
13. For any query/clarification, you may contact Purchase & Stores Section / Instructional Media Centre.
14. The University reserves all the rights to reject or accept any tender without assigning any reason or cancel or withdraw the tender notice.
15. In case of any dispute, Hyderabad will be the Jurisdiction. The Registrar, Maulana Azad National Urdu University, Hyderabad shall decide the issue and his decision will be final and shall be binding on the both parties.

Sd/-  
**Assistant Registrar**  
(Purchase & Stores)



PURCHASE & STORES SECTION

ANNEXURE (PRICE BID)

- 1- Professional DSLR (Digital Single-Lens Reflex Camera) Camera with DSLR KIT  
Lens 18-135mm f/3.5-5.6 IS STM: Qty:01

Specifications		Brand / make (pl specify)	Price (In Rs.) (Inclusive of all Taxes)
<b>Type</b>			
Type	Digital, single-lens reflex, AF/AE camera with built-in flash		
Recording media	CF cards (Type I, UDMA 7 supported) SD / SDHC/ SDXC memory cards UHS-I cards compatible.		
Image sensor size	Approx. 22.4 x 15.0mm		
Compatible lenses	EF lenses (including EF-S lenses) Excluding EF-M lenses (35mm-equivalent focal length is approx. 1.6 times the focal length indicated on the lens)		
Lens Mount	EF mount		
<b>Image Sensor</b>			
Type	CMOS sensor		
Effective pixels:	20.20 megapixels or higher		
Aspect ratio	3:2		
Dust deletion feature	Auto / Manual, Appending Dust Delete Data		
<b>Recording System</b>			
Recording format	Design rule for Camera File System (DCF) 2.0		
Image type	JPEG, RAW (14-bit), RAW+JPEG simultaneous recording possible		
Recording functions	Standard, Auto switch card, Record separately, Record to multiple		
<b>Image Processing</b>			
Picture Style	Auto, Standard, Portrait, Landscape, Neutral, Faithful, Monochrome		
White balance	Auto, Preset (Daylight, Shade, Cloudy, Tungsten light, White fluorescent light, Flash), Custom, Color temperature setting (approx. 2500-10000 K), White balance correction		
Noise reduction	Applicable to long exposures and high ISO speed shots		
Automatic image brightness correction	Auto Lighting Optimizer needed		
Lens aberration correction	Peripheral illumination correction, Chromatic aberration correction, Distortion correction		
Anti-flicker	Facility needed		
<b>Viewfinder</b>			
Type	Eye-level pentaprism		



PURCHASE & STORES SECTION

Coverage	Vertical / Horizontal approx. 100% (with Eye point approx. 22mm)	
Magnification	Approx. 1.00x (-1 m <sup>-1</sup> with 50mm lens at infinity)	
Eyepoint	Approx. 22mm (from eyepiece lens center at -1 m <sup>-1</sup> )	
Built-in dioptic adjustment	Approx. -3.0 - +1.0 m <sup>-1</sup> (dpt)	
Focusing screen	Eh-A standard screen, interchangeable	
Grid display	Needed	
Electronic level	Needed	
Function setting display	Shooting mode, White balance, Drive mode, AF operation, Metering mode, Image quality: JPEG / RAW, Flicker detection, Warning symbol !, AF status	
Mirror	Quick-return type	
Depth-of-field preview	Needed	
<b>Autofocus</b>		
Type	TTL secondary image-registration, phase-difference detection with the dedicated AF sensor	
AF Points	65 (Cross-type AF point: Max. 65 points)	
Focusing brightness range	EV -3 - 18 (Conditions: f/2.8-sensitive center AF point, One-Shot AF, room temperature, ISO 100)	
Focus operation	One-Shot AF, AI Servo AF, AI Focus AF, Manual focusing (MF)	
AF area selection mode	Single-point Spot AF (manual selection), Single-point AF (manual selection), AF point expansion (manual selection: up, down, left, and right), AF point expansion (manual selection: surround), Zone AF (manual selection of zone), Large Zone AF (manual selection of zone), 65-point automatic selection AF	
AF point automatic selection conditions	AF setting (Enables AF incorporating human face/color information) Intelligent Tracking and Recognition	
AI Servo AF characteristics	Tracking sensitivity, Acceleration/deceleration tracking, AF point auto switching	
AF Custom Functions	17 functions	
AF fine adjustment	AF Micro adjustment (All lenses by same amount or Adjust by lens)	
AF-assist beam:	Small series of flashes fired by built-in flash	
<b>Exposure Control</b>		
Brightness metering range	EV 0 - 20 (at room temperature, ISO 100)	
Exposure control	Program AE (Scene Intelligent Auto, Program), Shutter-priority AE, Aperture-priority AE, Manual exposure, Bulb exposure	
ISO speed (Recommended exposure index)	Scene Intelligent	ISO 100 - ISO 6400 set automatically
ISO speed settings	ISO speed range, Auto ISO range, and Auto ISO minimum shutter speed settable	



**PURCHASE & STORES SECTION**

Exposure compensation	Manual:	±5 stops in 1/3- or 1/2-stop increments	
	AEB:	±3 stops in 1/3- or 1/2-stop increments (can be combined with manual exposure compensation)	
AE lock	Auto:	Applied in One-Shot AF mode with evaluative metering when focus is achieved	
	Manual:	By AE lock button	
Interval timer	Shooting interval and shot count settable		
Bulb timer	Bulb exposure time settable		
<b>HDR Shooting</b>			
Dynamic range adjustment	Auto, ±1, ±2, ±3		
Effects	Natural, Art standard, Art vivid, Art bold, Art embossed		
<b>Multiple Exposures</b>			
Shooting methods	Function / control priority, Continuous shooting priority		
Number of multiple exposures	2 to 9 exposures		
Multiple-exposure control	Additive, Average, Bright, Dark		
<b>Shutter</b>			
Type	Electronically-controlled, focal-plane shutter		
Shutter speeds	1/8000 sec. to 30sec. (total shutter speed range; available range varies by shooting mode), Bulb, X-sync at 1/250sec.		
<b>Drive System</b>			
Drive modes	Single shooting, High-speed continuous shooting, Low-speed continuous shooting, Silent single shooting, Silent continuous shooting, 10-sec. self-timer/remote control, 2-sec. self-timer / remote control		
Continuous shooting speed	High-speed continuous shooting:	Max. approx. 10.0 shots/sec.	
	Low-speed continuous shooting:	Approx. 3.0 shots/sec	
	Silent continuous shooting:	Approx. 4.0 shots/sec.	
Max. burst	JPEG Large / Fine:	Approx. 130 shots (approx. 1090 shots)	
	RAW:	Approx. 24 shots (approx. 31 shots)	
	RAW+JPEG Large/Fine:	Approx. 18 shots (approx. 19 shots)	
<b>Flash</b>			
Built-in flash	Retractable, auto pop-up flash		
	Guide number:	Approx. 11/36.1 (ISO 100, in meters/feet)	
	Flash coverage:	Approx. 15mm lens angle of view	
	Recycling	Approx. 3 sec.	



PURCHASE & STORES SECTION

	time:	
<b>Live View Shooting</b>		
Focus methods	Dual Pixel CMOS AF system/Contrast-detection AF system	
Continuous AF	Needed	
Focusing brightness range	EV 0 - 18 (at room temperature, ISO 100)	
Brightness metering range	EV 0 - 20 (at room temperature, ISO 100)	
Aspect ratio	3:2, 4:3, 16:9, 1:1	
Grid display	3 types	
<b>Movie shooting</b>		
Recording format	MOV / MP4	
Movie	MPEG-4 AVC / H.264 Variable (average) bit rate	
Audio	MOV: Linear PCM MP4: AAC	
Card requirements (Writing / reading speed)	CF card	
Focus methods	Same as focusing with Live View shooting Movie Servo AF customizable	
Brightness metering range	EV 0 - 20 (at room temperature, ISO 100)	
Exposure control:	Auto exposure shooting (Program AE for movie shooting), Shutter-priority AE, Aperture-priority AE, Manual exposure	
Exposure compensation	±3 stops in 1/3-stop or 1/2-stop increments	
ISO speed (Recommended exposure index)	Scene Intelligent Auto, Tv: Automatically set within ISO 100 - ISO 16000	
Time code	Supported	
Drop frames	Compatible with 59.94p / 29.97p	
Sound recording	Built-in monaural microphone, external stereo microphone terminal needed Sound-recording level adjustable, wind filter provided, attenuator needed	
Headphones	Headphone socket provided and volume adjustment possible	
Grid display	3 types	
2-screen display	LCD monitor and HDMI output movie displayable simultaneously	
HDMI output	Movie without information display can also be output.	
<b>LCD Monitor</b>		
Type	TFT color, liquid-crystal monitor	
Monitor size and dots	Wide 7.7cm (3.0-in) (3:2) with approx. 1.04 million dots	
Brightness adjustment	Auto (Dark, Standard, Bright), Manual (7 levels)	
Electronic level:	Needed	
Interface languages	25	



**PURCHASE & STORES SECTION**

<b>Playback</b>			
Image display formats	Single-image display (without shooting information), Single-image display (with simple information), Single-image display (Shooting information displayed: Detailed information, Lens / histogram, White balance, Picture Style, Color space / noise reduction, Lens aberration correction, GPS), Index display (4/9/36/100 images), Two-image display		
Highlight alert	Overexposed highlights blink		
AF point display	Needed		
Grid display	3 types		
Magnified view	Approx. 1.5x-10x, initial magnification and position settable		
Image browsing methods	Single image, Jump by 10 or 100 images, By shooting date, By folder, By movies, By stills, By protected images, By rating		
Image rotation	Needed		
Movie playback	Enabled (LCD monitor, HDMI) Built-in speaker		
Slide show	All images, By date, By folder, By movies, By stills, By protected images, By rating		
<b>Post-Processing of Images</b>			
In-camera RAW image processing	Brightness correction, White balance, Picture Style, Auto Lighting Optimizer, High ISO speed noise reduction, JPEG image-recording quality, Color space, Peripheral illumination correction, Distortion correction, Chromatic aberration correction		
Resize	Needed		
<b>Image Transfer</b>			
Transferrable files	Still photos (JPEG, RAW, RAW+JPEG images), Movies		
<b>Customization Functions</b>			
Custom Functions	18		
My Menu	Up to 5 screens can be registered		
Custom shooting modes	Register under Mode Dial's C1, C2, or C3		
Copyright information	Text entry and inclusion enabled		
<b>Interface</b>			
DIGITAL terminal	Super Speed USB (USB 3.0) Computer communication, direct printing		
HDMI mini OUT terminal	Type C (Auto switching of resolution), CEC-compatible		
External microphone IN terminal	3.5mm diameter stereo mini-jack		
Headphone terminal	3.5mm diameter stereo mini-jack		
<b>Operating Environment</b>			
Working temperature range	0°C - 40°C / 32°F - 104°F		
Working humidity	85% or less		



PURCHASE & STORES SECTION

2. Flash (Speed Light) Compatible with S.No.1 DSLR Camera: Qty: 01

Specifications		Brand / make (pl specify)	Price (In Rs.) (Inclusive of all Taxes)
Type	E-TTL II/E-TTL auto flash, Shoe-mount Speed lite		
<b>Flash Head (Light-emitting unit)</b>			
Guide No	Approx. 43/141.1 (at 105 mm flash coverage, ISO 100, in meters/feet)		
Flash coverage	Supports a shooting angle of view with a lens, focal length of 24-105 mm (with wide panel use: 14 mm) Automatic setting/Manual setting		
Bounce	90° up, 150° left, 180° right		
Flash duration	Normal flash: Approx. 1.8 ms or less, Quick flash: 2.3 ms or less		
Color temperature information transmission	Flash light color temperature information transmitted to camera when flash is fired		
<b>Exposure Control</b>			
Exposure control system	E-TTL II/E-TTL autoflash, manual flash		
Effective flash range:	Normal flash: Approx. 0.7 - 23.6 m / 2.3 - 77.4 ft. Quick flash: Approx. 0.7 - 13.6 m / 2.3 - 44.6 ft. (at Guide No. 19.1/62.7, in meters/feet) High-speed sync: Approx. 0.7 - 12.8 m / 2.3 - 42.0 ft. (at 1/250 sec.)		
Flash exposure compensation	±3 stops in 1/3- or 1/2-stop increments		
FE lock	Possible with the camera's Multi-function button or FE lock/AE lock buttons		
Manual flash	1/1 - 1/128 power (1/3-step increments)		
Modeling flash	Fired with camera's depth-of-field preview button or Speedlite's test flash button		
<b>AF-Assist Beam</b>			
Emission method	Switchable in Personal Functions between Intermittent flashes (a series of small flashes) and Infrared AF-assist beam		
Emitting small series of flashes	Supported during viewfinder shooting, and Quick mode during Live View shooting or movie shooting Effective distance: At center: Approx. 0.7 - 4 m / 2.3 - 13.1 ft., At periphery: Approx. 0.7 - 3.5 m / 2.3 - 11.5 ft.		
Infrared AF-assist beam	Center AF point in viewfinder supported Effective distance: Approx. 0.7 - 8 m / 2.3 - 26.2 ft.		



PURCHASE & STORES SECTION

3. Tripod (Compatible with above DSLR camera): Qty: 01

Specifications		Brand / make (pl specify)	Price (In Rs.) (Inclusive of all Taxes)
Load Capacity	5000 g		
Material	Aluminium Alloy		
Leg Tip	Rubber		
Center Column	Multi-angle		
<b>DIMENSIONS</b>			
Maximum Height	1550 mm		
Weight	1450 g		
Minimum Height	1235 mm		
<b>HEAD FEATURES</b>			
Pan Head	3-way		
<b>LEG FEATURES</b>			
Leg Angles	20°, 40°, 60°, 80°		
Leg Lock Type	Quick-flip Leg Lock		
Leg Tip	Rubber		
<b>ADDITIONAL FEATURES</b>			
Bubble Level Type	1		
Special Features	20 mm Leg Diameter, QS-36 Quick Shoe Included, Tilt: ° / -60°, Swivel: 360°, Aluminum Tripod Offers a Magnesium Alloy Canopy and Head		
Technical Details	3 Leg Section, 1 Bubble Level, Quick-flip Leg Locks, Anti-shock Ring, Folded Height 615 mm,		

4. Flash (Speed Light) Compatible with NIKON- D80 Camera: Qty: 01

Specifications		Brand / make (pl specify)	Price (In Rs.) (Inclusive of all Taxes)
Electronic Construction	Automatic Insulated Gate Bipolar Transistor (IGBT) and series circuitry		
Flash Exposure Control	Cameras sync modes: Slow-sync, Red-eye reduction in slow-sync, Rear-curtain sync, Rear-curtain slow-sync Shooting functions: Auto FP High-Speed sync, FV Lock flash		
Guide Number	34/111.5 (ISO 100, m/ft), 48/157.5 (ISO 200, m/ft)		
Flash Coverage	Multi-step auto zoom covers wide 17-200mm zoom range		
Recycling Time	Approx. 4.0 sec. with AA Alkaline manganese batteries, 4.5 sec. with AA lithium batteries		
Number of Flashes	Approx. 110 (Alkaline-manganese) 230 (Lithium)		
Other Features	Ready Light, Thermal Cut-out function		
Dimensions	Approx. 78.0 x 146.0 x 118.5 mm (3.0 x 5.7 x 4.7 in.)		



PURCHASE & STORES SECTION

	Specifications	Qty.	Brand / make (pl specify)	Unit Price (In Rs.) (Inclusive of all Taxes)	Total (In Rs.) (Inclusive of all Taxes)
5	Rechargeable Battery and Charger for Flash (Compatible with S.No. 2&4 Flash Light)	2 Nos			
6	Camera backpack (one for S.No.1 Camera & another for D80 Nikon Camera)	2 Nos			
7	c) UV Filter for S.No 1 Camera	1 No.			
	d) Polarized Filter for S.No 1 Camera	1 No.			
8	Multiple Card Reader	2 Nos			
9	Pen Drive 32 Gb.	3Nos			
10	Extra Battery for S.No 1 Camera	1 Nos			
11	b) Memory Card Lexar (32Gb CF) 160 Mbps (compatible with S.No 1 Camera)	1 No			
	b) Memory Card Lexar SD 32Gb 90 Mbps (compatible with S.No 1 Camera)	1 No			
12	Adobe Master Collection Creative Cloud (Adobe Audition CC, Acrobat Pro DC, Bridge, Adobe Muse CC, Adobe Premiere Pro CC, After Effects CC, Dreamweaver CC, Edge Animate CC, Edge Code, Edge Inspect CC, Edge Reflow, Fireworks, Flash Builder, Flash Professional CC, Illustrator CC, InCopy CC, InDesign CC, Photoshop CC, Lightroom, Prelude CC, Media Encoder, Scout, Story Plus, Phonecap Builder & Speed Grade CC) (Includes offline version of Adobe Master Collection CC)	1 User	-		

Place:

Date:

2016

Signature of the authorized representative of the firm with stamp